

# Colorectal Cancer Initiatives

# Facts

FROM THE DIVISION OF CANCER PREVENTION AND CONTROL

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The goal of the Centers for Disease Control and Prevention (CDC) is to encourage colorectal cancer prevention and early detection by building partnerships, promoting screening, supporting education and training, and conducting surveillance and research.

## The Burden of Colorectal Cancer



Colorectal cancer—cancer of the colon or rectum—is one of the most commonly diagnosed cancers in the United States. In 2004, more than 145,083 people were diagnosed with colorectal cancer (73,997 men and 71,086 women), making it the third most common cancer in men and women.<sup>1</sup> That same year, 53,580 people (26,881 men and 26,699 women) died from the disease. While colorectal cancer affects both sexes and all races, men, African Americans,

and Alaska Natives have disproportionately high colorectal cancer incidence\* and mortality rates.<sup>1</sup>

*\* Incidence counts cover approximately 98% of the U.S. population. Death counts cover 100% of the U.S. population. Use caution in comparing incidence and death counts.*

## Risk Reduction and Screening

Strong scientific evidence shows that regular colorectal cancer screening, beginning at age 50, reduces incidence and mortality from the disease.<sup>4,5,6</sup> Colorectal cancer screening can find precancerous polyps so they can be removed, thereby preventing cancer from developing. These polyps can be present in the colon for years before invasive cancer develops. Screening also can find colorectal cancer at an early stage, when treatment can be most effective. Regular screening for colorectal cancer can reduce deaths by as much as 60%.<sup>7</sup>

Several scientific organizations, including the U.S. Preventive Services Task Force (USPSTF), recommend colorectal cancer screening for all adults aged 50 years and older using one or more of the following tests: fecal occult blood testing (FOBT), flexible sigmoidoscopy, colonoscopy, and/or double-contrast barium enema.<sup>7</sup> People at increased risk of developing colorectal cancer may need to begin screening at a younger age and be tested more frequently. Current colorectal cancer screening guidelines from the USPSTF are available at [www.ahrq.gov/clinic/uspstf/uspcolo.htm](http://www.ahrq.gov/clinic/uspstf/uspcolo.htm).<sup>7</sup>

## Risk Factors

Both modifiable and non-modifiable risk factors are associated with the development of colorectal cancer.<sup>2,3</sup>

Non-modifiable factors that increase the risk of colorectal cancer include:

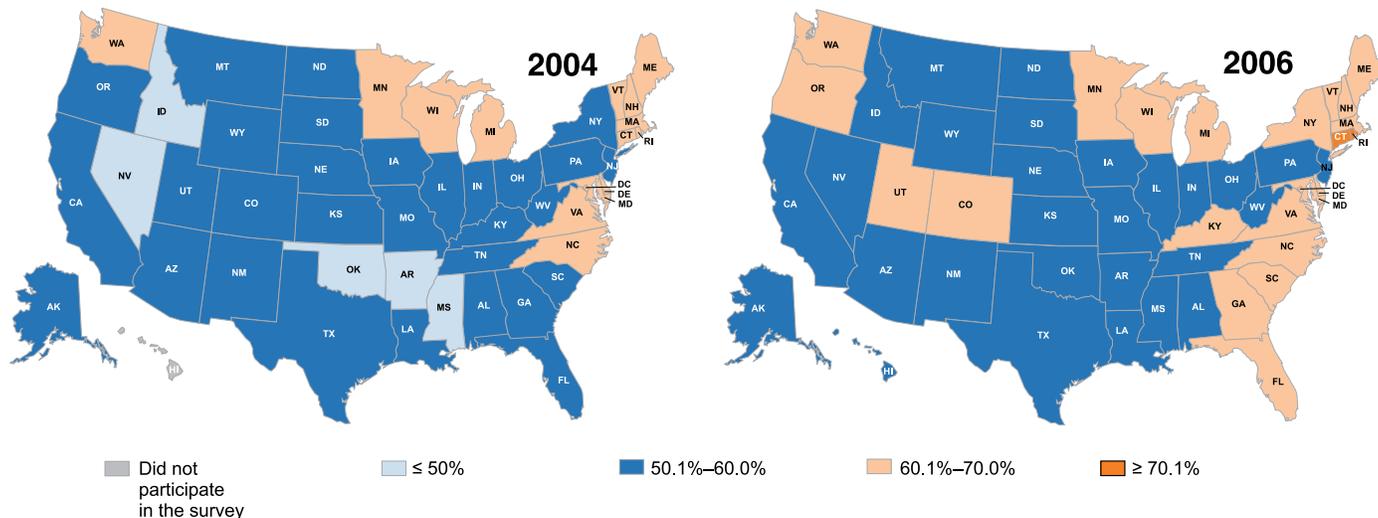
- Advanced age—more than 90% of cases occur in people aged 50 years or older.
- Inflammatory bowel disease.
- A personal or family history of colorectal cancer or colorectal polyps.
- Certain hereditary syndromes.

