CANCER SCREENING

The Value Transformation Framework (VTF) is designed to guide health center cancer screening efforts using a systems approach to change. The VTF serves as an organizing framework with action steps that drive improved health outcomes, improved patient and staff experiences, reduced costs, and equity (Quintuple Aim).

WHY is cancer screening important?

Cancer is the second leading cause of death in the United States.\(^1\) Early screening saves lives.\(^2\) Health centers play an important role in cancer screening and early detection. This Action Guide provides evidence-based action steps for the screening of three cancers: colorectal, cervical, and breast.

The burden of cancer is profound. Over 52,000 adults in the United States (U.S.) are expected to die from colorectal cancer in 2023, the third leading cause of cancer-related deaths.\(^3\) Approximately 14,000 U.S. women will be diagnosed with cervical cancer in 2023, and roughly 4,310 will die.\(^4\) Breast cancer is the second most common cancer among women in the United States. And in 2019, the latest year of available incidence data, over 260,000 new cases of breast cancer were reported in women in the U.S., and 42,280 women died of this cancer.\(^5\)

Evidence supports early cancer screening and detection. The United States Preventive Services Task Force gives a “Grade A” or “B” - its highest endorsements – to screening recommendations for colorectal, cervical, and breast cancer within appropriate age and testing parameters.\(^6,7,8\) The Healthy People 2030 cancer screening targets are colorectal (74.4%), cervical (84.3%), and breast (80.5%).\(^9\)
CANCER SCREENING

Despite these goals, efforts fall short for all three cancers. Nearly 20% of colorectal cancer cases were never screened for colorectal cancer.\textsuperscript{10} Screening prevalence is lower among the uninsured, individuals with less than a high school education, Asian Americans, immigrants who have been in the U.S. for less than 10 years, and those at the lower end of the recommended ages for screening.\textsuperscript{11} In 2021, the percent of eligible health center patients up-to-date for colorectal cancer screening (CRCS) was approximately 42%.\textsuperscript{12}

Likewise, in 2021, 53% of eligible health center patients were up-to-date for cervical cancer screening.\textsuperscript{12} Screening rates are lower for older women;\textsuperscript{13} women with no usual source of care, no health insurance, or public insurance only; women with less than a high school education; non-Hispanic Asian women; and women who were U.S. residents for less than 10 years.\textsuperscript{14}

In 2021, HRSA added breast cancer screening to the list of measures health centers report as part of annual Uniform Data Systems (UDS) reporting. The baseline rate of health center female patients 51-73 years of age who had a mammogram was 46.3%.\textsuperscript{13} This compares to data from the national Behavioral Risk Factor Surveillance System, last collected in 2020, showing the percent of women 45 years and older reporting an up-to-date mammography was 67%.\textsuperscript{15} Given 2021 was the first year health centers were asked to report on this measure, it is likely that actual screening rates are higher as health centers develop workflows and processes to capture this measure within electronic health record fields pulled for reporting.

Community health centers play a critical role in providing care and preventive services to the nation’s most vulnerable populations. They serve over 30 million people—more than two-thirds of whom are uninsured or on Medicaid.\textsuperscript{16} Identifying effective ways to improve screening rates can help health centers achieve Healthy People 2030 goals and the Quintuple Aim of improved health outcomes, improved patient experiences, improved staff experiences, reduced costs, and equity. This is particularly critical now as many individuals delayed care, particularly elective or screening activities, during the COVID-19 pandemic.

WHAT

are the clinical guidelines for cancer screening?

