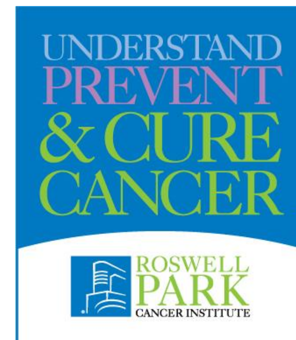
Increasing Colorectal Cancer Screening in NYS

Increasing Colorectal Cancer Screening Rates – Why it's not as easy as you've been told

5/15/17
Syracuse, NY

Martin C. Mahoney, MD, PhD
Roswell Park Cancer Institute



Annual Mortality Associated with Selected types of Cancer, US

Site	# deaths	% of deaths	ranking
Lung	56,500	10.0	2 (overall)
breast	43,900	7.7	2 (women)
prostate	39,200	6.9	3 (men)
cervix	4,900	0.9	9 (women)

USPSTF screening test ratings

Cancer screening test	USPSTF rating
Breast -50-74 yrs -40-49 yrs	**B** **C**
Prostate - 55-69	**C**
Colorectal -50-75 -76-80	**A** **C**
Lung - 55-80	**B**

CRC screening recs, 50-74, U.S.

organization	FS q 5y	CS q 10y	CTC q 5y	DCBE q 5y	FOBT/ FIT q 1y	fDNA q ?
USMSTF, 2008	x	x	x	x	x	x
ICSI, 2010	x	x	x		x	
USPSTF, 2008	x (w/ FOBT q 3y)	x		?	x	
ACR, 2010			x	x		
ACG, 2009	x	x (pref)			x (FIT)	
ACP, 2012	x	x			x	
USPSTF, 2016	Direct visualization				Stool based	

USMSFT, US multispecialty task force; ICSI, Institute for clinical system improvement; USPSTF, US Preventive Services Task Force; ACR, American college of radiology; ACG, American college of gastroenterology; ACP, American college of physicians, NCI, National Cancer Institute.

NCI & CRC Screening:

https://www.cancer.gov/types/colorectal/patient/colorectal-screening-pdq

NIH NATIONAL CANCER INSTITUTE

Español

1-800-4-CANCER | Live Chat | Publications | Dictionary

ABOUT CANCER | CANCER TYPES | RESEARCH | GRANTS & TRAINING | NEWS & EVENTS | ABOUT NCI | search

Home > Cancer Types > Colorectal Cancer > Patient

COLORECTAL CANCER

- Patient
  - Colon Cancer Treatment
  - Rectal Cancer Treatment
  - Colorectal Cancer Prevention
  - Colorectal Cancer Screening
- Health Professional +
- Research

Colorectal Cancer Screening (PDQ®)–Patient Version

Go to Health Professional Version

What is screening?

Screening is looking for cancer before a person has any symptoms. This can help find cancer at an early stage. When abnormal tissue or cancer is found early, it may be easier to treat. By the time symptoms appear, cancer may have begun to spread.

Scientists are trying to better understand which people are more likely to get certain types of cancer. They also study the things we do and the things around us to see if they cause cancer. This information helps doctors recommend who should be screened for cancer, which screening tests should be used, and how often the tests should be done.

It is important to remember that your doctor does not necessarily think you have cancer if he

SECTIONS

- What is screening?
- General Information About Colorectal Cancer
- Colorectal Cancer Screening
- Risks of Colorectal Cancer Screening
- About This PDQ Summary
- View All Sections

