Improving Colorectal Cancer Screening in the FQHC Setting: System Changes & the Importance of the Medical Neighborhood

LPCA 3rd Annual Clinical Summit
New Orleans, LA
June 3, 2016

Robert A. Smith, PhD
VP, Cancer Screening
American Cancer Society
Colorectal Cancer

- Third most common cancer, 2\textsuperscript{nd} deadliest
  - 144,490 new cases
  - 49,190 deaths
- 90% of cases in those age 50 and older
- Highest incidence and death rates in:
  - African American
  - American Indian/Alaska Native
- Incidence and death rates falling past 20 years
- 1.1 million individuals living with current or past CRC

ACS Cancer Facts and Figures, 2016
Overall CRC death rate decline in the US

CRC mortality decline per decade:

4%  11%  15%  27% (2000-2011)

Siegel et al, CEBP 2015
Trends in Colorectal Cancer Death Rates* by Race/Ethnicity and Sex, US, 1975-2010
Decline in CRC Incidence and Mortality

- Decline due to:
  - Improvements in treatment
  - **Screening** \(\rightarrow\) earlier cancer detection \(\rightarrow\) improved survival

### Survival Rates by Disease Stage*

<table>
<thead>
<tr>
<th>Disease Stage</th>
<th>5-yr Survival</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local</td>
<td>90.3%</td>
</tr>
<tr>
<td>Regional</td>
<td>70.4%</td>
</tr>
<tr>
<td>Distant</td>
<td>12.5%</td>
</tr>
</tbody>
</table>
Decline in CRC Incidence

- Incidence decline largely due to:
  - **Screening** → polyp removal → prevention

- Recent study estimates that screening has prevented approximately **550,000** cases of colorectal cancer in the US over the past three decades

Yang, Cancer 2014
80% Colon Cancer Screening Rate By 2018
A National Initiative
80% screening rate by 2018 yields:

- **43,000** averted cases and **21,000** averted cancer deaths/year
- **277,000** cases averted and **203,000 total averted deaths** from 2013 through 2030

Meester, Cancer 2015
In 2012, 65.1% of U.S. adults were up to date with screening.

- The percentages of blacks and whites up-to-date with screening were equivalent.
- Lower rates for Hispanics and Native Americans.
- Lowest rates among the uninsured.
In 2012, 62.3% of North Carolina adults were up to date with screening.

- Racial and ethnic differences persist
- Lowest rates in low education level and uninsured groups
Who’s Not Screened?

Testing status of adults aged 50–75 years

- Up-to-date CRC testing: 65%
- Tested but not up-to-date: 28%
- Never tested: 7%

Insurance status of never tested adults aged 50–75 years

- Insured: 76%
- Uninsured: 24%

System Barriers to Effective Screening

- Medical practice is demand (patient) driven
- Practice demands are numerous and diverse
- Few practices currently have mechanisms to assure that every eligible patient gets an appropriate recommendation for screening.
- Opportunistic vs organized screening
# Characteristics of High Performing Practices

## Table 2. Strategies to Achieve High Performance in Colorectal Cancer Screening

<table>
<thead>
<tr>
<th>Improvement Model</th>
<th>Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prioritize performance</td>
<td>Commit to practice changes needed to improve.</td>
</tr>
<tr>
<td></td>
<td>Have regular practice meetings to review improvement approaches and their impact.</td>
</tr>
<tr>
<td></td>
<td>Offer patients choice of recommended CRC screening options.</td>
</tr>
<tr>
<td>Delivery system design</td>
<td>Adopt and publicize recommendation for regular health maintenance visits.</td>
</tr>
<tr>
<td></td>
<td>Remind patients of needed health maintenance visits.</td>
</tr>
<tr>
<td></td>
<td>Standing orders for CRC screening.</td>
</tr>
<tr>
<td></td>
<td>Review CRC screening status at all patient visits.</td>
</tr>
<tr>
<td>Electronic medical record tools</td>
<td>Maintain accurate information in the health maintenance tables.</td>
</tr>
<tr>
<td></td>
<td>Empower all staff to review health maintenance table at all patient contacts.</td>
</tr>
<tr>
<td></td>
<td>Use reports to identify and contact patients not current with CRC screening.</td>
</tr>
<tr>
<td>Patient activation</td>
<td>Repeat messages to patients who do not initially agree to screening.</td>
</tr>
<tr>
<td></td>
<td>Provide patient education materials about CRC screening.</td>
</tr>
<tr>
<td></td>
<td>Contact patients that have not completed ordered screening.</td>
</tr>
</tbody>
</table>
80% by 2018

Hospitals
working together to save lives

Colorectal cancer is the second leading cause of cancer death in the United States among men and women combined, yet it’s one of the most preventable.

