State Strategies for Curbing Colorectal Cancer

Executive Summary
Colorectal cancer is the second leading cause of cancer death in the United States.\(^1\) Regular screening beginning at age 50 remains the best method of prevention, but only about half of Americans above the age of 50 follow screening recommendations.\(^2\) People with colorectal cancers detected at an early, localized stage have a five-year survival rate of 90 percent. This rate drops to as low as ten percent when the cancer spreads.\(^1\)

Approximately $8.4 billion is spent in the United States on colorectal cancer treatment each year.\(^3\) Early detection not only reduces mortality, but also may reduce the costs associated with treating more advanced cases. Treatment for early stages of colorectal cancer can be as low as about $30,000 per patient, compared with about $120,000 for patients in later stages.\(^4\) States that have launched screening programs believe such initiatives will prevent deaths and save money. To make the most of limited funds, states that have implemented screening programs normally target populations most likely to develop colorectal cancer, such as people above 50 years of age, the uninsured, low-income populations, and those with a family history.\(^1\) African Americans also have colorectal cancer rates that are about 20 percent higher than that of the general population.\(^3\)

Efforts are underway throughout the nation to increase screening rates and improve access to care and treatment. In addition to federal initiatives, several states have created programs to address this health problem. These state programs typically include the following actions:
- Launching awareness initiatives targeting at-risk populations and providers to promote increased screening;
- Creating programs that offer free screening to eligible populations to detect cancer; and
- Offering treatment programs to aid residents unable to afford follow-up care.

Background
Colorectal cancer is the second leading cause of cancer death in the United States.\(^1\) In 2008, more than 50,000 Americans will die of colorectal cancer, and another 150,000 people will be newly diagnosed.\(^1\) Regular screening beginning at age 50 remains the best method of prevention, but only about half of Americans above the age of 50 follow screening recommendations.\(^2\) People with colorectal cancers detected at an early, localized stage have a five-year survival rate of 90 percent. This rate drops to as low as ten percent when the cancer spreads.\(^1\)

Approximately $8.4 billion is spent in the United States on colorectal cancer treatment each year.\(^3\) Early detection not only reduces mortality, but also may reduce the costs associated with treating more advanced cases. Treatment for early stages of colorectal cancer costs about $30,000 per patient, compared with about $120,000 for patients in later stages.\(^4\) States that have launched screening programs believe such initiatives will prevent deaths and save money. Although widespread screening of entire populations may not be cost-effective, several studies suggest
screening programs can be cost saving when targeting at-risk populations. \textsuperscript{5-7} Thus, to make the most of limited funds, states that have implemented screening programs normally target populations most likely to develop colorectal cancer, such as those above 50 years of age, the uninsured, low-income populations, and those with a family history. \textsuperscript{1} African Americans also have colorectal cancer rates that are about 20 percent higher than that of the general population. \textsuperscript{3}

**Screening Guidelines**

The United States Preventive Services Task Force (USPSTF) recommends regular screening for all adults ages 50 and over. Beginning at age 50, USPSTF recommends that both men and women at average risk for developing colorectal cancer should use one of the screening tests below: \textsuperscript{8}

- **Fecal occult blood test (FOBT),** which checks for hidden blood in three consecutive stool samples, should be administered every year.

- **Flexible sigmoidoscopy,** where physicians use a flexible, lighted tube (sigmoidoscope) to inspect visually the interior walls of the rectum and part of the colon, should be administered every 5 years.

- **Double-contrast barium enema,** a test that uses a series of X-rays of the colon and rectum (taken after the patient is given an enema containing barium dye followed by an injection of air in the lower bowel), should be administered every 5 years.

- **Colonoscopy,** where physicians use a flexible, lighted tube (colonoscope) to inspect visually the interior walls of the rectum and the entire colon, should be administered every 10 years. During this procedure, samples of tissue may be collected for closer examination, or polyps may be removed. Colonoscopies can be used as screening tests or as follow-up diagnostic tools when the results of another screening test are positive.

People at higher risk of developing colorectal cancer should begin screening at a younger age, and may need to be tested more frequently. A newer exam, the fecal immunochemical test (FIT), detects presence of hidden blood in stool using stool samples placed on cards. While it is similar to the FOBT, the FIT’s higher specificity leads to lower false positives.

**Costs and Considerations of Different Screening Methods**

Because the costs, purposes, and considerations of each test vary, these factors should be weighed when planning different screening initiatives. Appendix 1 compares the screening tests across these factors.

