



Mississippi

Comprehensive Cancer Control Plan

2006 ~ 2011

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Letter from Mississippi Governor

July 27, 2005



Dear Mississippians:

Many of us have been touched by cancer in one way or another, whether through family or acquaintances. It is important that we find ways to reduce the burden of cancer in Mississippi.

I am pleased to support the Mississippi Partnership for Comprehensive Cancer Control, a visionary program to help reduce the number of cancer related deaths in the state. This initiative is committed to developing partnerships between public and private organizations to create comprehensive care that maximizes our resources and reduces inefficiencies.

The Mississippi Partnership for Comprehensive Cancer Control has shown that by working together, we can ensure a healthier future for the people of Mississippi.

Sincerely,

A handwritten signature in blue ink, which appears to read "Haley Barbour". The signature is fluid and cursive.

Haley Barbour

HB:dhc



Acknowledgements

The Mississippi Comprehensive Cancer Control Plan (2006 – 2011) is the product of joint effort of Mississippi Department of Health (MDH) Comprehensive Cancer Control Program (CCCP), partner organizations, and individuals across entire state of Mississippi. Special thanks go to the Mississippi Partnership for Comprehensive Cancer Control (MP3C) Coalition Executive Board members, workgroup chairs with their members, and volunteers for their dedication. Without their energy, expertise and skills, the final production of the plan would never have been achieved.

April 18, 2006

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Introduction

Cancer is a group of more than 100 different diseases. At least 200 types of cancer have been recognized by physicians and researchers. All cancers share similar basic characteristics – the ability to reproduce vigorously and to invade foreign tissues. Continued, they interfere with the body's normal function, destroy organs, and eventually kill the organism.

In Mississippi, there were 5,964 cancer deaths in 2004. Mississippi ranked 4th in the U.S. for overall cancer mortality and 5th for lung cancer mortality in 2002. The Mississippi Department of Health (MDH) has worked for many years to establish a comprehensive cancer control plan by conducting various activities and programs to reduce the incidence, morbidity, and mortality associated with cancer and to improve the quality of life for Mississippians. There are a number of cancer prevention and control programs throughout the state of Mississippi.

In 2003, Mississippi joined the ranks of many states throughout the country by receiving funds from the Centers for Disease Control and Prevention (CDC) to develop and implement a comprehensive cancer control plan for the state. A group of people from all across Mississippi formed the infrastructure of Mississippi Comprehensive Cancer Control (MP3C) Coalition. Since the group's inception, a coordinated and collaborative approach to cancer control and prevention within the MDH and with partners throughout the state has strengthened existing efforts, and provided a synergy to reach far beyond what the individual organization can accomplish alone. Accomplishment have been made in many goals including the developing of workgroups to address various cancer issues, conducting community forums to gain local perspective from Mississippi residents on cancer topics; educating Mississippians through community and statewide efforts, soliciting and utilizing the resources of key stakeholders to

support our efforts and the ultimate development of this plan.

What is Comprehensive Cancer Control?

Comprehensive Cancer Control (CCC) is a collaborative, data-based, and outcome oriented approach to cancer control planning, implementation, and evaluation. This approach reduces cancer incidence, morbidity, and mortality through prevention, early detection, treatment, rehabilitation, and palliation. It is an effort to improve outcomes by: a) bringing many partners together, b) using available data and research results, c) implementing evidence-based solutions, and d) using limited resources more efficiently and effectively.

Why is it important?

Although progress has been made in Mississippi to reduce the burden of cancer, much remains to be done. The fight against cancer can not be won without a comprehensive approach. There are a number of cancer prevention and control programs throughout the state of Mississippi, but they are not linked through a coordinated state-wide system. Organizations and individuals working alone to address specific cancers can lead to a duplication of efforts and missed opportunities. By working together, we can maximize and better utilize existing resources as well as determine those needed to address the cancer gaps and barriers that exist for many Mississippians.

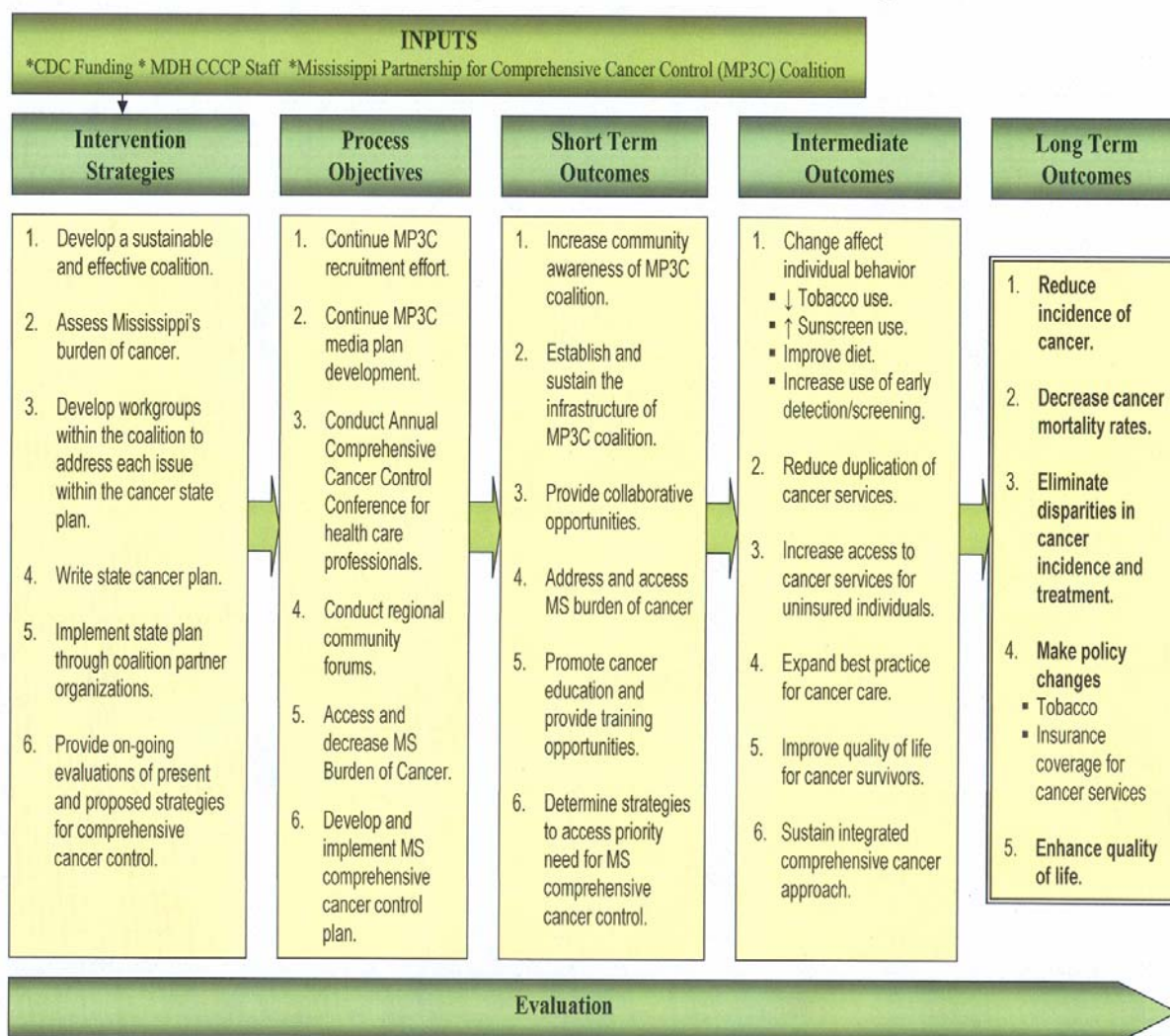
How will Mississippi accomplish Comprehensive Cancer Control?

Comprehensive cancer control is grounded in the concept that a broad, diverse set of stakeholders can have a greater impact on the cancer burden if they engage in coordinated planning and integrated implementation of a plan that addresses the entire continuum of cancer care, from prevention to survivorship. The

product of the CCC plan serves as written documentation of both the burden of cancer and the priorities of the stakeholders in addressing the burden. The plan becomes a blueprint for coordinated action, ideally laying out measurable objectives in which organizations will be responsible for supporting specific strategies to meet those objectives. The success of a CCC initiative is dependent to a large extent

upon the quality of the cancer plan. With the completion of the plan, Mississippi will have a clear vision of objectives and actions. The coordinated and collaborative implementation of the plan will strengthen existing cancer control efforts more effectively and efficiently. In addition, it will provide a synergy to reach far beyond what is currently being accomplished.

Mississippi Comprehensive Cancer Control Logic Model



February, 2006

Executive Summary

Cancer rates nationally have declined for the first time in history as a result of risk reduction education, early detection advances, and cutting-edge treatments from research. Unfortunately, these advances have not reached our state's citizens equally, and much remains to be accomplished to improve the health of all Mississippians. Even when healthcare is geographically accessible, disparities in quality of care may be related to social and cultural differences or linguistic barriers, financial barriers, transportation problems, lack of childcare, or inability to take time off work for primary health care appointments or to attend regular health screenings. Education, of both the healthcare provider and the patient, is one key to overcoming these disparities.

Financial barriers exist to cancer treatment in many facets. These barriers may include lack of insurance or high deductible, limited coverage and non-coverage of preventive screenings. Often overlooked, lack of transportation or ability to pay for transportation to treatment facilities can create significant barriers. Reimbursement rates for cancer care services throughout the system continue to decrease, resulting in financial challenges for some providers. Increased access to resources and appropriate reimbursement for cancer care providers' time and services might allow providers to manage patients in a more comprehensive manner. This would ensure that the highest quality cancer care is consistently delivered. In order to provide the comprehensive care that cancer patients require, patient advocates / navigators are needed to ensure that patients stay on track and do not get lost in the intricacies of the complex healthcare system.

Prevention

According to the National Cancer Institute (NCI) and other cancer experts, prevention is a key strategy to reduce the nation's cancer burden. Research has

demonstrated that nearly two-thirds of all cancers could be prevented by eliminating tobacco use, improving nutrition, reducing alcohol consumption, increasing physical activity and engaging in sun safe behaviors. Aggressive preventive strategies must be employed for Mississippi to reduce the cancer burden.

Early Detection

Equally as important, early detection of cancer provides an opportunity for prompt treatment while the cancer is small and localized. Screening and surveillance methods exist to help detect some forms of cancer early.

According to the 2004 Behavioral Risk Factor Surveillance System (BRFSS), 66.4% of Mississippi women 40 years or older reported having mammogram within the last two years. However, the state did not meet the national objective of 70%. The national objective for adults aged 50 or older who have ever had sigmoidoscopy or colonoscopy was 50% with Mississippi adults falling short of the goal at 46.8%. The American Cancer Society has provided a screening guideline for the early detection of cancer in asymptomatic people (Appendix C). Evidence has shown cancers can be detected by screening which accounts for half of all new cancer cases. The 5-year relative survival rate for these cancers is about 85%, a percentage that has been improving as more Americans receive regular cancer screening. If all of these cancers were diagnosed at a localized stage through regular cancer screenings, the 5-year survival rate would increase to about 95%.¹

Promotion of partnerships between public and private organizations to work toward improving the public's understanding of cancer prevention and early detection with a focus on screening is imperative. Greater reductions in disease burden could be achieved by improving

adherence and efficiency in cancer screening and reducing disparities.

Diagnose and Treatment

Once cancer is diagnosed, timely information on treatment options and access to appropriate care are critical to improving survival rates. The goal of cancer treatment is to either cure or control the progression of disease while maintaining the highest possible quality of life. Cancer is a complex, chronic disease that often requires exhaustive health care services and technologies. Access to clinical trials is considered a benchmark of quality care. Research allows scientists to identify and collect new information on how cancer and its treatment affects our bodies in the hope of finding ways to prevent cancer, detect it early and improve treatment options. There are some financial barriers to clinical trials, but policy makers are beginning to understand the importance of research and how it can lead to savings in the future of both funds and patient lives. Reduction of the national cancer rate is the remarkable achievement of cancer control comprehensively, including cutting-edge treatments from research. Unfortunately, these advances have not reached our state's citizens equally, and much remains to be accomplished to improve the health of all Mississippians.

Quality of Life

In addressing the needs of cancer patients, quality of life issues have often been ignored. Quality of life includes: effective treatments, practical rehabilitation services, long term survivorship, and better palliative and end-of-life care for those diagnosed with cancer.

Surveillance

All aspects of the Mississippi Comprehensive Cancer Control Plan, from defining the burden of cancer to monitoring changes and evaluating interventions, depend upon the availability of strong and relevant data and surveillance activities. Access to relevant data affords the ability to target intervention strategies and prioritize resource allocation. It is important to ensure the accuracy and timeliness of data. This can be done through evaluation or surveillance systems support of appropriate training and rigorous quality assurance.

