VALUE TRANSFORMATION FRAMEWORK
Companion Action Guide >> Evidence-Based Care

⊕ HEALTH CENTER

⚙ INFRASTRUCTURE	➕ CARE DELIVERY	👥 PEOPLE

⚙ CANCER SCREENING

Providing cervical and colorectal cancer screening that improves health outcomes, improves patient and provider experiences, and reduces costs (the Quadruple Aim), requires health centers to couple evidence-based cancer screening interventions with larger systems-level change. NACHC's Value Transformation Framework is designed to guide this systems approach to transformation.

WHY
is attention to cancer screening so important?

Over 50,000 adults in the United States (U.S.) are expected to die from colorectal cancer in 2019, the third leading cause of cancer-related death.[1] Approximately 13,000 U.S. women will be diagnosed with cervical cancer in 2019, and roughly 4,250 will die.[2]

Screening to detect polyps or cancer at an early stage has been proven to save lives.[3] The United States Preventive Services Task Force (USPSTF) gives a "Grade A"– its highest endorsement—to the recommendation to screen for colorectal cancer from age 50 to 75[4] and for cervical cancer from age 21 to 65.[5] The Healthy People 2020 screening targets for these populations are 70.5% and 93% for colorectal and cervical cancer screening, respectively.[6]

Despite these goals, one quarter of adults 50 – 75 years old have never been screened for colorectal cancer.[7] In 2016, 67% of eligible adults were up-to-date with colorectal cancer screening (CRCS)[8] as compared to 40% in health centers.[9] Screening prevalence is lower among immigrants who have been in the U.S. for less than 10 years.[10]

The same trends hold for cervical cancer screening, despite evidence that it also saves lives. In 2015, 81% of eligible women were up-to-date for cervical cancer screening[9] as compared to 56% in health centers.[11] Screening rates are lower for: older women;[12] 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 US residents for less than 10 years.[13]

This Evidence-Based Companion Guide on cancer screening explores the evidence-based steps for improving colorectal and cervical cancer screening in health centers. Used alongside the Evidence-Based Care Action Guide, it offers health centers an actionable road map to cancer screening within the context of whole person care.

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Community health centers play a critical role in providing care and preventive services to the nation's most vulnerable populations. They serve approximately 28 million people—more than two-thirds of whom are uninsured or on Medicaid. As evidenced by 2018 UDS data showing that only 56% of women age 23-64 were screened for cervical cancer, and 44% of patients age 50-75 for colorectal cancer,[14,15] identifying effective ways to improve screening rates can help health centers achieve Healthy People 2020 goals, better health outcomes and experiences, and reduced costs.

WHAT
are the clinical guidelines for colorectal and cervical cancer screening?
Colorectal Cancer

Screening with either colonoscopy every 10 years or an annual high-sensitivity guaiac-based Fecal Occult Blood Test (FOBT) or Fecal Immunochemical Test (FIT) has been shown to decrease the incidence and mortality of colorectal cancer.[16] The evidence shows that annual, high-quality stool-blood screening is comparable to a high-quality colonoscopy-based screening program when positive stool tests are followed by colonoscopy.[16–19] And some patients prefer a less invasive test or may not be able to afford a colonoscopy, which often involves some out-of-pocket expense.

Clinical guidelines recommend screening men and women age 50-75 for colorectal cancer.[4] Adults 76-85 years of age may be screened depending on their overall health and personal preferences. Testing is recommended to begin earlier than age 50 for individuals with elevated risk for colorectal cancer such as:[20]

- 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 colorectal cancer.

Colorectal Cancer Screening Guidelines

USPSTF RECOMMENDATIONS: GRADE A*	
Screen average-risk adults **age 50-75**+ for colorectal cancer.	
Stool-based tests	• High-sensitivity Guaiac Fecal Occult Blood Tests (gFOBT) - **every year**. • Fecal Immunochemical Tests (FIT) - **every year**. • FIT-DNA - **every 1 or 3 years**.
Visual tests	• Colonoscopy - **every 10 years.** • CT colonography - **every 5 years**. • Flexible sigmoidoscopy - **every 5 years.** • Flexible sigmoidoscopy with FIT - **Flexible sigmoidoscopy every 10 years plus FIT every year**.