**Health Insurance Coverage for Colorectal Cancer Screening**

Whether or not people have insurance can influence their decision to get screened. Nearly 50 percent of those with private insurance have recently been screened, whereas only about 20 percent of the uninsured have recently been screened. \textsuperscript{5} About 25 percent of Medicare patients have recently been screened. \textsuperscript{10} However, having health insurance does not ensure a person will have access to screening, as not all plans cover the full range of screening options. Further, individuals with health insurance but high co-payments or deductibles may be less likely to choose to get screened. Coverage varies by type of insurance (private or public) and by state, depending on a person’s age and other risk factors for colorectal cancer.

**Private Insurance Coverage**

The U.S. Government Accountability Office reports that coverage of colorectal cancer screening tests is common but not universal among private health insurance plans. \textsuperscript{11} Many insurance plans
cover FOBT, whereas coverage for a colonoscopy varies when it is used for initial screening. Private insurance typically covers a colonoscopy when used as a follow-up screening method or to diagnose a problem. Currently, 19 states have enacted laws requiring private insurance plans to include a form of coverage for colorectal screening tests: Arkansas, California, Connecticut, Delaware, Georgia, Illinois, Indiana, Louisiana, Maryland, Missouri, Nebraska, Nevada, New Jersey, North Carolina, Oregon, Rhode Island, Texas, Virginia, West Virginia, and Wyoming. The American Cancer Society reports that from 2001 to 2004, states with coverage laws have screening rates that have risen 40 percent faster than the rates in states without such laws.

Medicaid Coverage
The federal government authorizes the state Medicaid programs to cover screening; however, Medicaid coverage for screening varies by state. Some state Medicaid programs only cover FOBT, whereas others cover colorectal screening if a doctor determines the test to be medically necessary. Coverage also can vary depending on which Medicaid-managed care plan a person is enrolled in. According to ACS, states that offer colorectal cancer screening through Medicaid are: Arkansas, California, Connecticut, Delaware, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Michigan, Minnesota, Mississippi, Montana, Nevada, New Hampshire, New Jersey, New York, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, Tennessee, Texas, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.

Medicare Coverage
Medicare has covered colorectal screening since 1998. Coverage for the screening is contingent upon a beneficiary’s risk for colorectal cancer. Medicare beneficiaries receive the following coverage for various types of colorectal cancer screening:

- One fecal occult blood test or fecal immunochemical test per year with a physician’s written order for beneficiaries age 50 and older;
- One flexible sigmoidoscopy every four years for high-risk beneficiaries age 50 and older; one every four years for beneficiaries age 50 and older and not at high-risk, provided they have not had such a test in the last 10 years;
- One double contrast barium enema every two years for high-risk beneficiaries regardless of age; one every four years for those not at high risk and age 50 and older;
- One colonoscopy every two years for high-risk beneficiaries regardless of age; one every 10 years for those not at high risk but not within 47 months of a flexible sigmoidoscopy;
- No reimbursement for a virtual colonoscopy, which uses X rays and computers to produce two- and three-dimensional images of the colon from the lowest part, the rectum, to the lower end of the small intestine. A relatively newer procedure, doctors cannot take tissue samples or remove polyps during this test, and polyps smaller than 10 millimeters in diameter may not show up on the images.

State Strategies
As part of a comprehensive approach to addressing colorectal cancer, states have implemented a variety of initiatives to educate relevant populations, increase screening rates, and improve access to care and treatment. These state programs typically include the following actions:

- Launching awareness initiatives targeting at-risk populations and providers to promote increased screening;
- Creating programs that offer free screening to eligible populations to detect cancer; and
- Offering treatment programs to aid residents unable to afford follow-up care.
Awareness Campaigns
Because colorectal cancer is highly preventable if caught early, an integral part of a prevention program is to educate at-risk populations about the need for regular screening. Experts describe populations at risk for colon cancer as those over age 50. Additional risk factors include having a personal or family history of colorectal cancer, a poor diet, a lack of physical activity, lacking health insurance, and being African American. Medical professionals also need to be educated about different screening options and about at-risk populations. States are using a variety of options to educate at-risk populations and medical professionals.

Although screening is important, many people remain resistant to it for a variety of reasons. It is essential that people be educated about the consequences of not being screened. Social marketing, through a variety of media channels, can be an effective way to reach at-risk populations and increase the likelihood that people will receive and remember the message.