Colorectal Cancer

Screening with either colonoscopy every 10 years or an annual high-sensitivity guaiac-based Fecal Occult Blood Test (gFOBT) or Fecal Imunochemical Test (FIT) has been shown to decrease the incidence and mortality of colorectal cancer.\textsuperscript{17} Evidence shows that annual, high-quality stool-blood screening is as effective as a high-quality colonoscopy-based screening programs when positive stool tests are followed by colonoscopy.\textsuperscript{17-20} And some patients prefer a less invasive test or may not be able to afford a colonoscopy, which often involves an out-of-pocket expense and may require time off from work and a means of transportation. Note: if high-quality stool-based screening is selected as the testing method of choice, positive screening results require follow-up with a colonoscopy.
**CANCER SCREENING**

Clinical guidelines recommend screening all average risk adults aged 45-75 for colorectal cancer (i.e., no prior diagnosis of colorectal cancer, adenomatous polyps, or inflammatory bowel disease; and no personal or family history of genetic disorders that predispose them to risk of colorectal cancer). Adults 76-85 years of age may be screened depending on their overall health and personal preferences. Testing should be considered earlier than age 45 for individuals with elevated risk for colorectal cancer such as:

- Personal or family history of colorectal polyps or colorectal cancer
- Personal history of inflammatory bowel disease such as Crohn’s disease or ulcerative colitis
- Genetic syndrome such as familial adenomatous polyposis or hereditary non-polyposis
- A personal history of getting radiation to the abdomen or pelvic area to treat a prior cancer

<table>
<thead>
<tr>
<th>GUIDELINES</th>
<th>COLORECTAL CANCER SCREENING: USPSTF RECOMMENDATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stool-based tests</strong></td>
<td>Screen average-risk adults aged 50-75 years (Grade A); aged 45-49 years+ (Grade B)</td>
</tr>
<tr>
<td>• Fit-DNA - every 1 or 3 years</td>
<td></td>
</tr>
<tr>
<td>• High-sensitivity Guaiac Fecal Occult Blood Tests (gFOBT) - every year</td>
<td></td>
</tr>
<tr>
<td>• Fecal Immunochemical Tests (FIT) - every year</td>
<td></td>
</tr>
<tr>
<td><strong>Visual tests</strong></td>
<td>Colonscopy - every 10 years</td>
</tr>
<tr>
<td>• CT colonography - every 5 years</td>
<td></td>
</tr>
<tr>
<td>• Flexible sigmoidoscopy - every 5 years</td>
<td></td>
</tr>
<tr>
<td>• Flexible sigmoidoscopy with FIT - Flexible sigmoidoscopy every 10 years plus FIT every year</td>
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</tbody>
</table>

*U.S. Preventive Services Task Force (USPSTF): Final Recommendation Statement, Colorectal Cancer Screening
+The American Cancer Society recommends screening for all individuals begin at age 45.

Only highly sensitive fecal immunochemical test (FIT) or guaiac-based tests should be used for CRCs.

- **FIT** tests look for hidden blood in the stool and require no dietary restrictions prior to testing.
- **gFOBT** finds hidden blood in the stool through a chemical reaction. These tests require more than one stool sample and often have dietary restrictions prior to testing. High-sensitive guaiac-based FOBT (HSgFOBT) refers to modern, highly sensitive forms of the guaiac stool-based test, such as Hemoccult II, Seroccult.
- **FIT-DNA** is a multitarget stool DNA test (e.g., mt-sDNA or FIT-DNA). It combines the FIT test with a test that looks for abnormal/altered sections of DNA in the stool and also for blood. Cologuard is the only mt-sDNA test currently available in the United States. Cologuard is covered by Medicare and many insurers and state Medicaid programs although it is important to verify if a patient's insurance will cover the test.
CANCER SCREENING

Cervical Cancer

The USPSTF is currently undergoing a revision of its cervical cancer screening recommendations. The 2018 guidelines, and other screening guidelines, recommend cervical cancer screening starting at age 21.\(^{7,22}\)

<table>
<thead>
<tr>
<th>CERVICAL CANCER SCREENING: USPSTF RECOMMENDATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Women age 21-29</strong></td>
</tr>
<tr>
<td>• Screen with cervical cytology alone every 3 years</td>
</tr>
<tr>
<td><strong>Women age 30-65</strong></td>
</tr>
<tr>
<td>• Screen every 3 years with cervical cytology alone  OR</td>
</tr>
<tr>
<td>• Screen every 5 years with high-risk human papillomavirus (hrHPV) testing alone  OR</td>
</tr>
<tr>
<td>• Screen every 5 years with hrHPV testing in combination with cytology (co-testing)</td>
</tr>
<tr>
<td><strong>Do NOT screen</strong></td>
</tr>
<tr>
<td>• Women who have had a hysterectomy with removal of the cervix and no history of a high-grade precancerous lesion or cervical cancer</td>
</tr>
<tr>
<td>• Women younger than 21 years</td>
</tr>
<tr>
<td>• Women older than 65 years with adequate screening history and not otherwise at risk for cervical cancer</td>
</tr>
</tbody>
</table>

