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2023 **ACG HEPATOLOGY SCHOOL & EASTERN**
REGIONAL POSTGRADUATE COURSE

JUNE 2-4, 2023 | RENAISSANCE HOTEL
WASHINGTON, DC

Register online: meetings.gi.org

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Participating in the Webinar

All attendees will be muted and will remain in Listen Only Mode.

Type your questions here so that the moderator can see them. Not all questions will be answered but we will get to as many as possible.

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How to Receive CME and MOC Points

LIVE VIRTUAL GRAND ROUNDS WEBINAR
ACG will send a link to a CME & MOC evaluation to all attendees on the live webinar.

ABIM Board Certified physicians need to complete their MOC activities by December 31, 2023 in order for the MOC points to count toward any MOC requirements that are due by the end of the year. No MOC credit may be awarded after March 1, 2024 for this activity.

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MOC QUESTION

If you plan to claim MOC Points for this activity, you will be asked to: Please list specific changes you will make in your practice as a result of the information you received from this activity.

Include specific strategies or changes that you plan to implement.
THESE ANSWERS WILL BE REVIEWED.

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ACG Virtual Grand Rounds

Join us for upcoming Virtual Grand Rounds!



Week 12 – Thursday, March 23, 2023
 Lynch Syndrome Awareness: Historical and Current Approaches to Identifying Individuals With Lynch Syndrome
 Faculty: Peter Stanich, MD; and Heather L. Hampel, MS, CGC
 Moderators: Julie L. Yang, MD; and Elana Levinson, MS, CGC
 Host: Jessica Long, MD, CGC
 At Noon and 8pm Eastern

Week 13 – Thursday, March 30, 2023
 Colon Polypectomy Techniques: Big Polyps, Small Polyps, and Everything in Between
 Faculty: Charles J. Kahi, MD, MSc, FACG
 Moderator: Jennifer K. Maratt, MD
 At Noon and 8pm Eastern

Please NOTE: there will be no ACG Virtual Grand Rounds on April 6 and 13 due to low attendance from Spring Breaks.

Visit gi.org/ACGVGR to Register

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ACG

2023

OCTOBER

20-25, 2023

VANCOUVER, CANADA

VANCOUVER

Save the Date!



Be sure your passport is up to date!



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Disclosures

Aasma Shaukat, MD, MPH, FACG
Iterative Scopes Inc.: Advisory Board
Freenome: Consultant
Medtronic: Consultant
Motus GI: Consultant


Janice Cheong, MD
Dr. Cheong has no financial relationships with ineligible companies.

**All of the relevant financial relationships listed for these individuals have been mitigated*

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CRC Screening: How Can We Improve?



Aasma Shaukat, MD, MPH
 Director GI Outcomes Research
 Robert M. and Mary H. Glickman Professor of Medicine
 Professor of Population Health
 NYU Grossman School of Medicine

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- National Women History Month
- National Peanut Month
- National Caffeine Awareness Month
- Irish American Heritage Month
- Fun fact: March and November dates fall on the same days of the week
- [National Colon Cancer Awareness Month](#)




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Administratio

FEBRUARY 28, 2023

A Proclamation on National Colorectal Cancer Awareness Month, 2023


BRIEFING ROOM
PRESIDENTIAL ACTIONS

During National Colorectal Cancer Awareness Month, we call attention to the second leading cause of cancer deaths in America – by sharing information about risk factors, promoting life-saving early screenings, and improving access to affordable treatment. In remembrance of every life cut short by this devastating disease, my Administration is determined to end cancer as we know it.

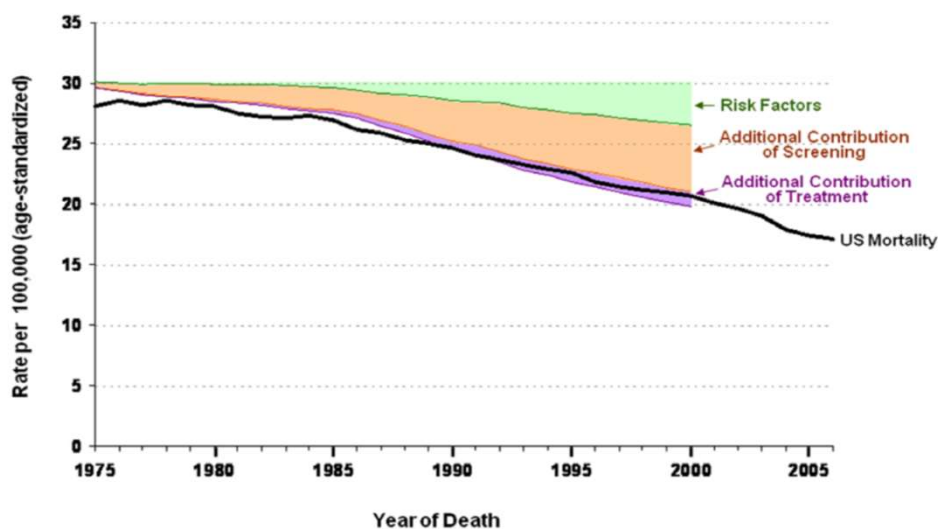
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Objectives

- Review recent trends in Colorectal cancer (CRC) Incidence in the US
- Updates on recent evidence on CRC Screening
- Improving adherence to CRC screening
- Current and future options for CRC screening
- Take home points