Utah’s colorectal cancer social marketing campaign has employed television, newspapers, magazines, billboards, and the Internet. Utah launched a campaign emphasizing that there are no physical symptoms or warning signs of colon cancer early on and that people age 50 and older should get regularly tested. The state’s evaluation of the campaign reveals that more than 80 percent of survey respondents recalled seeing the colon cancer spots, with nearly 10 percent indicating they had a colon cancer screen as a result of seeing the campaign. In 2002, the year before the campaign started, screening rates were 40 percent for adults above age 50. In 2005, the screening rates jumped to 50 percent. In addition to funds received from the Centers for Disease Control and Prevention (CDC), Utah was able to work with private sector partners to secure a three-to-one match for every media dollar spent.

To help at-risk populations know where to go for services or learn how to pay for care, states also can use the Internet to create centralized locations for cancer-related information. Colorado’s Cancer Resource Guide provides a central online location for cancer resources including treatment options and financial assistance. Wyoming uses an interactive map that allows users to click on a county to find out where colorectal cancer screening is available in their county and what types of screening are available at the specific location.

It can be a challenge to educate busy medical professionals about the importance of colorectal cancer screening. Colorado’s effort to reach health care workers enlists COPIC Insurance Company, which provides malpractice insurance to about 50 percent of physicians in the state. COPIC uses a peer-to-peer model among its member physicians to deliver educational seminars. The seminars were developed in conjunction with ACS and the Colorado Clinical Guidelines Collaborative. As a means of incentivizing participation in education sessions, physicians are offered points that they can use toward a ten percent discount in their malpractice insurance premiums. Since the organization started the seminars in 2003, at least 1,100 physicians have attended sessions throughout the state.

Although it does not exclusively target health care professionals, Maine’s mini-grants program has provided an effective way to reach physicians on this issue. Approximately $30,000 in funding is awarded to 12 grantees, with a maximum of $2,500 for each grantee, to develop screening-awareness pilot projects in communities. Potential activities can include physician education, worksite awareness campaigns, hospital or local newsletter articles, screening promotions in pay stubs, and prizes for completing a colon cancer screen. Funds for the grants come from ACS, the Maine Cancer Foundation, and the state’s comprehensive cancer control program.
Early Detection
As mentioned previously, a person’s five-year survival rate for colorectal cancer is 90 percent when detected in early stages, but it can drop to as low as ten percent if detected at a later stage.

Given that only about 20 percent of people without health insurance receive recommended colorectal cancer screenings, some states are now offering free screening programs to eligible populations to prevent colorectal cancer or detect it at the earliest stages. In addition to saving lives, treating colorectal cancer that is detected early may be less expensive than finding it at an advanced state when it is more expensive. States have a diversity of approaches, with some offering the full array of colorectal cancer screens and others offering only FOBT or a colonoscopy. In addition to state residence, eligibility usually consists of meeting certain income requirements, being ineligible for Medicaid, and having little or no health insurance.

Using state funds, the Delaware Division of Public Health enhanced its existing (federally funded) breast and cervical cancer screening program, Delaware’s Screening for Life, to include colorectal cancer screening for eligible men and women. This initiative screened 1,653 clients and removed colorectal polyps in 843 clients from 2004 to 2007. In an effort to accomplish prevention as well as early detection, Delaware promotes the use of colonoscopy as the screening modality of choice. Delaware also has a media campaign that targets African Americans as well as the general population. The state uses nurses and patient navigators who work with any resident above the age of 50 to help overcome barriers to screening. To be eligible for Delaware’s reimbursement program, people must be legal state residents, uninsured or underinsured (including being ineligible for Medicaid), between the ages of 18 and 64, and have a household income of less than 250 percent of the federal poverty level (FPL). This comprehensive approach to addressing colorectal cancer has already resulted in significant increases in screening rates that now are as high as 74 percent.

Providing screenings can prove challenging for rural health facilities that do not have the necessary equipment. In Georgia, the Georgia Cancer Consortium, department of human resources, and department of community health partnered to provide funds of up to $50,000 for eight rural healthcare facilities to receive screening equipment. As a result of the grant, more than 30 rural counties received access to such screening.