U.S. Preventive Services Task Force Final Recommendation Statement, Cervical Cancer Screening

The American Cancer Society (ACS) revised its cervical cancer screening guidelines in 2021, increasing the age at which screening should start to 25 years of age.\(^{23}\)

<table>
<thead>
<tr>
<th>CERVICAL CANCER SCREENING: AMERICAN CANCER SOCIETY (ACS) RECOMMENDATIONS:</th>
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<tbody>
<tr>
<td><strong>Aged 25-65 years</strong></td>
</tr>
<tr>
<td>Primary HPV test+ every 5 years</td>
</tr>
<tr>
<td>• If primary HPV testing not available:</td>
</tr>
<tr>
<td>▪ HPV + Papanicolaou (Pap) test every 5 years OR</td>
</tr>
<tr>
<td>▪ Pap test alone every 3 years</td>
</tr>
<tr>
<td><strong>Over aged 65 years</strong></td>
</tr>
<tr>
<td>• Not recommended in individuals who have had regular screening in the past 10 years with normal results and no history of cervical intraepithelial neoplasia grade (CIN-2) or more serious diagnosis within the past 25 years</td>
</tr>
</tbody>
</table>

The American Cancer Society Guidelines for the Prevention and Early Detection of Cervical Cancer +FDA approved ‘primary’ HPV tests

The two screening tests for prevention of cervical cancer include: (1) Pap test – which looks for changes in cells on the cervix that, if not treated, can become cancer; and (2) HPV test – which looks for a virus (human papillomavirus) that can cause cell changes in the cervix that become cancer.

The CDC recommends the HPV vaccination series for children around ages 11 or 12 to help protect against HPV infections that can cause some cancers later in life. Vaccination may start at age 9 and is recommended through age 26 years for those who did not get the full series of vaccination when they were younger. The CDC provides resources outlining HPV vaccine scheduling and tools to boost HPV vaccine rates in your health center, available here.

People who have had their uterus and cervix removed (hysterectomy) should stop screening unless removal was for cancer or pre-cancer. People who had a hysterectomy without removal of the cervix should continue screening. Individuals vaccinated against HPV should follow guidelines for their age group.\(^{23}\)
Breast Cancer

The USPSTF is currently undergoing a revision of its breast cancer screening recommendations. The 2016 recommendations gave a Grade B recommendation for biennial screening mammography for women aged 50-74 years.\(^8\)

<table>
<thead>
<tr>
<th>BREAST CANCER SCREENING: USPSTF DRAFT RECOMMENDATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women aged 40-74 years</td>
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</tbody>
</table>

The American Cancer Society (ACS) breast cancer screening recommendations for average risk women include the option to start screening with a mammography every year at age 40 years with annual screening for women 45-54 years of age and annual or every other year screening beginning at age 55 years.\(^24\)

<table>
<thead>
<tr>
<th>BREAST CANCER SCREENING: AMERICAN CANCER SOCIETY (ACS) RECOMMENDATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women aged 40-44 years</td>
</tr>
<tr>
<td>Women aged 45-54 years</td>
</tr>
<tr>
<td>Women aged 55+ years</td>
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</tbody>
</table>

American Cancer Society Recommendations for the Early Detection of Breast Cancer

A woman is considered average risk if she doesn't have a personal history of breast cancer, a strong family history of breast cancer, or a genetic mutation known to increase risk of breast cancer (e.g., BRCA gene), and has not had chest radiation therapy before the age of 30.\(^24\) ACS recommends that women at high risk for breast cancer get a mammogram and breast magnetic resonance image (MRI) annually, starting around age 30.\(^24\)
CANCER SCREENING

HOW can health centers improve cancer screening?