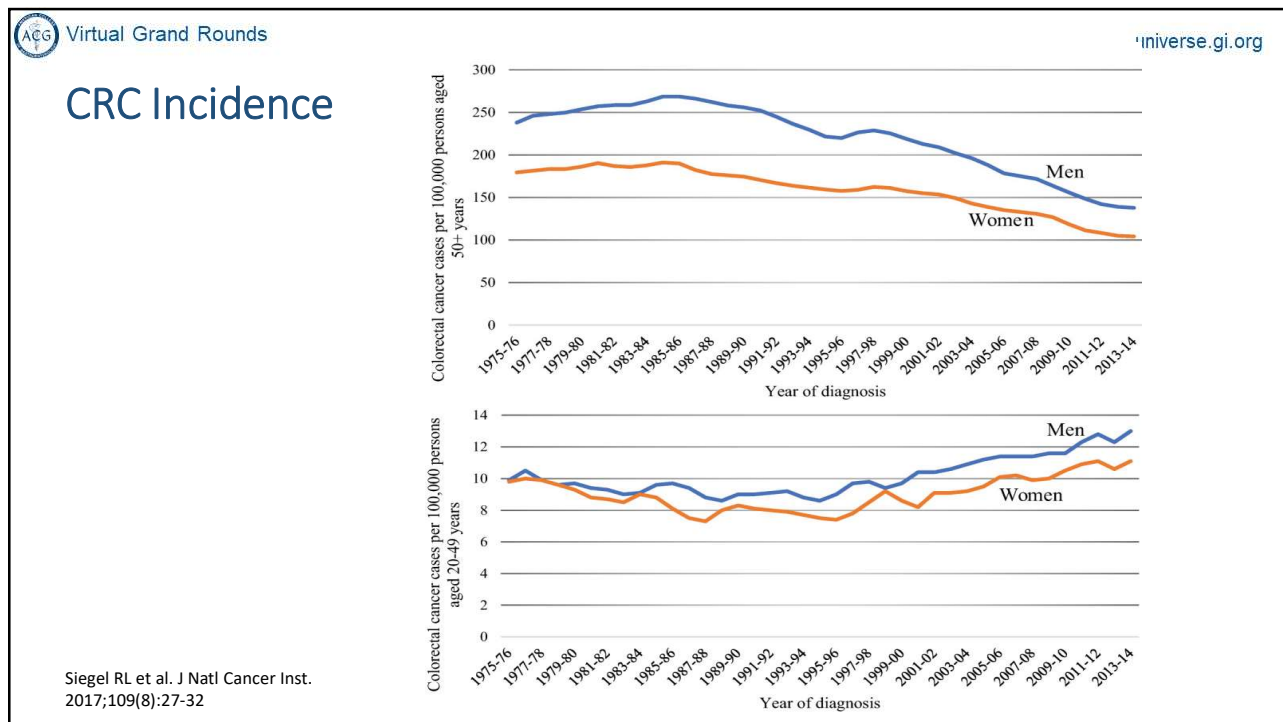
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CRC Mortality Over Time



Robertson DJ, et al. Gastroenterology. 2019;156:904-917.

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When Should Screening Start For CRC?

ACG

- Recommended in all adults 50 to 75 years of age
- Suggest in all average risk adults 45 to 49 years of age
- Recommend decision to screen after 75 be individualized

USPSTF

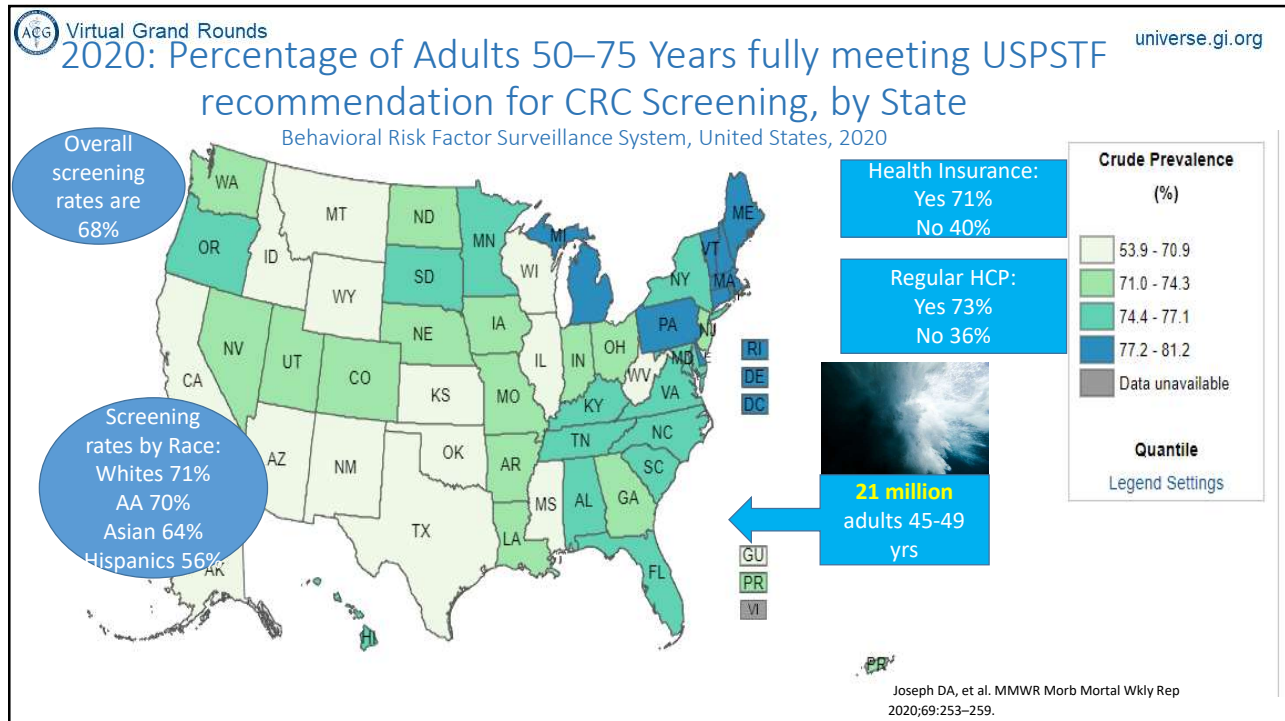
- Recommended in all adults 50 to 75 years of age
- Recommended in adults 45 to 49 years of age
- Recommended that clinicians selectively offer screening in adults 76-85 years of age

