Colorectal Cancer Screening: Achieving High Quality & High Screening Rates

Iowa Primary Care Association
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American Cancer Society

80% Colon Cancer Screening Rate By

What is “80% by 2018”? 

“80% by 2018” is a movement in which more than 120 organizations have committed to eliminating colorectal cancer as a major public health problem and are working toward the shared goal of reaching 80% screened for colorectal cancer by 2018.
120 organizations have pledged to deliver coordinated, quality CRC screening and follow-up care to all people

Colorectal Cancer (CRC)

- 3rd most common cancer and the 2nd deadliest in the U.S.
- 136,800 new cases expected this year
- More than 50,000 deaths nationwide
- 1.2 million Americans living with CRC
- Incidence and mortality rates have fallen steadily for more than 20 years
Trends in CRC incidence and mortality

Research suggests that observed declines in incidence and mortality are due in large part to:

• CRC treatment advances
• Screening → detecting cancers at earlier, more treatable stages
• Screening and polyp removal, preventing progression of polyps to invasive cancers
  - NEJM study Feb 2012 showed polyp removal associated with 53% lower risk of CRC death

Who’s at High Risk of CRC?

• A personal history of
  – Polyps
  – Colorectal cancer
  – Inflammatory bowel disease
    • Ulcerative colitis
    • Crohn’s disease

• A family history of
  – Colorectal cancer or polyps
  – Hereditary colorectal cancer syndrome

People with these conditions may need different screening. The remainder of this presentation will focus on those at average risk.
Pop Quiz

What is the single most important risk factor for colorectal cancer?

Age: the most impactful risk factor

CRC usually develops after age 50.
The chances of getting it increases as you get older.

CRC screening should begin at age 50 for most people, earlier for those with a family history.

Non-Modifiable Risk Factors

- **Age**
  - 90% of cases occur in people 50 and older
- **Gender**
  - slight male predominance, but common in both men and women
- **Race/Ethnicity** – higher rates among
  - African Americans
  - Native Americans (esp. Northern Plains Tribes)
  - Alaska Natives
  - Ashkenazi Jews
Modifiable risk factors

- Lack of physical activity
  - Less active → raises risk
- Overweight
  - Obesity → raises risk of having and of dying from CRC
- Smoking → raises risk
- Alcohol use → raises risk
- Type 2 diabetes → raises risk

Risk factor - polyps

Different types of polyps:

- Hyperplastic
  - Low risk: very small chance they’ll grow into cancer
- Adenomas
  - About 9 out of 10 colon and rectal cancers start as adenomas

Why Screen?

There are two aims of screening:

1. Prevention
   Find and remove polyps to prevent cancer

2. Early Detection
   Find cancer in the early stages, when best chance for a cure
Pop Quiz

What is the five year survival rate for Stage I CRC?

And for Stage IV?

Benefits of Screening

Survival Rates by Disease Stage*

<table>
<thead>
<tr>
<th>Stage of Detection</th>
<th>5-yr Survival</th>
</tr>
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<tbody>
<tr>
<td>Local</td>
<td>89.8%</td>
</tr>
<tr>
<td>Regional</td>
<td>67.7%</td>
</tr>
<tr>
<td>Distant</td>
<td>10.3%</td>
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</tbody>
</table>

*T1996 - 2003

Trends in Recent* CRC Screening Prevalence (%), by Educational Attainment and Health Insurance Status, Adults 50-75 Years, US, 2000-2010

Source: Klabunde et al, Cancer Epidemiol Biomarkers Prev. 2011;20:1611-1621
National Health Interview Survey, Public Use Data File 2010; National Center for Health Statistics, Centers for Disease Control and Prevention, 2011.
American Cancer Society, Surveillance Research, 2011.
Pop Quiz

What proportion of people who have never been screened have health insurance?

Who’s Not Screened?

CRC screening in Community Health Centers

**UDS measure - Colorectal Cancer Screening**

- Measure – Percent of patients in universe who received appropriate screening for colorectal cancer
- Universe is adults who were age 51 through age 74 during the measurement year and seen in the measurement year
- Requires documentation of test performed by grantee or by another care giver
- 2012 Nationwide Rate – 30.2%
  - Slightly increased in 2013
Improving Screening Rates
“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 (colorectal, breast and cervical)

Available at http://nccrt.org/about/provider-education/col-clinician-guide/

Community Health Center Version

- Customized to meet unique needs of CHC patients and providers
- Step-by-step guidance on how to implement office systems change
- Developed by UNC researcher Dr. Catherine Rowheder (rohweder@email.unc.edu)

Funding for this project was provided by the University Cancer Research Fund of The UNC Lineberger Comprehensive Cancer Center

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
Communication

Essential #1:
Explore how your practice will assess a patient's risk status and receptivity to screening.