Quick Note: Step 3 and Step 4 are outlined first for busy providers and care teams.

Design Models of Care that Incorporate Evidence-Based Cancer Screening Interventions: Define workflows and interventions that support implementation of evidence-based cancer screening services. Target interventions to the needs of complex, high-risk, rising-risk, and low-risk patients.

Create/Update Clinical Policies and Standing Orders: Create cancer screening clinical policies, procedures, and standing orders based on current evidence-based best practices. Integrate clinical policies and standing orders into routine care.

STEP 1 Engage Leadership: Nest cancer screening performance measures within a dashboard of clinical measures that are followed over time. Set organizational goals for improvement. Include cancer screening within the larger business case for value transformation.

STEP 2 Apply Population Health Management Strategies: Segment your patient population into target groups and use registries to identify and track sub-groups of patients in need of cancer screening or who require screening follow-up.

STEP 3 Deploy Care Teams in New Ways: Enhance the delivery of cancer screening interventions by maximizing the role of each member of the care team to work in new, efficient, and effective ways.

STEP 4 Optimize Health Information Systems as Part of a Whole-Systems Improvement Strategy: Leverage health information technology to track, improve, and manage cancer screening activities. Capture the data needed for care delivery, reimbursement, and reporting.

STEP 5 Engage Patients and Support Self-Management: Tap into a variety of resources to engage patients in cancer screening.

STEP 6 Develop/Enhance Community Partnerships: Create a list of community partners in support of cancer screening and ‘whole person’ care. Establish memorandums of understanding (MOUs) to formalize collaborations.

STEP 7 Tailor Treatment for Social Context: Incorporate assessment of social drivers of health (SDOH) into patient processes. Create an inventory of referral sources that match the SDOH needs of your community.

STEP 8 Maximize Reimbursement: Collect all the payment that is due for provided care and services. Explore the addition of service lines (e.g., care management) that support cancer screening and generate additional revenue.
Design Models of Care that Incorporate Evidence-Based Cancer Screening Guidelines and Interventions

Design models of care, documented in standardized workflows, that outline key steps for cancer screening including: when and how patients should be asked about their risk factors and previous screening tests; what testing options and considerations are available; the process for administering tests and referrals; where tests will be processed; the steps for patient follow-up; and how this information will be documented. Process maps and cancer screening algorithms can support implementation of clinical policies.

Colorectal Cancer Screening

The American Cancer Society outlines a colorectal cancer screening algorithm to guide care models.

### Sample Colorectal Cancer Screening Algorithm

**Per Recommendation to Start Screening at Age 50**

#### Assess Risk: Personal & Family

- Increased or high risk based on personal history.
- Increased or high risk based on family history.
- Increased or high risk based on personal and family history.

#### Screening Options

- **Stool-Based Tests**
  - FIT (f不变) stool test
  - FIT (guaiac-based fecal occult blood test)
  - sST (stool DNA test)

- **Direct Visualization Tests**
  - Colonoscopy
  - Fecal immunochemical test
  - CT colonography
  - Flexible sigmoidoscopy

#### Sample Risk Assessment Screening Algorithm, National Colorectal Roundtable

Algorithms available for screening starting at age 50 or 45.
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Cervical Cancer Screening
In 2019, the American Society of Colposcopy and Cervical Pathology (ASCCP) offered recommendations for the care of patients with abnormal cervical cancer screening results. Their Risk-Based Management Consensus Guidelines for Abnormal Cervical Cancer Screening Tests and Cancer Precursors is a consensus document from 19 stakeholder organization, including the CDC, ACS, American College of Obstetricians and Gynecologists (ACOG), and others. One of the important updates from the earlier 2012 ASCCP guidelines is a move away from test-based algorithms to a risk-based approach to determine the need for surveillance, colposcopy, or treatment. A free web-based decision management tool is available at https://app.asccp.org/ to help providers navigate the new guidelines. A smartphone app is also available at a nominal cost.