Colorectal cancer is the leading cause of death for both men and women in the United States, yet it’s one of the most preventable.

Reduce health through prevention. Help save lives.

80% by 2018

Primary Care Physicians
working together to save lives

estimated costs for one a patient with metastatic cancer are as high as $15 billion. When adults ages 50 and older are screened for colon cancer through the detection and removal of precancerous polyps, the cost of treatment is more than 50% lower when treatment is not necessary.

The number of colorectal cancer cases is dropping thanks to screening. We are helping save lives. We can save more.

How to Increase Colorectal Cancer Screening Rates in Practice:
A Primary Care Clinician’s* Evidence-Based Toolbox and Guide
2008

*Including Family Physicians, General Internists, Obstetrician-Gynecologists, Nurse Practitioners, Physician Assistants, and their Office Managers

Mona Sarfaty, MD

EDITORS
Karen Peterson, PhD
Richard Wender, MD
“Action Plan” Toolkit Version

- Eight page guide introduces clinicians and staff to concepts and tools provided in the full Toolkit
- Contains links to the full Toolkit, tools and resources
- Not colorectal-specific; practical, action-oriented assistance that can be used in the office to improve screening rates for multiple cancer sites (colon, breast and cervical)

Available at http://nccrt.org/about/provider-education/crc-clinician-guide/
Improve Cancer Screening Rates
Using the Four Essential Strategies

1. Make a Recommendation
The primary reason patients say they have not gotten screened is because a doctor did not advise it.
A recommendation from you is vital.

2. Develop a Screening Policy
Create a standardized course of action.
Engage your team in creating, supporting, and following the policy.

3. Be Persistent with Reminders
Track test results, and follow up with providers and patients.
You may need to remind patients several times before they follow through.

4. Measure Practice Progress
Establish a baseline screening rate, and set an ambitious practice goal.
Seeing screening rates improve can be rewarding for your team.

Communication

Be clear that screening is important. Ask patients about their needs and preferences.
Involving your staff to make screening more effective.

Measure your progress to tell if you are doing as well as you think.
Create a simple tracking system that will help you follow up as needed.
Staff Involvement

- Key Point.....the clinicians cannot do it all!
- Time that patients spend with non-clinician staff is underutilized
- Standing orders can empower nurses, intake staff, etc. to distribute educational materials, schedule appointments, etc.
- Involve staff in meetings to discuss progress in achieving office goals for improving the delivery of preventive services
#1: Make a Recommendation

Assess a patient’s risk status and receptivity to screening.

Be clear that screening is important. Ask patients about their needs and preferences.

Make a Recommendation

The primary reason patients say they have not gotten screened is because a doctor did not advise it.

A recommendation from you is vital.
Sample Screening Algorithm

Assess Risk: Person & Family

Average Risk = no family hx of CRC or adenomatous polyp

- < 50 yrs
  - Do Not Screen

- ≥ 50 yrs
  - Screen*

  If + Diagnosis by Colonoscopy

+ Personal History

- Adenoma
- CRC
- IBD**

  Surveillance Colonoscopy

+ Family History

- Germline Syndrome
- Adenoma or Cancer

  Childhood Screening

  Screen 10 yrs before youngest relative or age 40

* Options:
  - FOBT at home qyr
  - Flex sig q5yr
  - FOBT + flex sig
  - DCBE q5-10 yrs
  - Colonoscopy q10 yrs

** IBD refers to inflammatory bowel disease for eight years
Who Should NOT Be Screened?

Guidelines:

- **ACS**
  - *End screening at a point where curative therapy would not be offered due to life-limiting co-morbidity (e.g. < 10 year life expectancy)*

- **USPSTF (2008)**
  - *The USPSTF recommends screening for CRC ... in adults, beginning at age 50 years and continuing until age 75 years.*
  - *Routine screening between ages 76-85 is not recommended.*
Co-Morbidities and Screening

How guidelines are often operationalized:

Charlson index and approximate life expectancy in a 75 year old man:

- 0  >10 yrs
- 1-3  5-10 yrs
- ≥4  <5 yrs

Fig 2 Screening at age 75 v age 76 (n=21 499)

Saini et al. BMJ 2014
#1: Make a Recommendation

Assess a patient’s risk status and receptivity to screening.

Determine screening messages you and your staff will share with patients.
Address Potential Barriers to Screening*

#1: Affordability
- “I do not have health insurance and would not be able to afford this test. I do not feel the need to have it done.”