Conquering cancer is a team effort requiring knowledgeable, generous, compassionate, energetic, and dedicated people from all disciplines to work together. With the completion of the plan, we are making progress towards fighting against cancer.

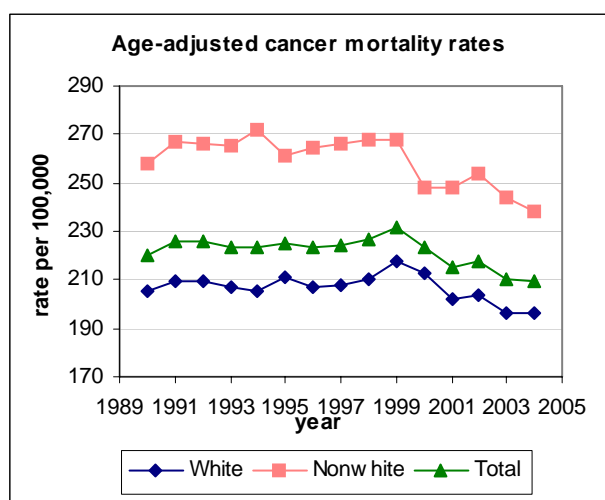
Mississippi Partnership for Comprehensive Cancer Control (MP3C)

Mission

The mission of MP3C shall be to reduce the human suffering and economic burden from cancer for Mississippi citizens by developing, implementing and evaluating a comprehensive cancer prevention and control plan.

Mississippi Burden of Cancer Summary

In Mississippi, cancer was the second leading cause of death, and accounted for 22.0% of all deaths in 2004 according to Mississippi Department of Health, Vital Statistics. In 2004, the overall cancer mortality rate in Mississippi was 209.1 per 100,000 people (age-adjusted to the 2000 U.S. population), and approximately 5,964 Mississippians died from cancer. Of those cancer deaths, 2,737 were among women and 3,227 among men; 4,054 among whites and 1,910 among non-whites. Cancer has consistently been the leading cause of death among adults ages 45 to 74.²



The American Cancer Society estimates that 14,970 new cases of cancer will be diagnosed in Mississippi in 2005, including 2,180 new cases of lung cancer, 1,360 new cases of colorectal cancer, 3,210 new cases of prostate cancer in men, and 2,350 new cases of breast cancer in women; 6,220 Mississippi residents will die of cancer in 2005.³

Lung and Bronchus

In Mississippi, an estimated 2,180 new cases and an estimated 2,070 deaths are expected to occur in 2005. Nationally, lung/bronchus cancers account for 12.6% of cancer diagnoses and 28.7% of all cancer deaths, in Mississippi 14.6% and 33.3%, respectively. The 2000-2004

age-adjusted mortality rate for lung/bronchus cancer in Mississippi was 68.4 per 100,000. This type of cancer has significantly declined in men over the past 20 years, but the female population saw an increase in incidence peaking in the 1990s. This increase in females is constant for whites and non-whites. Since 1987, more women have died each year of lung cancer than from breast cancer, which for the previous 40 years had been the major cause of cancer death in women.

Female Breast and Cervix

An estimated 2,350 new cases of invasive breast cancer and 450 deaths are expected to occur among women in Mississippi in 2005. The 2000-2004 age-adjusted female breast cancer mortality rate for Mississippi was 27.8 per 100,000 population. White women had a lower age-adjusted rate (24.2 per 100,000) than non-white women (35.2 per 100,000). Breast cancer ranks second among cancer deaths in women. Breast cancer incidence rates have continued to increase, only in those women ages 50 and older since 1980, while mortality rates have declined. This is widely believed to be a direct result of increased use of screening with mammography, which results in early detection and improved treatment.

An estimated 140 cases of invasive cervical cancer are expected to be diagnosed in Mississippi in 2005. Incidence rates and mortality rates have decreased over the past decade for white and non-white women. Based on the 2000-2004 age-adjusted cancer mortality rates in Mississippi, non-white women have a higher rate of cervical cancer mortality (6.6 per 100,000 population) than white females (2.2 per 100,000 population).

Colorectal

An estimated 1,630 new cases of colorectal cancer and 630 deaths will be

diagnosed in 2005 in Mississippi. Nationally, colorectal cancers account for 10.6% of cancer diagnoses and 9.9% of all cancer deaths, and in Mississippi 10.9% and 10.1%, respectively. The 2000-2004 age-adjusted colon/rectum cancer mortality rate in Mississippi was 21.9 per 100,000 population. This type of cancer accounts for about 10.0% of cancer deaths. Colorectal cancer is the third most common cancer both in men and in women. Incidence and mortality rates have declined since 1998. Research suggests that these declines may be in part due to increased screenings and polyp removal thus preventing the progression of polyps to invasive cancers.

Prostate

An estimated 3,210 new cases of prostate cancer and 420 deaths will occur in Mississippi in 2005. Prostate cancer incidence and mortality rates remain significantly higher in African American men than in white men. The 2000-2004 age-adjusted prostate cancer mortality rate for Mississippi was 38.0 per 100,000 population. Non-white men had a much higher age-adjusted rate (72.4 per 100,000) than white men (25.7 per 100,000). From 1988 to 1992, prostate cancer incidence rates decreased due to earlier diagnosis through early detection. Since then, incidence rates have declined and have leveled off, especially in the elderly.

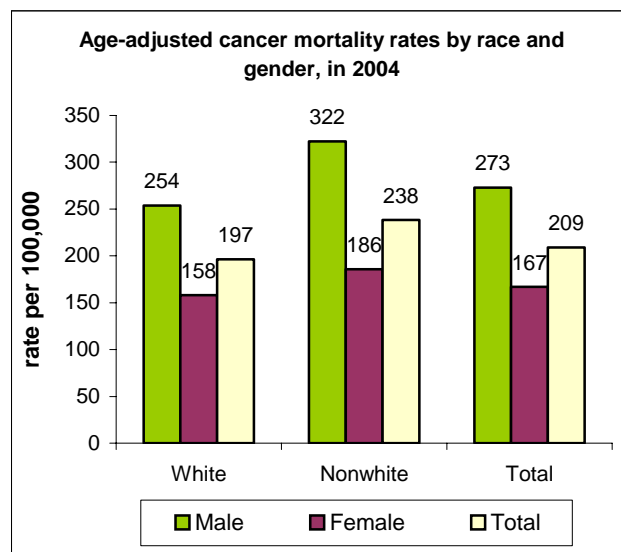
Pediatric Cancer

In the U.S., an estimated 9,510 new cancer cases are expected to occur among children ages 0 to 14 in 2005, resulting in an estimated 1,584 deaths. Despite childhood cancer's rarity, malignancies are second only to accidents as the leading cause of death in children. About one-third of these deaths will be from leukemia. The types of cancers that are common in pediatric patients are different than those in adults. Children may tolerate treatments better than adults do, allowing more aggressive treatment.

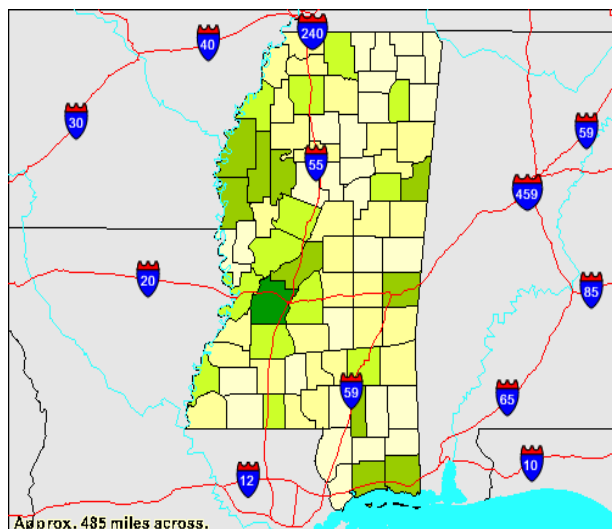
Cancer Disparities

A substantial body of scientific literature documents racial/ethnic and low-income population differences in risk factors and exposures for behavioral, environmental and other factors related to cancer. Access to, and delivery of, quality health care and differences in cancer screening, follow-up, treatment, palliative care, and pain management are all factors related to racial/ethnic and geographic disparities in cancer rates. These health care factors play a pivotal role in cancer prognosis, stage, survival, mortality and recurrence for minorities and the poor. As on the national level, Mississippi cancer disparities occur in a variety of categories including racial/ethnic, geographic, gender, age, and socioeconomic groups.

Cancer death rates differ by gender and racial/ethnic groups. Non-whites have higher rates than whites, and men have higher rates than women. In 2004, the age-adjusted rates were 27% higher for non-white men (332.3 per 100,000) than white men (253.7 per 100,000), and 17% higher for non-white women (185.6 per 100,000) than white women (158.1 per 100,000). The exact reasons for these disparities are unknown.⁴



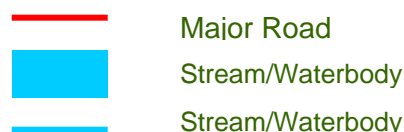
*Number of African Americans by County
Mississippi, 2000*



Data Classes



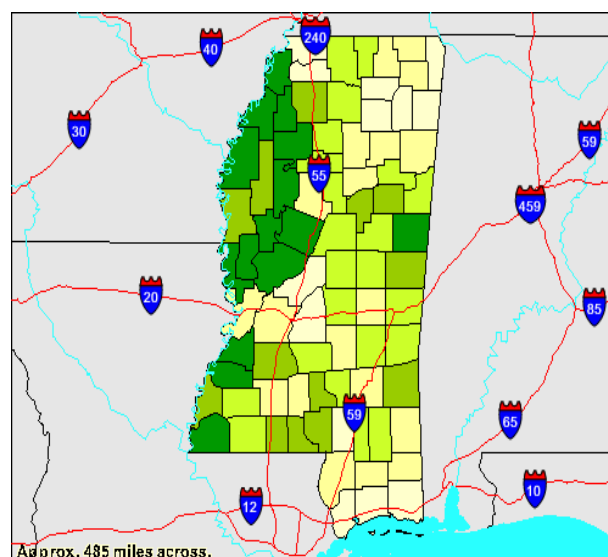
Features



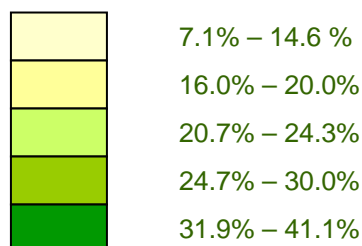
Mississippi is a geographically diverse state of 82 counties with a total land area of nearly 46,907 square miles. The population in the 2000 Census was nearly 2.8 million residents in 290 incorporated cities, towns and communities. The population ranges from 1,283 in Issaquena County to 242,079 in Hinds County. Fifty-three percent of Mississippians live in rural areas. Barriers to cancer prevention, detection, diagnosis, and treatment exist in Mississippi's rural and urban communities. In Mississippi, 91.8% of rural counties have poverty rates exceeding 16.0%. Rural communities have high rates of uninsured residents and have high numbers of elderly residents. Most of rural

communities lack public transportation, and lack access to primary and specialty health care. Urban areas also have transportation barriers, high Medicaid rates, and cultural and linguistic barriers.

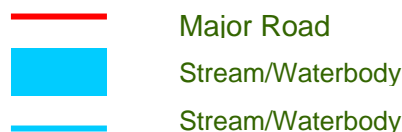
*Percent of Population below Poverty Level by County
Mississippi, 2000*



Data Classes

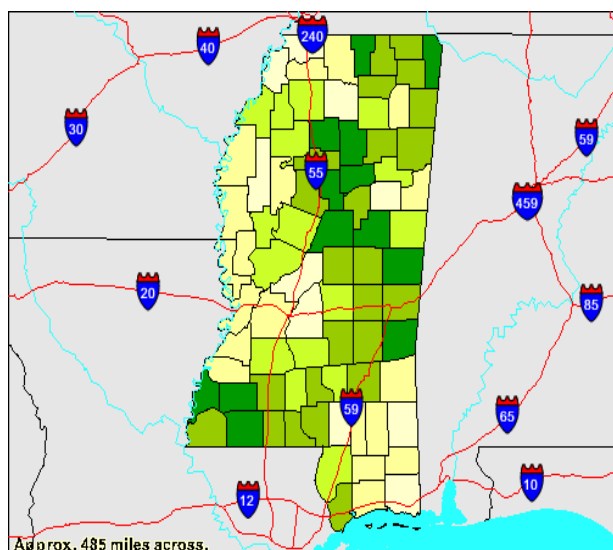


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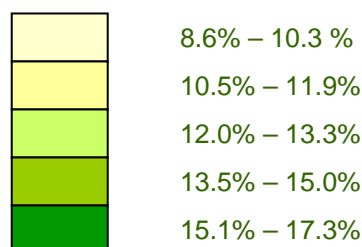


The majority of cancers in the United States occur in people aged 65 and older. Senior citizens (i.e. individuals 65 years and older) make up only 12.1% of Mississippi's population however, 65.0% of all cancer deaths in 2003 were from this age group.