Sorting out which test to recommend

CRC screening: issues

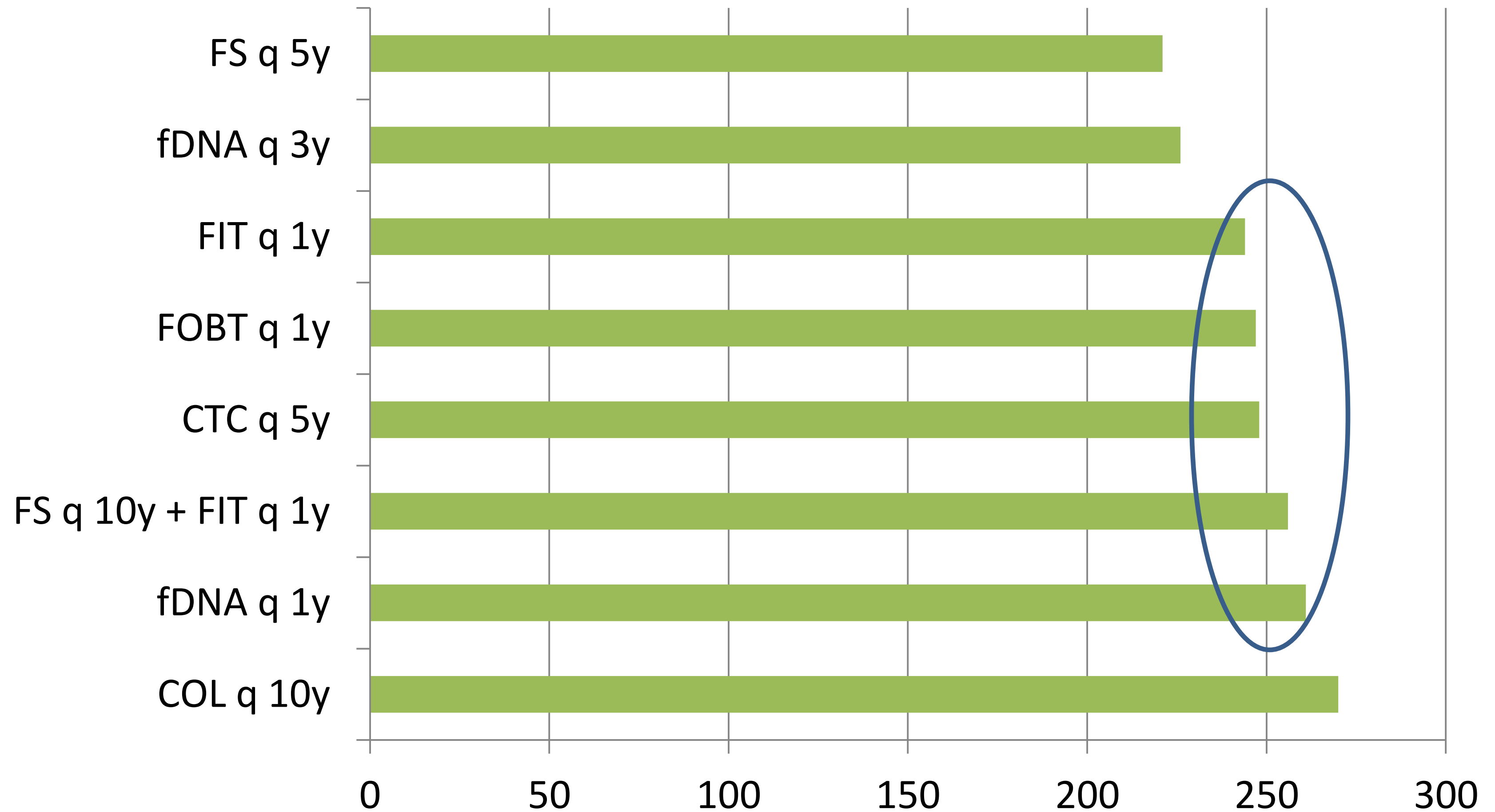
- No head-to-head trials comparing various strategies
- No screening option proven to reduce all cause mortality; FS and gFOBT reduces CRC deaths
- Multiple testing options; no preferences
- Interval uncertainty
- 1/3 not screened
- *Expected to be addressed within a chaotic health system*

Colorectal Screening: test accuracy

	Sensitivity	specificity
gFOBT	62-79%	87-96%
FIT >10 µg FIT >20 µg	79-88% 73-75%	91-93% 91-95%
FIT-DNA	84-97%	84-85%
F/S	Not studied	
CTC >10 mm – w prep CTC >10 mm – w/o prep	67-94% 69-90%	86-98% 85-97%
C/S	Criterion standard	

USPSTF, JAMA 2016.

Colorectal Screening: Benefits-life years gains per 1000 persons screened



USPSTF, JAMA 2016; Knudsen AB, et al, JAMA, 2016.