Breast Cancer Screening
Breast cancer screening guidance for health professionals is available from the National Cancer Institute, ACS, and ACOG. If patient assessment and history reveals an increased risk of breast cancer, further assessment should be performed. The USPSTF has a Grade B recommendation that primary care clinicians assess women with a personal or family history of breast, ovarian, tubal, or peritoneal cancer, or ancestry associated with breast cancer susceptibility gene mutations (BRCA1/2). If screening is positive, genetic counseling is recommended, and, if appropriate, genetic testing. A number of validated tools for assessing breast cancer risk or family risk are available, including The Breast Cancer Risk Assessment Tool, International Breast Cancer Intervention Studies (IBIS also known as Tyrer-Cuzick), Claus model, and Familial Risk Assessment Tools.

Action Item: Design models of care that include evidence-based interventions for colorectal, cervical, and breast cancer screening for complex, high-risk, rising-risk, and low-risk patients. Clearly define a core set of evidence-based cancer screening interventions and outline when and how your health center will deploy these interventions for each risk-group. See NACHC’s Population Health Management: Models of Care Action Guide.
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Create/Update Clinical Policies and Standing Orders for Cancer Screening

An office policy for cancer screening is a pre-requisite for reliable and predictable cancer screening practices. Policies should reflect current clinical guidelines and utilize evidence-based cancer screening tests. For colorectal cancer screening, these include:

FIT. Use high-sensitivity FIT, high-sensitivity guaiac-based FOBTs or FIT-DNA tests. The FIT does not require the dietary or medication restrictions required of the FOBT and, for some brands, only requires one or two stool specimens. FIT has been found to have greater patient adherence. While some health centers are incorporating “poop-on-demand” strategies (asking patients to obtain stool samples while in the health center for tests that require only one sample), stool samples obtained by digital rectal exam should never be used for CRCS.

Select a high sensitivity test(s) using the Clinician’s Reference Stool-Based Tests for Colorectal Cancer Screening.

Colonoscopies. Colonoscopies are needed for high-risk patients and for all patients with positive screening results, or patients preferring a colonoscopy. Maintain a list of endoscopists in your area that you can refer patients to. Regional capacity and availability of colonoscopies varies. See Step 8: Develop/Enhance Community Partnerships.

Policies should adhere to national guidelines and be constructed to address different risk levels. Some examples include:

• Colorectal Cancer Screening, Sample Health Center Clinical Policy
• Breast Cancer Screening, Sample Health Center Clinical Policy
• Patient Care Checklist: Adult Care

Standing orders can authorize certain staff to carry out medical orders (e.g., FIT test) per practice-approved protocols without a clinician’s examination and can improve clinical measures.

Action Item: Create/update cancer screening clinical policies and standing orders based on evidence-based practice guidelines. Integrate policies and standing orders into routine care. For CRCS, use a high sensitivity test(s).
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STEP 1  Engage Leadership

Set cancer screening as a top organizational priority. Leadership, in partnership with staff, should set short and long-term targets for improvement. Short-term goals may include staff training on new policies, and improvements in how often care team members offer cancer screening to patients. Longer-term measures can include screening rates and follow-up rates on positive tests. Provide performance data and feedback to staff as this has been shown to improve performance.19,30

Make an organizational commitment to achieve higher screening rates as part of state, regional, or national initiatives for cancer screening. For example, consider participating in the American Cancer Society’s National Roundtable Initiatives, such as the National Colorectal Cancer Screening Roundtable which seeks to achieve a CRCS rate of 80% or higher across the nation.31

Action Item: Leadership incorporates cancer screening as one element within the larger business case for value transformation. See NACHC’s Leadership Action Guide32 and Evidence-Based Care Action Guide33 for more information. Set targets, benchmark success, and commit to improving cancer screening rates as part of local, state, or national initiatives.