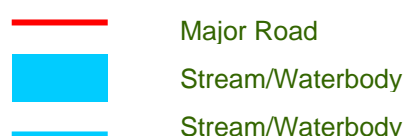
*Percent of People over the Age of 65 by County
Mississippi, 2000*



Data Classes



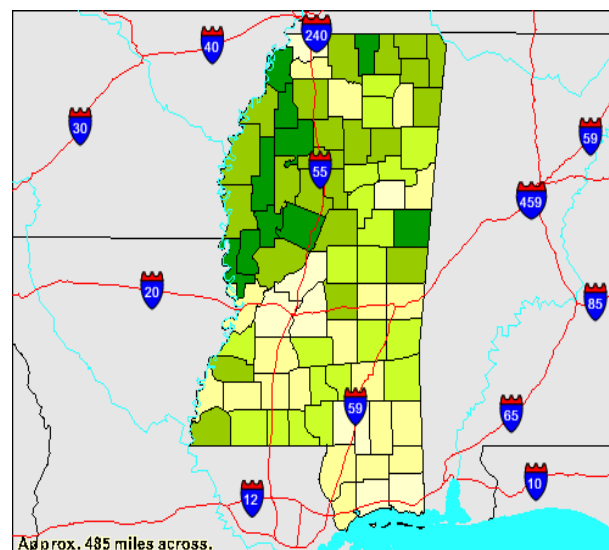
Features



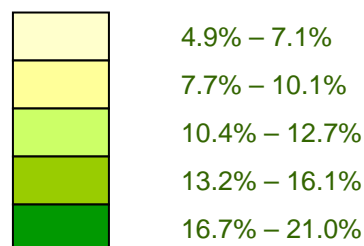
Socioeconomic status (SES) is one of the major determinants of health. According to the U.S. Department of Health and Human Service's *Healthy People 2010*, higher socioeconomic groups experienced greater health gains compared to lower socioeconomic groups. Lower SES has been associated with higher cancer risk behaviors, as well as, poorer cancer outcomes, particularly for cancers of the breast, colon and prostate. Cancer mortality rates in the U.S. are significantly higher in the lower socioeconomic groups.

Contributing factors associated with lower SES may include lower educational level, culture, ethnic/cultural beliefs, and access to adequate health care. In Mississippi, 27.1% of the population has less than a high school education (18.4% of U.S.) with approximately 18.6% of the population over 25 years of age holding a bachelor's degree or higher. Mississippi ranked the 49th among the states in per capital income (\$15,853 per Mississippian) and the 48th in median family income (\$31,330 per Mississippi family) according to the 2000 Census. Currently, 19.9% of Mississippians are below poverty level.

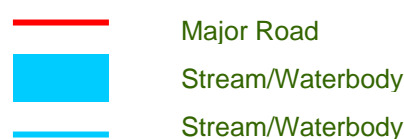
*Percent of Population with an Education Level of Less than 9th Grade by County
Mississippi, 2000*



Data Classes



Features



Economic Impact

The National Institutes of Health estimates overall costs for cancer in the year 2004 at \$189.8 billion: \$69.4 billion for direct medical costs (total of all health expenditures); \$16.9 billion for indirect morbidity costs (cost of lost productivity due to illness); and \$103.5 billion for indirect mortality costs (costs of lost productivity due to premature death).

Mississippi's population represents approximately 1.1% of the total U.S. population. Using this proportion of the national annual direct costs for cancer, it is estimated that in 2004 the total overall annual cost for cancer in Mississippi was \$2.1 billion and total direct medical cost was \$ 766.9 million.

According to the 2002 data, cancer mortality rates in Mississippi are the fourth highest in the U.S. There is a wide variation in mortality rates between counties, and in some counties, cancer mortality rates have actually increased. Marked racial disparities exist in the cancer mortality rates throughout the state. A considerable portion of cancer mortality is premature, especially in non-whites. Some of the death, illness, and disability due to cancer are preventable, but it will not be prevented unless we take population-based actions to create and maintain healthy environments, policies, and norms. Cancer doesn't discriminate, so it is imperative that we work together on local, state, and national levels to make a positive impact on the entire spectrum of the disease.

*Mississippi Age-Adjusted Cancer Mortality Rates for Selected Cancer Sites
2000-2004*

Cancer Sites	White		Nonwhite		Total	
	Number	Rate*	Number	Rate*	Number	Rate*
Trachea, bronchus, and Lung	7,051	69.1	2,532	65.8	9,583	68.4
Female breast	1,347	24.4	842	35.2	2,189	27.8
Colorectal	1,947	19.4	1,100	28.6	3,047	21.9
Prostate	911	25.7	952	72.4	1,863	38.0

* Rate per 100,000

I. Prevention

OVERALL GOAL:

Reduce cancer incidence by modifying behaviors and environmental factors that contribute to cancer.

According to the National Cancer Institute (NCI), prevention is a key strategy to reduce the nation's cancer burden. In the U.S., lung, breast, prostate, and colorectal cancer account for 55.9% of all cancer cases and 52.7% of all cancer deaths. Research has demonstrated that nearly two-thirds of all cancers could be prevented by eliminating tobacco use, improving nutrition and reducing alcohol consumption, increasing physical activity and engaging in sun safe behaviors. In addition, more cancers can be successfully treated if they are detected early. If Mississippi expects to reduce the cancer burden, aggressive preventive strategies must be employed.

Awareness of individual risk factors is a key to prevention. Some risk factors are "modifiable," or can be controlled or reduced, which in turn reduces the risk of developing cancer. According to the NCI, modifiable risk factors are correlated to 75% of all cancers. It is also critical to understand the relationship between environmental substances, including some bacteria, *Human Papilloma Virus (HPV)* and cancer, and to decrease known environmental exposures to carcinogens. In addition, effective tobacco control programs are directly credited with a decline in cancer rates.

A. Tobacco

GOAL: *Decrease the number of Mississippians who use tobacco products.*

OBJECTIVE 1: By 2011 reduce the youth smoking rate to 19% for high school students both public and private; 9% for public middle school; 5% for private middle school.

Baseline: 23.4% Public High School; 11% Public Middle School; 26.3% Private High School; 6.2% Private Middle School

Data Sources: Mississippi Youth Tobacco Survey (YTS), 2003

OBJECTIVE 2: By 2011, reduce the adult smoking rate to 20%.

Baseline: 24.5%

Data Sources: Mississippi BRFSS, 2004

Target Population: School age youth and adults

Resources: American Cancer Society (ACS), NCI/Cancer Information Services (CIS), American Legacy, Smoke Free Kids, American Heart Association (AHA), healthcare providers, public and private schools, MDH, Mississippi State University Extension Service Health (MSUES), businesses, universities and community colleges, faith-based organizations, MP3C Coalition, American Lung Association (ALA), Deep South Network for Cancer Control (DSNCC)

Strategies:

1. Decrease the number of individuals who initiate smoking by promoting both governmental and voluntary policies to restrict youth access to tobacco products.
2. Work with colleges and universities to encourage adoption of smoke-free campuses and dormitory policies.
3. Through a combination of federal, state and local funding initiatives, fund tobacco control program interventions in proportion equal to CDC's recommendations or greater in order to implement effective comprehensive tobacco control.

4. Promote the use of the Mississippi *QuitLine*, a free telephone resource for individualized cessation counseling. Distribute smoking cessation materials to local communities through churches, schools, local health fairs, universities, community colleges, beauty and barber shops.
5. Continue utilizing health care providers to counsel patients on quitting and providing programs in the community in a variety of settings. Work to change local tobacco-related policies and provide insurance coverage for tobacco cessation.
6. Increase awareness of the harmful effects of secondhand smoke.

B. Environmental Factors & Infectious Agents

GOAL: *Reduce the impact of environmental carcinogens exposure and the impact of infectious agents on cancer incidence.*

OBJECTIVE 1: By 2011, reduce population risks associated with environmental exposures to known or likely cancer carcinogens.

OBJECTIVE 2: By 2011, decrease the proportion of persons 18 and older who reported sunburn in the past twelve months to 22%.

Baseline: 27%

Data Source: Mississippi BRFSS 2004⁶

Target Population: All Mississippians

Resources: MDH, ACS, MSUES, agriculture and natural resource agents, MP3C Coalition, ALA, Mississippi Farm Bureau Programs (Farmers and Skin Cancer Prevention), DSNCC, local government, businesses, factories, universities and community colleges, healthcare Providers, Mississippi hospitals and local health clinics, public and private schools, and youth organizations

Strategies:

1. Continue partnerships with federal, state, and local governments, businesses and communities to reduce elevated exposure to known or likely environmental risk factors for cancer.
2. Improve the public's understanding of the potential risks associated with the exposures to chemicals in the environment and continue outreach efforts to promote the effective dissemination of information to the public. Increase awareness and promote programs that help consumers decrease their use of harmful chemicals in the home.
3. Continue to enforce and increase compliance with environmental regulations to reduce exposure to known or likely human carcinogens.⁵
4. Promote and enforce existing clean indoor air policies and continue the efforts to pass a comprehensive statewide Clean Indoor Air Act.
5. Utilize existing proven programs to promote and educate the public on the benefits of sun protection. Increase awareness the dangers of artificial sun tanning.
6. Target educational programs to providers of services to young children, such as preschool and child care providers, camp directors, community recreation programs staff, educators and scout leaders.
7. Increase awareness of sun protection needs of infants and young children among pregnant women and new parents. Increase the proportion of elementary schools, day care centers, and parks and recreation centers that have sun protection policies. Promote the CDC "Choose Your Cover" skin cancer prevention campaign aimed primarily at young people.

OBJECTIVE 3: Reduce the incidence of cervical cancer by preventing *HPV* infection and implementing the objectives created by the legislative Special Task Force on Cervical Cancer in Mississippi.

Baseline: To be established

Data Source: To be established

Target Population: Uninsured and underinsured Mississippi women

Resources: Special Task Force on Cervical Cancer in Mississippi (House Concurrent Resolution No. 95, 2004), MDH (Women's Health), Breast Cervical Early Detection Program (BCCEDP), ACS, NCI/CIS, DSNCC, Information and Quality Healthcare (IQH), the University of Mississippi Medical Center (UMMC), Southeast Mississippi Rural Health Initiative, Inc (SeMRHI)

Strategies:

1. Increase awareness of sexually transmitted disease (STD) agent, such as Human Papilloma Virus (HPV) that cause cervical cancer. Discourage sexual activity among middle school and high school youth.
2. Utilize the media to provide public education about cervical cancer
3. Reach women who can not or will not obtain a regular Pap test by disseminating the educational materials through community based organizations.

C. Physical Activity

GOAL: *Increase the number of Mississippians who are physically active.*

OBJECTIVE 1: By 2011, decrease the proportion of persons 18 and older who engage in no leisure time physical activity to 25%.

Baseline: 31%

Data Source: BRFSS, 2004

OBJECTIVE 2: Increase the proportion of youth who report participating in physical education on at least three days a week. Increase in high school students to 33 % and in middle school students to 61%.

Baseline: high school students 27%; middle school students 56%

Data Source: Mississippi Youth Risk Behavior Survey (YRBS), 2003⁷

OBJECTIVE 3: Increase the proportion of persons 18 and older who report being told by a physician to engage in physical activity to 35%.

Baseline: 29.2%

Data Sources: Mississippi BRFSS, 2003

Target Population: All Mississippians

Resources: ACS, healthcare providers, public and private schools, MDH, MSUES, Family Nutrition Program (FNP) and Expanded Food and Nutrition Education Program (EFNEP) and health, nutrition agents, universities and community colleges, faith-based organizations, MP3C Coalition, local media, Mississippi Department of Education (MDE), state hospitals and local health clinics, youth organizations, DSNCC

Strategies:

1. Implement grade-specific physical activity programs such as "Catch" and "Take 10" that incorporate physical activity as part of classroom activity.
2. Increase the proportion of schools that provide access to their physical activity spaces and facilities for community members outside of normal school hours. Increase worksites that support healthy eating, exercise and maintaining a healthy weight.

3. Promote the concept of “walk-able communities” to increase the availability of safe and attractive public areas and walkways where physical activity can take place. Work with shopping malls to open their facilities before hours to encourage individuals to walk.
4. Promote policies and strategies that maximize the use of existing health and fitness facilities in communities. Promote evidence based methods for safe physical activity to communities for all age groups.
5. Increase the capacity of healthcare providers, healthcare settings and organizations to address physical activity.

D. Nutrition and Healthy Diet

GOAL: Increase the proportion of Mississippians who consume a healthy diet.

OBJECTIVE 1: Increase the proportion of persons 18 and older who eat an average of five or more servings of vegetables and fruits each day to 25%.

Baseline: 18%

Data Source: Mississippi BRFSS, 2003

OBJECTIVE 2: Decrease the proportion of Mississippi middle school and elementary students who do not eat five or more servings of fruits and vegetables each day to 60%.