*U.S. Preventive Services Task Force: Final Recommendation Statement, Colorectal Cancer Screening
Note: the American Cancer Society recommends screening for all individuals begin at age 45.[21]

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Cervical Cancer

All major screening guidelines recommend starting cervical cancer screening at age 21.[5,22,23] 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. For women age 21-29, the USPSTF gives a "Grade A" recommendation, its highest recommendation, to screen with cervical cytology (pap test) alone every 3 years.[5] For women age 30-65, the "Grade A" recommendation is to screen every 3 years with cervical cytology alone, every 5 years with high-risk human papillomavirus (hrHPV) testing alone, or every 5 years with hrHPV testing in combination with cytology (co-testing).[5]

USPSTF RECOMMENDATIONS: GRADE A[+]	
Women age 21-29	• Screen with cervical cytology alone every 3 years.
Women age 30-65	• Screen every 3 years with cervical cytology alone. OR • Screen every 5 years with high-risk human papillomavirus (hrHPV) testing alone. OR • Screen every 5 years with hrHPV testing in combination with cytology (co-testing).
Do NOT screen	• Women who have had a hysterectomy with removal of the cervix and no history of a high-grade precancerous lesion or cervical cancer. • Women younger than 21 years. • Women older than 65 years with adequate screening history and not otherwise at risk for cervical cancer.

+U.S. Preventive Services Task Force Final Recommendation Statement, Cervical Cancer Screening
++Centers for Disease Control and Prevention: comparison of major cervical cancer screening guidelines

HOW
can health centers improve cancer screening?

Health centers can improve colorectal and cervical cancer screening rates by implementing evidence-based cancer screening interventions coupled with systems-level interventions described in the *Evidence-Based Care Action Guide*.

EVIDENCE-BASED COMPANION GUIDE: CANCER SCREENING

This Action Guide takes the ten (10) systems-level interventions from the *Evidence-Based Care Action Guide* and expands those steps specifically for colorectal and cervical cancer screening.

STEP 1   **Engage Leadership:** Prioritize target conditions, such as cancer screening; set organizational goals for improvement.

STEP 2   **Apply Population Health Management Strategies, Including Risk Stratification and Registries:** 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.

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STEP 3 **Design Models of Care that Incorporate Evidence-Based Cancer Screening Interventions:** Define a core set of cancer screening interventions that your health center will focus on. Target interventions to the needs of complex/high-risk, medium-risk, and low-risk patients.

STEP 4 **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 5 **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 ways.

STEP 6 **Optimize Health Information Systems:** Leverage health information technology to track, improve, and manage cancer screening activities; capture the data needed for care delivery, reimbursement, and reporting.

STEP 7 **Engage Patients and Support Self-Management:** Tap into a variety of resources for engaging patients in cancer screening.

STEP 8 **Develop/Enhance Community Partnerships:** Create a list of community partners in support of cancer screening; establish memorandums of understanding to formalize collaborations.

STEP 9 **Tailor Treatment for Social Context:** Incorporate social risk assessment into patient processes. Create an inventory of referral sources that match the social determinants of health needs of your community.

STEP 10 **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.

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 colorectal and cervical cancer screenings 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.[17,24]

Make the 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 Colorectal Roundtable Initiative's goal to achieve a CRCS rate of 80% or higher across the nation.[25]

Action Item: Leadership incorporates cancer screening as one element within the larger business case for value transformation. See NACHC's Leadership Action Guide[26] and *Evidence-Based Care Action Guide*[27] for more information. Set targets, benchmark success, and commit to improving cancer screening rates as part of local, state, or national initiatives.

