# Tests to Find Cancer Early

Ask your doctor or nurse about these tests.

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>Who</th>
<th>When</th>
<th>What</th>
<th>How Often</th>
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</table>
| **Breast cancer**    | Women*                        | Starting at age 20            | • If you notice any change in your breasts, such as a lump, tell your doctor or nurse right away. You may choose to do BSE (breast self-exam) to find breast changes.  
• Have an exam of your breasts by a doctor or nurse. | Every year  
Every 3 years |
|                      |                               | Starting at age 40 and older  | • Have a mammogram (x-ray) of your breasts AND an exam of your breasts by a doctor or nurse.  
• If you notice any change in your breasts, such as a lump, tell your doctor or nurse right away. You may choose to do BSE (breast self-exam) to find breast changes. | Every year            |
| **Cervical cancer**  | Women**                       | Starting about 3 years after you start having sex but no later than age 21 | Have ONE of the following:  
• The regular Pap test OR  
• The newer liquid Pap test | Every year  
Every 2 years |
|                      |                               | Starting at age 30            | If you have had 3 normal Pap tests in a row, you may have:  
• The regular or liquid Pap test OR  
• A Pap test with the new HPV test  
If you have NOT had 3 normal Pap tests in a row, then continue with your Pap tests every 1 or 2 years. | Every 2 to 3 years  
Every 3 years |
| **Prostate cancer**  | African American men and men with a close family member with prostate cancer  
All other men       | Starting at age 45            | African American men and men with a close family member with prostate cancer before age 65  
Tell to your doctor about the pros and cons of prostate cancer testing so you can decide if getting tested is the right choice for you. If you decide to be tested, you should have the PSA blood test with or without a rectal exam. How often you are tested will depend on your PSA level. | Every year            |
|                      |                               | Starting at age 50            | All other men  
Tell to your doctor about the pros and cons of prostate cancer testing so you can decide if getting tested is the right choice for you. If you decide to be tested, you should have the PSA blood test with or without a rectal exam. How often you are tested will depend on your PSA level. | Every year            |
| **Colon cancer**     | Men and women*                | Starting at age 50            | Have ONE of these tests:  
Tests that will find polyps and cancer:  
• A test to look into the lower part of the colon (flexible sigmoidoscopy), OR  
• An x-ray of the colon (barium enema), OR  
• A test to look into the entire colon (colonoscopy), OR  
• A CT scan of the entire colon  
Tests that will find mainly cancer:  
• A test to check for blood in your stool, OR  
• A test to check for cancer cells in your stool  
Tests that have the best chance of finding both polyps and cancer should be your first choice when possible. Talk to your doctor or nurse to find out which tests you can get and then decide which test you want to have. | Every 5 years  
Every 5 years  
Every 10 years  
Every 5 years |
|                      |                               |                               |                                                                      | Every year            |
|                      |                               |                               |                                                                      | We don't know how often it should be done. | |
| **Other cancers**    | Women                         | Starting at age 20            | Your doctor or nurse should check your thyroid gland, mouth, skin, lymph nodes, and ovaries. | Whenever you have your regular checkup |
|                      |                               |                               |                                                                      |                       |
| **Other cancers**    | Men                           | Starting at age 20            | Your doctor or nurse should check your thyroid gland, mouth, skin, lymph nodes, and testicles. | Whenever you have your regular checkup |

*You may need to begin testing for colon cancer or breast cancer earlier or be tested more often if you are more likely than other people to have these cancers. Talk to your doctor about this.

If you have had a hysterectomy (your uterus and cervix have been removed), you may choose to stop having the Pap test, unless the surgery was for cancer. If you are 35 or older and have had an inherited type of cancer called HNPCC or someone in your family has had this type of cancer, then you may need to be tested each year for cancer of the endometrium (lining of the uterus). This testing is done with a biopsy.

Be sure to tell your doctor or nurse if you have had any type of cancer or if your mother, father, brother, sister, or children have had cancer.

- Don't use tobacco. If you do, ask your doctor or nurse about quitting.
- Get at least 30 minutes of physical activity on 5 or more days of the week.
- Eat a healthy diet with plenty of fruits and vegetables.
- Maintain a healthy weight.
- Drink less alcohol, if you drink at all.
- Protect yourself from the sun.
Prevention & Early Detection of Colorectal Cancer

A CRICO DECISION SUPPORT TOOL
Prevention and Early Detection of Colorectal Cancer

A DECISION SUPPORT TOOL

Colorectal cancer is the second leading cause of cancer-related death in the United States. It is also among the most common types of cancer cited in diagnosis-related malpractice claims naming crico-insured physicians. Common causal factors underlying missed or delayed colorectal cancer diagnoses include:

- A physician—often due to a narrow diagnostic focus—fails to order diagnostic testing or provide ongoing monitoring of a patient who exhibits worrisome symptoms, including rectal bleeding, or for signs such as unexplained iron deficiency anemia;
- A physician whose practice fails to track compliance with and results from ordered screening tests—including stool cards, flexible sigmoidoscopies, and colonoscopies; and
- A primary care provider fails to follow routine cancer screening guidelines for colorectal cancer.

To address these risk issues, crico convened a task force of primary care providers and gastroenterologists to develop a colorectal cancer decision support tool to help clinicians:

1. Assess patients for colorectal cancer risk factors, particularly family history;
2. Stratify a patient’s risk for colon cancer into one of three groups:
   - Average Risk Patients who are asymptomatic, over age 50, with no personal or family history of colorectal cancer or adenomas;
   - Moderate Risk Patients who have a family or personal history of colorectal cancer or adenomas; and
   - High Risk Patients who have a genetic colorectal cancer syndrome or inflammatory bowel disease.
3. Offer appropriate screening modalities according to patient risk and patient preference; and
4. Identify the advantages and disadvantages of each selected screening modality.

Prevention and Early Detection of Colorectal Cancer is based on national colorectal cancer screening and clinical practice guidelines and is a decision-support tool which should not be construed as a standard of care.

Risk Management for Patients

≥ age 40 with Rectal Bleeding

1. Aggressively and completely investigate the cause of rectal bleeding, regardless of the patient’s family history.
2. Do not test for occult blood, as this may delay the ordering and completion of a colonoscopy.

Risk Management for Colorectal Cancer Screening

3. Average risk patients (age 50–75) with no history of colon cancer or adenomas—who have had a negative screening colonoscopy—should be screened again after 10 years.
4. Recognize increased risk of colorectal cancer for patients who are black, obese, heavy alcohol users, smokers, or have a history of non-gastrointestinal malignancies treated with chemotherapy or radiation.
5. Before ordering a screening colonoscopy or flexible sigmoidoscopy for a patient > age 75, discuss the risk and benefits, taking into consideration the patient’s general quality of life and life expectancy.
6. Routine screening is generally not recommended for patients > age 85.
7. Discuss screening options with the patient and document the discussion and the patient’s preference in the medical record.
8. Single, in-office FOBT via digital exam is not adequate screening.
9. Recognize that the quality of bowel preparation may modify screening intervals. A split dose of prep is considered most effective. Oral sodium phosphate should not be used as a preparation for colonoscopy, given the small but definite risk of renal failure.
10. Track and document screening tests and results.
11. Follow up with the patient on all positive results. Document follow-up testing and/or referral recommendations.
12. Coordinate care and clarify roles and responsibilities among providers. Communicate the follow-up plan to the patient and the responsible providers.
Malpractice Case Examples

• A 69-year-old woman with no prior CRC screening, whose sister died of colorectal cancer, presents with anemia. No work-up for her anemia is done. Four years after anemia noted, the patient dies of metastatic colon cancer.
  
  • Fully work up anemia, including family history.

• A 55-year-old woman with no history of screening presents with rectal bleeding, which her physician attributes to hemorrhoids. One year later, flexible sigmoidoscopy shows cancer of the rectum. The patient dies of metastatic rectal cancer.
  
  • Rectal bleeding requires a full work up.

• A 52-year-old man with rectal bleeding and recent 25lb weight loss is not referred for colonoscopy because the one he had performed a year prior was negative. A month after being treated for hemorrhoids, a flexible sigmoidoscopy and biopsy reveals invasive cancer. The patient dies the following year.
  