Baseline: 80%

Data Source: Mississippi YRBS, 2003

OBJECTIVE 3: Reduce by 10% among school age children, the number reporting having eaten high-fat items during the previous day (baseline 59% chose fatty meats and 68% chose French fries or potato chips).

Baseline: 59% chose fatty meats and 68% chose French fries or potato chips

Data Source: Mississippi YRBS, 2003

OBJECTIVE 4: By 2011, decrease adult Mississippians proportion of overweight/obese to 55%.

Baseline: 62% (35% for BMI between 25 and 30; 27% for BMI equal to or greater than 30)

Data Source: Mississippi BRFSS, 2003

Target Population: All Mississippians

Resources: MDH, ACS, NCI, MSUES, FNP and EFNEP, health and nutrition agents, universities and community colleges, MS Farm Bureau Programs Health and Safety, state hospitals and local health clinics, healthcare providers, schools, youth organizations, MP3C Coalition, faith based organizations, grocery stores, MDE, Women, Infants, & Children (WIC) education, DSNCC

Strategies:

1. Increase awareness for the consumption of a healthy diet in the community environment. Promote existing programs to increase the number of fruits and vegetables consumed daily.
2. Promote low-fat, low-calorie, and high-fiber foods and encourage schools, hospitals, worksites, colleges and universities to serve these items in their cafeterias.
3. Increase the number of schools that provide quality instruction on nutrition, healthy eating and daily physical activity as a lifestyle choice. Increase the availability of 100% fruit juice and low fat milk in place of soft drinks and other high sugar beverages in school systems.
4. Ensure that nutrition materials are culturally appropriate for each of the targeted audiences and provide recipes that are culturally appropriate to promote fruit and vegetable consumption.

E. Genetics and Cancer

GOAL: *Promote public and health care provider awareness of family history as a potential risk factor for the development of cancer.*

OBJECTIVE 1: Increase the early identification of individuals at risk for developing cancer due to genetic susceptibility or inherited predisposition and increase access to genetic testing by 5%.

Baseline: To be established

Data Source: To be established

Target Population: All Mississippians

Resources: ACS, MDH, MSU Extension Service FNP and EFNEP programs, qualified healthcare providers, MS hospitals and local health clinics, health and nutrition agents, universities and community colleges, faith-based organizations, MP3C Coalition, Deep South Network for Cancer Control, Mississippi Cancer Registry

Strategies:

1. Determine knowledge and attitudes towards the use of prevention interventions for individuals considered at high risk of developing cancer.⁸
2. Create baseline and increase proportion of adults who are aware of their family history of cancer.
3. Encourage healthcare providers to query patients on their family history of cancer to help identify possible high-risk individuals.
4. Encourage genetic testing reimbursement for proven genetic testing methodologies with implications for prevention and treatment by managed care plans, insurance plans, Medicaid, and other providers and inform the public of the availability of this testing.

F. Community Education and Outreach

GOAL: *Promote community efforts on cancer education. Assess the availability, accuracy, and cultural relevance of cancer prevention materials.*

OBJECTIVE 1: Increase the availability, accessibility, and effectiveness of cancer prevention materials from national government organizations, i.e. CDC, NCI, ACS, etc and local chapters for Mississippians by 2011 and update on a regular basis.

Baseline: To be established

Data Sources: To be established

Target Population: All Mississippians

Resources: ACS, MDH, MP3C Coalition, universities and colleges, MDE, hospitals and community health organizations, qualified health care providers, UMMC, faith-based organizations, American Lung Association (ALA)

Strategies:

1. Promote community-wide efforts toward comprehensive public outreach campaigns and addressing all health promotion and prevention areas defined previously.
2. Use principles of social marketing such as NCI's Consumer Health Profiles to encourage partnering of community agencies and stakeholder organizations to develop professional and community conferences on health issues.
3. Engage community partners and encourage the formation of community-based cancer prevention and control coalitions.
4. Use materials and strategies that are age, culturally and linguistically appropriate for the target audience.

5. Encourage development of peer teaching modules and utilize adult education principles in community education programs.
6. Ensure the availability and quality of cancer education materials for minorities and medically underserved populations.
7. Involve cancer survivors in the distribution of prevention education materials and messages within communities.
8. Conduct a media campaign to promote educational activities on cancer prevention.
9. Develop a database of highly successful community programs/interventions and media campaigns based upon sound evaluation strategies.
10. Share information regarding new materials and outdated materials with MP3C members.

OBJECTIVE 1: By 2011, generate a surveillance system to evaluate the activities and outcomes.

Target Population: MP3C “Prevention” workgroup, MP3C Executive Board

Resources: MDH, MP3C Executive Board (MP3C EB), MP3C Coalition

Strategies:

1. Establish a tool by which each of the goals and objectives for prevention issues can be monitored.
2. Conduct ongoing evaluation by holding MP3C Executive Board meetings to track progress toward achievement.

G. Evaluation

GOAL: *Evaluate prevention activities and outcomes.*



II. Early Detection

OVERALL GOAL: Improve outcomes for Mississippians with cancer through early detection. Increase screening for detecting cancers in earlier stage when treatment is more effective.

A 2003 report from the Institute of Medicine recognized that the principle challenges to optimizing delivery of effective cancer screening services lie in changing behavior in four sectors of society:

1. Systems of care which should make screening available to eligible populations.
2. Health care providers who should counsel patients about screening and ensure that screening is provided
3. Patients who should be made aware of the importance and availability of screening.
4. Among the recommendations for the nation, and by extension the state of Mississippi, to make progress in cancer prevention and early detection were specific recommendations related to early cancer detection. That is, there should be:
 - Access to and coverage for early detection services by public and private insurers
 - Support for programs that provide primary care to the uninsured and underserved
 - Support for the CDC's National Breast and Cervical Cancer Early Detection Program
 - Design and implementation of programs to improve health care provider education and training and adherence to evidence-based guide lines for early detection services

- Promotion of partnerships between public and private organizations to work toward improving the public's understanding of cancer prevention and early detection with a focus on prevention and early detection of cancer and reduction of disparities in the cancer burden.

A. Breast and Cervical Cancer

The American Cancer Society recommends the screening for breast cancer and cervical cancer for women as following: Women over 20 years of age should have the technique, benefits and limitations of breast self examination explained to them. It is acceptable for women to choose not to do self examination. However for women in this age group (20 – 39) it is recommended that they have a professional clinical breast examination every three years. Women 40 years and older should have a professional clinical breast examination every year along with a mammogram. Women in higher risk categories may benefit from more frequent exams and/or screening with newer technologies.

Annual cervical cancer screenings with conventional cervical cytology should begin approximately three years after the onset of vaginal intercourse but no later than 21 years of age or every two years until the age of thirty using liquid based cytology. Women who have had three consecutive normal cytology results should continue screening every two to three years. Women 70 or older with three normal results may choose to stop screening.

GOAL: Promote the awareness of mammography screening and pap testing; Increase the utilization of screenings for early detection among healthcare providers and Mississippi women.

OBJECTIVE 1: By 2011, increase the proportion of women age 40 and older receiving annual screening mammograms in the past two years to 69%.

Baseline: 65%

Data Source: Mississippi BRFSS, 2004

Target Population: Mississippi women age 40 and older

Resources: IQH, UMC, ACS, SeMRHI, MDH, MPHA, churches, retirement centers, beauty salons, radio and TV stations, local news paper, medical staff, nurse practitioners, allied health, public health, community leaders

Strategies:

1. Collaborate with Breast and Cervical Cancer Early Detection Program to promote and increase awareness of the importance in breast and cervical cancer early detection.
2. Increase awareness of low-cost or free mammography screening programs and the public knowledge of Medicare and Medicaid coverage throughout the state by disseminating information through healthcare facilities and community events.
3. Educate primary care providers on strategies for informing women of the need for breast cancer screening and the importance of their role in recommending screening to women.
4. Provide literature and resource brochures on early detection at healthcare provider clinic sites to women in Mississippi.
5. Encourage health providers, health educators to attend health fairs and distribute breast health and screening materials to local communities such as churches and civic groups.

6. Develop and implement media releases to promote mammography via radio, newspaper, mass mailings and television.
7. Continue public education and outreach about the Breast and Cervical Cancer Early Detection Program to low income and uninsured women.

OBJECTIVE 2: By 2011, increase the proportion of women age 21 and older receiving a pap smear in the past three years to 88%.

Baseline: 83%

Data Source: BRFSS, 2004

Target Population: Mississippi women age 18 and older

Resources: MDH, IQH, ACS, MDE, MP3C coalition, DSNCC, healthcare providers, universities, community colleges, faith-based organizations, community leaders, women of the legislature, sororities and fraternities,

Strategies:

1. Implement action plan recommended by the Special Task Force on Cervical Cancer of the Legislature.
2. Promote and increase awareness of cervical cancer and risk factors.
3. Promote educational activities in underserved and uninsured population to increase cervical cancer screening rates in women age 18 to 65.
4. Educate providers and women on the importance of regular Pap tests and appropriate follow-up care.
5. Disseminate educational materials on cervical cancer screening at health fairs, civic events, medical meetings, churches, clinics and schools.

B. Colorectal Cancer

The American Cancer Society recommends that screening for Colorectal Cancer should begin at age 50 via one or more of the following:

1. Annual fecal occult blood test (FOBT)
2. Flexible sigmoidoscopy (FS) every 5 years
3. FOBT plus FS every 5 years or annually
4. Double contrast barium enema (DCBE) every 5 years
5. Colonoscopy every 10 years.

GOAL: Increase utilization of colorectal cancer screening services among healthcare providers and citizens. Decrease the mortality and morbidity associated with colorectal cancer.

OBJECTIVE 1: By 2011, increase the proportion of Mississippians age 50 and older screened for colorectal cancer according to American Cancer Society recommendations for Fecal Occult Blood Test (FOBT) and endoscopy to 49%.

Baseline: 45%

Data Source: BRFSS, 2004

Target Population: Mississippians age 50 and older

Resources: ACS, MDH, IQH, Centers for Medicare & Medicaid Services (CMS), Mississippi Oncology Society (MOS), AARP, healthcare providers, gastrointestinal associates, and community based health organizations

Strategies:

1. Identify gaps in colorectal cancer screening utilization in adults aged 50 years and older.

2. Reduce barriers to colorectal cancer screening for all adults 50 years or older.
3. Encourage people over age 50 to seek colorectal cancer screening. Utilize media releases for television, radio and newspaper updates and reminders.
4. Collaborate with local providers to host community events for screenings.
5. Educate health care providers regarding the importance of regular screening.
6. Promote the development of subsidized screening for colonoscopy, sigmoidoscopy and FOBT for age and income-eligible persons.
7. Provide self management guides to Mississippians to educate them on the importance of regular screening and empowerment to ask for screening if not offered by provider.
8. Promote policy changes to ensure insurance coverage for screening tests.
9. Encourage health care providers to query patients on family history of colorectal cancer to identify possible high-risk individuals.

C. Prostate Cancer

According to American Cancer Society Screening Guidelines, both the prostate-specific antigen (PSA) blood test and digital rectal examination (DRE) should be offered annually, beginning at age 50, to men who have at least a 10 year life expectancy. Men at higher risk (African American men and men with a first degree relative with the disease detected at an early age) should begin testing at age 45.

Medical experts agree that every man needs balanced information on the pros and cons of prostate cancer screening to help him make an

informed decision. Balanced information is important because medical experts disagree about whether men should be screened regularly for prostate cancer.

Medical experts who encourage regular screening believe current scientific evidence shows that finding and treating prostate cancer early, when treatment might be more effective, may save lives. They recommend that all men who have a life expectancy of at least 10 years should be offered the screening.

Medical experts who do not recommend regular screening want convincing evidence that finding early-stage prostate cancer, and treating it, saves lives. They believe some of these cancers may never affect a man's health and treating them could cause temporary or long-lasting side effects like impotence (inability to keep an erection) and incontinence (inability to control the urine flow, resulting in leakage or dribbling). Because they believe it is unclear if the potential benefits of screening outweigh the known side effects of treatment, they recommend that all men be given information on the pros and cons of screening before making their own screening decision.

GOAL: Promote existing programs to increase awareness and education of prostate cancer and provide updated screening information on the decision making among men age over 50 and younger men at the risk.

OBJECTIVE 1: By 2011, increase the number of men who have talked with their provider about screening for prostate cancer. Improve informed decision-making between men and their providers regarding prostate cancer screening.

Baseline: To be established

Data Source: BRFSS-like survey

Target Population: Mississippi men 50 years of age and older

Resources: ACS, US TOO International, UMMC, MCR, medical providers, community health centers, sororities, fraternities, churches, community leaders

Strategies:

1. Promote and increase awareness of prostate cancer through educational materials.
2. Attend town hall meetings, health fairs and other civic meetings to educate the public on the importance of early detection.
3. Recruit male champions in the community to educate men on current information regarding screening options, including potential advantages and disadvantages.
4. Conduct media releases through radio, television and newspaper targeting all males and providers.
5. Partner with local physicians involved with national studies to sponsor for prostate cancer awareness.
6. Develop methods to assess provider knowledge and understanding of prostate cancer screening issues.