Colorectal Screening: statistical models

- CISNET models, 100% adherence with screening, ages 50-74 y
- 4 strategies provided balance of benefits & harms with comparable life years gained:
  - -CS q 10y
  - -FIT q 1y
  - -FS q 10 + FIT q 1y
  - -CTC q 5y
- 20-24 CRC deaths prevented per 1,000 adults 50-74 screened.

CISNET, Cancer Intervention and Surveillance Modeling Network; Zauber A, et al, AHRQ #14005203-EF-2.

Why is CRC screening different from other tests for early cancer detection?

USPSTF screening test ratings

Cancer screening test	USPSTF rating
Breast -50-74 yrs -40-49 yrs	**B** **C**
Prostate - 55-69	**C**
Colorectal -50-75 -76-80	**A** **C**
Lung - 55-80	**B**

How do cancer screening tests compare?

	Number of people screened	Years of annual screens	# of cancer deaths prevented	# needed to screen (NNS)
Low dose CT lung screening	1000	3	3.1	322
Mammography	-	-	-	
Age 50-59	1000	10	0.8	1250
Age 60-69	1000	10	2.6	384
Flexible sigmoidoscopy with FOBT	1000	5	2.8	357

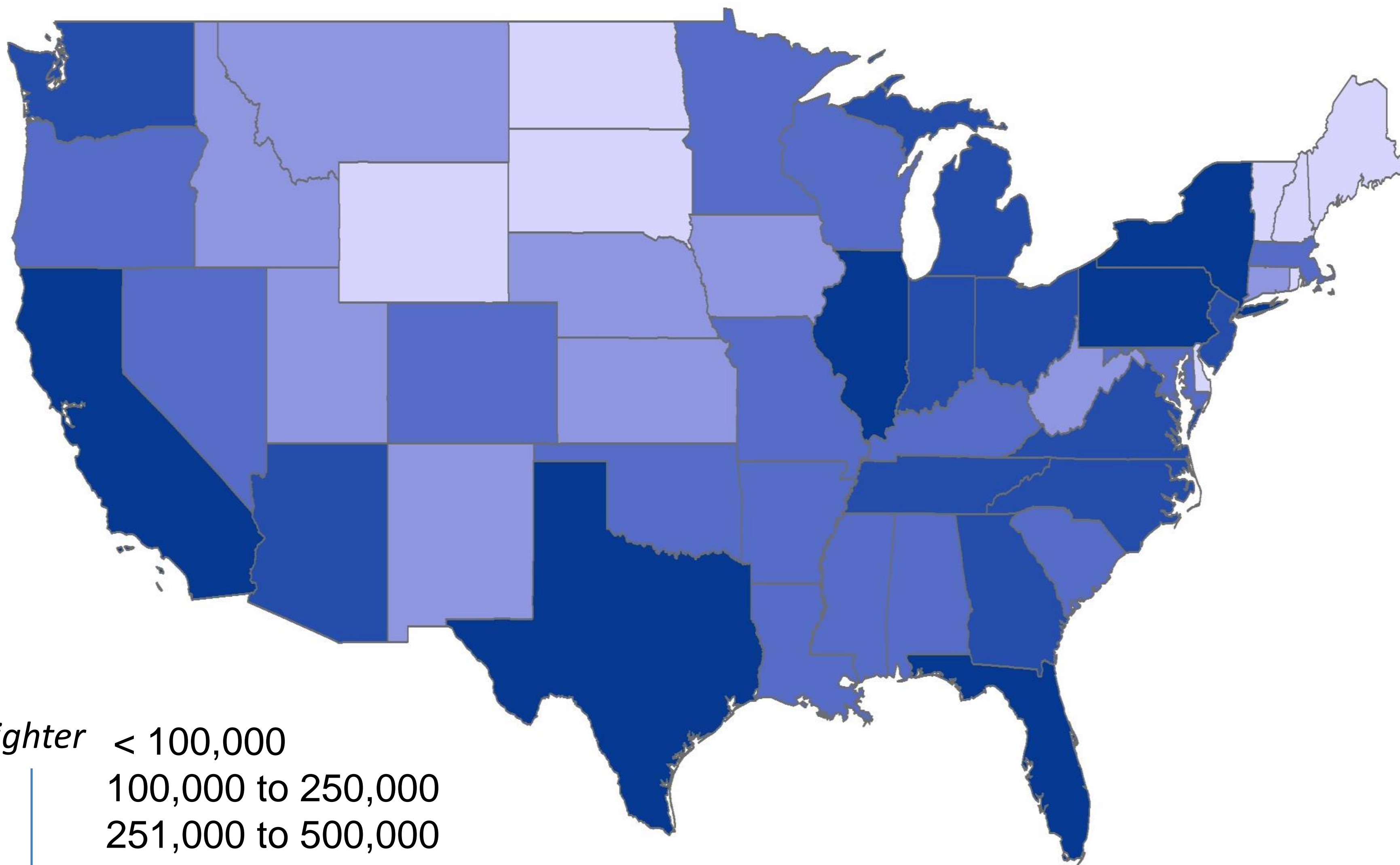
http://www.shouldiscreen.com/compare-with-other-screening-tests