MSTF

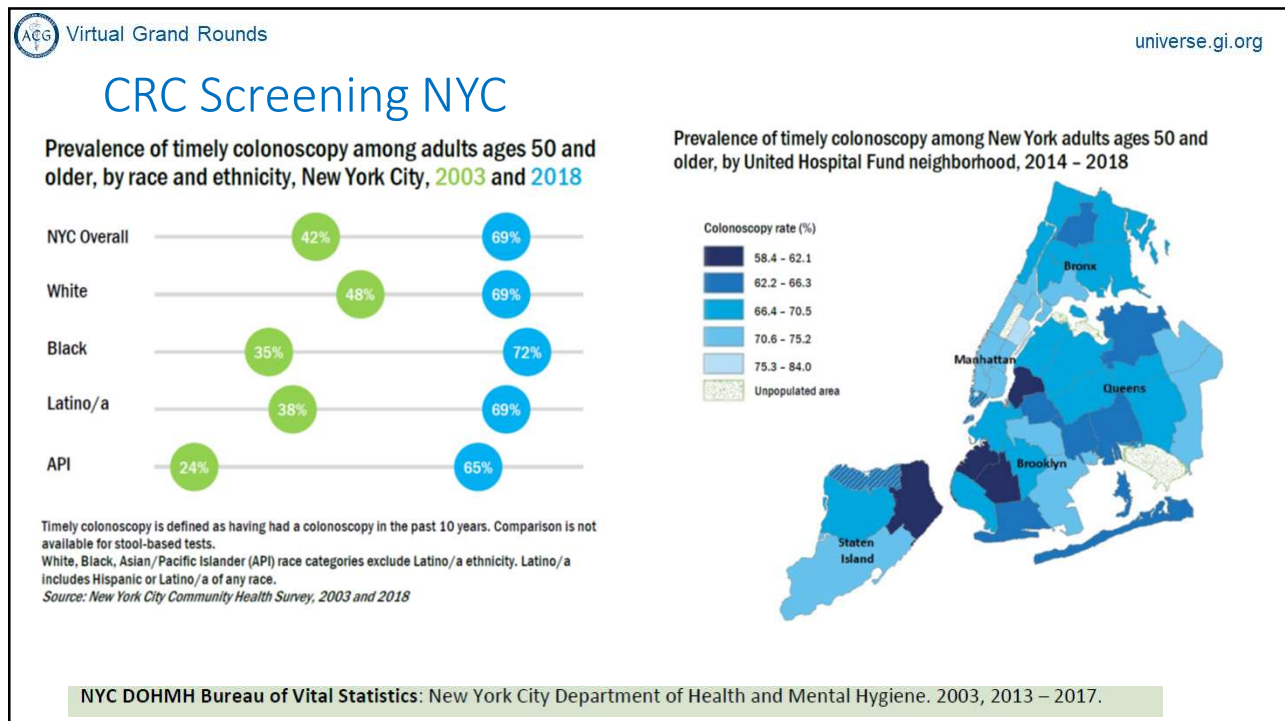
- Suggested to all average-risk adults ages 45 to 49
- For adults ages 76 to 85, the decision to start or continue screening should be individualized and based on prior screening history, life expectancy, CRC risk, and personal preference
- Screening is not recommended after age 85

Shaukat A. et al ACG Clinical Guidelines: AJG 2021;116:458-479; USPSTF. JAMA. 2021;325:1965-1977. Patel SG, et al. Am J Gastro. 2022. 117:57-69.