STEP 2  Apply Population Health Management Strategies, including Risk Stratification and Registries

The Value Transformation Framework, which NACHC uses as an organizing approach to health center systems change, defines population health management as a “systematic process for utilizing data on patient populations to target interventions for better health outcomes, with a better care experience, at a lower cost”.34 Risk stratification and the use of cancer screening registries are critical components of a population health management strategy. It is also critical to understand the impact of cancer in your community. This can be done by using such sources as:

- CDC’s U.S. Cancer Statistics Data Visualizations Tool: click the “State/County” tab to compare rates of colorectal, cervical, breast or other cancers in your county to those in nearby counties, as well as to congressional district, state, and national levels.
- CDC’s Use of Colorectal Cancer Screening Tests page shows data from the 2020 Behavioral Risk Factor Surveillance System (BRFSS).
- Agency for Healthcare Research and Quality (AHRQ)’s National Healthcare Quality and Disparities Reports show each state’s performance rates for a portfolio of measures, benchmarked against data from top-performing states. AHRQ’s composite “quality” score includes measures for colorectal and cervical cancer diagnosis. Benchmark the performance of your health center to local, state, and national standards.

Action Item: Complete risk stratification and utilize cancer screening registries to identify and target patients for cancer screening within each subgroup. Use health center, local, and national data to support clinic-based quality improvements related to cancer screening and other priority conditions. See NACHC’s Risk Stratification Action Guide for more details.35
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**STEP 5** Deploy Care Teams in New Ways and Train on Key Skills

To deploy care teams in new and more effective ways, health center staff need to be trained on the latest tests and strategies for cancer screening. Training staff in proper use of FIT/FOBT tests, for example. Consider continuing education courses such as **CRC Screening and Surveillance: Optimizing Quality** developed by Medscape Education in partnership with the CDC. This multi-part training is designed for primary care providers, gastroenterologists, and nurses with the goal of increasing CRCS and screening quality. Continuing education unit (CEUs) are available. For pap smears, ensure clinicians who will perform the test have adequate training. Create processes for cancer screening tracking, referral, and follow-up. Create a cancer screening proficiency checklist for key care team positions; evaluate staff proficiency and address gaps. Create exam room tools that summarize key care parameters (e.g., recommended ages for all priority screenings, such as colorectal, cervical, and breast cancer screening, blood pressure ranges, glucose levels, depression screening scale). Provide tools and resources that aid staff measurement and decision-making (e.g., FIT instructional documents,) as this has been shown to improve performance.19,30

A provider’s recommendation is the most powerful influencer on a patient’s decision to get screened for cancer.19,36-39 Design integrated workflows that incorporate the provider’s recommendation for screenings around not only cancer screening, but also other preventive and chronic disease management guidelines. And while a provider’s recommendation may be the most powerful influencer, studies also demonstrate that other members of the care team can effectively deliver the recommendation of the provider to patients.40,41

Pre-visit planning, with attention to cancer screening and chronic disease management interventions, is key to effective patient visits.30 Pre-visit planning can include, among other activities, identifying care gaps, outreach to patients, and use of clinical decision support to ensure orders/actions occur during a visit. A pre-visit checklist and planning tools help organize and reinforce actions. Incorporate pre-visit planning into daily huddles. Consider ways to effectively utilize the skills of a broad range of staff, such as assigning a subpanel of patients with uncomplicated chronic conditions to nurses or pharmacists who manage the chronic condition (including cancer screening) using standing orders, where appropriate.42

**Action Item:** Create a cancer screening proficiency checklist outlining skills related to cancer screening required for various members of the care team. Perform pre-visit planning/huddles. Train staff in use of tools. Implement interventions outlined in NACHC’s [Care Teams Action Guide](#) and [Care Management Action Guide](#).43,44

**STEP 6** Optimize Health Information Systems as Part of a Whole-Systems Improvement Strategy

A whole-systems improvement strategy ensures a health center has a clearly defined vision, goals, and action steps that drive transformation and improved performance. Optimized health information processes and systems are key to this strategy. For cancer screening, this includes providing clinicians and care teams with clear guidance on how to document cancer screenings as part of a primary care visit. This requires documenting within structured fields in the electronic health record (EHR). Structured data refers to any data that reside in a fixed field within the patient record used for relational databases and spreadsheets. An example of a CRCS documentation guide for EHRs is the eClinicalWorks (eCW) guide, developed by the Health Center Controlled Network of New York with support from NACHC, ACS, and the
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National Association of Chronic Disease Directors. It is important to understand the workflow required for your particular EHR. For example, in eClinicalWorks, to get “credit” for CRCS within the system, an order opened in the Diagnostic Imaging tab must be closed out. Scanning results into patient documents, by itself, will not close an order. Colonoscopy results must be documented as both “received” and “reviewed”. Each EHR will have its unique requirements.