#2: Lack of symptoms
- “Doctors are seen when the symptoms are evidently presumed, not before.”

#3: No family history of colon cancer
- “Never had any problems and my family had no problems, so felt it wasn't really necessary.”

*Based on 2014 consumer surveys
Address Potential Barriers to Screening*

#4: Perceptions about the unpleasantness of the test
- “I do not think it is a good idea to stick something where the sun don’t shine. The yellow Gatorade I cannot stomach.”

#5: Doctor did not recommend it
- “I fear it will be uncomfortable. My doctor has never mentioned it to me, so I just let it go.”

#6: Priority of other health issues
- “I just turned 50 and I am dealing with another health issue, so it's on the back burner.”

*Based on 2014 consumer surveys

#1 reason among Black/African Americans; #3 reason among Hispanics
Activating Messages that Motivate

- Most successful communications campaigns relay 3 messages to allow consumers to comprehend what is being asked to motivate action.

- We recommend utilizing these messages, or similar messaging, to educate your constituents around options to help achieve our goal.

<table>
<thead>
<tr>
<th>There are several screening options available, including simple take home options. Talk to your doctor about getting screened.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colon cancer is the second leading cause of cancer deaths in the U.S., when men and women are combined, yet it can be prevented or detected at an early stage.</td>
</tr>
<tr>
<td>Preventing colon cancer, or finding it early, doesn’t have to be expensive. There are simple, affordable tests available. Get screened! Call your doctor today.</td>
</tr>
</tbody>
</table>
**What it is:**
Summarizes research findings and provides guidance on how to communicate CRC screening recommendations to core unscreened audiences

**What’s in it:**
Tools and resources including:
- Infographics
- Press release template
- Social media messages
- Web banner ads
- Cobranded inter-office TV slides
- 80X 2018 core messaging
- “Ways to Get Involved” tools
New! Hispanics and Colorectal Cancer Companion Guide

Market research among Spanish-speakers

--Perceptions
--Barriers
--Recommendations
--Tested Messages
--Sample Collateral

#2: Develop a Screening Policy

- Involve your staff to make screening more effective.
  - Create a standard course of action for screenings, document it, and share it.
  - Ensure patient education & follow-up
Options for Average risk adults age 50 and older:

*Tests That Detect Adenomatous Polyps and Cancer*

- Colonoscopy every 10 years, or
- Flexible sigmoidoscopy (FSIG) every 5 years, or
- Double contrast barium enema (DCBE) every 5 years, or
- CT colonography (CTC) every 5 years

*Tests That Primarily Detect Cancer*

- Guaiac-based fecal occult blood test (gFOBT) with high test sensitivity for cancer, or
- Fecal immunochemical test (FIT) with high test sensitivity for cancer, or
- Stool DNA test (sDNA), with high sensitivity for cancer
Recommended Screening Tests
ACS and USPSTF

- Colonoscopy
- High Sensitivity Fecal Occult Blood Testing
  - High Sensitivity Guaiac Tests
  - Fecal Immunochemical Tests
- Flexible Sigmoidoscopy (FSIG)*
- CT colonography*
- Stool DNA*

*Highly limited utilization in US at present
Colonoscopy

• Allows direct visualization of entire colon lumen
• Screening, diagnostic and therapeutic
• 10 yr interval
• The most common screening test in US (>80%)
Influence of colonoscopic polypectomy on risk of death from colorectal cancer

Colonoscopic polypectomy was associated with a 53% reduction in colorectal cancer mortality.
Why Colonoscopy is NOT “a gold standard screening test”

- Evidence does not support “best test” or “gold standard”
  - Colonoscopy misses ~ 10% of significant lesions in expert settings
  - Wide variation in quality (when data are captured and available)
  - More costly on a one-time basis
  - Higher potential for patient injury than other tests
Quality Issues with Colonoscopy

- Poor pre-procedure documentation
- Poor prep
- Failure to reach the cecum
- Rapid withdrawal time
- Adverse events
- Over and under utilization of the procedure
- Highly variable reports
- Poor feedback
- Highly variable adenoma detection rate
- Interval cancers

- Most endoscopists are unaware of “their numbers,” since most facilities do not track their data.
Adenoma Detection Rate (ADR)

- ADR – rate of detection of adenomatous polyps at screening colonoscopy in population age 50+
- At least one adenoma should be found 30 percent of the time in men, and 20 percent of the time in women (25 percent composite)
- Studies indicate wide variation in ADR, even among clinicians in same practice
- ADR associated with adverse outcomes in a number of studies
ADR and Outcomes: Kaiser

- Data from 314,872 colonoscopies performed between January 1, 1998 and December 31, 2010
- 136 gastroenterologists
  - To be included GI had to have completed $\geq 300$ colonoscopies and 75 or more screening examinations during the study period
- ADRs ranged from 7.4% to 52.5%.