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STEP 2

Apply Population Health Management Strategies, Including Risk Stratification and Registries

NACHC's Value Transformation Framework defines population health management as the "systematic processes for utilizing data on patient populations to target interventions for better health outcomes, with a better care experience, at a lower cost".[28] 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 the CDC's U.S. Cancer Statistics Data Visualizations Tool: click the "State/County" tab to compare rates of cervical, colorectal or other cancers in your county to those in nearby counties, as well as at the congressional district, state, and national levels. CDC's Quick Facts, CRCS shows CRCS trends by year, state, race/ethnicity, insurance status, sex, and age. The 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.
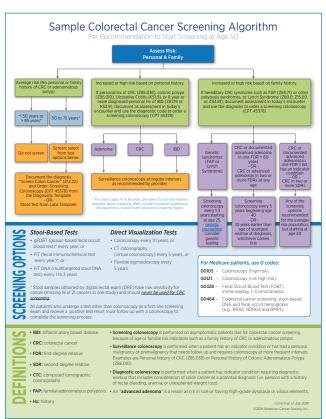
⚙ **Action Item: Complete risk stratification and utilize cancer screening registries to identify and target patients for cancer screening within each subgroup.** Use health center, local, and national data to support clinic-based quality improvements related to cancer screening and other priority conditions. See NACHC's Risk Stratification Action Guide for more.[29]

STEP 3

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 recall steps for how and when patients are contacted; and how this information will be documented. Process maps and cancer screening algorithms (see right) can support implementation of clinical policies.

Source: American Cancer Society, available at: Sample Risk Assessment Screening Algorithm, National Colorectal Roundtable Algorithms available for screening starting at age 50 or 45.

Sample Colorectal Cancer Screening Algorithm
Per Recommendation to Start Screening at Age 50

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Summary of Cervical Cancer Screening Results and Management for Women 30 Years of Age or Older

Test Results*	What to Do Next
Normal Pap and Negative HPV	Rescreen in 5 years
Normal Pap and Positive HPV	Repeat co-test in one year or do HPV DNA typing now (see ASCCP guidelines above)
ASCUS Pap, No HPV Test	Repeat cytology in one year or do HPV test now (see ASCCP guidelines above)
ASCUS Pap and Negative HPV LSIL Pap and Negative HPV	Repeat Pap and co-test at interval as per ASCCP guidelines
ASCUS Pap and Positive HPV; LSIL Pap and Positive or Unknown HPV; ASC-H Pap; HSIL Pap	Colposcopy and/or referral to gynecologist

*ACS-US= atypical squamous cells of undetermined significance; HSIL=high-grade squamous intraepithelial lesions; LSIL=low-grade squamous intrepithelial lesions; NILM=negative for intraepithelial lesion or malignancy; ASC-H=atypical squamous cells, cannot exclude HSIL

Source: CDC, available at: Cervical Cancer Screening Results and Management

⚙⊕ **Action Item: Design models of care that include evidence-based interventions for colorectal and cervical cancer screening for high-risk, rising-risk, and low-risk patients.** Clearly define a core set of evidence-based cancer screening interventions as well as 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.[30]

STEP 4

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 fecal immunochemical tests (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.[17] 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.[31] CDC offers a 36-minute video: Delivering High-Quality Stool Blood Testing that outlines why stool based testing should be offered to patients and covers such topics as selecting an effective test, test handling and processing, and follow-up activities. Select a high sensitivity test(s) using the Clinician's Reference Stool-Based Tests for Colorectal Cancer Screening.

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Colonoscopy. 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.[17,32,33] Some examples include:

- Sample Health Center Clinical Policy for Colorectal Cancer Screening
- Sample Health Center Clinical Policy for Cervical Cancer Screening
- Comparison of National Evidence-Based Cervical Cancer Screening Guidelines

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.[34]

- Sample diabetes standing order, Providence, St. Peter Family Medicine
- Sample diabetes standing order, Kentucky Diabetes Network, Inc.

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).

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, is essential. For clinicians, ensure adequate training in performing pap smears. 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 and cervical cancer screening, blood pressure parameters, glucose levels, depression screening scale). Tools and resources that aid staff measurement and decision-making (e.g., FIT instructional documents,) can improve performance.[17,24]

A provider's recommendation is the most powerful influencer on a patient's decision to get screened for cancer.[17,35–38] 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.[39,40]

Use daily huddles that incorporate pre-visit planning (e.g. identifying care gaps in advance of patient visit, including cancer screening, reminding patients of visit). Practices may increase their panel size by 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.[41] Pre-visit planning is key to effective patient visits and incorporating cancer screening and chronic disease management interventions.[24] Use a previsit checklist and planning tools.