Modifiable lifestyle factors that may contribute to increased risk of colorectal cancer include:

- Lack of regular physical activity.
- Overweight and obesity.
- Low fruit and vegetable intake.
- A low-fiber and high-fat diet.
- Alcohol consumption.
- Tobacco use.

However, the most important way to reduce the risk of colorectal cancer is to be screened regularly for the disease beginning at age 50.

**Percentage\* of adults aged  $\geq 50$  years who reported receiving a fecal occult blood test within past year and/or lower endoscopy† within past 10 years by state—Behavioral Risk Factor Surveillance System (BRFSS), United States, 2004‡ and 2006‡**



\* Age standardized to the 2006 BRFSS population aged  $\geq 50$  years.

† Lower endoscopy refers to flexible sigmoidoscopy or colonoscopy.

‡ Source: Centers for Disease Control and Prevention (CDC), Behavioral Risk Factor Surveillance System Survey Data. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2005 and 2007.

Although screening rates are rising (50.0% in 2005 compared to 42.5% in 2000), findings from CDC’s 2005 National Health Interview Survey indicate that many people are not being screened for colorectal cancer as recommended. In 2005, about half of adults aged 50 years or older reported receiving either a fecal occult blood test within the last year or an endoscopy within the last 10 years.<sup>8</sup>

A 2004 CDC study found that:

- About 41.8 million people of average risk aged 50 years or older had not been screened for colorectal cancer according to national guidelines.
- The U.S. health care system had the capacity to screen the unscreened population if providers used FOBT for routine colorectal cancer screening and reserved diagnostic colonoscopy for patients with a positive FOBT.
- It could take as long as 10 years to screen the unscreened population using flexible sigmoidoscopy or colonoscopy as primary screening tests due to limitations in trained providers available to conduct screening examinations.<sup>9,10</sup>

CDC is preparing to conduct a study to update the estimates on the colorectal cancer screening capacity of the U.S. health care system nationally and in select states.

## Accomplishments

CDC aims to reduce colorectal cancer incidence and mortality rates among adults aged 50 years or older, an endeavor that furthers the agency’s overarching goal of

ensuring that people are healthy in every stage of life. CDC’s colorectal cancer initiatives include:

### Programs

CDC established a colorectal cancer screening demonstration program at five sites across the United States to increase screening among low-income men and women who have inadequate or no health insurance coverage for colorectal cancer screening. The sites serve varied geographic areas and are funded from 2005 through 2009:

- Maryland Department of Health and Mental Hygiene—city-based (Baltimore).
- Missouri Department of Health and Senior Services—city-based (St. Louis).
- Nebraska Department of Health and Human Services—statewide.
- Stony Brook University Medical Center/SUNY, New York—county-based (Suffolk county).
- Public Health-Seattle and King County, Washington—county-based (Clallam, Jefferson, and King counties).

In addition to colorectal cancer screening, the program sites also provide diagnostic follow-up; conduct public education and outreach; ensure tracking and follow-up of clients screened; provide case management; establish standards, systems, policies, and procedures; develop partnerships; collect and track data; and evaluate the effectiveness of the demonstration program. More information is available at [www.cdc.gov/cancer/colorectal/what\\_cdc\\_is\\_doing/demonstration/](http://www.cdc.gov/cancer/colorectal/what_cdc_is_doing/demonstration/).

## Research

CDC conducts a variety of colorectal cancer research activities:

- Analyzing colorectal cancer screening rates from ongoing national surveillance systems, such as the Behavioral Risk Factor Surveillance System ([www.cdc.gov/brfss/](http://www.cdc.gov/brfss/)) and the National Health Interview Survey ([www.cdc.gov/nchs/nhis.htm](http://www.cdc.gov/nchs/nhis.htm)).
- Forming expert task groups and networks to improve the quality of colorectal cancer screening, including the development of a standardized colonoscopy reporting and data system (CO-RADS).
- Funding projects across the nation to identify effective intervention approaches for promoting colorectal cancer screening among diverse populations.
- Assessing prevention behaviors among colorectal cancer survivors.
- Assessing the impact of socioeconomic and cultural factors on colorectal cancer survivor participation in post-treatment colon examinations.
- Measuring costs, cost efficiencies, and potential cost savings from colorectal cancer screening.