Corley et al. NEJM 2014: 370: 1298-1306
Hazard ratios for ADR and risk of advanced stage CRC, and fatal CRC
More Reasons Why Colonoscopy is NOT gold standard

- **Greater patient requirements** for successful completion
  - Requires a bowel prep and facility visit, and often a pre-procedure specialty office visit

- **Access**
  - Limited by insurance status, local resources

- **Patient preference**
  - Many individuals don’t want an invasive test or a test that requires a bowel prep
Types of Stool Tests*

A) Tests that detect aberrant DNA
   - One test (Cologuard) available in U.S.
   - Combines DNA mutation test with FIT
   - Limited use at present

B) Tests that detect blood (Fecal Occult Blood Tests)
   - Two types
     - Guaiac-based FOBT
     - Immunochemical (FIT)

*Appropriate only for those at average risk for CRC
Guaiac Tests

- Most common type in U.S.
- Solid evidence (3 RCT’s)
- 30 year f/u (NEJM Oct 2013)
- Need specimens from 3 bowel movements
- Non-specific
- Results influenced by foods and medications
- Better sensitivity with newer versions (Hemoccult Sensa)
- Older forms (Hemoccult II) not recommended!
Minnesota Colon Cancer Control Study

- 33,020 participants, with 30 years of follow-up
- Rehydrated guaiac–based FOBT
- Screening reduced colorectal-cancer mortality
- Relative risk for annual screening:
  - 0.68; (95% CI, 0.56 to 0.82)
- Relative risk for biennial screening:
  - 0.78; (95% CI, 0.65 to 0.93) through 30 years of follow-up.
- Conclusion: After 30 years of follow-up, an invitation to annual FOBT screening was associated with 32% fewer CRC deaths, and a biennial invitation was associated with 22% fewer deaths.
Single Panel FOBT Following Digital Rectal Exam

- Reasons to **STOP** single sample FOBT
  - Not recommended by the manufacturer of any test
  - Not recommended by any CRC screening guideline
  - Lowest sensitivity of any CRC screening test, i.e., *less than 5% for advanced neoplasia*
Fecal Immunochemical Tests (FIT)

- Specific for human blood and for lower GI bleeding
- Results not influenced by foods or medications
- Some types require only 1 or 2 stool specimens
- Higher sensitivity than older forms of guaiac-based FOBT
- Costs more than guaiac tests (but higher reimbursement)
FOBT/FIT: Accuracy

Annals of Internal Medicine

Accuracy of Fecal Immunochemical Tests for Colorectal Cancer
Systematic Review and Meta-analysis

Jeffrey K. Lee, MD, MAS; Elizabeth G. Liles, MD, MCR; Stephen Bent, MD; Theodore R. Levin, MD; and Douglas A. Corley, MD, PhD

Background: Performance characteristics of fecal immunochemical tests (FITs) to screen for colorectal cancer (CRC) have been inconsistent.

Purpose: To synthesize data about the diagnostic accuracy of FITs for CRC and identify factors affecting its performance characteristics.

Data Sources: Online databases, including MEDLINE and EMBASE, and bibliographies of included studies from 1996 to 2013.

Study Selection: All studies evaluating the diagnostic accuracy of FITs for CRC in asymptomatic, average-risk adults.

Data Extraction: Two reviewers independently extracted data and critiqued study quality.

Data Synthesis: Nineteen eligible studies were included and meta-analyzed. The pooled sensitivity, specificity, positive likelihood ratio, and negative likelihood ratio of FITs for CRC were 0.79 (95% CI, 0.69 to 0.86), 0.94 (CI, 0.92 to 0.95), 13.10 (CI, 10.49 to 16.35), 0.23 (CI, 0.15 to 0.33), respectively, with an overall diagnostic accuracy of 95% (CI, 93% to 97%). There was substantial heterogeneity between studies in both the pooled sensitivity and specificity estimates. Stratifying by cutoff value for a positive test result or removal of discontinued FIT brands resulted in homogeneous sensitivity estimates. Sensitivity for CRC improved with lower assay cutoff values for a positive test result (for example, 0.89 [CI, 0.80 to 0.95] at a cutoff value less than 20 μg/g vs. 0.70 [CI, 0.55 to 0.81] at cutoff values of 20 to 50 μg/g) but with a corresponding decrease in specificity. A single-sample FIT had similar sensitivity and specificity as several samples, independent of FIT brand.