  • Interval cancers—often due to an inadequate prior procedure—should be considered in light of persistent complaints.

• A 69-year-old man with recurrent adenomas, including a villous adenoma, undergoes an incomplete colonoscopy (despite multiple attempts). Repeat colonoscopy is recommended in two years. Additional visualization of the colon is not done. Three years later, a 7cm malignant lesion is found in his proximal transverse colon. The patient dies of metastatic colon cancer.
  
  • Full visualization with CT colonography is mandated for a patient with a history of adenomas and an incomplete colonoscopy.

Key Factors in Colorectal Cancer Malpractice Cases

• Patients with rectal bleeding did not receive a prompt diagnostic evaluation
• Routine screening not recommended
• Routine screening ordered but not followed up
• Diagnostic test ordered, but not scheduled
• Diagnostic test scheduled, but not performed
• Ordering or follow-up of screening or diagnostic procedures not documented
• Narrow diagnostic focus
• Abnormal finding not adequately evaluated
• Clinician does not convey to the patient the importance of keeping appointments for testing and follow-up
• Multiple providers for the same patient fail to properly communicate important information
• Patient is not notified of test results
• Informed refusal not documented
• Important clinical information missing from clinical note
Patients with Symptoms

Assess the patient for relevant symptoms (e.g., rectal bleeding; or for signs such as unexplained iron deficiency anemia*) and review history of pertinent diagnostic testing. Your clinical expertise and shared decision making are key to developing an appropriate plan for each patient.

For patients presenting with or reporting rectal bleeding or unexplained anemia

**Age < 40**

- Negative family history of CRC, adenomas
  - Rectal exam
  - Perianal exam
  - For recurrent bleeding, consider sigmoidoscopy
- Positive family history of CRC, adenomas
  - Colonoscopy

**Age 40–50**

- Negative family history of CRC, adenomas
  - Colonoscopy (preferred) or sigmoidoscopy
- Positive family history of CRC, adenomas
  - Colonoscopy

**Age > 50**

- If the patient has not had a colonoscopy within the past two years, order and schedule a colonoscopy given the interval risk for cancer.
- If the patient has had a negative colonoscopy within the past two years, consider ordering a flexible sigmoidoscopy or repeat colonoscopy.

*Colonoscopy is only part of the workup for patients with iron-deficiency anemia.*
Screening Patients without Symptoms

1. Update the patient’s family history for cancers (especially, colorectal and endometrial) relevant to colorectal cancer risk. Note the relationship (i.e., parent, sibling, aunt, uncle, grandparent), type of cancer, and age at onset for each relative.

2. Assess the patient’s risk status, including increased risk for patients who are black, obese, heavy alcohol users, smokers, or have a history of non-gastrointestinal malignancies treated with chemotherapy or radiation.

- **AVERAGE RISK**
  Individuals age 50–75 without any of the risk factors noted below

- **MODERATE RISK**
  Personal history of colorectal cancer or adenomas
  Family history of colorectal cancer or adenomas
  If any of the following is noted in the personal or family history, consider HNPCC/Lynch Syndrome (see page 7):
  - Colorectal cancer before age 50
  - Two or more cancers in the same individual
  - Colorectal or uterine cancer in two or more family members

- **HIGH RISK**
  High-risk personal or family history suggesting HNPCC/Lynch Syndrome (see page 7)
  Familial adenomatous polyposis (FAP): 100s–1000s of adenomas
  Attenuated polyposis: 5–100 adenomas
  Other polyposis syndromes: Peutz-Jeghers, juvenile polyposis, MYH-associated polyposis, inflammatory bowel disease

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Patients at Average Risk

Asymptomatic, age 50–75, no personal or family history of CRC or adenoma

- Coloscopy every 10 years*
- Flexible sigmoidoscopy every 5 years†
- Annual home fecal occult blood test (three separate stools) or single fecal immunochemical test (FIT)
- CT colonography every 5 years (does not offer the ability to remove polyps and prevent cancer)

CT colonography is an option for a failed colonoscopy

If the quality of the bowel preparation is not good, this mandates a repeat procedure at a shorter interval.

* Suggested intervals for screening procedures are based on a good or excellent bowel preparation for colonoscopy or sigmoidoscopy. The success of the procedure in reaching the cecum is essential for a completed colonoscopy.†
Patients at Moderate Risk

**Family history of CRC or adenoma**

- One first-degree relative with colorectal cancer or adenoma at or before age 60
  - Begin colonoscopy at age 40 or 10 years younger than the earliest diagnosis of colorectal cancer in the family, whichever is earlier. Repeat every five years.†

- Two first-degree relatives with colorectal cancer or adenoma at any age
  - Begin colonoscopy at age 40. If normal, repeat every 10 years.‡

- One first-degree relative with colorectal cancer at age 60 or older
  - Consider colonoscopy at age 40. If normal, repeat every 10 years.‡

- Two second-degree relatives with colorectal cancer or adenoma
  - Repeat colonoscopy in three years*

**Personal history of adenoma**

- Serrated adenoma \( \geq 1 \text{ cm} \)
  - Single: repeat colonoscopy every three years

- One or two small (<1 cm) adenomas or sessile serrated adenoma <1 cm
  - Repeat colonoscopy in five years†

- Multiple adenomas (3–10), large adenoma (\( \geq 1 \text{ cm} \)), adenoma with villous histology, or adenomas with high grade dysplasia. For >10, see High Risk Screening Algorithm
  - Repeat colonoscopy in three years*

**Personal history of CRC**

- Colonoscopy one year after resection (or, as soon as possible if colon not fully visualized prior to surgery)
  - If colonoscopy at one year is negative, repeat at three years and then every 3–5 years if normal

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* Consider genetic syndromes such as HNPCC/Lynch Syndrome, if there are multiple or early colon cancers or adenomas in the family. Refer to the High Risk Screening Algorithm.

† Suggested intervals for screening procedures are based on the quality of the bowel preparation and the success of the procedure in reaching the cecum.‡

An inadequate clean-out of the colon reduces the ability to detect lesions during either colonoscopy or sigmoidoscopy and mandates a repeat procedure at a shorter interval.¶

‡ An early follow-up colonoscopy is recommended when the endoscopist and/or pathologist is not certain that all adenomatous tissue was completely removed, or the pathologist notes worrisome features and recommends an early re-evaluation and biopsy of the polyp site.¶
**Patients at High Risk**

### Strong family history of colorectal cancer

- Refer patient and family members to a high-risk clinic for genetic counseling and outline of screening procedures. If no high-risk clinic is available, then the consulting gastroenterologist should assume the responsibility for outlining the appropriate screening procedures.

- **HNPCC/Lynch Syndrome**
  - Hereditary nonpolyposis colorectal cancer
  - Refer to endoscopist to perform colonoscopy starting at age 20–25 years
  - Repeat every 1–2 years until age 40, then annually after age 40
  - Screen for extracolonic malignancies (endometrial cancer) as per guidelines of high-risk genetics clinic. Patients whose personal or family history suggest Lynch Syndrome should be referred to high-risk clinic.

- **FAP**
  - Familial adenomatous polyposis
  - Refer to endoscopist to perform flexible sigmoidoscopy or colonoscopy, beginning at age 12 to detect adenomas
  - If no polyps found, repeat procedure annually until age 40
  - Screen for duodenal and periampullary adenomas and carcinomas and thyroid carcinomas as per guidelines of high-risk genetics clinic.

- **Attenuated FAP**
  - (10–100 adenomas)
  - Colonoscopy every 1–2 years and strongly consider genetic testing

### Inflammatory bowel disease

- **For ulcerative pancolitis or Crohn’s colitis ≥8–10 years**, perform screening colonoscopy every 1–3 years with surveillance biopsies. If primary sclerosing cholangitis is diagnosed, perform colonoscopy. Repeat screening annually.

- **If left-sided ulcerative colitis ≥15 years**, perform colonoscopy every 1–3 years with surveillance biopsies.