Equally important to documenting that a test was performed, or referral made, is tracking test results and follow-up. If your EHR does not allow you to track test distribution and returns, set up a simple tracking log. Assign staff to regularly check this log and recall patients who have not completed a screening test. Use electronic or manual tickler systems to follow dates test provided, test completed or referral made, and keep tracking results and follow-up actions to close the loop. Configure your EHR to create gap reports - which provide information on the status of preventive health screenings. Gap reports are a helpful tool to organize and prioritize the work of the care team around an upcoming patient visit.

Implement automated reminders in the EHR to prompt the clinical team. This approach has proven to be effective in improving screening.45 These alerts can be tailored by age and condition, and document past screenings, patient education, and patient refusals. Automated reminders not only prompt the care team to perform screening but also alert the team to recall patients who received a home stool-based test.

**Action Item:** Create EHR algorithms that remind providers to recommend cancer screening and templates to capture screening data. Design tools, such as screenshot “cheat sheets,” to guide providers and staff in capturing cancer screening as structured data. Embed health information system optimization with a larger, whole-system improvement strategy.

**Engage Patients**

Engage and educate patients about the importance of regular cancer screening. Health centers should have patient education materials available in multiple languages, at appropriate literary levels, with translators available as needed. The availability of materials that use pictures and visuals, rather than words, is also important. For CRCS, consider creating a mock stool test demonstration that can be used to instruct patients and for patients to demonstrate the technique via teach-back. Helpful tools to create your own materials include:

- Healthfinder.gov Shared Decision-Making Tool: 'Colorectal Cancer Screening: Which Test Would I Prefer?'
- CDC materials such as: Colorectal Cancer Print Materials including factsheets, booklets and brochures, and posters.
- FluFit and FluFOBT Programs, including FluFOBT Implementation Guide for Primary Care Practices.
- Patient-facing educational videos, such as those developed by Cedars Sinai, on breast cancer screenings, colon cancer screenings, and colonoscopies.
- Patients can take this short quiz to receive personalized CRC screening options based on your individual risk factors.
- The American College of Obstetricians and Gynecologists (ACOG): Cervical Cancer Screening Infographic.
- The Mayo clinic answers questions about cervical cancer screening, such as, “What Does it Mean to have an Abnormal Pap Smear?” in this three-minute video.
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- The National Cancer Institute provides patient and provider fliers for cervical cancer screenings and breast cancer screenings. They also offer a patient booklet on Understanding Cervical Changes: A Health Guide.
- John Hopkins Medicine provides a video on What to Expect During your First Mammogram and an article highlighting 6 Mammogram Myths.

Use patient reminders and telephone and text messaging systems to emphasize provider recommendations and facilitate the health center's integrated approach to cancer screening and chronic disease monitoring. For example, a script can include provider recommendations for specific cancer screening and chronic disease monitoring, as appropriate. Automated telephone calls have been shown to improve the completion of FOBT. Mailing FOBT/FIT tests to eligible patients in advance of an upcoming visit has been shown to substantially increase screening rates.

Patient navigation can also support patient engagement. Navigators may be trained lay individuals or skilled professionals, such as nurses or social workers, who support patients in accessing screening tests, with follow-up if an abnormality is detected. The NCCR's toolkit Paying For Colorectal Cancer Screening Navigation Toolkit & Interactive Website reviews the evidence base for colorectal cancer screening navigation and provides practical tools and case studies to implement, and be reimbursed for, a patient navigation program.