D. Skin Cancer

Based on the research evidence, ultraviolet (UV) light can cause DNA damage which is linked to both melanoma and non-melanoma skin cancer. According to National Institutes of Health, by age 65, it is predicted that nearly 50% of all Americans will have developed a form of skin cancer, some of it fatal. Identifying the early signs of skin cancer and appropriate responses to such symptoms will be a critical step in reducing the mortality caused by skin cancer.

GOAL: Detect skin cancers at an early stage to increase survival rates and decrease morbidity.

OBJECTIVE 1: By 2011, increase the proportion of cases of melanoma skin cancer detected at an early stage.

Baseline: To be established

Data Source: To be established

Target Population: All Mississippians

Resources: MDH, MDE, ACS, healthcare providers, dermatologist, schools, faith-based organizations, sororities, fraternities and oncologist, parks and recreational programs.

Strategies:

1. Combine the early detection messages with prevention messages to educate the public on the skin cancer and importance of using sunscreen.
2. Encourage health providers and health educators to conduct health fairs to increase skin cancer screening.
3. Educate primary care providers on the importance of assessing all patients for possible skin cancers. Increase the number of health care providers who educate patients about the early signs of skin cancer.
4. Distribute educational materials on skin cancer screenings, risks factors, and signs and symptoms of skin cancer.
5. Consult with organizations to provide free samples of sun-block for outdoor activities.
6. Increase the number of retailers selling sun protection products that place early detection messages with their displays and products.

E. Oral & Pharyngeal Cancer

Oral cancer is the 8th most common cancer worldwide and the 6th leading cancer in U.S. men. The oral cancer death rate is higher than cervical cancer, Hodgkin's disease, brain,

liver, testes, kidney, or skin cancers. It affects over 30,000 people annually in the U.S. but only about half (52%) of people diagnosed with oral and pharyngeal cancer survive 5 years. Furthermore, if cancer of the larynx is included, having the same risk factors, the incidence increases from 30,000 to 41,000 diagnosed, and from 7,800 to 12,500 deaths per year. Ninety-five percent of oral cancers are diagnosed after age 45 years and the incidence is higher in blacks than in whites. Oral cancer is the fourth most prevalent cancer in African-American males.

High death rates are due to the late stage of diagnosis; only 35% of oral cancer is detected at the earliest stage. Assuring early detection of oral cancer can significantly reduce morbidity and mortality: the five-year survival rate is 81% for those diagnosed with early-stage oral cancer, compared to 22% for those diagnosed with advanced-stage cancer. Adults age 21 and older should have an oral cancer screening exam every time they visit the dentist or once a year and everyone should understand the risk factors and warning signs of oral cancer. The use of tobacco (smoked and smokeless) and alcohol is strongly associated with the occurrence of oral cancer. Oral cancer research has also implicated some HPV and *Herpes Simplex Virus (HSV)*.

GOAL: Increase the knowledge base and awareness of risk factors, detection, and treatment for oral / head and neck cancer among primary health care providers and the public.

OBJECTIVE 1: Increase the number of health care professionals able to identify individuals at-risk for oral cancer and perform oral cancer screening, counseling and guidance.

Baseline: To be established

Data Source: Mississippi Cancer Registry (MCR)

OBJECTIVE 2: By 2011, decrease by 0.5 % of the morbidity and mortality associated with oral/head and neck cancers.

Baseline: To be established

Data Source: NCI SEER statistics, MCR

Target Population: All Mississippians; health care workers

Resources: MDH, UMMC, MCR, MS Academy of Family Medicine (AFM), Mississippi Society of Otolaryngology, Mississippi Dental Association (MDA), Mississippi Chapter of American Association of Oral and Maxillofacial Surgeons (AAOMS), Mississippi Chapter of American Medical Students Association (AMSA), relevant community based organizations.

Strategies:

1. Assure a statewide oral cancer incidence and mortality surveillance system, with annual data reporting.
2. Develop and distribute public education materials about oral and pharyngeal cancer. Involve all medical and public libraries in distribution of these materials.
3. Promote tobacco use cessation programs.
4. Promote public education materials that discourage the excessive use of alcohol and promote eating a healthy diet.
5. Increase awareness of early detection for oral cancer by promoting regular self-examinations of the mouth for consumers.
6. Promote development of health care curricula for professional schools and continuing education programs that require competency in prevention, diagnosis, and multi-disciplinary management of oral and pharyngeal cancer including the importance

of good nutrition and the prevention and cessation of tobacco and alcohol use.

7. Promote soft tissue examination for detection of oral cancer as a standard of a comprehensive patient examination by health care professionals.
8. Provide education and training to primary care providers of populations with the highest risk of oral cancer.
9. Engage communities to participate in oral cancer screening and counseling, and promote risk factor awareness.

F. Other Early Detection Issue

GOAL: Increase utilization of screening services among Mississippi citizens. Promote the awareness of screening and early detection services among Mississippi healthcare providers and citizens. Increase the number of cancers diagnosed at earlier stages.

OBJECTIVE 1: By 2011, establish baseline data for tracking all cancers screened and diagnosed at early stage; increase the proportion of all cancers screened and detected at an early stage by 5%.

Baseline: To be established

Data Source: MDH, MCR

OBJECTIVE 3: By 2011, increase utilization of cancer screening services among healthcare providers and citizens.

Baseline: To be established

Data Source: To be established

Target Population: All Mississippians

Resources: IQH, UMMC, Jackson Medical Mall, ACS, ALA, MPHCA, MCR, medical, dental and health related professional organizations, community organizations, churches, schools,

beauty salons and retirement centers, general public adults and adolescents, individuals who access care at public health and federally funded clinics, Medicaid and Medicare recipients

Strategies:

1. Develop media, press release, and educational campaign and disseminate literatures, presentations, flyers to schools and communities.
2. Provide resource brochures to encourage public getting cancer screening.
3. Promote awareness to health professions on the importance of early detection and outcome of cancer treatment.
4. Attend health fairs to provide onsite certain cancer screening.
5. Assess or establish screening baseline data for all cancers to monitor the improvement on cancer screening and early detection.
6. Recruit providers to utilize Electronic Health Records (HER's) software for tracking high risk patients, reminders and patient registries.
7. Develop media and print releases.

8. Conduct regional Partnership Comprehensive Cancer Control (MP3C) meetings to exchange and update information on early detection.

G. Evaluation

GOAL: Evaluate early detection activities and outcomes.

OBJECTIVE 1: By 2011, generate a surveillance system to evaluate the activities and outcomes.

Target Population: MP3C “Early Detection” workgroup, MP3C Executive Board

Resources: MDH, MP3C Executive Board, MP3C Coalition

Strategies:

1. Establish a tool by which each of the goals and objectives for early detection issues can be monitored.
2. Conduct ongoing evaluation by holding MP3C Executive Board meetings to track progress toward achievement.



III. Diagnosis and Treatment

OVERALL GOAL:

Increase the accessibility and availability of optimal cancer diagnostic and treatment services in Mississippi.

Once cancer is diagnosed, timely information on treatment options and access to appropriate care are critical to improving survival rates. The goal of cancer treatment is cure or control of progression of the disease while maintaining the highest quality of life possible. Cancer is a complex, chronic disease that often requires the use of exhaustive health care services and technologies. Treatment must be of high quality and management must be comprehensive. The options of treatment typically include surgery, chemotherapy, radiation therapy, and immunotherapy, either alone or in combination, depending on the type, site, and stage of the cancer. Quality of cancer care includes the quality of both the care and the delivery of that care to cancer patients. High quality cancer care means every patient is provided the appropriate services in a manner that is sensitive to their individual values and lifestyle. High quality cancer care is also technically competent and includes the use of good communication skills while consistently involving the patient in shared decision-making.

A. Accessibility

GOAL: *Increase the availability of and access to, resource information regarding cancer treatment, care and support.*

OBJECTIVE 1: By 2011, increase the capacity and infrastructure for dissemination of cancer treatment information by 10%.

Baseline: To be established

Data Source: To be established

Target Population: Healthcare providers, cancer patients and their support team members

Resources: NCI, ACS, Leukemia/Lymphoma Society, MDH, MCR, Mississippi Society of Oncology (Mississippi Chapter of American Society of Clinical Oncology – ASCO), American College of Surgeons (ACOS), public library system,

Strategies:

1. Develop and train a speaker's bureau to speak on behalf of MP3C and its initiatives.
2. Collect and evaluate available cancer diagnosis and treatment material for readability, cultural sensitivity and usability.
3. Train library system personnel on internet access for appropriate healthcare links to assist patients seeking cancer treatment information.
4. Distribute cancer diagnosis and treatment information to local communities through beauty shops, barber shops, nail salons, churches, support groups and local health fairs.
5. Meet with recognized Cancer Support Groups to promote and distribute printed cancer treatment information.
6. Plan and implement local community consumer education classes regarding cancer treatment, care and support.

OBJECTIVE 2: By 2011, establish a database of support groups for cancer patients and the average attendance at these groups.

Baseline: To be established

Data Source: To be established

Target Population: Cancer patients and their support team members

Resources: ACS, Leukemia/Lymphoma Society, MDH, MCR, Mississippi Society of Oncology, ACOS, Mississippi American Psychiatric Association (APA), Mississippi Psychological Association (MPA)

Strategies:

1. Establish baseline data by partnering with various healthcare organizations to evaluate current cancer area support groups and identify locations for new ones.
2. Identify resources that can be used by psychology/psychiatry associations to foster alliances within cancer support groups.
3. Identify and distribute resources that can be used by faith-based organizations to create cancer support groups.
4. Partner with American Cancer Society to increase awareness of current support groups to patients and caregivers.
5. Partner with Leukemia and Lymphoma Society to develop, promote and oversee a statewide telephone cancer support group.

OBJECTIVE 3: By 2011, provide appropriate referral resources for cancer diagnosis and treatment to at least 25% of physicians and nurse practitioners.

Baseline: To be established

Data Source: To be established

Target Population: Healthcare providers

Resources: MDH, Mississippi ASCO, ACOS, Mississippi Nurses Association (MNA), Mississippi Pharmacists Association (MPhA), MDA

Strategies:

1. Promote and partner with national, state and local cancer resource assistance and referral

services for local communities as well as healthcare providers.

2. Identify additional local resources that are available to cancer patients and caregivers through community groups, churches, etc.

B. Disparities

GOAL: *Reduce disparities in cancer treatment among diverse groups in Mississippi.*

OBJECTIVE 1: By 2011, assure that properly trained and culturally competent personnel are available to serve 80% of Mississippi counties in assisting patients in accessing available, appropriate and effective therapies during all phases of cancer treatment.

Baseline: To be established

Data Source: To be established

Target Population: African-American in Mississippi

Resources: NCI, CDC, National Institutes of Health (NIH), state and federal legislators

Strategies:

1. Create a Patient Navigator program
 - Identify a patient navigator program and adapt to needs of Mississippi
 - Secure funding to implement patient navigator program
 - Provide train the trainer education for patient navigator program
 - Offer patient navigator service to all medical facilities
2. Educate faith-based and other organizations about disparities in access to care.

3. Develop community cancer task force by fostering coalitions between local businesses and medical facilities.

OBJECTIVE 2: By 2011, increase by 3% the number of centers offering comprehensive cancer care in Mississippi.

Baseline: To be established

Data Source: To be established

Target Population: Medical centers and cancer centers in Mississippi

Resources: National Cancer Institute, American Cancer Society, Leukemia/Lymphoma Society, MS Hospital Association, Local Government, Oncology Society of Mississippi, Partnership for a Healthy MS

Strategies:

1. Identify best practices in cancer treatment and demonstrate these to hospitals in Mississippi to use as a template.
2. Educate local governments on impact of cancer locally so that they can develop policies to collaborate with local medical facilities to improve cancer management services.

C. Cancer Management

GOAL: *Support and enhance the optimum management of cancer in Mississippi.*

OBJECTIVE 1: By 2011, define and promote “optimum management” of cancer as including all interventions that are necessary to reduce morbidity and mortality during the primary treatment of cancer.

Baseline: To be established

Data Source: To be established

Target Population: Qualified healthcare providers, medical oncologists, cancer support teams, third party health insurers, health policy makers

Resources: ACS, Leukemia/Lymphoma Society, Mississippi State Medical Association (MSMA), MS Chapter of American Academy of Pediatrics (AAP), MNA, Oncology Nurses Association, MDA, MPHCA, MDH, Mississippi Hospital Association (MHA)

Strategies:

1. Host annual state cancer summit to review the definition and discuss goals and objectives for healthcare systems and providers that provide optimal management of cancer.
2. Conduct regional meetings in each public health district to discuss the concept with local medical/dental societies.