- **A diagnosis of dysplasia should be confirmed by a pathologist expert in reading dysplasia in inflammatory bowel disease.**

### Hereditary Nonpolyposis Colorectal Cancer/Lynch Syndrome (HNPCC/Lynch)

- Evaluation for HNPCC/Lynch Syndrome should be considered when the Bethesda criteria are met.

  **Bethesda Criteria**

  - Colorectal cancer (CRC) under the age of 50; or
  - Two or more diagnoses of CRC or other HNPCC/Lynch-related cancer in the same individual regardless of age; or
  - CRC with microsatellite instability—high (MSI-H) morphology under age 60; or
  - CRC with one or more first degree relatives with CRC or other HNPCC/Lynch-related cancer, one of the cancers less than age 50; or
  - CRC with two or more relatives with CRC or other HNPCC/Lynch-related cancer regardless of age.

- **Includes endometrial, ovarian, gastric, small bowel, urinary tract, pancreas, brain, and sebaceous gland.**

- **Presence of tumor infiltrating lymphocytes, mucinous differentiation/signet ring cell carcinoma, peritumoral Crohn’s-like lymphocytic reaction, medullary growth pattern.**

* If the index case is positive by genetic testing for HNPCC/Lynch Syndrome or FAP, and the family member (patient) is negative, then the screening recommendations should be guided by the patient’s personal history.
Advantages and Disadvantages of Colorectal Cancer Screening Options

A shared decision-making process for selecting a screening modality is a key to patient compliance and timely detection and treatment.

Home Tests: FOBT & FIT

**Low to moderate sensitivity**

**Evidence**
Large randomized controlled trials demonstrate a decrease in CRC mortality of up to 33 percent. Annual fecal occult blood test (FOBT) is 24 percent sensitive for advanced adenomas or colorectal cancer. Annual fecal immunochemical tests (FITs) use antibodies to detect human hemoglobin, and are not affected by diet or medications.

FIT significantly improves the sensitivity and specificity to 91 percent and 88 percent respectively for colorectal cancer detection.

Change to FIT slightly increased colon cancer screening rates.

The rate of positive results from FIT does not decrease after repeated colorectal cancer screening, but the positive predictive value of the FIT for advanced neoplasia and for colorectal cancer is significantly lower among second-round participants who tested negative in the first round.

**Advantages**
- Easy, safe, convenient
- FIT detects colon cancer and advanced adenomas with increased sensitivity compared with the FOBT.
- FOBT: heat stability is excellent and cost is less compared to other methods.

**Disadvantages**
- FIT and FOBT must be repeated annually to be beneficial.
- Standard FOBT requires dietary restrictions and multiple samples.
- Positive tests require colonoscopy and (possibly) other testing.
- The Hemoccult Sensa II™ is more sensitive, but has a lower specificity compared with Hemoccult II™.
- FIT vary in sensitivity and specificity.
- Requirement for three day testing with FOBT is less convenient than the single day for FIT.

Flexible Sigmoidoscopy

Moderate sensitivity and specificity

**Evidence**
Two randomized controlled trials, one from the United Kingdom and one from the United States, documented a decrease in mortality for distal colorectal cancer of about 50 percent after 11 years of follow-up when an initial screening flexible sigmoidoscopy is performed.

Flexible sigmoidoscopy detects 70–80 percent of all CRC and large adenomas.

Approximately two percent of patients with normal findings on flexible sigmoidoscopy have a significant lesion in the proximal colon.

The risk of perforation is less than 1 in 1,000.

**Advantages**
- Safer and more convenient than colonoscopy
- Takes about 10 minutes to perform and is usually well-tolerated without sedation
- Most patients can drive home alone or return to work following the procedure.

Colonoscopy

**High sensitivity and specificity**

**Evidence**
In cross-sectional screening studies, colonoscopy is more sensitive than FOBT, or flexible sigmoidoscopy combined with FOBT, for detecting large adenomas and CRC.

Evidence from the National Polyp Study shows that patients who had adenomas removed during participation in the study had a 53 percent reduction in mortality from colon cancer over a median of 15.8 years. This supports the hypothesis that colonoscopic removal of adenomatous polyps prevents death from colorectal cancer and this prevention is long term.

The benefit of colonoscopy is significant for decreasing mortality from left-sided colorectal cancer but not as strong for right-sided cancers.

In U.S. studies, the overall risk of perforation was approximately 2 in 1,000, but lower if polypectomy was not performed.

The risk for perforation increases with increasing age and the presence of two or more comorbidities.

Withdrawal time of the colonoscopist (> six minutes is recommended) has been correlated with the number of adenomas found in one study but not in another.

The endoscopist’s adenoma detection rate is an independent predictor of the risk of interval colorectal cancer and is considered a major quality indicator for the colonoscopic procedure.

**Advantages**
- Colonoscopy has the ability to detect and remove polyps at the time of the initial examination. Polypectomy has been shown to decrease colon cancer mortality.
- Enables direct visualization of the entire colon when evidence—via landmarks—indicates the cecum was reached.

**Disadvantages**
- Colonoscopy requires an orally administered bowel preparation.
- The exam takes about 30 minutes plus additional recovery time.
- Patients need to be escorted home and are advised not to go back to work the same day if sedation is given.

Unlike home stool testing and sigmoidoscopy, no randomized trials of colonoscopy have shown benefit in decreasing CRC mortality. Observational studies show a benefit of ~50 percent decrease in mortality that is similar to randomized studies of sigmoidoscopy.

Mortality from proximal colon cancer, as compared to left-sided colorectal cancer, may be affected to a lesser degree by the performance of screening colonoscopy.
CT COLONOGRAPHY ("VIRTUAL COLONOSCOPY")66–70

High sensitivity and specificity

Evidence
In a study of asymptomatic adults, CT colonographic screening identified 90 percent of patients with colon cancer or adenomas 10mm or larger in diameter69–70. Laxative-free colonography has been reported, but is not routinely available68.

CT colonography does not offer the ability to remove polyps and prevent cancer.

CT colonography should not be a modality of choice for high-risk patients with polyp syndromes or inflammatory bowel disease given its inability to detect flat lesions with accuracy or to remove polyps.

Recently MR colonography has also been shown to detect colon cancers and polyps with accuracy70.

Advantages
Fast (10–15 minute), noninvasive imaging of the entire colon69.

Sedation is not required; patients may drive home or return to work the same day.

Some patients find CT colonography to be more acceptable than standard colonoscopy.

Detection of some significant extra-colonic findings (mostly abdominal aortic aneurysms and renal cell carcinomas)

Disadvantages
Variability in sensitivity based on technique and experience of the radiologists

Requires bowel preparation similar to colonoscopy (at present)

Requires a rectal tube to insufflate air into the colon, which can cause cramping

Exposure to radiation

Abnormal findings require a standard colonoscopy

Can miss small and flat adenomas

Detection of some incidental extra-colonic findings may lead to additional testing that otherwise would not have been done.
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PATIENT-DETECTED RECTAL BLEEDING
The cause of rectal bleeding should be investigated to resolution, regardless of the patient’s age, or personal or family medical history. A single, in office FOBT via digital exam is not an adequate assessment.

GENETIC TESTING
Patients with a complex personal or family history of colorectal cancer should be referred—along with family members—to a high-risk clinic (if available) for genetic counseling and development of their ongoing screening plans.

PREVENTION AND EARLY DETECTION OF COLORECTAL CANCER
Periodic screening and aggressive follow up of key symptoms can reduce a patient’s likelihood of developing later stage colorectal cancer. Discuss the benefits and limitations of screening and the importance of reporting to you any symptoms (e.g., rectal bleeding, anemia, change in bowel habits). Patients should understand that, while early detection of colorectal cancer can significantly reduce the risk of mortality, health care providers cannot guarantee a cure based on the timing of the diagnosis. Patients may need to be educated as to the subtleties of research data, and discrepancies in findings among various studies.

RISK OF COLORECTAL CANCER FOR PATIENTS YOUNGER THAN AGE 50
Ten percent of colorectal cancers occur in patients less than age 50: approximately eight percent between ages 40–50; two percent occur in patients younger than 40. Other than an age of greater than 50 years, definite risk factors for an increased risk for colon cancer include having a family history of colorectal cancer, black race, obesity, heavy alcohol use, and smoking.