**Action Item:** Engage and educate patients on the importance of cancer screening. Use patient reminders, including telephone or text messaging to emphasize provider recommendations for cancer screening. See NACHC's Patient Engagement Action Guide for more information.

**Develop/Enhance Community Partnerships**

Partnerships are key to cancer screening efforts. For colorectal cancer screening, this requires partnerships with colonoscopists/endoscopists. Begin by calculating your health center's need for colonoscopies. Positive stool tests require a colonoscopy, as do patients at high risk for colorectal cancer. The overall stool test positivity rate is generally 5-10%. See page 30 of the ACS STEPS for Increasing Colorectal Cancer Screening Rates, A Manual for Primary Care Practices for calculation assistance.

Consider direct referral agreements with colonoscopists/endoscopists. Direct referrals allow primary care providers to medically clear patients for a colonoscopy, which allows a patient to meet the colonoscopist and receive a colonoscopy on the same day. For additional information on direct referral, see page 31 of the ACS STEPS Guide. Develop a Memorandum of Understanding (MOU) to clearly outline expectations with colonoscopists/endoscopists (e.g., one colonoscopy per week, patient compliance support through a Patient Navigator). A sample Direct Endoscopy Referral form can be found in Appendix C4 of the ACS STEPS Guide; a sample Memorandum of Understanding with gastrointestinal (GI) and other specialty providers can be found in Appendix C14. Monitor the quality of care provided by the colonoscopists to whom you refer patients. Three key areas to monitor for the colonoscopists are: (1) Reporting of colonoscopy results. The Standardized Colonoscopy Reporting and Data System (CO-RADS) outlines elements to be documented in a colonoscopy report; (2) Follow-up protocol. Determine follow-up procedures based on results of colonoscopy; and (3) Quality of colonoscopies. Obtain periodic reports from endoscopists of adenoma detection rates, cecal intubation rate, quality of bowel prep, and use of appropriate intervals for screening.
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After your health center receives and the provider reads the colonoscopy report, it is important to appropriately document results and follow-up plans. Look to charity colonoscopy programs (for the under-insured and uninsured) and other resources to support payment of screenings.

**Action Item: Identify, contact, and formalize partnerships with local colonoscopists/endoscopists.** Create a list or database of other community partnerships to support the full health and social service needs of health center patients.

**STEP 9**

Tailor Treatment for Social Context

Data on social risk can also be used to improve cancer screening rates by informing the need for more targeted services, such as care coordination and follow-up for higher risk patients. Financial and other barriers that patients may face should be considered, such as the need for transportation/gas costs to travel to a mammogram or colonoscopy. Assess patients’ potential food insecurity, housing instability, financial and other barriers, and apply that information to treatment decisions. Refer patients to community resources, as appropriate. For patients diagnosed with cancer, develop an inventory of community resources that may provide assistance during treatment such as **Family Reach**, which serves patients facing hardship after a cancer diagnosis.

**Action Item: Incorporate social risk assessment into the patient visit process.** Document social risk factors in structured data fields within the EHR. Develop an inventory of community resources to help patients access cancer screening and, for those diagnosed with cancer, locate financial assistance while undergoing treatment.

**STEP 10**

Maximize Reimbursement

Opportunities exist for health centers to be reimbursed for services outside the prospective-payment system (PPS), which reimburses health centers a flat fee for a predetermined set of services. Additional reimbursement opportunities include a range of care management services under the Centers for Medicare and Medicare Services (CMS), including Chronic Care Management (CCM), Principal Care Management (PCM), Transitional Care Management (TCM), and more. Visit NACHC’s Value Transformation Framework webpage to view over a dozen **Reimbursement Tips** that outline revenue opportunities outside of PPS. Additional reimbursement may also be available in your state from Medicaid, health home initiatives, or from local payers. Health centers should be familiar with these payment opportunities and establish mechanisms to submit for reimbursement, where qualified.

**Action Item: Collect reimbursement for all care and services provided. Consider adding business lines that support cancer screening (e.g., care management) and generate additional revenue.**

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CANCER SCREENING

References