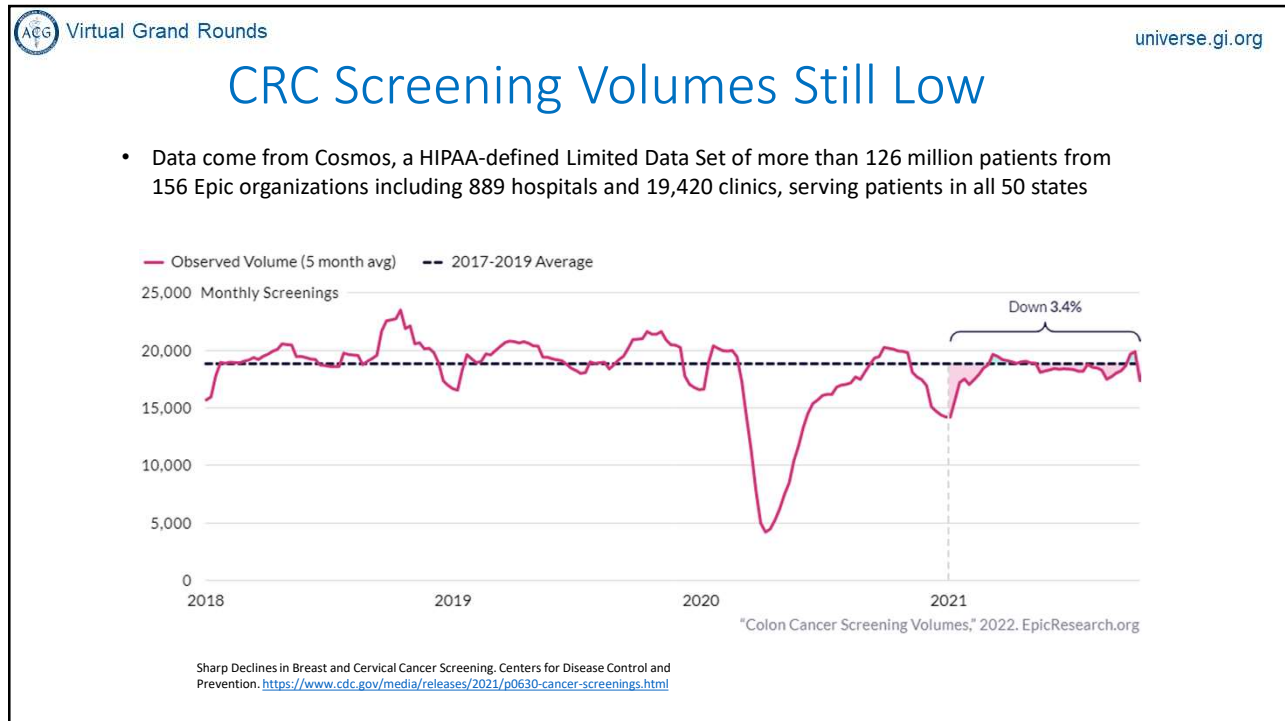
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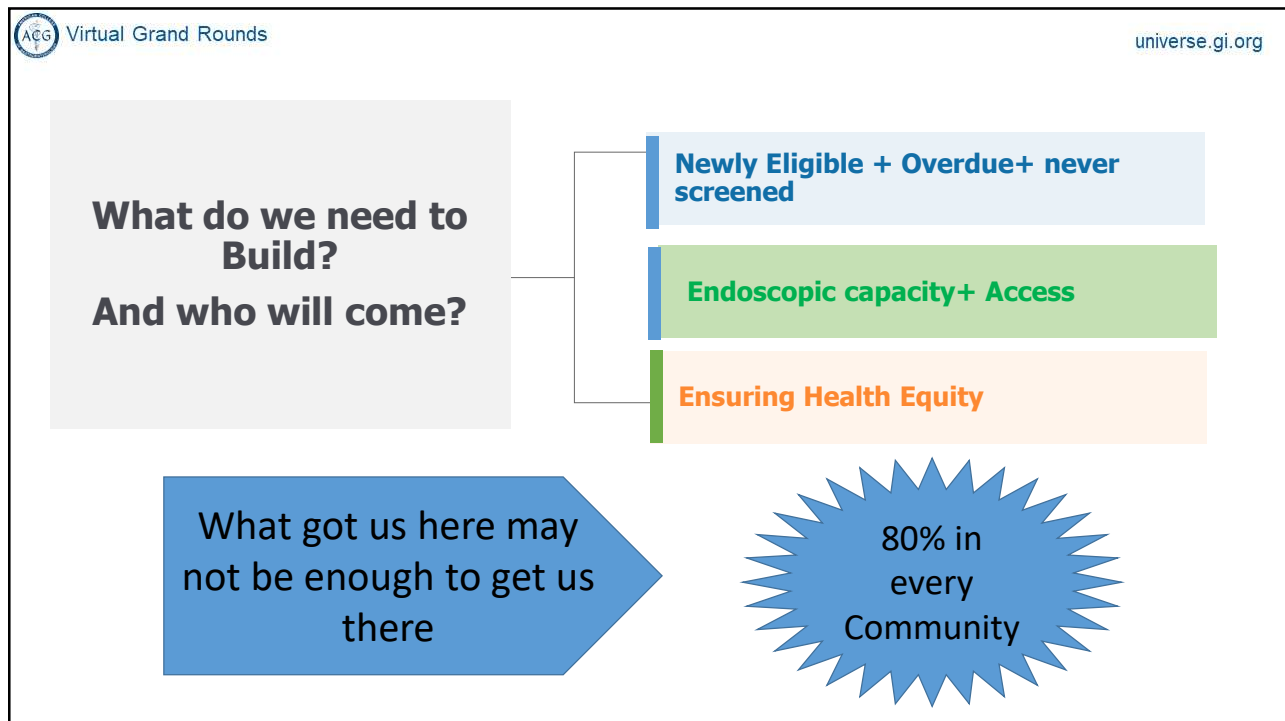
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CRC Screening Options

Modality	Sensitivity CRC	Sensitivity AA	Specificity	Invasive	USPSTF	MA
Colonoscopy	96%	95%	90%	Y	Y	Y
FIT	74%	24%	96%	N	Y	Y
mtsDNA stool	92%	42%	87%	N	Y	Y
Septin-9	48%	-	91%	N	N	Y
Liquid Biopsy	-	-	-	N	TBD	TBD