RISK OF INTERVAL COLORECTAL CANCER FOR PATIENTS WITH A SCREENING HISTORY
For patients > age 50 who present with symptoms in the months or years following a negative colonoscopy, explain that:
- if the colonoscopy was more than two years prior, a colonoscopy is recommended;
- if the colonoscopy was less than two years prior, was completed successfully, and was negative, then a repeat colonoscopy—or sigmoidoscopy—should be considered.

COLORECTAL CANCER SCREENING FOR ASYMPTOMATIC PATIENTS > AGE 75
Before ordering a screening colonoscopy or flexible sigmoidoscopy for a patient > age 75, discuss the risks and benefits, taking into account the patient’s general quality of life. Routine screening is not recommended for patients over age 85, as the risks outweigh the benefits.

SCREENING OPTIONS
Patients respond best to a definitive recommendation from their primary care provider regarding the need for colorectal cancer screening and the most appropriate modality. As necessary, discuss and document the advantages and disadvantages of the relevant screening modes. Confirm with patients that they fully understand what’s involved for each relevant modality. When you and the patient agree to a screening plan, confirm that the appointment has been made.

BOWEL PREP
For patients scheduled for colonoscopy or sigmoidoscopy, emphasize the importance of the bowel prep—including the fact that a poor prep reduces the ability to detect cancerous polyps and increases the likelihood that a repeat procedure will be necessary sooner than when the bowel prep is good.

TEST RESULTS
- Explain to the patient how test results will be communicated to him or her and (if appropriate) other clinicians.
- To ensure notification of test results, employ a system to track ordered tests through the receipt and communication to the patient.
- Document any conversations with patients regarding the reported results.

FOLLOW UP
- Make follow-up or test appointments before the patient leaves your office.
- Physicians and patients share responsibility for follow up; explain to your patients your tracking and compliance system (contacting patients a day or two before their follow-up appointments can reduce noncompliance).
- Track all referrals to ensure that you are receiving a timely report from the specialist.
- Ask the Gastroenterology Department or other specialist to notify your office of patients who do not keep scheduled appointments. Document all patient no-shows or cancellations.
- If a patient refuses follow up, explain the risks of not having a recommended diagnostic test or procedure. Note the patient’s refusal for follow up in the record; consider using an informed refusal form signed by the patient.

DOCUMENTATION
- Update and document the patient’s personal and family history, and any physical examination; enter, in quotes, the patient’s complaints (if any).
- During each visit, update the patient’s risk factor assessment and your recommendations for screening based on that patient’s current risk for developing colorectal cancer.
- Consider using a problem list to highlight patients with a positive family history of colorectal cancer.
Decision Stage Model for CRC Screening

Stage 1
Never heard of CRC screening

Stage 2
Heard of but not considering screening at this time

Stage 3
Heard of and considering screening

Stage 4
Heard of and decided to do

Stage 0
Decided against CRC screening

*This version of stage theory was adapted from the work of RE Myers.

This model can be viewed at:
http://www.cancer.org/acs/groups/content/documents/document/acspc-024588.pdf -- Page 51
## Brief Questionnaire to Identify Decision Stage*

Use this questionnaire when starting a conversation with a patient about screening. It will help you identify the readiness of the patient for screening.

Describe the specific screening test – e.g., stool blood test, CT colonography (CTC), or colonoscopy (CS), etc.

1. Have you ever heard of a [stool blood test, CTC, CS]?
   - Yes – Go on
   - No – Stop (Stage 1)

2. Are you thinking about doing a [stool blood test, CTC, CS]?
   - Yes – Go on
   - No – Stop (Stage 1)

3. Which of the following statements best describes your thoughts about doing a [stool blood test, CTC, CS] in the future?
   - a. I have decided against doing a [stool blood test, CTC, CS]. (Stage 0)
   - b. I’m thinking about whether or not to do a [stool blood test, CTC, CS] (Stage 2 or 3)
   - c. I have decided to do a [stool blood test, CTC, CS]. (Stage 4)

Responses place the individual in a decision stage related to screening test use:

- **Stage 0:** Decided against
- **Stage 1:** Never heard of
- **Stage 2:** Heard of – not considering
- **Stage 3:** Heard of – considering

* Source: Adapted from RE Myers, 2003.

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This questionnaire can be viewed at:

http://www.cancer.org/acs/groups/content/documents/document/acspc-024588.pdf -- Page 52
Appendix for Part 2 Clinic Guidance

1. American Cancer Society: Colorectal cancer screening state and federal coverage laws
2. About.com: Colon Cancer
3. National Conference of State Legislatures: Colorectal Cancer Screening: What are States Doing?
4. GPRA Reporting Logic
5. PDSA Worksheet

1. American Cancer Society: Colorectal cancer screening state and federal coverage laws


The benefits of early detection colorectal cancer screening

Screening can find non-cancerous colorectal polyps and remove them before they become cancerous. If colorectal cancer does occur, early detection and treatment dramatically increase chances of survival.

The relative 5-year survival rate for colorectal cancer when diagnosed at an early stage before it has spread is about 90%. But only about 4 out of 10 colorectal cancers are found at that early stage. Once the cancer has spread to nearby organs or lymph nodes, the 5-year relative survival rate goes down, and if cancer has spread to distant organs (like the liver or lung) the rate is about 11%.

(A standard 5-year survival rate refers to the percentage of patients who live at least 5 years after their cancer is diagnosed; it includes people with colorectal cancer who may die of other causes, such as heart disease. Five-year relative survival rates are adjusted for patients dying of other diseases, so they reflect the chances of not dying specifically from colorectal cancer.)

Not only does colorectal cancer screening save lives, but it also is cost effective. Studies have shown that the cost-effectiveness of colorectal screening is consistent with many other kinds of preventive services and is lower than some common interventions. It is much less expensive to remove a polyp during screening than to try to treat advanced colorectal cancer. With sharp cost increases possible as new treatments become standards of care, screening is likely to become even more cost effective.

What is needed to increase the use of colorectal cancer screening?

Several colorectal cancer screening tests are available, but only about half of people aged 50 and older have them. Some factors affecting their use could include lack of public and health professional awareness of screening tools, financial barriers, and inadequate health insurance coverage and/or benefits.

The American Cancer Society believes that all people should benefit from cancer screenings, without regard to health insurance coverage. Limitations on covered benefits should not block your ability to benefit from early detection of cancer. To that end, the Society supports policies that give all people access to and coverage of early detection screening for cancer. Such policies should be age- and risk-
appropriate and based on current scientific evidence as outlined in the American Cancer Society’s early
detection guidelines.

State activity

A number of states, as well as the District of Columbia, have passed laws requiring insurance coverage
for a full range of colorectal cancer screening tests. A few other states require coverage of only certain
tests or have agreements among insurers (instead of laws) to provide coverage for a full range of tests.
Still others require that insurance for testing be offered or available through Medicare Supplemental
Insurance (Medigap) policies or have no laws regarding coverage.

States that have screening laws that ensure coverage for a full range of tests*:

- Alaska
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- Georgia
- Illinois
- Indiana
- Kentucky
- Louisiana
- Maine
- Maryland
- Missouri
- Nebraska
- Nevada
- New Jersey
- New Mexico
- North Carolina
- Oregon
- Pennsylvania
- Rhode Island
- Texas
- Virginia
- Washington
- Washington, D.C.
- West Virginia

States that have screening laws that require insurers to cover some but not all tests, or where insurers
have voluntarily agreed to cover a full range of tests*:

- Minnesota
- New York
- Vermont
- Wyoming

*Laws on coverage may vary slightly from state to state, so check with your insurer or your state
government to see what is covered.

In all other states, either there are no laws requiring insurance coverage, or there are laws that require
insurers to offer (not necessarily provide) coverage.

Medicare coverage

Medicare covers an initial preventive physical exam for all new Medicare beneficiaries that must occur
within one year of enrolling in Medicare. The "Welcome to Medicare" physical includes referrals for
preventive services already covered under Medicare, including colon cancer screening tests.