OBJECTIVE 2: By 2011, reduce by 40% the morbidity and mortality of patients undergoing therapy due to infection and the indirect effects of myelosuppression.

Baseline: To be established

Data Source: hospital records

Target Population: Qualified healthcare providers, medical oncologists, cancer support teams, hospital administrators

Resources: NCI, ACS, Leukemia/Lymphoma Society, MSMA, MS Chapter of AAP, MNA, Oncology Nurses Society (ONS), MDA, MS Chapter of American Academy of Pediatric Dentistry (AAPD), MPHCA, MDH, MHA

Strategies:

1. Distribute guidelines for pre-treatment management in cancer therapy to all qualified healthcare providers and cancer support groups.

2. Distribute guidelines for oral health maintenance in cancer therapy to all qualified healthcare providers and cancer support groups.
3. Distribute guidelines for peritherapy management to reduce complications from infection or myelosuppression to all qualified healthcare providers and cancer support groups.
4. Conduct and report multidisciplinary periodic reviews to determine current standards of care that reduce morbidity and mortality from infection or myelosuppression.

OBJECTIVE 3: By 2011, assure statewide planning, development and coordination of integrated services in cancer management.

Baseline: To be established

Data Source: To be established

Target Population: Qualified healthcare providers, medical oncologists, cancer support teams, hospital administrators, regional care facilities

Resources: NCI, ACS, Leukemia/Lymphoma Society, MDH, MCR, MSMA, MS Chapter of AAP, MNA, ONS, MDA, MS Chapter of AAPD, MPHCA, MHA

Strategies:

1. Develop HIPAA compliant local area network web-accessed application as a resource for the dissemination of information and coordination of patient services (to model the HIV Rural Area Network program).
2. Host annual state cancer summit to review definition and discuss goals and objectives for health care systems and providers that assure planning and development of coordinated network of care.

3. Conduct regional meetings in each public health district to review progress with coordination of integrated services.
4. Sponsor site visits to other states that have exemplary programs of integrated and coordinated care.

D. Clinical Trials

GOAL: *Increase the awareness of all healthcare professionals as to the availability of access and to clinical trials for the treatment and supportive care of patients with cancer and educate the general population about clinical trials.*

OBJECTIVE 1: By 2011, increase the number of qualified healthcare professionals that have current information about availability of access to clinical trials for the treatment and supportive care of patients with cancer by 20%.

Baseline: To be established

Data Source: To be established

Target Population: Qualified healthcare professionals

Resources: NCI, ACS, Leukemia/Lymphoma Society, MPHCA, MPhA, University of Mississippi Medical School (curriculum committee), Mississippi Chapter of American College of Nurse Practitioners (ACNP)

Strategies:

1. Provide information regarding ongoing clinical trials to qualified healthcare professions through conferences, mailouts, medical association newsletters, etc.
2. Create web-based data of local resources for clinical trials with links to NCI website for clinical trial information.

OBJECTIVE 2: By 2011, increase the number of Mississippians with cancer participating in clinical trials by 20%.

Baseline: To be established

Data Source: To be established

Target Population: Mississippians with cancer

Resources: NCI, ACS, Leukemia/Lymphoma Society, MPHCA, MPhA, MCR, University of Mississippi Medical School (curriculum committee), Mississippi Chapter of ACNP

Strategies:

1. Provide informational material regarding clinical trials to communities through local venues such as local clinics, hospitals, libraries, utility bills, newspapers, etc.
2. Develop and conduct a media campaign involving local celebrities and cancer survivors to promote participation in clinical trials.

OBJECTIVE 3: By 2011, increase the number of qualified health care providers that refer patients to clinical trials by 20%.

Baseline: To be established

Data Source: To be established

Target Population: Qualified healthcare professionals

Resources: National Cancer Institute, American Cancer Society, Leukemia/Lymphoma Society, Primary Care Physician Association, MS Pharmacists' Association, University of MS Medical School

(curriculum committee), Association of Nurse Practitioners

Strategies:

1. Create a link between Tumor Registry and primary care provider to automatically notify primary care provider of available clinical trials for the specific diagnosis.
2. Send update ongoing clinical trial information to qualified healthcare providers quarterly through mailouts and medical association newsletters.

E. Evaluation

GOAL: Evaluate diagnosis and treatment activities and outcomes.

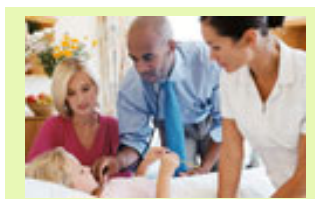
OBJECTIVE 1: By 2011, establish a surveillance system to track progress towards meeting the goals and objectives for diagnosis and treatment.

Target Population: MP3C “Diagnostic and Treatment” workgroup, MP3C Executive Board

Potential Partners: MDH, MP3C Executive Board, MP3C Coalition

Strategies:

1. Develop a tool by which each of the goals and objectives for diagnosis and treatment can be monitored to track progress toward achievement.
2. Conduct ongoing evaluation by holding MP3C Executive Board meetings to monitor the progress.



IV. Survivorship/Quality of Life

OVERALL GOAL:

Enhance the quality of life by promoting the practice of cancer pain management and reducing psychosocial distress for all cancer survivors in Mississippi.

Each year in Mississippi, more than 14,900 men, women, and children are diagnosed and treated for cancer. Responding to the physical needs of cancer patients, including access to appropriate treatment and rehabilitative therapies, is the first priority. However, it is important to consider the psychological, spiritual, and emotional well-being of the patient, family and/or extended family members.

Complementary and alternative therapies are used in an effort to prevent illness, reduce stress, prevent or reduce side effects and symptoms, or control/cure disease. Some commonly used methods of complementary or alternative therapy include mind/body control interventions such as visualization or relaxation; therapeutic massage, homeopathy, vitamins or herbal products; and acupuncture. Palliative care focuses on maintaining culturally sensitive and competent care. It includes pain management, symptom control and addresses psychosocial, spiritual, family and bereavement needs. Changes and limitations in lifestyle, interpersonal relationships, self and body image, and employment also should be addressed. Legal issues associated with estate planning and will, arranging for respite and hospice care and establishing connections with support groups should be considered.

The availability of services to respond to these diverse needs varies throughout the state. Currently the American Cancer Society operates a centralized information resource through its National Cancer Information Center. This 24 hours a day, 7 days a week service offers cancer information as well as community, state and national resources for cancer patients and their

families. The resources provided include sources of medical care, ancillary medical services, cancer rehabilitative services, psychological, spiritual, and emotional support, meals, transportation, hospice care, family/caregiver support and/or respite care, educational materials and other services. Many of the resources are also accessible through the organization's web site at www.cancer.org. There is a need to continue adding and developing resources within our state that could be integrated into the ACS's community resource database. Further development and promotion of this database could serve as a centralized source for health care providers, patients, family members, and other individuals involved personally or professionally with the care of cancer patients.

A. Quality of Life

GOAL: Improve the quality of life of cancer survivors by minimizing related side effects during and following cancer treatment through rehabilitative interventions.

OBJECTIVE 1: By 2011, provide current research findings on non-invasive rehabilitative and complementary therapies, such as exercise and nutrition.

Baseline: To be established

Data Source: UMMC, CDC, MD Anderson Cancer Center

Target Population: Rehabilitative and complementary therapy programs

Resources: MDH, The Leukemia-Lymphoma Society, ACOS, DSNCC, ONS, CDC, business system analyst, research institution, nutritionists, consultants, rehabilitation centers with exercise component, physical therapist

Strategies:

1. Research exercise intervention programs in the state.
2. Survey nutritional programs in the state.

OBJECTIVE 2: By 2011, increase the amount of resource information, and access to this information, that is available in Mississippi regarding care, support, and end-of-life services.

Baseline: To be established

Data Source: ACS, CDC

Target Population: Cancer survivors and their families, healthcare providers

Resources: The Leukemia-Lymphoma Society, ACOS, ACS, CDC, cancer programs at hospitals, oncology social workers, rural health providers, home health agencies, MS hospice organizations, church organizations, support organization, health facilities, oncology physician offices/clinics, private and nonprofit local and state agencies/organizations, resource librarians,

Strategies:

1. Gather resource information from groups including but not limited to identify partners.
2. Routinely update an inventory of resources available to cancer patients in Mississippi.
3. Establish and monitor the use of appropriate websites as resource tools.
4. Disseminate information through annual cancer survivor conferences held in geographical locations throughout the state.

OBJECTIVE 3: By 2011, establish and increase nutritional support resources for cancer patients.

Baseline: To be established

Data Source: To be established

Target Population: Cancer survivors and their family members

Resources: USDA MS Cooperative Extension Service, food vendors and manufacturers, pharmaceutical companies, faith based organizations, grant foundations, healthcare providers, charitable organizations, community cancer support organizations, dietician organization

Strategies:

1. Collect healthy food coupons
2. Contact pharmaceutical companies to participate by making coupons for certain products
3. Contact local faith based/charitable organizations to assist with no/low cost food supplements during the first months of treatment
4. Contact manufacturers of supplementary foods to participate by having coupons
5. Open a warehouse like WIC
 - Write a grant to stock, distribute through local hospitals or community health departments or system like Meals on Wheels
 - Develop criteria for eligibility for this program
6. Engage local communities to support cancer projects/program

OBJECTIVE 4: By 2011, provide information to 80% of mayor's offices and state legislators regarding quality of life issues of cancer survivors and their families.

Baseline: 3566 town and cities; 175 state legislators (1 governor, 52 State Senators, 122 State House)

Data Source: Director of Cities and Towns in Mississippi (www.fallingrain.com), Legislative Directory (<http://takeaction.amnestyusa.org>)

Target Population: Policy makers, legislators, cancer survivors and family members

Resources: Health organizations with lobbyists and/or advocacy networks, MS Department of Health, research centers, legislator society

Strategies:

1. Educate decision-makers about economic and insurance barriers related to health care for cancer survivors
2. Educate policy and decision makers about the role and value of providing long term follow up care, addressing quality of life issues and legal needs, and ancillary services for cancer survivors.
3. Educate interested survivors, family members and friends on how to become advocates with their legislators regarding health care issues.

OBJECTIVE 5: Determine how rehabilitation services in Mississippi affect the quality of life for cancer survivors and their families.

Baseline: To be established

Data Source: Mississippi Methodist Rehabilitation Center

Target Population: Cancer survivors and their family members

Resources: MDH, NCI, research analysts, research institution, grant writer, non-profit cancer organizations

Strategies:

1. Develop infrastructure for a comprehensive database on cancer survivorship.

2. Contract with an agency to complete a survey of cancer patients and family members to identify survivorship issues most important to them.
3. Access statistics from cancer specific organizations on survivorship.
4. Ensure inclusion in the survey, of all urban and rural locations, making sure to address disparities in race, ethnicity, gender, geographic locations and culture.
5. Compile a user friendly document of research results.
6. Incorporate issues into education programs for patients while maintaining sensitivity to identified disparities.
7. Share research information with the community through news releases, and letters to cancer centers.
8. Provide workshops/education on advocacy skills for survivors.

B. Pain Management

GOAL: *Minimize preventable pain, disability, and psychosocial distress for those living with, through, and beyond cancer.*

OBJECTIVE 1: By 2011, ensure access to appropriate pain management for 50% of patients through out all stages of the disease.

Baseline: To be established

Data Source: UMMC, Leukemia Lymphoma Society, ACS

Target Population: Cancer survivors and their families, healthcare community, Rehabilitative and Complimentary Therapy Programs, Faith Based Organizations, Grassroots organizations, ACS, Leukemia Lymphoma Society, Oncology Nursing Society

Resources: MDH, hospice organizations, cancer care centers, medical schools, state and private universities

Strategies:

1. Identify the availability of cancer centers with pain management services, and develop strategies for providers to offer such services.
2. Teach pain management courses in medical, nursing and pharmacy schools in the state, and identify sources of continuing education for practicing professionals.
3. Increase the capability and use of palliative care principles with all physical symptom management.
4. Identify quality assurance programs for pain management and encourage healthcare systems to adopt and institutionalize quality standards.
5. Identify best practices models for palliative care in long term care settings.
6. Access reimbursement systems for changes needed to increase access to palliative care.
7. Identify disparities among financial, cultural and regional populations.
8. Identify and promote the use of culturally appropriate information on pain management.
9. Offer annual patient education programs that offer patients information and available resources for addressing their own pain management issues. Encourage patients to advocate for their pain care through these educational programs.



C. Psychosocial Issue

GOAL: *Promote the process for comfortable dying with the preservation of autonomy, dignity, and grieving support for the family.*

OBJECTIVE 1: By 2011, develop and maintain patient navigation systems that can facilitate optimum psycho-social care for cancer patient and family.

