Screening for Colorectal Cancer—United States, 1997

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2 tables omitted

Colorectal cancer is the second leading cause of cancer-related deaths in the United States. During 1999, approximately 129,400 new cases of colorectal cancer will be diagnosed, and 56,600 persons will die from the disease. In 1996, the U.S. Preventive Services Task Force (USPSTF) recommended the use of specific screening tests (i.e., annual fecal-occult blood testing [FOBT] and/or periodic flexible sigmoidoscopy for persons aged ≥50 years) to reduce colorectal cancer-related mortality. In 1997, the American Cancer Society and an inter-disciplinary task force developed guidelines that recommend one test or a combination of several tests for colorectal cancer screening. To estimate the proportion of the U.S. population that received colorectal cancer screening tests, CDC analyzed data from the 1997 Behavioral Risk Factor Surveillance System (BRFSS) on the use of a home-administered blood stool test, or FOBT, and sigmoidoscopy/proctoscopy. This report summarizes the results of this analysis, which documents low rates of use of colorectal cancer screening tests.

In 1997, all 50 states, the District of Columbia, and Puerto Rico participated in the BRFSS, a population-based, random-digit-dialed telephone survey of the noninstitutionalized U.S. population aged ≥18 years. A total of 52,754 persons aged ≥50 years were asked whether they had ever had a blood stool test (FOBT) using a home kit and whether they had ever had a sigmoidoscopy or proctoscopy, and when the last test had been performed. Responses coded as “Don’t know/Not sure” or “Refused” were excluded from the analyses (approximately 3%). Data were weighted to the age, sex, and racial/ethnic distribution of each state’s adult population using 1990 census or intercensal estimates. Proportions, standard errors, and 95% confidence intervals were calculated using SAS and SUDAAN. Data were aggregated across states. Aggregated and state-level data are presented for the proportion of respondents aged ≥50 years who reported receiving FOBT or sigmoidoscopy/proctoscopy.

Overall, 39.7% of respondents reported ever having had FOBT, and 41.7% reported ever having had sigmoidoscopy/proctoscopy. For this report, all results refer to tests received during the recommended time period (e.g., during the preceding year for FOBT and during the preceding 5 years for sigmoidoscopy/proctoscopy).

A total of 19.8% of respondents reported having had FOBT during the preceding year, and 30.4% reported having had a sigmoidoscopy/proctoscopy during the preceding 5 years. The proportion of respondents who reported having had either test or both tests within the recommended time interval was 40.9% and 9.5%, respectively. Men were more likely than women to report having had a sigmoidoscopy/proctoscopy (35.1% and 26.7%, respectively), and women were more likely than men to report having had FOBT (20.9% and 18.3%, respectively). The proportion of American Indians/Alaskan Natives and Asians/Pacific Islanders who reported having had FOBT was less than that of whites and blacks. Respondents identifying themselves as of Hispanic origin were less likely to report having had either test than respondents identifying themselves as non-Hispanic. The proportion of respondents who reported having had either test increased with each age group until age 70-79 years, then decreased among persons aged ≥80 years.

For both screening modalities, the proportion of respondents who reported having had a test increased with increasing education and income level. The proportion of respondents who reported having had a test was greater for those with health-care coverage than for those without coverage. For persons without health-care coverage, 8.2% and 16.3% of respondents reported having had FOBT and sigmoidoscopy/proctoscopy, respectively, and 20.6% and 31.4% of those with health-care coverage reported having had the tests.

By state, the proportion of respondents who reported having had FOBT during the preceding year ranged from 9.2% (Mississippi) to 28.4% (Maine). The proportion of respondents who reported having had sigmoidoscopy/proctoscopy during the preceding 5 years ranged from 15.5% (Oklahoma) to 41.5% (District of Columbia).

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CDC Editorial Note: Although screening can reduce mortality from colorectal cancer, the findings in this report indicate low use of sigmoidoscopy/proctoscopy and FOBT, particularly within the recommended time intervals. Persons with health-care coverage, higher incomes, and more years of education were more likely to report having had these tests.