What colorectal cancer screening tests does Medicare cover?

Fecal occult blood test (FOBT) or fecal immunochemical test (FIT) every year for all Medicare
beneficiaries 50 years and older
Flexible sigmoidoscopy

- Every 4 years for those at high risk
- Every 4 years for those 50 years and older who are at average risk, but not within 10 years of a previous colonoscopy

Colonoscopy

- Every 2 years for those at high risk (regardless of age)
- Every 10 years for those age 50 and older who are at average risk

Double-contrast barium enema (DCBE) as an alternative if a doctor determines that its screening value is equal to or better than flexible sigmoidoscopy or colonoscopy:

- Once every 2 years for those at high risk
- Once every 4 years for those 50 years and older who are at average risk

At this time, Medicare does not cover the cost of virtual colonoscopy or stool DNA tests. Coverage under private insurance varies, but many follow Medicare rules. If you have questions about your costs, including deductibles or copays, it is best to speak with your insurance company.

What would a Medicare beneficiary expect to pay for a colorectal cancer screening test?

- **FOBT/FIT**: People age 50 years or older with Medicare pay no coinsurance and no Part B deductible.

- **Flexible sigmoidoscopy**: Beneficiary pays coinsurance or copayment. No Part B deductible unless the test results in the biopsy or removal of a growth. If the test is done in an outpatient hospital department or ambulatory surgical center, the beneficiary pays 25% of the Medicare approved amount.

- **Colonoscopy**: Beneficiary pays coinsurance or copayment. No Part B deductible unless the test results in the biopsy or removal of a growth (if a polyp is removed, the deductible applies). If the test is done in an outpatient hospital department or ambulatory surgical center, the beneficiary pays 25% of the Medicare approved amount.

- **DCBE**: Beneficiary pays coinsurance or copayment. No Part B deductible unless the test results in the biopsy or removal of a growth. If the test is done in an outpatient hospital department or ambulatory surgical center, the beneficiary pays 25% of the Medicare approved amount.

**Medicaid**

States are authorized to cover colorectal screening under their Medicaid programs. Unlike Medicare, however, there is no federal assurance that all state Medicaid programs must cover colorectal cancer screening in people without symptoms. Medicaid coverage for colorectal cancer screening varies by
state. Some states cover fecal occult blood testing (FOBT), others cover colorectal cancer screening if a doctor determines the test to be medically necessary, and in some states, coverage varies according to which Medicaid managed care plan a person is enrolled in.

Last Medical Review: 03/02/2011
Last Revised: 06/24/2011


Colon Cancer Screening for the Uninsured

Uninsured? You still have options.

From Donna Myers, former About.com Guide

Updated: July 5, 2008

About.com Health's Disease and Condition content is reviewed by the Medical Review Board

Even though most colorectal cancer is completely curable if diagnosed early, it's still the second-leading cause of cancer deaths in the United States. That's why screening is so important. Did you know that getting a colonoscopy¹ can reduce the average person's risk of dying from colorectal cancer by 90%? Ninety percent! Pretty convincing, right? But what if you're uninsured?

Out-of-Pocket Price for the Uninsured

Approximately 47 million Americans are uninsured and many assume they can’t afford colon cancer screening². If insurance isn't going to pay for it, knowing how much the test costs becomes a lot more important. Some tests aren't as expensive as you might expect; the cost of others may surprise you. Here are the basics:

- **Fecal Occult Blood Test:**³ $10 - $25
- **Sigmoidoscopy:**⁴ $150 - $300
- **Double-Contrast Barium Enema:**⁵ $250 - $500
- **Virtual Colonoscopy:**⁶ $500 - $900
- **Colonoscopy:**⁷ $800 - $2,000

You may be able to afford some form of screening even if you're uninsured. Why not check with nearby healthcare providers to see how much they'd charge and if they offer any payment plans? If paying for a test isn't feasible, financial help may be available from some of the following state and local resources.

Medicaid Assistance for the Uninsured
Medicaid is a federal healthcare program administered by individual states. That means the federal government tells states: you can do this, you can’t do that, and here's some stuff you can do if you want to, but you don't have to. Colon cancer screening falls into the last category. States are authorized to cover the screening, but each one gets to decide what kind of screening it will provide and under what circumstances. How can you find out what Medicaid covers in your state? Keep reading.

**State Screening Programs for the Uninsured**

The website for your state's government should have information about healthcare resources in your state, county, and possibly your city or town. The web address is usually your state sandwiched between "www" and "gov" (e.g., www.maryland.gov). Another great resource for uninsured individuals is [GovBenefits.gov](#). The site can help you find and determine your eligibility for state-administered programs like Medicaid.

**Local Screening Programs for the Uninsured**

Sometimes mobile screening centers visit communities and offer free cancer screening. Your local health department may do the same or offer free screening days on-site at the clinic or hospital. Two good ways to find local health resources are to search the [yellow pages online](#) or check the blue pages in your phone book. (The blue pages provide organizational and contact information for state and local government entities.)

**Additional Resources for the Uninsured**

[Benefits CheckUp](#) offers an online questionnaire that can help uninsured individuals identify private or government programs to help with prescription drug and other healthcare issues.

The U.S. Centers for Disease Control (CDC) also sponsors a "Screening for Life" program that reimburses participating health departments for cancer screening. When you contact your state or local health department, you may want to ask if they participate in CDC's "Screening for Life" program. Yes, they're the ones who should bring it up, but we all know that sometimes you have to ask a question just right to get the answer (or service) you’re seeking.

The CDC also set up five screening centers in the U.S. where uninsured and underinsured individuals can get free or reduced-cost colon cancer screening (as well as other types of tests). You can learn more about these centers at the [Find a Local Program](#) portion of the CDC's website.

If you'd like to share this article with others, please feel free to print the [Colon Cancer Screening for the Uninsured](#) pamphlet.

**Related Articles:**

- [Colon Cancer Screening Recommendations](#)
- [How to Get Someone You Love to Screened for Colorectal Cancer](#)
• **Medicare Benefits for Colorectal Cancer Screening**

• **Free or Low Cost Health Care for those in Need**

Sources:


This About.com page has been optimized for print. To view this page in its original form, please visit: [http://coloncancer.about.com/od/screening/a/Uninsured.htm](http://coloncancer.about.com/od/screening/a/Uninsured.htm)

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Links in this article:

8. http://www.govbenefits.gov/govbenefits_en.portal?jsessionid=Ee84p04oFm4VHGB00Wsk2EgbkZufXOmppyG4apYnrP8gfGvh5fYQ1-19681452399?_nfpb=true&_pageLabel=gbcc_page_locate_state&_nfls=false


Colorectal Cancer Screening: What are States Doing? Updated: August 2011
BACKGROUND
Colorectal cancer, or cancer of the colon or rectum, is the third leading cause of cancer-related deaths in the United States for both men and women. The American Cancer Society estimates 141,210 new colon and rectal cancer cases will be diagnosed in 2011, and approximately 49,380 people will die from colorectal cancers. This accounts for about 9 percent of all cancer deaths.

For more detailed information about colorectal cancer prevention, screening and treatment, please see the American Cancer Society's resources here.

RISK FACTORS
The risk for developing colorectal cancer increases with advancing age, and over 90 percent of colorectal cancers are diagnosed in people aged 50 and older. Other risk factors include inflammatory bowel disease, a personal or family history of colorectal cancer or colorectal polyps, and certain hereditary syndromes. Lack of regular physical activity also contributes to a person’s risk for colon cancer, as well as low fruit and vegetable intake, a low-fiber and high-fat diet, obesity, alcohol consumption, and tobacco use.

SIGNS & SYMPTOMS
Early stage colon or rectal cancers have very few symptoms, which makes screenings more important in catching the cancer early. Advanced stage symptoms may include rectal bleeding, blood in the stool, a change in bowel habits and cramping pain in the lower abdomen. The most common way of finding colon and rectal cancers is through regular screenings.