Baseline: To be established

Data Source: MDH (Home Health), UMMC, MD Anderson Cancer Center, ONS

Target Population: Cancer patients/survivors and their family members, health care community, rehabilitative and complimentary therapy programs, faith Based organizations, grass roots organizations

Resources: Hospice organizations and health care professionals, Home health agencies, Family survivors, Pastoral services, ACS, Medicaid, Health and Human Services, Mississippi Department of Mental Health

Strategies:

1. Identify and support programs to assist the health care professional that works with cancer and dying patients.
2. Increase appropriate and timely referral of cancer patients to Mississippi's hospice programs.
3. Increase the capability and use of palliative care principles for cancer patients in all care settings.
4. Increase the number of cancer patients who achieve self determined life closure.
5. Assist cancer patients and families to effectively grieve.

6. Offer annual patient education programs that provide patients information and available resources for addressing their own and/or family members' end of life issues. Encourage patients to advocate for their end of life issues through these educational programs.
7. Promote the education of newly diagnosed cancer patients and/or their families about advanced healthcare directives.

D. Evaluation

GOAL: Conduct ongoing evaluation of all activities to determine the impacts and outcomes of continuous quality improvement of services to the end-of-life.

OBJECTIVE 1: By 2011, establish a surveillance system to track the activities and evaluate the outcomes of the goals and objectives to improve survivorship and end of life issues.

Target Population: MP3C
“Survivorship/Quality of Life” workgroup,
MP3C Executive Board

Resources: MDH, MP3C Executive Board,
MP3C Coalition, ONS

Strategies:

1. Provide staff to evaluate activities and outcomes.
2. Develop a tool by which each of the goals and objectives for survivorship issues can be monitored.
3. Conduct ongoing evaluation to monitor activities and outcomes.
4. Conduct quarterly ongoing evaluations by MP3C to track progress toward achievement of goals.
5. Conduct MP3C Executive Board meetings to track progress toward achieving goals.



V. Surveillance

OVERALL GOAL:

Establish and enhance cancer data validity by providing technical adequacy in data collection and analysis, and disseminating the results in a timely manner.

A. Data Collection

GOAL: Collect complete, accurate, and timely cancer-related data in Mississippi.

OBJECTIVE 1: By 2011, the Mississippi State Cancer Registry becomes a Silver-Certified Registry (Collects at least 90% of the incidence in the state).

Baseline: 71.6 % complete for diagnosis year 2002 as of January 31, 2005

Data Source: National Program of Cancer Registries

Target Population: Mississippians diagnosed with cancer

Resources: MCR, MDH, hospital-based reporting staff, clinic reporting staff, hospital administration, clinic administration, CDC National Program for Cancer Registries (NPCR)

Strategies:

1. Assist the Mississippi Central Cancer Registry in building capacity to collect incidence.

OBJECTIVE 2: By 2011, ensure that questions related to risk behaviors and cancer screenings are consistently collected by the Behavioral Risk Factor Surveillance System.

Baseline: N/A

Data Source: Behavioral Risk Factor Surveillance System

Target Population: Non-institutionalized adults age 18 and older

Resources: MDH, CDC, MP3C Coalition

Strategies:

1. Appoint a representative from the Coalition to lobby the BRFSS committee to include the necessary questions at least every other year if not every year.
2. Provide funding for the inclusion of specific questions if necessary.

OBJECTIVE 3: By 2011, ensure collection of data on socio-economic status and demographics where possible with existing surveillance instruments and ensure that collection of such data is a part of any new surveillance instruments that are created.

Baseline: To be established

Data Source: All cancer-related surveillance instruments

Target Population: General public

Resources: MCR, MDH, CDC, entities performing cancer surveillance

Strategies:

1. Examine existing surveillance instruments to determine which ones have the capacity to collect Socioeconomic Status (SES) and demographic data and lobby for those that are not collecting this data, but have the capacity to begin collecting this data.
2. Assist in adding the SES and demographic component to those surveillance instruments that are created by MP3C Partners.

B. Data Analysis

GOAL: *Continue to analyze data on cancer and cancer risk factors in Mississippi.*

OBJECTIVE 1: By 2011, identify data analysis needs for comprehensive cancer control and related research endeavors and analyze data according to those needs whenever feasible.

Baseline: To be established

Data Source: To be established

Target Population: General public, principal investigators, cancer registries, hospital administrators, lawmakers, program managers, other states, advocacy groups

Resources: MCCR, MDH, CDC, ACS, AHA, ALA, North American Association of Central Cancer Registries (NAACCR), Department of Health and Human Services, Medicaid, Mississippi educational institutions, researchers, other states

Strategies:

1. Hire data analyst to constantly monitor the data needs of partners and either analyze the data for the partners or ensure that the data is provided to them properly analyzed or in a format by which they can analyze the data to meet their needs.

OBJECTIVE 2: By 2011, ensure that data is being analyzed in order to determine cancer-related disparities.

Baseline: To be established

Data Source: All cancer-related surveillance tools that track demographic data

Target Population: Disparate populations

Resources: MCCR, MDH, CDC, ACS, AHA, ALA, MPHCA, Department of Health and Human Services, Medicaid, Mississippi educational institutions, researchers,

organizations working with disparate populations

Strategies:

1. Form a committee of members of the MP3C to examine the analyzed data to determine what cancer-related disparities exist in the state of Mississippi

C. Data Dissemination

GOAL: *Make Mississippi cancer surveillance data available, accessible, and usable.*

OBJECTIVE 1: By 2011, create a Comprehensive Cancer Control website with information on available cancer data.

Baseline: Cancer Control Planet is the only comprehensive source of Mississippi Cancer Control Information. MP3C members have additional websites.

Data Source: N/A

Target Population: All Mississippians

Resources: MDH, MCCR, CDC, ACS, AHA, ALA, MHA, Department of Health and Human Services, Medicaid, Mississippi State Social Science Research Center, researchers, other states, Mississippi educational institutions

Strategies:

1. Develop a website that will not only function as a cancer information clearinghouse but also provide cancer data, maps of cancer data, and links to websites that contain pertinent cancer data, and contact information if the available data does not meet the need.
2. Provide data on disparate populations through the aforementioned website for program planning purposes.

3. Promote the website via partner websites and promotional materials.

D. Evaluation

GOAL: *Evaluate cancer surveillance activities and uses of the data collected and disseminated.*

OBJECTIVE 1: By 2011, establish a surveillance system for the MP3C membership to track uses of data and to collect information on additional data needs.

Target Population: MP3C Membership

Resources: MDH, MP3C Executive Board, MP3C “Surveillance” workgroup

Strategies:

1. By 2011 develop questions concerning data use and need to be added to the Membership Satisfaction Survey that is conducted annually.

OBJECTIVE 2: By 2011, establish a surveillance system to track progress towards meeting the goals and objectives for surveillance.

Target Population: MP3C “Surveillance” workgroup, MP3C Executive Board

Resources: MDH, MP3C Executive Board, MCR, Mississippi State Social Science Research Center, Other entities performing cancer surveillance, Mississippi educational institutions, researchers, organizations working with disparate populations

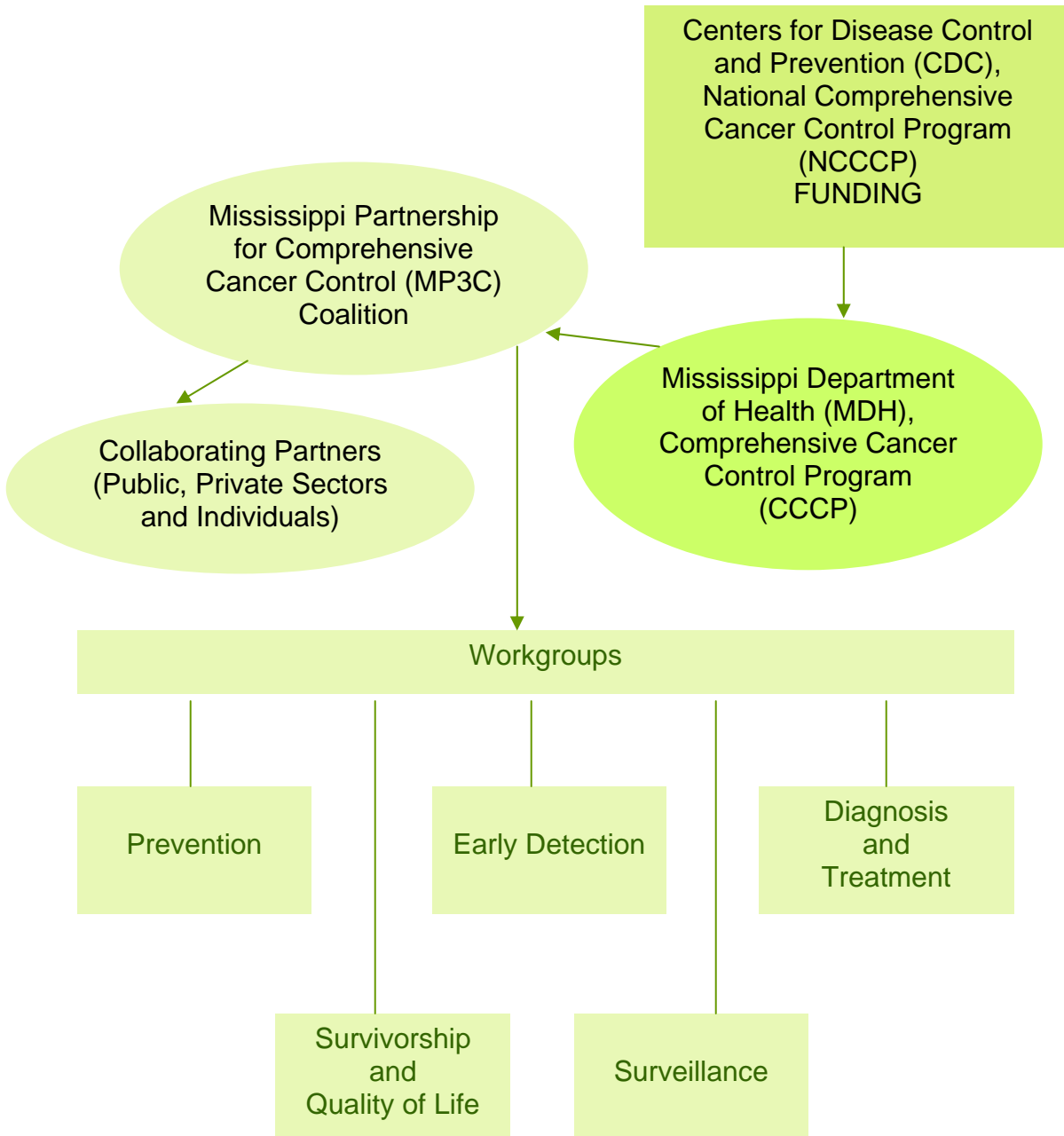
Strategies:

1. Develop a tool by which each of the goals and objectives for surveillance can be monitored to track progress toward achievement.
2. Conduct ongoing evaluation and report progress at MP3C Executive Board meetings.



Appendix A

Mississippi Comprehensive Cancer Control Structure



Appendix B

Glossary of Terms

Age-Adjusted Rate

A method that allows comparisons of populations that takes into account the differences in ages of these populations. SEER incidence rates and US mortality rates are age-adjusted to the US population as was recorded in the 2000 census. An age-adjusted rate is a weighted average of crude rates, where the crude rates are calculated for different age groups and the weights are the proportions of persons in the corresponding age groups of a standard population. The age-adjusted rate for an age group comprised of the ages x through y is calculated using the following formula:

$$\text{Age-adjusted rate} = \sum_{i=x}^y \left[\left(\frac{\text{count}_i}{\text{pop}_i} \right) \times 100,000 \times \left(\frac{\text{stdmili}_i}{\sum_{i=x}^y \text{stdmili}_i} \right) \right]$$

where *count* is the number of cases for the *i*th age group, *pop_i* is the relevant population for the same age group, and *stdmili_i* is the standard population for the same age group.

Age-adjusted death rate is a crude death rate that has been adjusted statistically (standardized to a reference population) to allow comparisons of rates from different time periods, places, or populations.

Body Mass Index (BMI)

A formula for indicating weight status in adults, based on height and weight.

$$\bullet \text{ BMI} = \frac{\text{Weight in Pounds}}{(\text{Height in Inches}) \times (\text{Height in Inches})} \times 703$$

For adults over 20 years of age, BMI falls into one of the following categories:

- Below 18.5 Underweight
- 18.5 – 24.9 Normal
- 25.0 – 29.9 Overweight
- 30.0 and above Obese

Carcinogen

Any substance that is known to cause cancer.

Case-control studies

A study that compares two groups of people: those with the disease or condition under study (cases) and a very similar group of people who do not have the disease or condition (controls). Researchers study the medical and lifestyle histories of the people in each group to learn what factors may be associated with the disease or condition. For example, one group may have been exposed to a particular substance that the other was not. Also called a retrospective study.