Adherence is Key

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Adherence is Key

THE NEW ENGLAND JOURNAL OF MEDICINE

ORIGINAL ARTICLE

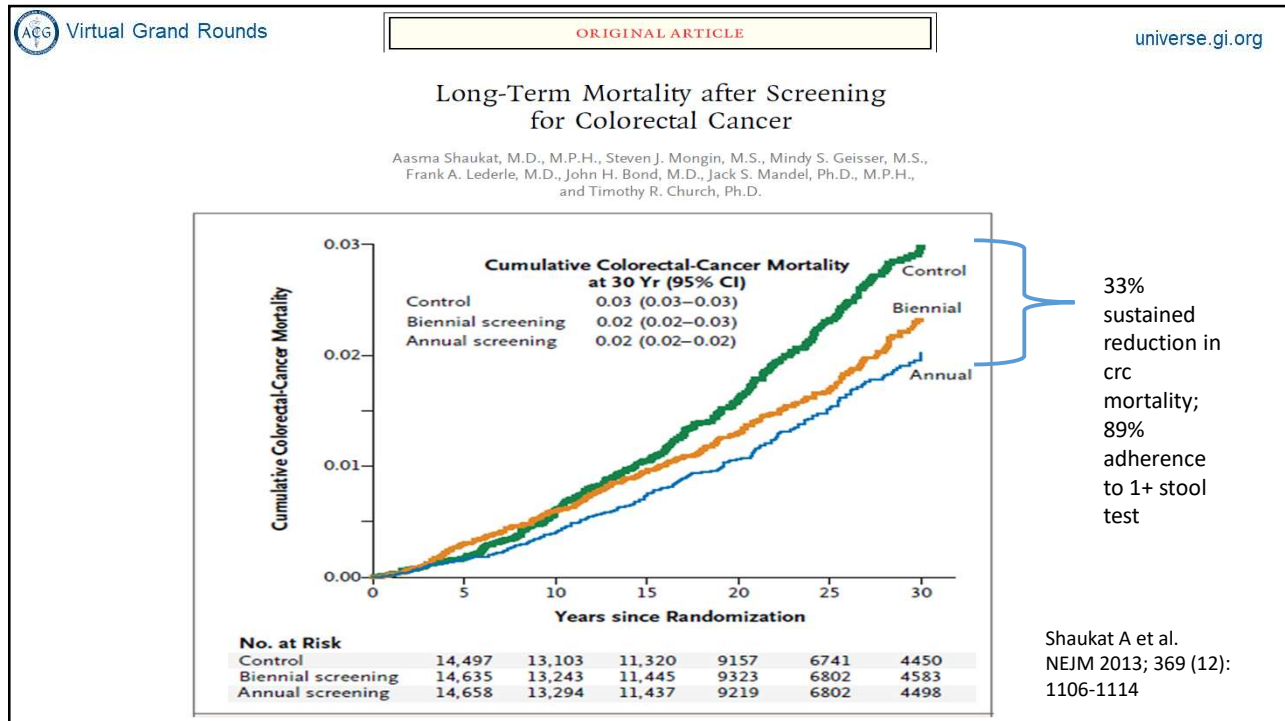
Effect of Colonoscopy Screening on Risks of Colorectal Cancer and Related Death

M. Bretthauer, M. Løberg, P. Wieszczy, M. Kalager, L. Emilsson, K. Garborg, M. Rupinski, E. Dekker, M. Spaander, M. Bugajski, Ø. Holme, A.G. Zauber, N.D. Pilonis, A. Mroz, E.J. Kuipers, J. Shi, M.A. Hernán, H.-O. Adami, J. Regula, G. Hoff, and M.F. Kaminski, for the NordICC Study Group*

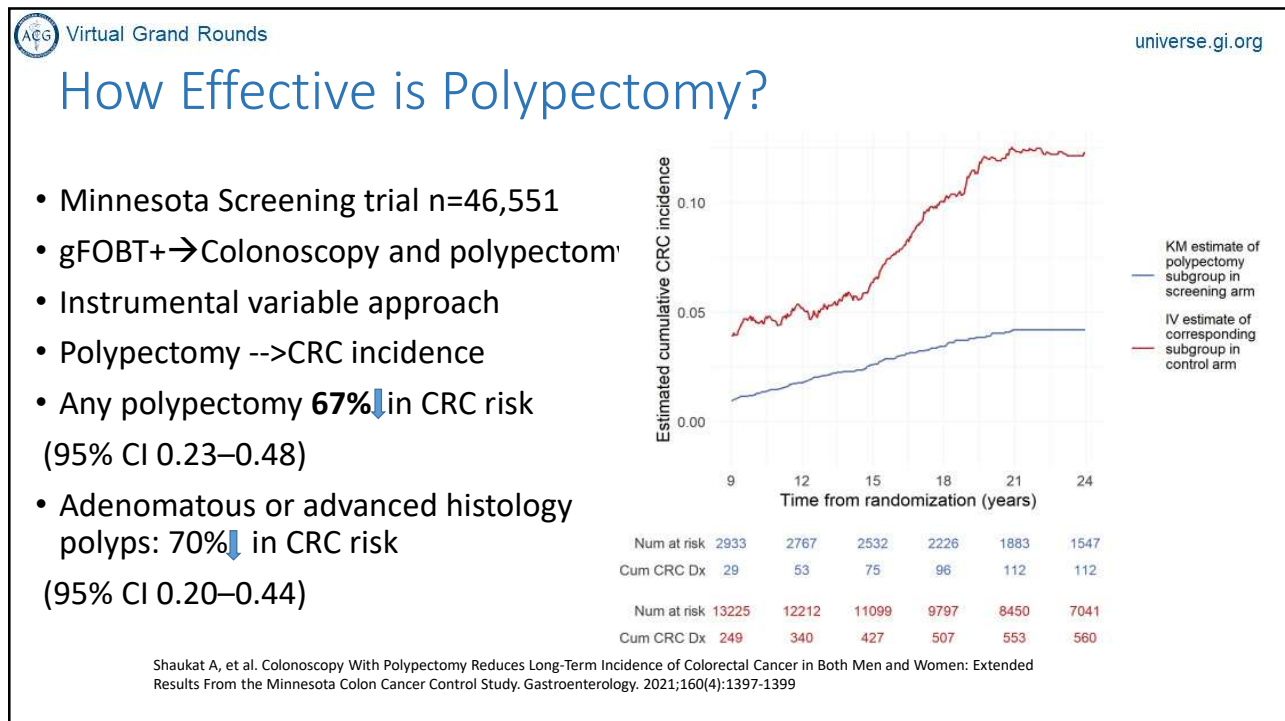
- Adherence to colonoscopy: 42%
- CRC incidence risk reduction 18%
- NS difference in CRC mortality and all cause mortality

- Emphasizes importance of adherence
- Quality of Colonoscopy
- Underpowered for CRC Mortality difference
- Put in context with other data
- **Message:** Don't let patients be discouraged or dissuaded

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CRC Screening Reduces All-Cause Mortality

- Reduced all-cause mortality by 2% (RR, 0.98; 95% CI, 0.97–0.99)

Group
— control
— screened

Shaukat A et al. Effects of Screening Compliance on Long-term Reductions in All-Cause and Colorectal Cancer Mortality. CGH 2021;19:967-975

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Approach to Colon Cancer Screening

1 Step Tests

Colonoscopy

2 Step tests

Stool Based
Imaging based:
CTC
Colon Capsule
Blood based

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ACG Clinical Guidelines: Colorectal Cancer Screening 2021

Aasma Shaukat, MD, MPH, FACG^{1,2}, Charles J. Kahi, MD, MSc, FACG³⁻⁷, Carol A. Burke, MD, FACG⁴, Linda Rabeneck, MD, MPH, MACG⁵, Bryan G. Sauer, MD, MSc, FACG (GRADE Methodologist)⁶ and Douglas K. Rex, MD, MACG³

19. We recommend organized screening programs to improve adherence to CRC screening compared with opportunistic screening.