SCREENING
Colorectal cancer screening tests can find polyps, or abnormal growths, before they turn into cancer. Screening tests can also find colorectal cancer early, when treatment works best and the chance for a full recovery is very high. The American Cancer Society and Multi GI Task Force published updated screening guidelines in early 2008. Those guidelines can be found here:
http://caonline.amcancersoc.org/cgi/content/full/58/3/130#SEC2

For a 50 state map and listing of colorectal cancer screening statistics, click here:
http://www.statehealthfacts.org/comparemaptable.jsp?ind=666&cat=2

Several scientific organizations recommend regular screening for all adults aged 50 years or older. Recommended screening procedures and intervals are as follows:

- Fecal Occult Blood Test (FOBT or FIT) every year.
- Stool DNA Testing (sDNA), Interval uncertain
- Flexible sigmoidoscopy every 5 years.
- Double-contrast barium enema every 5 years.
- Total colon examination by colonoscopy every 10 years.
- Computed tomographic colonography (virtual colonoscopy) every 5 years.

Persons at higher risk should begin screening at a younger age and may need to be tested more frequently.
According to the Centers for Disease Control and Prevention (CDC), screening for colorectal cancer lags far behind screening for other cancers. As of 2011, approximately 53.2% of men and of women aged 50 years or older had undergone screening in the past 10 years. Use of screening for colorectal cancer was particularly low among those respondents who lacked health insurance, those with no usual source of health care, and those who reported no doctor's visits within the preceding year. If caught in its early stages, people treated for colon cancer have a 5-year relative survival rate of 90%. As many as 60 percent of deaths from colorectal cancer could be prevented if everyone age 50 and older were screened regularly. The map below summarizes recent screening rates.

If you live in one of the following locations, you may be eligible for free or low-cost colorectal cancer screening through the CDC-funded screening demonstration program. To learn more:

- Suffolk County, New York: Call (631) 444-7644
- Baltimore, Maryland: Call (410) 887-3456 or 1 (866) 632-6566
- King, Clallam, and Jefferson counties, Washington: Call 1 (800) 756-5437
- Nebraska: Call 1 (800) 532-2227
- St. Louis, Missouri: Call (314) 879-6392

If you live elsewhere in the U.S., please call 1 (800) 4-CANCER or 1 (800) ACS-2345 to learn more about screening options in your community. You may also be able to find information about free or low-cost screening by calling your local department of health.

Additional Resources

American Cancer Society: [Colorectal Cancer Facts & Figures 2011-2013](#)
Centers for Disease Control & Prevention: [Colorectal Cancer Basic Information](#)
Although colorectal cancer—cancer of the colon or rectum—is the second leading cancer cause of death, it doesn’t have to be. Screening programs and prevention efforts by state colorectal cancer control programs have reduced mortality rates in recent years. Twenty-two states and four tribal organizations started these programs with funding from the Centers for Disease Control and Prevention (CDC) in 2009.

These cancer control programs have funding to provide colorectal cancer screening and followup care to low-income men and women ages 50 to 64 who are underinsured or uninsured for screening, when no other payment option is available. Screening can find precancerous polyps (abnormal growths in the colon or rectum) so that they can be removed before cancer develops. Screening also helps identify colorectal cancer at an early stage, when treatment often leads to a cure. If everyone age 50 or older had regular, recommended screening tests and all precancerous polyps were removed, as many as 60 percent of deaths from colorectal cancer could be prevented.

While screening procedures—considered a secondary prevention method—can effectively reduce mortality by identifying undiagnosed cases, primary prevention efforts are often more cost effective. These prevention efforts reach more people than state screening programs.

Some examples of primary prevention policies used in state colorectal programs include community-wide efforts to reduce behaviors associated with increased cancer risk, such as:
• Reducing tobacco use.
• Reducing alcohol abuse.
• Encouraging healthier food choices and opportunities for exercise.


STATE POLICY
Supporters of mandated insurance coverage of colorectal screening tests argue that these policies are cost beneficial, because they encourage the identification of precancerous polyps or cancer at its earliest stages. Treatment costs for more advanced colorectal cancer are expensive and confer higher risks to the patient. Opponents of mandated insurance benefits believe that requiring companies to cover these policies increases overall costs, and results in less people able to afford insurance premiums. Colorectal cancer tests are said to increase the cost of premiums by four to eight dollars. Currently, at least 29 states and the District of Columbia require coverage of colorectal cancer screening

Source: CDC, 2008 Behavioral Risk Factor Surveillance System
tests. A few other states require that they be offered or available through Medicare Supplemental policies.

The following table provides detailed information on state colorectal cancer screening laws. Grayed or italicized states offer, rather than require, colorectal cancer screening coverage as an insurance or Medicare policy benefit.

Many state laws refer to American Cancer Society (ACS) guidelines which were developed for average risk women and men ages 50 and older. ACS guidelines also allow for five different screening options: yearly fecal occult blood test (FOBT), flexible sigmoidoscopy every 5 years, yearly fecal occult blood test plus flexible sigmoidoscopy every 5 years, double contrast barium enema every 5 years, and colonoscopy every 10 years. And finally, ACS defines high-risk individual as having:

(a) A family history of: familial adenomatous polyposis; hereditary non-polypsis colon cancer; or breast, ovarian, endometrial or colon cancer or polyps;
(b) Chronic inflammatory bowel disease; or
(c) A background, ethnicity or lifestyle that the physician believes puts the person at elevated risk for colorectal cancer.