Colorectal Screening: recap of evidence

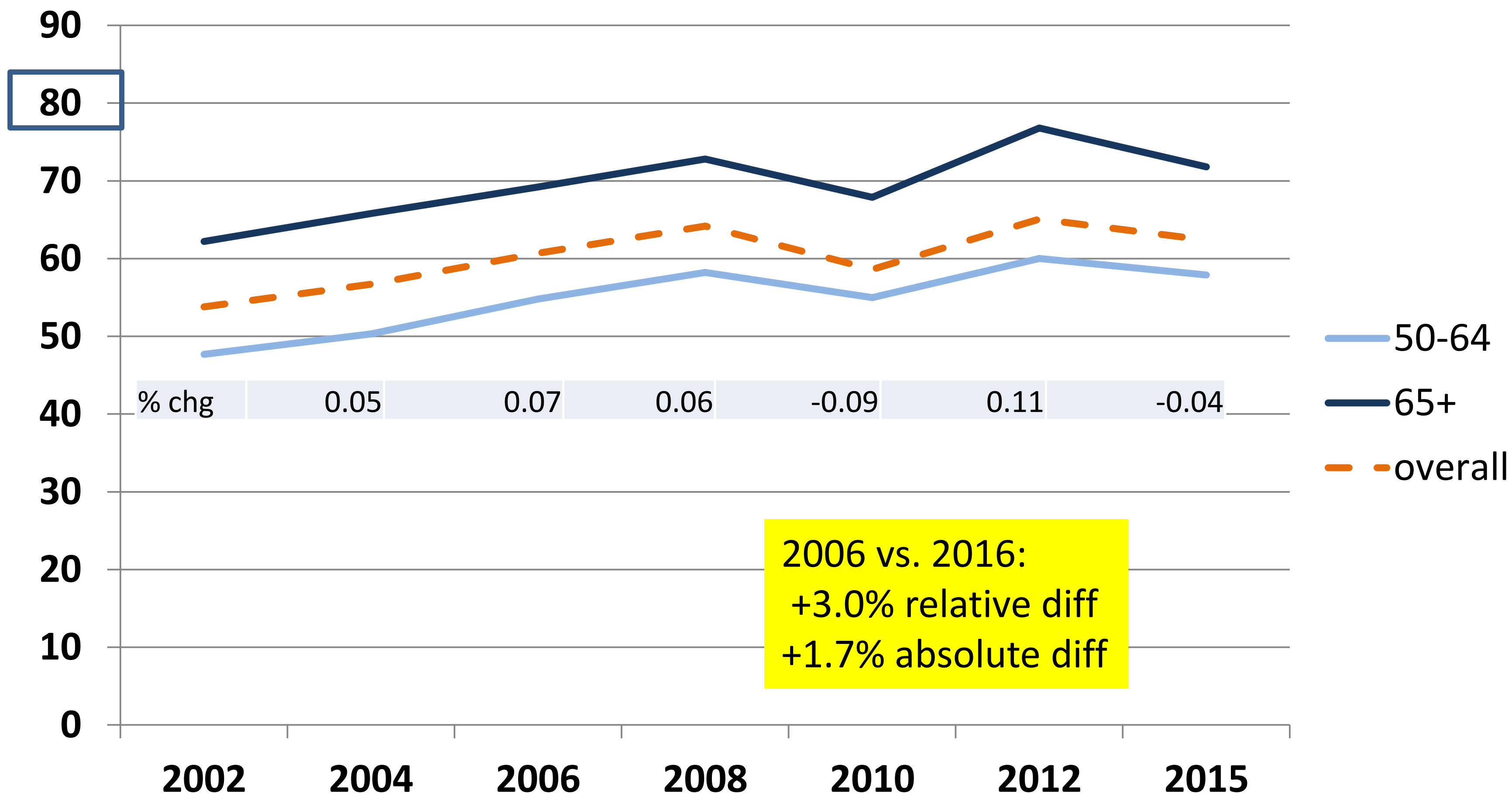
- 3 RCTs document reductions in CRC mortality with FOBT;
  - 33%↓ in relative risk of CRC mortality (rehydration, ↑ c/s rate)
  - 15% & 18%↓ in CRC mortality
- Case control studies of FS – decreased risk of CRC death
- Effectiveness of other tests inferred