The Colorado Colorectal Screening Program combines screening and reimbursement initiatives. The state covers a colonoscopy and sigmoidoscopy for eligible people (eligibility includes being a legal state resident, being uninsured, being above age 50 or otherwise at risk, and having a household income less than 250 percent of the FPL). Participating providers are reimbursed at the Medicare-allowable rate for their services. Since its inception in 2006, the program has screened more than 2,000 people, with 14 diagnoses of colorectal cancer and nearly 1,000 polyps removed. Of these polyps, more than 450 were of the adenomatous type, which are more likely to develop into cancer. As an incentive for rural health care facilities to provide screening, the Colorado Cancer Consortium reimburses the facilities $55 for each screened person. Funding for Colorado’s Colorectal Screening Program stems from the state’s tobacco settlement funds.

Treatment Initiatives
Patients who cannot afford to treat cancers often do not undergo cancer screening tests. Thus, providing treatment programs for low-income, uninsured populations may increase their incentive to get screened. Most traditional public health screening initiatives offer follow-up services for those who discover they have a particular condition detected by the screen. Several states have initiatives to pay for cancer treatment for uninsured patients. Some states offer treatment
programs for a predetermined time period. Others limit support to a certain dollar amount or base assistance on other criteria, such as stage of disease.

**Delaware** Governor Ruth Ann Minner unveiled the Cancer Treatment Program in 2004, which pays treatment costs for residents who do not have health insurance or who do not qualify for Medicaid. Originally covering treatment for up to one year, the program has successfully transitioned to covering treatment for two years. The program has covered the treatment costs for 348 residents since beginning in 2004. Residents must have a household income of less than 650 percent of the FPL to be eligible.\(^{21}\)

For patients of clinics participating in the **Colorado** Colorectal Screening Program, those diagnosed with colorectal cancer can receive treatment reimbursement at a maximum of $60,000 per patient. If a recipient goes over the maximum, the state operates on a case-by-case basis to evaluate whether a patient will receive further coverage. To be eligible, residents must be under 250 percent of the FPL and have no insurance.

**Georgia**’s Cancer State Aid Program is similar and pays for treatment for eligible residents who would most benefit from treatment, with physicians donating their services. Applicants are accepted based on cancer site, stage, and expected treatment effectiveness as described in the most recent scientific data.\(^{22}\)

**Federal Strategies**

Efforts are underway throughout the nation to increase colorectal cancer screening rates and improve access to care and treatment. The U.S. Department of Health and Human Services has launched several initiatives to increase colorectal cancer screening. These include multimedia campaigns to encourage screening, demonstration programs targeting uninsured and underinsured people, health disparity collaboratives, and leadership summits.

**Screen for Life Multimedia Campaign**

CDC’s **Screen for Life: A National Colorectal Cancer Action Campaign** was launched in 1999 to promote colorectal cancer awareness and screening among adults Aged 50 years and older. In 2005, **Screen for Life** began a partnership with the Entertainment Industry Foundation’s National Colorectal Cancer Research Alliance, cofounded by journalist Katie Couric, to develop public awareness materials encouraging colorectal cancer screening. **Screen for Life** public service announcements created as part of this partnership feature Ms. Couric, as well as actors Morgan Freeman, Diane Keaton and Jimmy Smits. **Screen for Life** also collaborates with 50 state health departments and two tribal organizations.\(^{23}\)

**CDC Prevention Screening Programs**

CDC is funding five colorectal cancer screening demonstration programs to increase screening among Americans age 50 and older. Five county-city based program sites have been selected to participate in this three year program, which began in August 2005. Each site can choose the screening method most appropriate to increase colorectal screening for its uninsured and underinsured citizens. The sites include: Baltimore, **Maryland**; St. Louis, **Missouri**; Seattle/King County, **Washington**; Stony Brook/Suffolk County, **New York**; and throughout the state of **Nebraska**.\(^{23}\) Nebraska’s Colon Cancer Screening Program provides education and screening tests to those age 50 and older who meet strict income requirements. Participants receive a health
assessment and education about colorectal cancer screening. Depending on the health assessment, participants may be eligible to obtain an FOBT or colonoscopy.

**Health Disparity Collaboratives**

The National Cancer Institute has documented measurable differences among racial and ethnic groups in colorectal cancer incidence and mortality rates. American Indians and Alaska Natives also report high rates of colorectal cancer incidence in the Northern and Southern Plains and Alaska. To improve quality of care and reduce health disparities, the Health Resources and Services Administration established health disparities collaboratives (HDCs) in community health centers. HDCs are models of care that focus on providers, patients, and communities. The HDCs attempt organizational change to improve cancer screening and follow-up care among underserved populations treated in health centers. States can utilize the HDC care models, pilot programs, and the clinical data registry system.