Limitations: Only English-language articles were included. Lack of data prevented complete subgroup analyses by FIT brand.

Conclusion: Fecal immunochemical tests are moderately sensitive, are highly specific, and have high overall diagnostic accuracy for detecting CRC. Diagnostic performance of FITs depends on the cutoff value for a positive test result.

Primary Funding Source: National Institute of Diabetes and Digestive and Kidney Diseases and National Cancer Institute.


For author affiliations, see end of text.
Pooled sensitivity and specificity for FIT

79% sensitivity

FIT Quality Issues

All FIT are **not** created equal

- FDA clears guaiac FOBTs and FITs only for “detection of blood” – no assessment of cancer detection capability is required
- Most FDA-cleared FITs have no published data on their performance for detection of CRC or adenoma
- Some tests are currently marketed as “single sample” tests with no performance data on this use
- FDA is updating clearance criteria
### FITs With Published Data*
Available in the US

<table>
<thead>
<tr>
<th>Name</th>
<th>Manufacturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hemoccult-ICT/Flexsure OBT</td>
<td>Beckman-Coulter</td>
</tr>
<tr>
<td>Hemosure One Step</td>
<td>WHPM, Inc.</td>
</tr>
<tr>
<td>InSure / ColoVantage</td>
<td>Clinical Genomics</td>
</tr>
<tr>
<td>OC-Sensor / OC FIT-CHEK</td>
<td>Polymedco</td>
</tr>
<tr>
<td>OC-Auto Micro</td>
<td>Polymedco</td>
</tr>
<tr>
<td>OC-Light</td>
<td>Polymedco</td>
</tr>
</tbody>
</table>

*This list may not be comprehensive*
PCP Perceptions of Screening Tests

- **FOBT/FIT used, but:**
  - Effectiveness questioned by many clinicians
  - Lack of knowledge re: performance of new vs. older forms of stool tests, other quality issues

- **Colonoscopy viewed as the best screening test, but many patients face barriers or not willing**
  - Often recommended despite access or other challenges
  - Focus on colonoscopy associated with low screening rates in a number of studies
  - Patient preferences rarely solicited
Benefits, Harms, and Burdens of Recommended Screening Strategies Over a Lifetime

**B. Benefit: Colorectal Cancer Deaths Averted, per 1,000 Screened**

<table>
<thead>
<tr>
<th>Screening Strategy</th>
<th>Deaths Averted</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIT 1y</td>
<td>22 (20-23)</td>
</tr>
<tr>
<td>gFOBT 1y</td>
<td>22 (20-23)</td>
</tr>
<tr>
<td>SIG 10y + FIT 1y</td>
<td>23 (22-24)</td>
</tr>
<tr>
<td>COL 10y</td>
<td>24 (22-24)</td>
</tr>
</tbody>
</table>

**C. Harms (Proxy): Lifetime Number of Colonoscopies, per 1,000 Screened**

<table>
<thead>
<tr>
<th>Screening Strategy</th>
<th>Colonoscopies</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIT 1y</td>
<td>1,757 (1,739-1,899)</td>
</tr>
<tr>
<td>gFOBT 1y</td>
<td>2,253 (2,230-2,287)</td>
</tr>
<tr>
<td>SIG 10y + FIT 1y</td>
<td>2,289 (2,286-2,490)</td>
</tr>
<tr>
<td>COL 10y</td>
<td>4,049 (4,007-4,101)</td>
</tr>
</tbody>
</table>

Source: CISNET, 2015
Advantages of Stool Tests

- Less expensive
- No bowel preparation.
- Done in privacy at home.
- No need for time off work or assistance getting home after the procedure.
- Non-invasive – no risk of pain, bleeding, perforation
- Limits need for colonoscopies – required only if stool blood testing is abnormal.
Many Patients Prefer FOBT

Randomized clinical trial in which 997 patients in the San Francisco PH care system received different recommendations for screening:

Many patients will forgo screening if they are not offered an alternative to colonoscopy.