Colorectal Cancer Screening: 80% by 2018?....will we ever reach 80%?

Total Number Needed to be Screened for CRC to Reach 80% by 2018 by State



Colorectal Cancer Screening Rates, U.S., by selected years



NHIS data 2010, 2015, all other years BRFSS.

Barriers to CRC Screening:

- **Clinicians**: survey of 1235 primary care clinicians in 1999-2000
- **Patients**: NHIS 2000, ages 50+ non-adherent with CRC screening
- Outcomes:

-patient-related: no reason, never thought about it, didn't know I needed, no health problems, too busy, painful/unpleasant

-systems-related: too expensive, no insurance, no PCP, clinician did not recommend

Klaubunde, et al, Medical Care, 2005.

Barriers to CRC Screening: results *[con't]*

- **PCPs barriers:**

-80% patient-related (56%, embarrassment/ anxiety; 48%, pt unaware of screening/CRC risk, 28%, afraid of finding CA)

-68% systems-related (46%, cost; 12%, shortage of clinicians; 9%, lack of follow-up)

- **Patient barriers:**

-77% patient-related (9%, no health problems; 52%, no reason to complete; 13%, didn't know I needed it)

-22% systems-related (1% cost, 1% don't have PCP, 21%, PCP did not order)

Klaubunde, et al, Medical Care, 2005.

Barriers to CRC Screening: results *[con't]*

•no PCP recommendation for CRC screening reported as barrier by 37% of PCPs and 20% patients

•Among patients with office visit in past year, only 10% reported CRC screening recommendation

Klaubunde, et al, Medical Care, 2005.

CRC Screening:
assessing importance of patient preferences

- multimethod study of 415 HMO members, 50-80, in Michigan due for PHE and no prior CRC screening
- audio recordings of office visit
- all patients eligible for no cost COL or FOBT
- outcomes:
  - -patient preferences for CRC screening
  - -PCP recommendations
  - -CRC screening completed

Hawley S, et al. Am J Manag Care 2014.

Colorectal Screening: Patient Preferences

	Colonoscopy	FOBT	neither
Strong preference	7.0%	11.0%	
Weak preference	41.0%	18.6%	
Any preference	48.0%	29.6%	
No preference			22.4%