**Dialogue for Action**

The Cancer Research and Prevention Foundation, which funds state-level leadership summits, has partnered with CDC on “Dialogue for Action” (Dialogues) to bring together influential health care providers, policymakers, advocates, and insurers to advance state comprehensive cancer control plans. Since the project began in September 2003, Dialogues have been convened in California, Colorado, Maryland, Massachusetts, Michigan, Nebraska, New Jersey, New York, Ohio, Utah, Virginia, and West Virginia and jointly between Arizona and New Mexico. In 2007, state-level Dialogue projects were held in Minnesota and South Carolina. Minnesota focused on ways to address colorectal cancer disparities in American Indian populations. South Carolina’s meeting covered methods to impact state policy, overcome screening barriers, and educate physicians.

**Conclusion**

Colorectal cancer is both highly preventable and can be highly curable when detected early, and it can be detected at a low cost. States can launch public awareness initiatives, create free screening programs to detect cancer in eligible populations, or offer treatment programs to aid residents unable to afford care. Using their unique leadership positions, governors can build partnerships with the private sector and nonprofits to maximize resources to fund initiatives, keep awareness high, and increase colorectal cancer screening rates.
Additional Information
Many large organizations develop, fund, and/or implement colorectal screening, diagnosis, treatment, and survivorship programs. Visit the following Web sites for more information:

American Cancer Society
http://www.cancer.org

Cancer Research and Prevention Foundation
http://www.preventcancer.org

Centers for Disease Control and Prevention
http://www.cdc.gov/cancer/

Centers for Medicare & Medicaid Services
http://www.cms.hhs.gov/ColorectalCancerScreening/

National Cancer Institute
http://www.cancer.gov/

National Colorectal Cancer Roundtable
http://www.nccrt.org/

United States Preventive Services Task Force
http://www.ahrq.gov/clinic/uspstfix.htm
## Appendix 1

**Costs and Considerations of Colorectal Cancer Screening Tests**

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<thead>
<tr>
<th>Test</th>
<th>Cost ($)</th>
<th>Procedure</th>
<th>Other Considerations</th>
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<tbody>
<tr>
<td>Fecal occult blood test (FOBT)</td>
<td>$10–$25</td>
<td>Detects presence of hidden blood in stool using stool samples placed on cards.</td>
<td>If blood is detected, a DCBE or colonoscopy is needed; least invasive test.</td>
</tr>
<tr>
<td>Fecal immunochemical test (FIT)</td>
<td>$10–$25</td>
<td>Detects presence of hidden blood in stool using stool samples placed on cards; higher specificity leads to lower false positives than FOBT.</td>
<td>If blood is detected, a DCBE or colonoscopy is needed; least invasive test.</td>
</tr>
<tr>
<td>Flexible sigmoidoscopy (FSIG)</td>
<td>$150–$300</td>
<td>Provides view of lower colon using a flexible tube and video monitor.</td>
<td>Some polyps can be removed; more advanced polyps require a colonoscopy.</td>
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<tr>
<td>Double contrast barium enema (DCBE)</td>
<td>$250–$500</td>
<td>Provides view of entire colon using a liquid with barium, showing the colon on an X-ray.</td>
<td>Follow-up colonoscopy required if polyps found.</td>
</tr>
<tr>
<td>Colonoscopy</td>
<td>$800–$1,600</td>
<td>Examines entire colon using a flexible tube and video monitor.</td>
<td>Provides one-step screening and polyp removal; can be most painful and least acceptable to patients.</td>
</tr>
</tbody>
</table>
Endnotes
8 United States Preventive Services Task Force, Screening for Colorectal Cancer. Available at: http://www.ahrq.gov/clinic/pocketgd07/gep2.htm#Colorectal
10 American Cancer Society, Many Medicare Beneficiaries Not Receiving Colorectal Cancer Screening (Atlanta: American Cancer Society, 2007). Available at: <http://www.cancer.org/docroot/MED/content/MED_2_1x_Many_Medicare_Beneficiaries_Not_Receiving_Colorectal_Cancer_Screening.asp?sitearea=MED>.
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26 Centers for Disease Control and Prevention Partnership Activities. Available at: [http://www.cdc.gov/cancer/partners/fp_crpf.htm](http://www.cdc.gov/cancer/partners/fp_crpf.htm).


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