<table>
<thead>
<tr>
<th>Recommended Test</th>
<th>Completed Screening</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colonoscopy</td>
<td>38%</td>
</tr>
<tr>
<td>FOBT</td>
<td>67%</td>
</tr>
<tr>
<td>Colonoscopy or FOBT</td>
<td>69%</td>
</tr>
</tbody>
</table>

(Inadomi et al. 2012)
Many Patients Prefer FOBT/FIT

- Diverse sample of 323 adults given detailed side-by-side description of FOBT and colonoscopy (DeBourcy et al. 2007)
  - 53% preferred FOBT
  - Almost half felt very strongly about their preference

- 212 patients at 4 health centers rated different screening options with different attributes (Hawley et al. 2008)
  - 37% preferred colonoscopy
  - 31% preferred FOBT

- Nationally representative sample of 2068 VA patients given brief descriptions of each screening mode (Powell et al. 2009)
  - 37% preferred colonoscopy
  - 29% preferred FOBT
Making the Best Use of Scarce Resources: Screening colonoscopy vs. FIT

• Represents 20 patients

Screening colonoscopy (refer 1,000 patients)

- Eligible population, referred
- Patient refusal, no shows
- 1 cancer in 400-1000 colonoscopies

FIT testing (2,000 patients)

- Eligible population
- Patients with a positive FIT
- 1 cancer in 20 colonoscopies

Slide courtesy of Dr. G. Coronado
...Stool specimens for FOBT, including FIT, should be collected by patients at home, as recommended by the manufacturer. An in-office obtained stool specimen does not meet the measurement standard, nor does it comply with manufacturers’ recommendations or national screening guidelines...."
Stool Test Quality Issues

- Stool tests are appropriate only for *average risk* (no family history, no history of adenomas,...)
- Use only high sensitivity guaiac or FIT
  - Hemoccult II and other less sensitive guaiac tests should not be used for screening
- All positive tests must be followed up with colonoscopy
  - Patient should be aware of potential cost sharing if stool test is initial screening method
- “Throw in the toilet bowl” tests **not recommended**
  - Very little data, and existing studies show poor sensitivity for cancer
Clinicians Reference: FOBT

One page document designed to educate clinicians about important elements of colorectal cancer screening using fecal occult blood tests (FOBT).

Provides state-of-the-science information about guaiac and immunochemical FOBT, test performance and characteristics of high quality screening programs.

Available at www.cancer.org/colonmd
#3: Be Persistent with Reminders

Determine how your practice will notify patient and physician when screening and follow up is due.

Ensure that your system tracks test results and uses reminder prompts for patients and providers.
Patient Reminders

- Patient Reminder Types
  1. Education
  2. Cues to action
Get Tested For Colon Cancer: Here's How.
An 7-minute video reviewing options for colorectal cancer screening tests, including test preparation.

Available as DVD, or you can refer patients to the URL to view from their personal computer.
Dear [Name]:

Our office has made a commitment to promote the health of its members, and to provide education regarding preventive health measures that you can take to maintain a healthy lifestyle. Our records indicate that you are either overdue for colorectal cancer screening tests, or that you have never had a colorectal cancer screening test.

I am writing to ask you to call our office today to schedule a colorectal cancer screening appointment. By getting colorectal cancer screening tests regularly, colorectal cancer can be found and treated early when the chances for cure are best. Many of these tests can also help prevent the development of colorectal cancer.

The American Cancer Society and a number of other major medical organizations recommend that average-risk individuals choose one of the following options for colorectal cancer screening. Screening should begin at age 50.

**Tests That Find Polyps and Cancer**
- Flexible sigmoidoscopy every 5 years*, or
- Colonoscopy every 10 years, or
- Double-contrast barium enema every 5 years*, or
- CT colonography (virtual colonoscopy) every 5 years*

**Tests That Primarily Find Cancer**
- Yearly fecal occult blood test (gFOBT)*,** or
- Yearly fecal immunochemical test (FIT)*,**, or
- Stool DNA test (sDNA), interval uncertain*

* If the test is positive, a colonoscopy should be done.
** The multiple stool take-home test should be used. One test done by the doctor in the office is not adequate for testing. A colonoscopy should be done if the test is positive.

The tests that are designed to find both early cancer and polyps are preferred if these tests are available to you and you are willing to have one of these more invasive tests. Talk to your doctor about which test is best for you.

We have also included for your reference an informational pamphlet on colorectal cancer. Should you have any questions about this pamphlet or colorectal cancer screening tests, please contact us. Thank you for taking time to take care of your health.

Sincerely,

Medical Director

Enclosure: Colorectal Cancer Screening Brochure
Clinician Reminder Types

- EMR Registries, Reminders
- Chart Prompts
  - Pre-visit chart reviews
  - Chart alerts
  - Problem lists, integrated summaries
- Health Plan data
  - Provider population info and prompts
  - Direct-to-patient prompts
- Follow up and Tracking
Follow up Reminders

- Track test completion, reports, appropriate follow up for positives
  - EMR
  - “Tickler” System
  - Logs and Tracking
  *Note: Endoscopy reports and pathology reports are critical!