-no association with race, gender, education or income

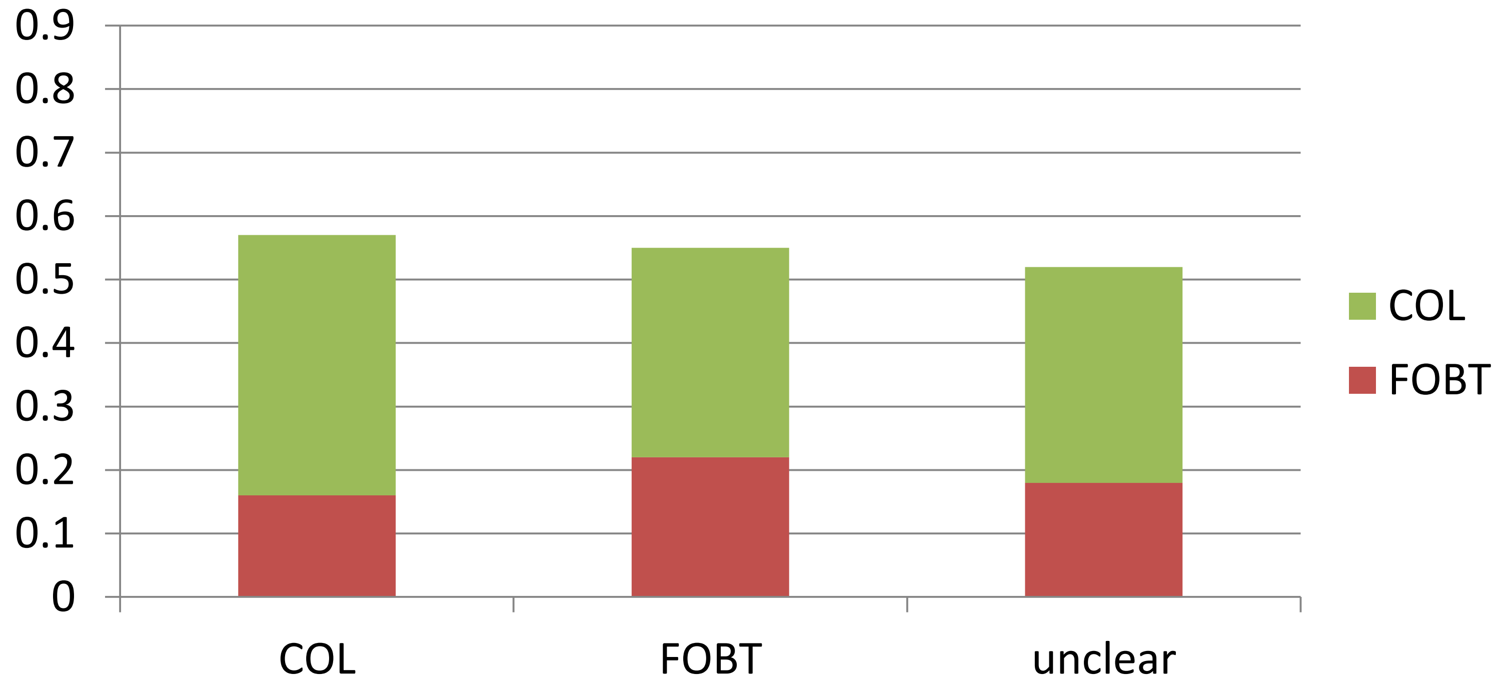
Hawley S, et al. Am J Manag Care 2014.

CRC Screening: recommendations from PCPs

- CRC screening recommended at 93% of PHE visits
- COL only recommended 60%; both COL + FOBT; 29%, other, <1%
- males more likely to get COL only rec

Hawley S, et al. Am J Manag Care 2014.

Colorectal Screening: CRC screening @ 12 months by patient preference



-55.7% completed CRC screening within 2 months of PHE visit; 67% COL only, 33% FOBT alone or followed by COL

-no association between preferred test and test completed

Hawley S, et al. Am J Manag Care 2014.

Are there still opportunities to improve rates of CRC screening?

Implementation enhancements:

- Community Guide to Preventive Services:

  -clinician and patient reminders

  -small media (videos, brochures, letters)

  -minimize structural barriers

  -clinician performance feedback

CONTINUED OPPORTUNITIES to promote CRC Screening:

-educate patients to enhance knowledge/awareness CRC screening

-address PCP misperceptions of patient embarrassment/fear/anxiety

-suboptimal screening demands systems-based approaches

Promoting CRC screening

- Streamline message
- Normalize, repeat

Colorectal Screening: recap of evidence

- Clinician recommendation makes a difference
- *Presumptive recommendation*; no need to be participatory but useful to be open to other options if CRC test interest is weak

Strategies to enhance CRC screening

- Standing orders – with or without EMR
- Daily huddle
- Performance improvement
- Incentivize

Summary

- CRC screening has USPSTF “A” rating; similar effectiveness as other cancer screening tests
- Covered benefit
- Continued need to engage the public, medical offices, and health care systems, to further increase adherence