<table>
<thead>
<tr>
<th>State</th>
<th>Year of Enactment</th>
<th>Bill Number/Citation</th>
<th>Coverage Requirements</th>
<th>Consumers covered:</th>
<th>Benefits and Services covered:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>(2004)</td>
<td>AL S 403</td>
<td>Mandated offering for group health benefit plans</td>
<td>Persons who are 50 years of age or older or high risk.</td>
<td>Examinations and tests in accordance with ACS guidelines.</td>
</tr>
<tr>
<td>Alaska</td>
<td>(2006)</td>
<td>21.42.395</td>
<td>All individual &amp; group plans</td>
<td>Persons who are 35-40 in high risk group, African American or anyone over 40.</td>
<td>Examinations and tests age for those 35-40 in high risk group or person 40 or older.</td>
</tr>
<tr>
<td>Arkansas</td>
<td>(2005)</td>
<td>HB 2781, Act 2236</td>
<td>Individual and group HMOs, Medicaid, State Employees' and Public School Teachers' Health Insurance Program.</td>
<td>Persons: (1) who are 50 years of age or older; (2) who are less than 50 years of age and at high risk for colorectal cancer according to the ACS guidelines; and (3) experiencing specified symptoms of colorectal cancer.</td>
<td>Examinations and tests in accordance with ACS guidelines. The covered person will determine the choice of screening strategies in consultation with a health care provider.</td>
</tr>
<tr>
<td>State</td>
<td>Year</td>
<td>Code</td>
<td>Plans</td>
<td>Any Age</td>
<td>Preventive Care Coverage Limit</td>
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<tr>
<td>California</td>
<td>(1992)</td>
<td>CAL. INS. CODE §§ 10194 and 10194.2 (1999)</td>
<td>Medicare supplement policies</td>
<td>All</td>
<td>Provide up to $120 per year.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1367.665 (2000)</td>
<td>All individual &amp; group plans</td>
<td>Anyone</td>
<td></td>
</tr>
<tr>
<td>Connecticut</td>
<td>(2001)</td>
<td>Public Act No. 01-171</td>
<td>All individual &amp; group plans</td>
<td>Individuals defined by ACS as average and high risk.</td>
<td>Annual fecal occult blood test. Colonoscopy, flexible sigmoidoscopy and radiologic imaging according to American College of Gastroenterology guidelines.</td>
</tr>
<tr>
<td>Delaware</td>
<td>(2000)</td>
<td>Title 18 Chap. 35 Sub. Chap III § 3562</td>
<td>All individual and group plans, HMO's, health service corporations</td>
<td>Individuals defined by ACS as average and high risk; screening performed at frequency determined by physician.</td>
<td>Annual fecal occult blood test, colonoscopy every 10 years, flexible sigmoidoscopy every 5 years, and double contrast barium enema every 5 to 10 years.</td>
</tr>
<tr>
<td>District of Columbia</td>
<td>(2002)</td>
<td>31-2931</td>
<td>All individual and group plans, including Medicaid</td>
<td>Individuals defined by ACS as average and high risk.</td>
<td>In accordance with ACS screening options.</td>
</tr>
<tr>
<td>Georgia</td>
<td>(2002)</td>
<td>33-24-56.3</td>
<td>All health insurance plans</td>
<td>Individuals defined by ACS as average and high risk.</td>
<td>In accordance with ACS screening options.</td>
</tr>
<tr>
<td>State</td>
<td>Year</td>
<td>Act or Bill Number</td>
<td>Plans Covered</td>
<td>Eligibility</td>
<td>Requirements</td>
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<tr>
<td>Hawaii</td>
<td>2009</td>
<td>SB 2599 Act No. 157</td>
<td>All health insurance plans</td>
<td>Individuals age 50-75</td>
<td>In accordance with the evidence-based recommendations established by the United States Preventive Services Task Force.</td>
</tr>
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<td>Illinois</td>
<td>1999, amended 2003</td>
<td>SB 1417</td>
<td>All individual and group plans</td>
<td>Individuals defined by ACS as average risk.</td>
<td>All cancer screenings and laboratory tests in accordance with the published ACS guidelines or other existing guidelines from government agencies, including the NCI, the CDC, and the American College of Gastroenterology.</td>
</tr>
<tr>
<td>Indiana</td>
<td>2000</td>
<td>HB 1293</td>
<td>Mandated offering for individual policies; mandated benefit for group self insurance program and HMOs for state employees, and employer-based plans</td>
<td>Individuals defined by ACS as average and high risk.</td>
<td>In accordance with ACS screening options.</td>
</tr>
<tr>
<td>Kentucky</td>
<td>2010</td>
<td>KRS § 304.17A-257</td>
<td>All benefit plans</td>
<td>Individuals over 50 and those under 50 deemed high risk by the ACS.</td>
<td>All colorectal cancer examinations and laboratory tests specified in current American Cancer Society guidelines for colorectal cancer screening.</td>
</tr>
<tr>
<td>Louisiana</td>
<td>2005</td>
<td>HB 36 Act 505</td>
<td>All insurers or HMOs issuing or renewing on or after Jan. 1, 2006</td>
<td>Individuals defined by American College of Gastroenterology and ACS as average risk.</td>
<td>Routine screening includes a fecal occult blood test, flexible sigmoidoscopy, or colonoscopy provided in accordance with ACS.</td>
</tr>
<tr>
<td>Maine</td>
<td>2009</td>
<td>24-A M.R.S. § 2763</td>
<td>Group and individual insurers</td>
<td>Individuals 50 years of age or older; or Less than 50 years of age and at high risk for colorectal cancer according to the most recently published colorectal guidelines of a</td>
<td>Examination and laboratory test recommended by a health care provider in accordance with the most recently published colorectal cancer screening guidelines of a</td>
</tr>
<tr>
<td>State</td>
<td>Legislation</td>
<td>Jurisdiction</td>
<td>Compliance</td>
<td>Screening Options</td>
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<tr>
<td>Maryland</td>
<td>HB 190/SB 100</td>
<td>Insurers, HMOs and nonprofit health services plans</td>
<td>Individuals defined by ACS as average and high risk.</td>
<td>In accordance with ACS screening options.</td>
<td></td>
</tr>
<tr>
<td>Minnesota</td>
<td>62A.30</td>
<td>All policies and plans</td>
<td>Individuals defined by the standard practice of medicine.</td>
<td>In accordance to standard practices of medicine.</td>
<td></td>
</tr>
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<td>Missouri</td>
<td>376.1250</td>
<td>All individual and group plans</td>
<td>Individuals defined by ACS as average risk.</td>
<td>In accordance with ACS screening options.</td>
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<tr>
<td>Nebraska</td>
<td>44-7,102</td>
<td>All individual and group plans</td>
<td>Individuals over 50 years old.</td>
<td>Such screening coverage shall include a maximum of one screening fecal occult blood test annually and a flexible sigmoidoscopy every five years, a colonoscopy every ten years, or a barium enema every five to ten years, or any combination, or the most reliable, medically recognized screening test available.</td>
<td></td>
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<tr>
<td>Nevada</td>
<td>SB 183</td>
<td>All individual and group plans</td>
<td>Individuals defined by ACS as average risk.</td>
<td>In accordance with ACS screening options.</td>
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<td>New Jersey</td>
<td>17B:26-2.1u</td>
<td>HMOs and all individual and group plans</td>
<td>Individuals defined by ACS as average and high risk.</td>
<td>In accordance with ACS screening options.</td>
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<tr>
<td>New Mexico</td>
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<td>All individual and group plans</td>
<td>For anyone determined by health care provider.</td>
<td>In accordance with the evidence-based recommendations established by the United States preventive services task force.</td>
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<td>North Carolina</td>
<td>Teachers and State</td>
<td>Individuals defined by ACS as</td>
<td>In accordance with ACS screening options.</td>
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<td>State</td>
<td>Code/Act</td>
<td>Plan Description</td>
<td>Eligibility</td>
<td>Screening Options</td>
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<tr>
<td>Oklahoma (2001) §36-6060.8a (mandated offering 2006)</td>
<td>Individual and group policies (mandated offering)</td>
<td>Individuals defined by ACS as average and high risk.</td>
<td>Plans required to offer coverage for colorectal examinations and laboratory tests in accordance with accepted published medical practice guidelines.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oregon (2005) SB 501</td>
<td>HMOs and all individual and group plans, that cover medical, surgical and hospital costs, after Jan. 1, 2006</td>
<td>Individuals age 50 and over and high risk as recommended by a physician.</td>
<td>In accordance with ACS screening options.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pennsylvania (2010) 40 P.S. § 764i</td>
<td>All health insurance policies group health, sickness or accident policy or subscriber contract or certificate offered to groups of fifty-one (51) or more employees.</td>
<td>Nonymptomatic covered individuals who are fifty (50) years of age or older.</td>
<td>A colonoscopy or any combination of colorectal cancer screening tests in accordance with the American Cancer Society guidelines on screening for colorectal cancer published as of January 1, 2008.</td>
<td></td>
<td></td>
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<tr>
<td>Tennessee (2003) §57-7-2363</td>
<td>All individual and group plans (mandated offering)</td>
<td>Individuals defined by ACS as average risk.</td>
<td>In accordance with ACS screening options.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Texas (2001) §1363.001</td>
<td>All health insurance plans</td>
<td>Persons 50 years or older.</td>
<td>Annual fecal occult blood test and a flexible sigmoidoscopy every five years or a colonoscopy every 10 years.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vermont (2009)</td>
<td>All health insurance plans</td>
<td>Persons 50 years or older or otherwise determined as high risk.</td>
<td>Annual fecal occult blood testing with a flexible sigmoidoscopy every five years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State</td>
<td>Act/Code</td>
<td>Eligibility</td>
<td>Screening Options</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------</td>
<td>-----------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Virginia (2000)</td>
<td>§38.2-3418.7:1</td>
<td>Individuals defined by ACS as average and high risk.</td>
<td>In accordance with ACS screening options.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Washington (2007) 48.43 RCW</td>
<td>All health insurance plans</td>
<td>Individuals at high risk under 50 years old or anyone over 50 years old.</td>
<td>Examinations and laboratory tests consistent with the guidelines or recommendations of the United States preventive services task force or the federal centers for disease control and prevention (CDC).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>West Virginia (2000)</td>
<td>§33-25A-8e</td>
<td>Persons age 50 and over; Symptomatic persons less than 50 years of age when reimbursement or indemnity for laboratory or X-ray services are covered under the policy.</td>
<td>Annual fecal occult blood test, flexible sigmoidoscopy every 5 years, colonoscopy every 10 years and a double contrast barium enema every 5 years.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wisconsin (2010) SB 163</td>
<td>All health insurance plans</td>
<td>As determined by the commissioner, in consultation with the secretary of health services and after considering nationally validated guidelines, including guidelines issued by the American Cancer Society for colorectal cancer screening, shall promulgate rules that do all of the following: 1. Specify guidelines for the colorectal cancer screening that must be covered under this subsection. 2. Specify the factors for determining whether an</td>
<td>In accordance with ACS screening options.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
individual is at high risk for colorectal cancer and as medically appropriate.

| Wyoming (2001) HB 0026 | HMOs and all group plans | Nonsymptomatic individuals | Colorectal cancer examination and laboratory tests. |


Contact NCSL for more information.