Chronic disease	A disease or condition that persists or progresses over a long period of time.
Clinical trials	Research studies that involve patients. Each study is designed to find better ways to prevent, detect, diagnose, or treat cancer and to answer scientific questions.
Cohort	Any designated group followed or traced over a period, as in epidemiological study.
Cohort studies	A research study that compares a particular outcome (such as lung cancer) in groups of individuals who are alike in many ways but differ by a certain characteristic (for example, female nurses who smoke compared with those who do not smoke).
Current smoking	Current smoking is defined as having smoked at least 100 cigarettes in one's lifetime and smoking now (every day or only some days).
Epidemiology	The study of disease incidence and distribution in populations, as well as the relationship between environment and disease. Cancer epidemiology is the study of cancer incidence and distribution in the population and of how physical surroundings, occupational hazards, and personal habits such as tobacco use and diet may contribute to the development of cancer.
Ethnicity	A group that shares a common ancestry, history, or culture.
Five-year survival	Five-year survival is a term commonly used as the statistical basis for successful treatment. A patient with cancer is generally considered cured after five or more years without recurrence of disease.
Genetic	Inherited; having to do with information that is passed from parents to offspring through genes in sperm and egg cells.
Genetic susceptibility	An inherited increase in the risk of developing a disease.
Health care professional	Practitioners in disease prevention, detection, treatment, and rehabilitation are known as health care professionals. They include physicians, nurses, dentists, dietitians, health educators, social workers, and therapists, among other.
Health disparities	Differences in the incidence, prevalence, mortality and burden of cancer and related adverse health conditions that exist among specific population groups in the United States.
High risk	When the chance for developing cancer is greater for an individual or a group of people than it is for the general population that individual or group is considered to be at high risk. People may be considered to be at high risk from many factors or combination of factors, including a family history of

	disease, personal habits, or exposure to carcinogens in the environment or in the workplace.
Incidence	Incidence is the number of times a disease occurs in a given population. Cancer incidence is the number of new cases of cancer diagnosed each year.
Malignancy (or malignant)	Cancerous; can invade nearby tissue and spread to other parts of the body.
Mortality	The number of deaths in a given time or place or the proportion of deaths to population.
No regular exercise	Not taking any exercise at all in the past month.
Obesity	A condition in which a person has abnormally high amounts of unhealthy body fat; medically defined as a body mass index of 30 or greater.
Palliative care	Care that does not alter the course of a disease, but improves the quality of life.
Prevalence	In medical terminology, prevalence typically has been defined as the number of cases of a disease that are present in a population at a point in time. In the case of smoking prevalence in population, the term is used to define the number of people in that population who are regular smokers.
Proliferation	Multiplying or increasing in number. In biology, cell proliferation occurs by a process known as cell division.
Prostate specific antigen (PSA)	A protein whose level in the blood goes up in some men who have prostate cancer or benign prostatic hyperplasia.
Quality of life	In cancer treatment, quality of life is the concept of ensuring that cancer patients are able to lead the most comfortable and productive lives possible during and after treatment. New treatment techniques and social and emotional support groups are adding to the quality of life for cancer patients as well as to their survival.
Risk factor	Anything that has been identified as increasing an individual's chance of getting a disease is a risk factor.
Secondhand smoke	Smoke that comes from the burning end of a cigarette and smoke that is exhaled by smokers. Also called ETS or environmental tobacco smoke. Inhaling ETS is called involuntary or passive smoking.
Socioeconomic	Of, relating to, or involving a combination of social and economic factors.
Stage	A distinct phase in the course of a disease. Stages of cancer are typically

defined by containment or spread of the tumor: in situ, localized, regional or distant spread.

Toxin

A poison produced by certain animals, plants, or bacteria.

Abbreviations

AAOMS	American Association of Oral and Maxillofacial Surgeons
AAP	American Academy of Pediatrics
AAPD	American Academy of Pediatric Dentistry
ACNP	American College of Nurse Practitioners
ACS	American Cancer Society
ACOS	American College of Surgeons
AFM	Academy of Family Medicine
AHA	American Heart Association
ALA	American Lung Association
AMSA	American Medical Students Association
APA	American Psychiatric Association
ASCO	American Society of Clinical Oncology
BCCEDP	Breast Cervical Early Detection Program
BMI	Body Mass Index
BRFSS	Behavioral Risk Factor Surveillance System
CCCP	Comprehensive Cancer Control Program
CDC	Centers for Disease Control and prevention
CIS	Cancer Information Services
CMS	Centers for Medicare & Medicaid Services
DCBE	Double Contrast Barium Enema
DHHS	US Department of Health and Human Services
DRE	Digital Rectal Examination
DSNCC	Deep South Network for Cancer Control
EFNEP	Expanded Food and Nutrition Education Program
EHR	Electronic Health Records
EPA	Environmental Protection Agency
FNP	Family Nutrition Program
FOBT	Fecal Occult Blood Test
FS	Flexible Sigmoidoscopy
HPV	Human Papilloma Virus
HSV	Herpes Simplex Virus
IQH	Information and Quality Healthcare
MDA	Mississippi Dental Association
MDE	Mississippi Department of Education
MCCR	Mississippi Central Cancer Registry
MDH	Mississippi Department of Health
MFBP	Mississippi Farm Bureau Programs
MHA	Mississippi Hospital Association
MNA	Mississippi Nurses Association
MP3C	Mississippi Partnership for Comprehensive Cancer Control

MP3C EB	MP3C Executive Board
MPhA	Mississippi Pharmacists Association
MPHCA	Mississippi Primary Health Care Association, Inc
MSMA	Mississippi State Medical Association
MSU	Mississippi State University
MSUES	Mississippi State University Extension Services
NAACCR	North American Association of Central Cancer Registries
NCI/CIS	National Cancer Institute/Cancer Information Services
NIH	National Institutes of Health
NPCR	National Program for Cancer Registries
ONS	Oncology Nurses Society
PSA	Prostate Specific Antigen
SEER	Surveillance, Epidemiology, and End Results Program
SeMRHI	Southeast Mississippi Rural Health Initiative, Inc
SES	Socioeconomic Status
STD	Sexually Transmitted Disease
UMMC	The University of Mississippi Medical Center
US-TOO	Prostate Cancer Education and Support Network
UV	Ultraviolet Light
VA	US Department of Veterans Affairs
WIC	Women, Infants & Children
YRBS	Youth Risk Behavior Survey
YTS	Youth Tobacco Survey

Appendix C

American Cancer Society Recommendations on Early Detection of Cancer

The following tables describe the cancer detection tests recommended by the American Cancer Society for people at average risk for cancer (unless otherwise specified) and without any specific symptoms.

People who are at increased risk for certain cancers may need to follow a different testing schedule, such as starting at an earlier age or being tested more often. Those with symptoms that could be related to cancer should see their doctor right away. This is not meant to be an official document for American Cancer Society recommendations.

Breast Cancer (Women)

May 2000 – Present	Breast self-exam (BSE)	Over 20	Optional. Women should be told about benefits and limitations of BSE. They should report any new symptoms to their health care professional.
	Clinical breast exam (CBE)	20 – 39	Part of a periodic health exam, preferably every 3 years
		Over 40	Part of a periodic health exam, preferably every year
	Mammogram*	Over 40	Yearly, continuing for as long as a woman is in good health

*Women at increased risk (family history, genetic tendency, past breast cancer) should talk with their doctors about the benefits and limitations of starting mammography screening earlier, having additional tests (breast ultrasound, MRI), or having more frequent exams.

Cervical Cancer (Women)

2003 – Present	Pap test	Start 3 years after first vaginal intercourse but no later than 21	Yearly with conventional Pap test or every 2 years with liquid-based Pap test
		Over 30	After 3 normal results in a row, screening can be every 2 – 3 years.* An alternative is a Pap test plus HPV DNA testing every 3 years
		Over 70	After 3 normal Pap smears in a row within the past 10 years, women may choose to stop screening**
	Pelvic exam	Not specified	Discuss with health care provider

*Doctors may suggest a woman be screened more often if she has certain risk factors, such as a history of DES exposure, HIV infection, or a weak immune system

**Women with a history of cervical cancer, DES exposure, or who have a weak immune system should continue screening as long as they are in reasonably good health.

Colon and Rectum Cancer (Men & Women)

2001 – Present	Follow 1 of these 5 schedules*:		
	Fecal occult blood test (FOBT) or Fecal immunochemical test ¹ (FIT)**	Over 50	Yearly
	Flexible sigmoidoscopy**	Over 50	Every 5 years
	FOBT or FIT AND Flexible sigmoidoscopy**	Over 50	Yearly Every 5 years
	Colonoscopy	Over 50	Every 10 years
	Double-contrast barium enema (DCBE)	Over 50	Every 5 to 10 years

*A digital rectal exam should be done at the same time as sigmoidoscopy, colonoscopy, or double-contrast barium enema.

**Yearly FOBT or FIT, plus flexible sigmoidoscopy every 5 years is preferred over either option alone.

¹The fecal immunochemical test (FIT) was adopted as part of the ACS guidelines in 2002.

Prostate Cancer (Men)

2001 – Present	Digital Rectal Exam (DRE) and prostate-specific antigen (PSA) blood test	Over 50 (average risk)	Should be offered yearly (along with information on potential risks & benefits) to men with at least a 10-year life expectancy
		Over 45 (high risk*)	Yearly (along with information on potential risks & benefits)**

*High risk defined as African-American men or those with a strong family history of 1 or more first-degree relatives (father, brothers) diagnosed at an early age (younger than 65).

**Men at even higher risk, due to multiple first-degree relatives affected at an early age, could begin testing at age 40. Depending on the results of this initial test, no further testing might be needed until age 45.

Information should be provided to all men about what is known and what is uncertain about the benefits and limitations of early detection and treatment of prostate cancer so that they can make an informed decision about testing.

Men who ask their doctor to make the decision on their behalf should be tested. Discouraging testing is not appropriate. Also, not offering testing is not appropriate.

Cancer-related Checkup (Men & Women)

2003 – Present	Physical exam* and health counseling**	Over 20	On the occasion of a periodic health exam
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*Should include examinations for cancers of the thyroid, testicles, mouth, ovaries, skin, and lymph nodes.

**Should include counseling about tobacco, sun exposure, diet and nutrition, risk factors, sexual practices, and environmental and occupational exposures.

Appendix D

References and Methods

1. Cancer Facts & Figures 2005 – American Cancer Society
2. Cancer mortality numbers are based on death certificate data provided by the Office of Health Informatics, Mississippi State Department of Health (MSDH). The ICD-9 codes for cancer are 140-210, and the ICD-10 codes for cancer are C00-C97. Crude mortality rates are calculated using the number of deaths divided by the appropriate population obtained from the Office of Health Informatics. Crude rates are age-adjusted by the direct method using the 2000 U.S. Standard Million population, 5-year age groups. The rates will differ from those reported by the Office of Health Informatics because they use the 10-year age groups when age adjusting.
3. Incidence data is not presently available for Mississippi, so only estimates of incidence obtained from the American Cancer Society's *Cancer Facts and Figures* are used in this document along with national incidence obtained from the National Institute of Health (NIH).
4. The two categories of race used in this report are "white" and "non-white." The population of people other than white and black make up approximately one percent of the population. Only a small number of this population is represented in the survey sample making separate analysis impossible.
5. Human Carcinogens –11th Report on Carcinogens, U.S. Department of Health and Human Services, Public Health Service, National Toxicology Program, Pursuant to Section 301(b) (4) of the Public Health Service Act as Amended by Section 262, PL 95-622.
6. Risk factor estimates are based on self-reported data from the Mississippi Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS is a continuous statewide, random-digit-dialed telephone survey of a representative sample of the Mississippi civilian non-institutionalized adult population (18 years of age and older). The BRFSS collects data on a number of health risk behaviors, including smoking and physical activity/ exercise patterns. Respondents are also asked to report weight and height, from which body mass index (BMI) can be calculated. Additionally, respondents are asked for information on mammography and Pap smear utilization.
7. Risk factor estimates for youth are obtained from the Youth Risk Behavior Surveillance System (YRBSS) and the Youth Tobacco Survey (YTS). Both are self-administered surveys given to a random sample of classes within randomly selected schools. The YRBSS is conducted in the spring semester of odd years, and the Youth Tobacco Survey was conducted in the spring semester of even years. The YTS is now conducted in the fall semester of odd years. The YRBSS collects data on many health behaviors such as drugs, alcohol, tobacco, etc.
8. American Society of Clinical Oncology suggests a person may be at risk:
 - a. Family history of cancer: Three or more relatives on the same side of the family with the same or related forms of cancer.
 - b. Early onset: Two or more relatives diagnosed with cancer at an early age.
 - c. Multiple sites: Two or more cancers occurring in the same relative.

Appendix E

Mississippi Partnership for Comprehensive Cancer Control Coalition Members

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