#1: Make a Recommendation

Essential #1:
Determine the screening tests and related messages you and your staff will share with patients.

Essential #2:
Make a Recommendation
The primary reason patients say they are not screened is because a doctor did not advise it. A recommendation from you is vital.

Recognize potential barriers to screening

Recommendation discussions must be sensitive to and address:
- Fear of cancer diagnosis
- Perception that cancer is a “death sentence”
- Lack of understanding of need for asymptomatic screening
- Misconceptions about cancer causes and risks
- Embarrassment
- Concern over discomfort
- Cultural issues
- Patient preferences
Essential #2: Develop a Screening Policy

Create a standard course of action for screenings, document it, and share it.

Essential #3: Compile a list of screening resources and determine the screening capacity available in your community.

Pop Quiz

What is the best test for colorectal cancer screening?
**Recommended Screening Tests**  
**ACS and USPSTF**

- Colonoscopy
- High Sensitivity Fecal Occult Blood Testing
  - Guaiac
  - Immunochemical
- Flexible Sigmoidoscopy (FSIG)
  - Recent studies support efficacy
  - Very limited utilization/availability in U.S.

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**Colonoscopy**

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**Colonoscopy Limitations**

- Evidence does not support “best test” or “gold standard”
  - Colonoscopy misses ~ 10% of significant lesions in expert settings
  - More costly on a one-time basis
  - Test performance is highly operator dependent
  - Higher potential for patient injury than other tests
Colonoscopy Limitations (cont.)

- 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

“Gosh, I didn’t expect your colonoscopy to go viral!”
Patient Preferences

- Look for hidden blood in stool
- Two major types (but multiple brands)

Stool Tests

Figure 2. CBC Screening Participation for Usual Care, Colonoscopy Outreach, and FIT Outreach

CBC indicates colorectal cancer; FIT, fecal immunochemical test.
**Guaiac Tests**

- Most common type in U.S.
- Best 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
- Older forms (Hemoccult II) have unacceptably low sensitivity
- Better sensitivity with newer versions (Hemoccult Sensa)

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**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)

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**Accuracy of Fecal Immunochemical Tests for Colorectal Cancer**

*Systematic Review and Meta-analysis*

*Ann Intern Med* 2013;159:223-33

- **Purpose:** To systematically review and meta-analyze the diagnostic accuracy of fecal immunochemical tests (FITs) for colorectal cancer screening.

- **Methods:** A systematic review of randomized trials comparing FITs to gold standards (proctoscopy, sigmoidoscopy, colonoscopy) was conducted. Studies were included if they compared FITs to standard endoscopic tests for colorectal cancer screening. The primary outcome was the diagnostic accuracy of FITs, measured as sensitivity, specificity, and area under the ROC curve.

- **Results:** A total of 29 studies were included, involving 102,991 participants. The pooled sensitivity of FITs for colorectal cancer was 66.6% (95% CI: 63.4-69.9), and the pooled specificity was 94.6% (95% CI: 93.7-95.5). The pooled area under the ROC curve was 0.89 (95% CI: 0.87-0.91).

- **Conclusion:** Fecal immunochemical tests are sensitive and specific for colorectal cancer screening, with a high negative predictive value. They are recommended for colorectal cancer screening in average-risk populations.

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Efficacy of Stool Testing Programs
Stool Testing Quality Issues

In-office FOBT is essentially worthless as a screening tool for CRC and should never be used for this purpose.
Stool Test Quality Issues

Sensitivity of Take Home vs. In-Office FOBT

<table>
<thead>
<tr>
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<th>Sensitivity</th>
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<tbody>
<tr>
<td>FOBT mailed</td>
<td></td>
</tr>
<tr>
<td>(Hemoccult II)</td>
<td></td>
</tr>
<tr>
<td>2 card, take home</td>
<td>23.9 %</td>
</tr>
<tr>
<td></td>
<td>43.9 %</td>
</tr>
<tr>
<td>Single sample, in-office</td>
<td>4.9 %</td>
</tr>
<tr>
<td></td>
<td>9.5 %</td>
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</tbody>
</table>

Collins et al, Annals of Int Med Jan 2005

Stool Testing Quality Issues

- In-office FOBT is essentially worthless as a screening tool for CRC and should never be used.
- CRC screening by FOBT should be performed with high-sensitivity FOBT - either FIT or a highly sensitive gFOBT (such as Hemoccult SENSA).
- Older, less sensitive guaiac tests (such as Hemoccult II) should not be used for CRC screening.
- Annual testing
- All positive screening tests should be evaluated by colonoscopy

High Quality Stool Testing

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
Essential #3: Determine how your practice will notify patients and physicians when screening and follow up is due.