- Requires staff time and commitment

- Ideal role for navigators/community health workers
#4: Measure Practice Progress

Discuss how your screening system is working during regular staff meetings and make adjustments as needed.

Have staff conduct a screening audit.

Measure your progress to tell if you are doing as well as you think.
PDSA/PDCA Cycle

PLAN for Changes to Bring About Improvement
- Brainstorming
- Flow charting
- Cause and Effect Diagram
- Timeline Development
- Evaluation Matrix

ACT to get the greatest benefits from the changes
- Process Mapping
- Process Standardization
- Training

DO Changes on a small scale first to ease into the intervention
- Timeline the roll out of each of the 4 quadrants
- Resolve issues
- Continuous training

CHECK to see if the changes are working/being implemented
- Data check
- Key performance indicators
- Process Standardization

Adapted from Deming
Tracking Practice Progress

- Determine your baseline
- Set realistic goals
- Health Plan data can be extremely valuable
- Identify strengths and weaknesses, barriers, opportunities to improve efficiency
- Track progress and periodically reassess goals
- Track and report physician/team specific feedback on performance
  - Chart audits or other tracking measures (i.e. EHR reports)
  - At least quarterly; monthly is optimal
% of patient 50–75yo who have received appropriate colorectal cancer screening

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Numerator</th>
<th>Denominator</th>
<th>Source</th>
<th>Reference</th>
</tr>
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<tbody>
<tr>
<td>Colorectal Cancer Screening</td>
<td>Percentage of adults 50-80 years of age who had an appropriate screening for colorectal cancer</td>
<td>Patients in the denominator who received one or more screenings for colorectal cancer</td>
<td>All patients 51 to 80 years of age during the measurement year</td>
<td>NCQA/NQF PQRS/PCPI</td>
<td>National Committee for Quality Assurance</td>
</tr>
</tbody>
</table>
CHC Manual on CRC Screening

http://nccrt.org/about/provider-education/manual-for-community-health-centers-2/
**Step #1 Make A Plan**

**Determine Baseline Screening Rates**
- Identify your patients due for screening
- Identify patients who received screening
- Calculate the baseline screening rate
- Improve the accuracy of the baseline screening rate

**Design Your Practice’s Screening Strategy**
- Choose a screening method
- Use a high sensitivity stool-based test
- Understand insurance complexities.
- Calculate the clinic's need for colonoscopy
- Consider a direct endoscopy referral system

**Step #2 Assemble A Team**

**Form An Internal CHC Leadership Team**
- Identify an internal champion
- Define roles of internal champions
- Utilize patient navigators
- Define roles of patient navigators
- Agree on team tasks

**Partner with Colonoscopists**
- Identify a physician champion

**Step #3 Get Patients Screened**

**Prepare The Clinic**
- Conduct a risk assessment

**Prepare The Patient**
- Provide patient education materials

**Make A Recommendation**
- Convince reluctant patients to get screened

**Ensure Quality Screening for Stool-Based Screening Program**

**Track Return Rates and Follow-Up**

**Measure and Improve Performance**

**Step #4 Coordinate Care Across The Continuum**

**Coordinate Follow-Up After Colonoscopy**
- Establish a medical neighborhood
The Importance of Developing Medical Neighborhoods

• Improve access to colonoscopy and follow up care, particularly for the uninsured.

• Gastroenterologists are key

• Must also include facilities, pathology, anesthesia, back up surgery, radiology, hospital, and possibly oncology

• Must provide coordination (i.e. patient navigation)

• Must share the workload!
Primary goal:
- Increase timely access to specialists for FQHC patients after a positive colorectal cancer screening result.

Key characteristics:
- Physician champion
- Defined capacity
- Shared burden
- Care coordination/documenting workflows
- Screening navigation
- Shared credit
June 2012 – The NCCRT co-hosted a meeting with the National Association of Community Health Centers to identify strategies for improving colorectal cancer in community health centers.

February 2013 – Then Assistant Secretary for Health Dr. Howard Koh convened a group to advance work on colorectal cancer screening rates, particularly among the underserved.

June 2013 – Strategy paper published. Need to improve access to specialty care after CRC screening highlighted as a major barrier.

September 2013 – Leaders of professional societies along the care continuum met to review model programs.