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⚙➕ **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.** Implement interventions outlined in NACHC's Care Teams Action Guide and NACHC's Care Management Action Guide.[42,43]

STEP 6

Optimize health information systems

Create provider guidance on how to document cervical and colorectal cancer screening as part of a primary care visit. This requires documenting within structured fields in the EHR. Structured data refers to any data that reside in a fixed field within the patient record used for relational databases and spreadsheets. Examples of CRCS documentation guides for leading EHRs include: Colorectal Cancer Screening and Risk Assessment Workflow: Documentation Guide for Health Center NextGen Users developed by NACHC and the eClinicalWorks (eCW) guide, developed by the Health Center Network of New York with support from NACHC, ACS, and the National Association of Chronic Disease Directors. Note for eClinicalWorks users: 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 out an order. Colonoscopy results must be documented as both "received" and "reviewed".

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.[44] These alerts can be tailored by age and condition, and document past screenings, patient education, and patient refusals. Reminders are needed not only to do a test but 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.

STEP 7

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:

- Northwestern University 5-minute video: Get Screened for Colorectal Cancer is available in English and Spanish
- Healthfinder.gov Shared Decision-Making Tool: "Colorectal Cancer Screening: Which test would I prefer?"

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- CDC materials such as: Colorectal Cancer Print Materials including factsheets, booklets and brochures, and posters
- FluFIT materials such as: Facts and Talking Points for Staff to Use With Patients (CRCS and FIT)
- The American College of Obstetricians and Gynecologists (ACOG): Cervical Cancer Screening Infographic

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.[45] Mailing FOBT/FIT tests to eligible patients in advance of an upcoming visit has been shown to substantially increase screening rates.[46]

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.[47] Explore how to implement a patient navigation program.

STEP 8

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%.[48] See page 17 of the American Cancer Society's (ACS) Steps for Increasing Colorectal Cancer Screening Rates: A Manual for Community Health Centers for calculation assistance.

Consider direct referral agreements with colonoscopists/endoscopists. Direct referrals allow primary care providers to medically clear patients for colonoscopy, which allows a patient to meet the colonoscopist and receive a colonoscopy on the same day. For a list of eligibility criteria for direct referral, and a comparison of colonoscopy preparatory agents, see page 33 of the same ACS 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 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. The types of things to monitor include: (1) Reporting of colonoscopy results. The Standardized Colonoscopy Reporting and Data System (CO-RADS) recommendations outline elements to be documented in a colonoscopy report; (2) Follow-up protocol. Determine follow-up procedures based on results of colonoscopy; and (3) Monitor 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. Below is a list of surveillance and follow-up guidelines.

2012 Recommendations for Surveillance and Screening Intervals in Individuals at Average Risk.

Source: Steps for Increasing Colorectal Cancer Screening Rates: A Manual for Community Health Centers[17]

Most advanced finding(s) on baseline colonoscopy	Recommended surveillance interval (years)
No polyps	10
Small (<10mm) hyperplastic polyps in rectum or sigmoid	10
1-2 small (<10mm) tubular adenomas	5-10
3-10 tubular adenomas	3
> 10 adenomas	<3
One or more tubular adenomas 10mm	3
One or more villous adenomas	3
Adenoma with high grade dysplasia*	3
Serrated lesions • Sessile serrated polyp(s) < 10mm with no dysplasia • Sessile serrated polyp with dysplasia OR • Traditional serrated adenoma	5 3
Serrated polyposis syndrome*	1

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 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.** Develop an inventory of community resources to help patients access cancer screening and, for those diagnosed with cancer, locate financial assistance while undergoing treatment.

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STEP 10 Maximize Reimbursement

Opportunities exist for health centers to be reimbursed for services outside of the prospective-payment system. This includes reimbursement that is available for such services as Chronic Care Management (CCM) under the Centers for Medicare and Medicare Services (CMS). Additional reimbursement may also be available in your state from Medicaid or 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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