#3 Be Persistent with Reminders

Determine how your practice will notify patients and physicians when screening and follow up is due.

Essential #3:

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

Office Wall Chart
- Screening guidelines for Breast, Cervical, Colon, Prostate and other cancers
- General lifestyle/prevention
  - Tobacco cessation
  - Healthy diet
  - Weight, etc
- English and Spanish

Reminder Fold-Over Postcard
Clinician Reminder Types

- EMR Reminders
- Chart Prompts
  - Problem lists
  - Integrated summaries
- Alerts – “Flags” placed in chart

Follow up Reminders

- Track test completion, reports, appropriate follow up for positives
  - EMR
  - “Tickler” System
  - Logs and Tracking
- Requires staff time and commitment
- Ideal role for navigators/community health workers

#4 Measure Practice Progress

Essential #4: Discuss how your screening system is working during regular staff meetings and make adjustments as needed.

Essential #4: Have staff conduct a screening audit or contact a local company that can perform such a service.
Tracking Practice Progress

- Determine your baseline
- Set Realistic Goals
- Chart audits or other tracking measures (i.e. EHR reports)
- Provide staff-specific feedback on performance
- Seek patient feedback
- Identify strengths and weaknesses, barriers, opportunities to improve efficiency
- Track progress and periodically reassess goals

Collaboration: National Association of Community Health Centers (NACHC)

Summits in Washington D.C. June 2012 and September 2013 included:

- CHC clinicians and administrators
- NACHC
- HRSA
- PCAs
- CDC
- ACS
- NCI
- GI Organizations
- CoC Hospitals

Collaboration with NACHC

Strategy document outlining the challenges to screening, highlighting successful programs and processes, and recommending ways in which partner organizations can assist health centers in achieving their cancer-screening goals.

CA: A Cancer Journal for Clinicians, June 2013
New Resource!

http://nccrt.org/about/provider-education/manual-for-community-health-centers-2/

How might a Community Health Center benefit by using this manual?

1. Helps practices increase CRC screening rates through a team-based, systematic approach
2. Helps increase rates for UDS measure
3. Trains staff on a quality improvement processes that apply to other preventive services
4. Implements field-tested processes created by experts
5. Strengthens relationships with other community partners
Flu Shots + Stool testing
(A.K.A. “FluFIT”)

CRC Screening Outreach During Annual Flu Shot Activities (“FluFIT”)

- Combines CRC screening with annual flu shot campaigns
- Practice/ Clinic staff provide FOBT/FIT kits to eligible patients when they get their annual flu shot
  - Either a high sensitivity FOBT or a FIT kit can be used for the program
- Patient completes specimen collection at home and returns kit to doctor’s office or mails kit to the lab for processing

Potential Benefits of FluFIT

- Reaches patients at a time each year when they are already thinking about prevention
- Creates a seasonal focus on cancer screening that may add to other screening efforts
- Time-efficient way to expand team based care and involve non-physician staff in screening activities
- Educates patients that “just like a flu shot, you need FOBT/FIT every year”

Slide courtesy of M. Potter, MD
**FluFIT**

- FLU-FOBT/FIT Interventions
  - Have been tailored and results replicated in:
    - (1) primary care underserved settings,
    - (2) high volume managed care flu shot clinics
    - (3) commercial pharmacies where flu shots are increasingly provided
  - Can be done with limited resources
  - Leads to higher screening rates

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**American Cancer Society FluFOBT Program Implementation Guide and Materials**

- [www.cancer.org/flufobt](www.cancer.org/flufobt)

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**What’s in the ACS FluFOBT Program Implementation Guide?**

- Background information on colorectal cancer and FluFOBT
- Patient eligibility criteria
- Colorectal cancer screening recommendations
- Patient education
- Guidance on setting up your FluFOBT Program
- Implementation recommendations and resources
- Example advertising and tracking tools
Other FluFOBT Information and Materials

http://flufobt.org

ACS Resources
- Information and materials on CRC for clinicians and patients [www.cancer.org/colonmd](http://www.cancer.org/colonmd)
- Updated materials for all cancers are available at [www.cancer.org/professionals](http://www.cancer.org/professionals)
- National Cancer Information Center – 24/7, 365
  1-800-227-2345

NCCRT Resources
- Information and materials on CRC for clinicians and patients [www.nccrt.org](http://www.nccrt.org)

80% Colon Cancer Screening Rate By 2018

......I Can See It!!!