This site is made possible by support from the Centers for Disease Control and Prevention and the American Cancer Society Cancer Action Network.

Its contents are solely the responsibility of the authors and do not necessarily represent the official views of Centers for Disease Control and Prevention or the American Cancer Society Cancer Action Network.

4. GPRA Reporting Logic

GPRA Reporting
Available at: http://www.ihs.gov/cio/crs/documents/crsv11/SelectedMeasuresV11_1.pdf

2.5.3 Colorectal Cancer Screening

**Denominator GPRA:** Active Clinical patients ages 51–80 without a documented history of colorectal cancer or total colectomy, broken down by gender.

**Numerators**
1. GPRA: Patients who have had any CRC colorectal screening, defined as any of the following:
   - Fecal Occult Blood Test (FOBT) or Fecal Immunochemical Test (FIT) during the report period;
   - Flexible sigmoidoscopy or double contrast barium enema in the past five years;
   - Colonoscopy in the past 10 years
   Note: This numerator does not include refusals.
2. Patients with documented CRC screening refusal in the past year.
3. Patients with FOBT or FIT during the report period.
4. Patients with a flexible sigmoidoscopy or double contrast barium enema in the past 5 years or a colonoscopy in the past 10 years.
5. Patients with a flexible sigmoidoscopy in the past 5 years or a colonoscopy in the past 10 years.
6. Patients with a flexible sigmoidoscopy and double contrast barium enema in the past 5 years or a colonoscopy in the past 10 years.
Definitions

**Age**: Age is calculated at the beginning of the report period.

**Denominator Exclusions**: Any diagnosis ever of one of the following:
- Colorectal Cancer
  - POV 153.*, 154.0, 154.1, 197.5, V10.05
  - CPT G0213–G0215 (old codes), G0231 (old code)
- Total Colectomy
  - CPT 44150–44151, 44152 (old code), 44153 (old code), 44155–44158, 44210–44212
  - Procedure 45.8 (old code)

**Colorectal Cancer Screening**: The most recent of any of the following during applicable time frames (changed to look at most recent screening):
- FOBT or FIT
  - CPT 82270, 82274, 89205 (old code), G0107 (old code), G0328, G0394 (old code)
  - LOINC taxonomy (added codes 56490-6, 56491-4, 57905-2, 58453-2)
  - Site-populated taxonomy BGP GPRA FOB TESTS
- Flexible Sigmoidoscopy
  - Procedure 45.24
  - CPT 45330–45345, G0104
- Double Contrast Barium Enema
  - CPT or V Radiology 74280, G0106, G0120
- Colonoscopy
  - POV V76.51 Colon screening
  - Procedure 45.22, 45.23, 45.25, 45.42, 45.43
  - CPT 44388–44394, 44397, 45355, 45378–45387, 45391, 45392, G0105, G0121

**Screening Refusals in Past Year**
- FOBT or FIT
  - Refusal of V Lab Fecal Occult Blood test or
  - CPT code 82270, 82274, 89205 (old code), G0107 (old code), G0328, or G0394 (old code)
- Flexible Sigmoidoscopy
  - Refusal of Procedure 45.24 or
  - CPT 45330-45345, G0104
- Double Contrast Barium Enema
  - Refusal of V Radiology CPT 74280, G0106, G0120
- Colonoscopy
  - Refusal of Procedure 45.22, 45.23, 45.25, 45.42, 45.43 or
  - CPT 44388–44394, 44397, 45355, 45378–45387, 45391, 45392, G0105, or G0121

**GPRA 2011 Description**: During FY 2011, achieve the tentative target rate of 36.7% for the proportion of clinically appropriate patients ages 51–80 who have received colorectal screening.

**Patient List**: List of patients 51–80 with CRC screening or refusal, if any.
5. PDSA Worksheet

Date:
PURPOSE/OBJECTIVE OF CYCLE: (aim)

PLAN: the change, data collection and predict

The Change

What are we testing?

Who are we testing the change on?

Where are we testing?

Predictions

Data
What data do we need to collect?

Who will collect the data?
DO:  Carry out the change/test; collect data and begin analysis

What was actually tested?

What happened?

Observations

Problems

STUDY:  Complete analysis of data, summarize what was learned, compare data to predictions

ACT:

What changes should we make before the next test cycle?

What will the next test cycle be:

Readiness to implement the change:
PDSA Worksheet

 Organization/Team:  
 Date:  
 Cycle #:  

 PURPOSE/OBJECTIVE OF CYCLE:

PLAN: the change, data collection and predict

The Change
- What are we testing?
- Who are we testing the change on?
- When are we testing?
- Where are we testing?

Predictions
- What do we expect to happen?

Data
- What data do we need to collect?
- Who will collect the data?
- When will the data be collected?
- Where will the data be collected?
**DO:** Carry out the change/test; collect data and begin analysis
  - What was actually tested

  - What happened?

  - Observations

  - Problems

**STUDY:** Complete analysis of data, summarize what was learned, compare data to predictions

**ACT:**
  - What changes should we make before the next test cycle?

  - What will the next test cycle be?

  - Are we ready to implement the change?
Process Mapping

**What?** The creation of a flowchart or workflow diagram that helps describe a process in a picture that illustrates specific steps in the process.

**Why?** Mapping the steps in any process is helpful in identifying steps that waste time, drain efficiency, create bottlenecks in your system or just do not add any value. Process mapping can be used to understand any process in your facility, from patient registration, to accessing pharmacy and laboratory services to screening. Once the process is mapped, it easier to identify places where changes can be made to improve.

**Materials:** Large sheet of white or brown butcher paper, markers post-it notes, tape.

**Sample Flowchart**

An oval is used to show the input to start the process or the output at the end of the process.

A box or rectangle is used to show a task or activity performed in the process.

Arrows show direction or the flow of the process.

A diamond shows those points in the process where a yes/no question is asked or a decision is required.

Yes

There is usually only one arrow out of an activity box. If there is more than one arrow, you may need a decision diamond.

No

Make sure every feedback loop is closed, i.e., every path takes you either back to or ahead to another step.

From: Iowa State
Step 1: Process Begin/End
- Where does a process begin? Where does a process end?
- Place these on opposite ends of the paper.

Step 2: Steps to Complete Process
- Put each step of the process on a separate post-it note. Use a verb to start the task description.
- Make a flowchart. Annotate the flowchart with as much or as little information as needed to describe each step. (Use additional post-it notes, maybe a different color)

Step 3: Sequence the Steps
- Use post-it notes so you can move tasks around.
- Do not draw arrows until later.

Step 4: Use Symbols
Start with the basic symbols:
- Ovals: the input to start of the process and the output at the end of the process.
- Boxes or rectangles: task or activity performed in the process.
- Arrows: process direction flow.
- Diamonds: points in the process where a yes/no questions are asked or a decision is required.
- Usually there is only one arrow out of an activity box. If there is more than one arrow, you may need a decision diamond.
- If there are feedback arrows, make sure feedback loop is closed; i.e. it should take you back to the input box.

Step 5: System Model
- Draw charts using system model approach.
- Input - use information based upon people, machines, material, method, and environment.
- Process - use subsets of processes in series or parallel.
- Output - use outcomes or desired results.
- Control - use best in class business rules.
- Feedback - use information from surveys or feedback.

Step 6: Check for Completeness
- Include pertinent chart information, using title and date for easy reference.

Step 7: Finalize the Flowchart
- Obtain input about the process you just mapped from stakeholders- people different departments, supervisors, patients and family members. Ask them if this process is accurately mapped from their perspective and is it working the way it should be.
- Do stakeholders agree that the staff is following the process as charted?
- What changes can we make? What is not adding value? How can waiting be eliminated? What is missing that needs to be added?