Strong recommendation; low-quality evidence

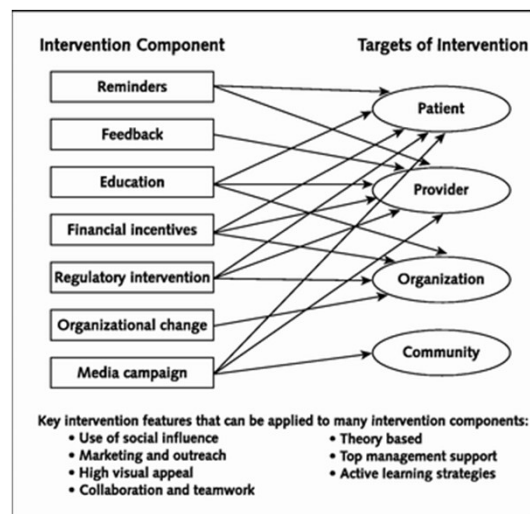
20. We suggest the following strategies to improve adherence to screening: patient navigation, patient reminders, clinician interventions, provider recommendations, and clinical decision support tools.

Conditional recommendation; very low-quality evidence

ACG Clinical Guidelines: AJG 2021;116:458-479;

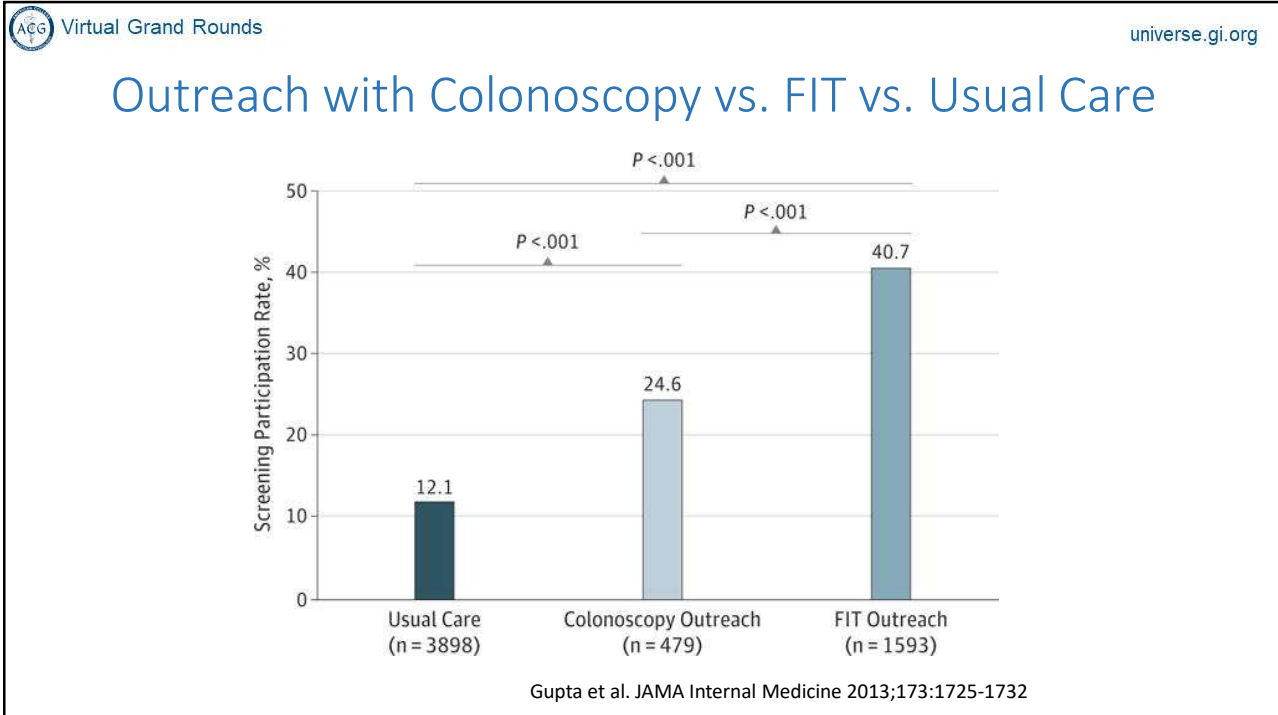
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Framework for Improving Adherence