## Awareness and Education

CDC's *Screen for Life: National Colorectal Cancer Action Campaign* is a multimedia effort promoting colorectal cancer screening. First launched in 1999, this campaign informs Americans, particularly men and women aged 50 years or older, about colorectal cancer and the importance of routine screening. More information is available at [www.cdc.gov/screenforlife](http://www.cdc.gov/screenforlife).

These and other public health efforts that address colorectal cancer support CDC's overarching goal of healthy people in every stage of life. They also address the U.S. Department of Health and Human Services' Healthy People 2010 goals of reducing the colorectal cancer death rate by 34% and increasing the proportion of adults who receive a colorectal cancer screening examination.

## Ongoing Work

CDC promotes colorectal cancer awareness, education, and screening nationally by:

- Funding 17 state programs to implement specific colorectal cancer strategies through the National Comprehensive Cancer Control Program (NCCCP). More information is available at [www.cdc.gov/cancer/ncccp/](http://www.cdc.gov/cancer/ncccp/).
- Increasing primary care providers' awareness and knowledge about prevention and early detection of colorectal cancer by offering an online training tool,



*A Call to Action: Prevention and Early Detection of Colorectal Cancer*, available at [www.cdc.gov/cancer/colorectal/publications/slide\\_sets.htm](http://www.cdc.gov/cancer/colorectal/publications/slide_sets.htm).

- Supporting epidemiologic, surveillance, and behavioral science research designed to expand the knowledge base and guide future interventions related to colorectal cancer. The results of this research help CDC focus its policies, programs, and campaigns on effective ways to increase screening rates, improve the quality of screening, and reduce deaths from colorectal cancer.
- Working with partners, such as the American Cancer Society, to support the National Colorectal Cancer Roundtable (NCCRT), a coalition of organizations that educates medical providers and the public about the importance of colorectal cancer screening. More information is available at [www.nccrt.org](http://www.nccrt.org).

## Future Directions

CDC plans to expand its colorectal cancer prevention and control initiative to:

- Evaluate and expand the community-based colorectal cancer screening demonstration programs.
- Increase support for research focused on improving colorectal cancer screening rates.
- Increase support for states, tribes/tribal organizations, and territories that are engaged in comprehensive approaches to preventing and controlling colorectal cancer.

## References

1. U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 2004 Incidence and Mortality*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; Washington, DC: National Cancer Institute; 2007.
2. Curry S, Byers T, Hewitt M, eds. *Fulfilling the Potential of Cancer Prevention and Early Detection*. Washington, DC: National Academies Press; 2003.

3. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. *The Health Consequences of Smoking: A Report of the Surgeon General*. Available at [www.cdc.gov/tobacco/data\\_statistics/sgr/sgr\\_2004/](http://www.cdc.gov/tobacco/data_statistics/sgr/sgr_2004/).
4. Mandel JS, Church TR, Bond JH, Ederer F, Geisser MS, Mongin SJ, Snover DC, Schuman LM. The effect of fecal occult-blood screening on the incidence of colorectal cancer. *New England Journal of Medicine* 2000;343(22):1603–1607.
5. Mandel JS, Bond JH, Church TR, Snover DC, Bradley GM, Schuman LM, Ederer F. Reducing mortality from colorectal cancer by screening for fecal occult blood. Minnesota Colon Cancer Control Study. *New England Journal of Medicine* 1993;328(19):1365–1371.
6. Selby JV, Friedman GD, Quesenberry CP Jr., Weiss NS. A case control study of screening sigmoidoscopy and mortality from colorectal cancer. *New England Journal of Medicine* 1992;326(10):653–657.
7. U.S. Preventive Services Task Force. *Screening for Colorectal Cancer*. Rockville, MD: Agency for Healthcare Research Quality; 2002. Available at [www.ahrq.gov/clinic/uspstf/uspscolo.htm](http://www.ahrq.gov/clinic/uspstf/uspscolo.htm).
8. Shapiro JA, Seeff LC, Thompson TD, Nadel MR, Klabunde CN, Vernon SW. Colorectal cancer test use from the 2005 National Health Interview Survey. *Cancer Epidemiology, Biomarkers and Prevention* 2008;17(7):1623–1630.
9. Seeff LC, Manninen DL, Dong FB, Chattopadhyay SK, Nadel MR, Tangka FK, Molinari NA. Is there endoscopic capacity to provide colorectal cancer screening to the unscreened population of the United States? *Gastroenterology* 2004;127(6):1661–1669.
10. Seeff LC, Richards TB, Shapiro JA, Nadel MR, Manninen DL, Given LS, Dong FB, Wings LD, McKenna MT. How many endoscopies are performed for colorectal cancer screening? Results from CDC's Survey of Endoscopic Capacity. *Gastroenterology* 2004;127(6):1670–1677.

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