The 1997 BRFSS was the first time questions about use of FOBT specified that the test was conducted at home using a kit. Previous survey questions did not address whether samples were obtained at home using a kit or as part of a digital rectal examination. The home kit is the recommended...
method of obtaining a stool sample. Use of the home kit allows for collection of multiple samples and should be performed in conjunction with dietary restrictions to decrease the possibility of false-positive or false-negative results from certain foods and medications.

Previous estimates of the prevalence of colorectal cancer screening practices using the 1993 BRFSS demonstrated that the rates of use of colorectal cancer screening tests were low. Although direct comparison between these two analyses is not possible because the wording of the survey questions differed, the current analysis demonstrates continued underuse of sigmoidoscopy/proctoscopy. Both patient and provider barriers have contributed to the low rates of screening. Patient barriers may include lack of knowledge of screening recommendations, access to health care, anticipated discomfort, and embarrassment. Provider barriers may include lack of skills and lack of time to counsel patients.

The findings in this report are subject to at least three limitations. First, because the BRFSS is administered as a telephone survey, only persons with telephones are represented. Second, results are based on self-reports and have not been validated. However, self-report of certain colorectal cancer screening tests appears to be valid. Third, because the BRFSS questionnaire did not distinguish between tests conducted for diagnostic or screening purposes, the rates of use of these tests for screening purposes were probably lower than reported.

Activities relating to colorectal cancer screening are increasing at both the state and national levels. In 1997, the American Cancer Society and CDC established the National Colorectal Cancer Roundtable, a collaboration of state health departments, professional and medical societies, private industry, consumers, and cancer survivors to promote colorectal cancer screening awareness and activities. In 1998, the Health Care Financing Administration expanded Medicare coverage to include colorectal cancer screening. For average-risk persons aged ≥50 years, coverage will be provided for annual FOBT and sigmoidoscopy every 4 years, and for high-risk persons, coverage will be provided for colonoscopy every 2 years. Double-contrast barium enema may be substituted for either sigmoidoscopy or colonoscopy if requested in writing by the provider. Some commercial health plans also cover colorectal cancer screening.

The findings in this report underscore the need for efforts to increase screening for colorectal cancer. In response to low rates of use of screening tests, CDC is beginning a comprehensive health communication campaign to educate consumers and health-care providers about the importance of colorectal cancer screening and to encourage patients to discuss screening options with their providers. Public health officials, health-care providers, and commercial health plans need to intensify efforts to increase awareness of the effectiveness of screening and to promote the widespread use of colorectal cancer screening tests.

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Publication of An Ounce of Prevention... What Are the Returns?

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The second edition of An Ounce of Prevention... What Are the Returns? is now available. This publication outlines strategies for and economic benefits of health promotion and disease and injury prevention. In addition, it outlines interventions in 19 areas of chronic and infectious disease and injury in which prevention can improve the quality of life and increase longevity. Each section presents the health impact of the disease, injury, or disability on U.S. society; the effectiveness of prevention strategies; the costs of the disease, injury, or disability; and the cost-effectiveness of prevention strategies.

An Ounce of Prevention is available on the World-Wide Web, http://www.cdc.gov/epo/prevent.htm, or from CDC’s Prevention Effectiveness Branch, Division of Prevention Research and Analytic Methods, Epidemiology Program Office, Mailstop D-01, 1600 Clifton Road, N.E., Atlanta, GA 30333; e-mail epoeb@cdc.gov.

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In the report, “Mass Treatment of Humans Who Drank Unpasteurized Milk From Rabid Cows—Massachusetts, 1996-1998,” on page 229 (in JAMA, p 1372, third paragraph under CDC Editorial Note), the second sentence of the second paragraph should read: In addition to concerns about rabies transmission from animals to humans through bites, rabid livestock raise the issue of potential foodborne transmission.