May 30th, 2014 – Three pilot sites were selected.
Financial Challenges

• Cost constraints, even for insured patients (high deductibles)
• Costs along the entire care spectrum (e.g. hospital fees, pathology fees, anesthesia fees)
• Cost of follow-up treatment if needed
• Indirect costs of screening (time off work, post-treatment care, etc.)
• Lack of reimbursement for care coordination/patient navigation
Health Partner/Provider Recruitment

- Lack of providers who accept uninsured, underinsured or Medicaid patients
- Lack of specialists, especially in rural and low income communities
- Limited access to safety net providers
- Long wait times (for both screening and follow-up care), especially for Medicaid patients
- Liability concerns
Barriers – Patient Related

**Patient Related**

- Poor care coordination/patient navigation
- Language barriers
- Cultural issues
- Access issues – lack of transportation, ability to take time off work
- Poor health literacy
- Fear of screening
- Poor patient prep
- Hi no-show rate
Effective Models

James Hotz, MD, Medical Director, Cancer Coalition of South Georgia

Colleen Schmitt, MD, Project Access/Founding Physician of Volunteers in Medicine, Chattanooga, TN

Jason Beers, CEO, Operation Access, San Francisco and the Peninsula

Lynn Butterly, MD, Principal Investigator and Medical Director, New Hampshire Colorectal Cancer Screening Program

Dave Greenwald, MD, New York Citywide Colon Cancer Control Coalition

Carla Ginsburg, MD, MPH, AGAF, Chair, Public Affairs and Advocacy Committee, American Gastroenterological Association
Operation Access in San Francisco

*Bridging the Healthcare Gap*

- Founded by surgeons in 1993 to create a way to volunteer in their community to reduce health disparities

- Eligible patients are low-income, uninsured and unable to qualify for public insurance, referred by a community health center
Hospitals & Endoscopy Centers
• GI suites, supplies
• Lab and pharmacy

Patients

Community Clinics
• FIT screening
• Medical home
• H&P/labs

Operation Access
• Eligibility screening
• Referral to specialist and case management
• Prep assistance and Interpretive services
• Provider recruitment and engagement
• GI session coordination

GI Volunteers
• colonoscopy

Hospitals & Endoscopy Centers
• GI suites, supplies
• Lab and pharmacy

Other Clinical Volunteers
(unless provided by facility)
• Pathology
• Nurses, techs, anesthesia

Donated Colonoscopy
• Procedure, pathology report sent to the community clinic

How does OA work?
Criteria for Colonoscopy

Must be above-average risk, such as the following:

**FIT** or **FOBT+**

- Unexplained blood in stool (not from hemorrhoids)
- Unexplained change in bowel habits
- Unexplained weight loss/gain
- Iron deficiency anemia
- Personal history of CRC or adenomatous polyps
- 1\textsuperscript{st} degree relative diagnosed with CRC

*No routine screenings provided by OA*
Network

- Procedures are provided in endoscopy centers and hospitals, both for profit and non-profit

- All care is donated by the providers

- Program infrastructure (forms, protocols, navigation) allow GIs to focus on the procedure

- Integrated services and Saturday GI clinics

- 200 donated colonoscopies per year
Developing your Network

- Ask representatives from the entire universe of providers to participate
- Institutional commitments are key
- Get GI champions early, have them recruit peers
- Solicit feedback and use it to improve
- Manage your “slots” thoughtfully
- Recognize volunteers in simple & personal ways
Patient navigation adds value

Culturally competent case management leads to high quality care and happy volunteers
- intake and adherence to referral criteria
- appointment scheduling and management
- letters, maps, reminder calls
- diagnosing & removing barriers to follow through

OA patient compliance is 97% (1% not prepared, 1% no show, 1% cancel without 48 hours notice)
Recruiting Navigators

Mastery of key languages and cultural competency more important than advanced education.

Ability to develop and follow systems is key.

Interpreter / Community Health Worker skills are a great match.

Each OA navigator is bilingual and attends an interpreter training.

Navigators are conduits to the specialists; coordinating access to scarce GI resources.
Key Characteristics

- **Expectations are clear** (defined number of colonoscopies per month), **business case is clear** (fulfill Community Benefit; reduce ER use of CRC patients) and **burden is shared** among local providers or systems.

- A **strong physician champion** can help coordinate high level institutional commitment from GIs and hospitals/health systems.

- High value is placed on **program efficiency** and **consistent protocols** that reduce the burden on physicians, while ensuring doctors have needed medical information (e.g. **standardized patient info forms**).

- Use of **patient navigators protects good relationship with GIs** by effectively addressing concerns about no shows, prep, other barriers.

- Form and leverage the right partnerships; understand what motivates each partner; **share the credit**.
Thank You !