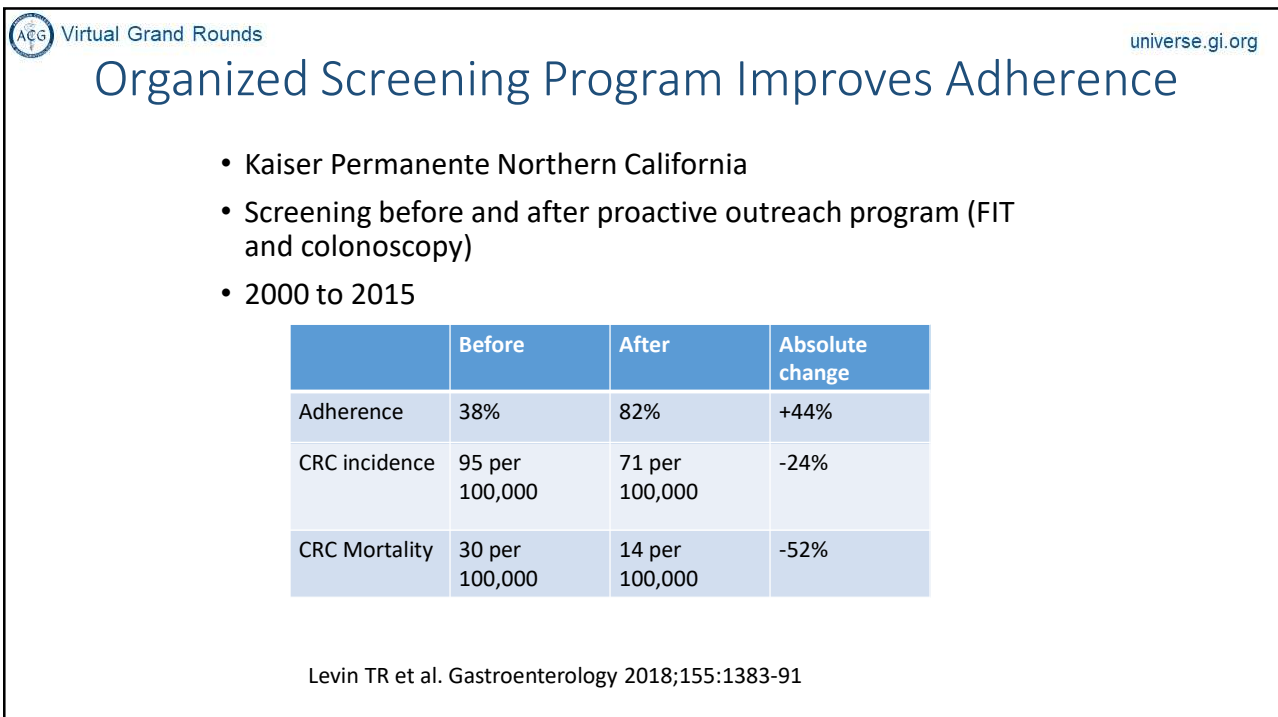


Stone EG et al. Interventions That Increase Use of Adult Immunization and Cancer Screening Services: A Meta-Analysis. Ann Intern Med. 2002;136:641-651

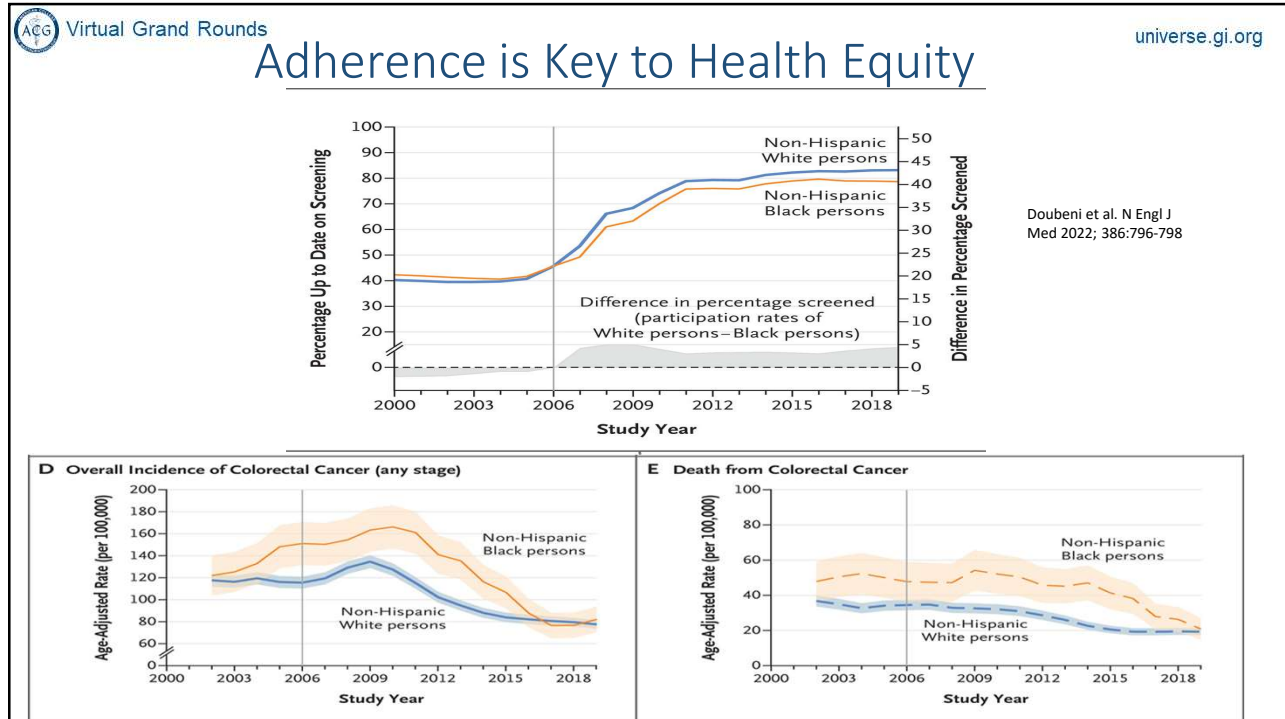
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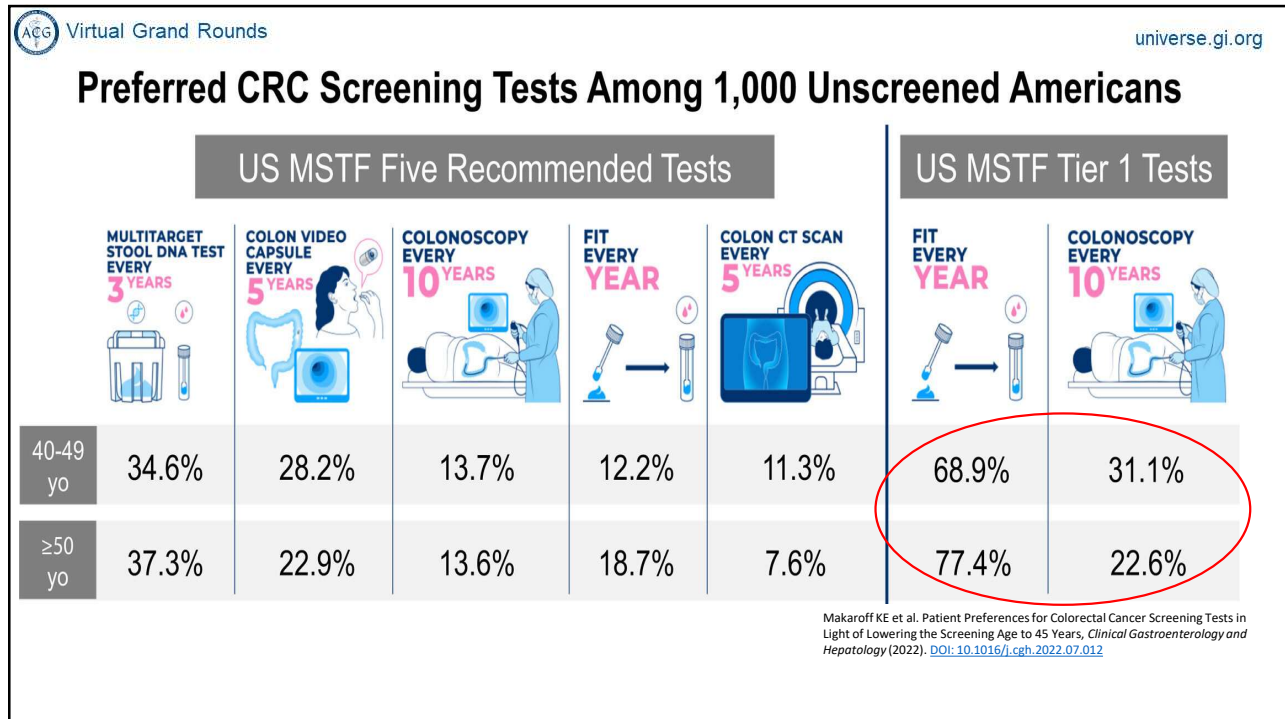
Virtual Grand Rounds

CDC Community Guide

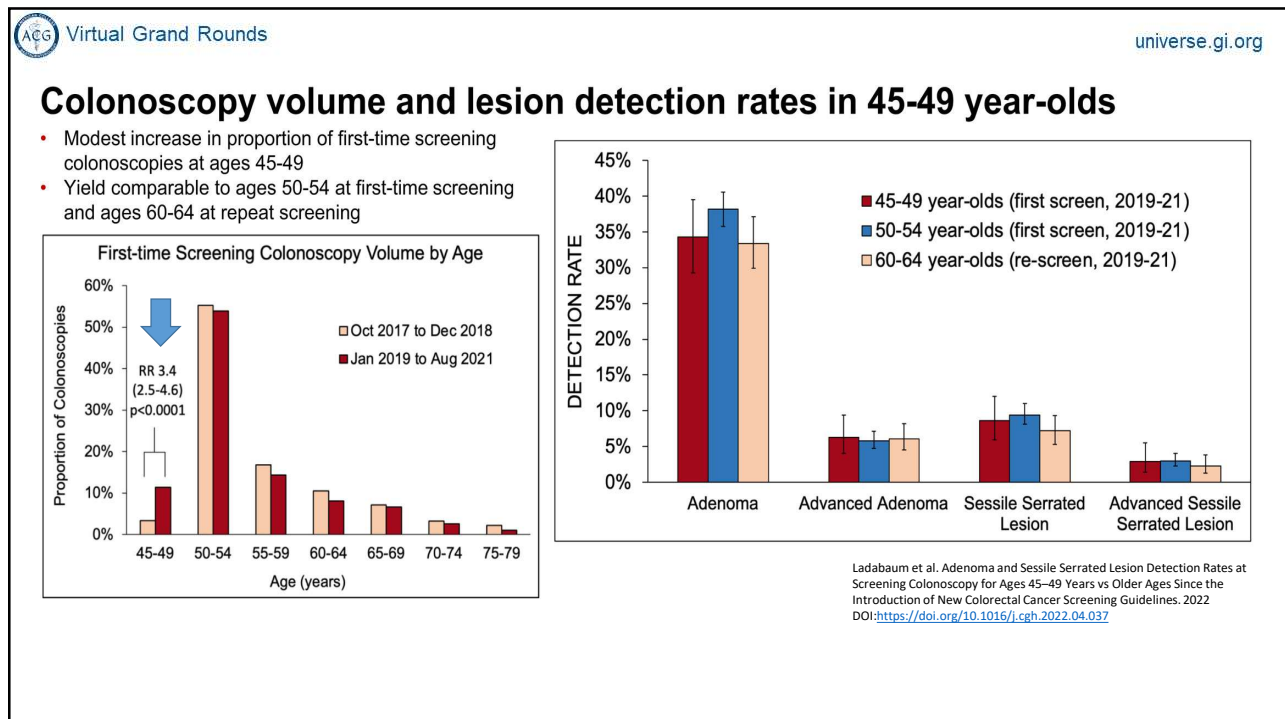
Intervention/activities	Definition
Evidence-based interventions	
Client reminders	Text-based (i.e., letter, postcard, e-mail) or telephone messages advising people that they are due (reminder) or overdue (recall) for screening.
Provider reminders	Prompts to inform healthcare providers that it is time for a patient's cancer screening test (reminder) or that the patient is overdue for screening (recall).
Provider assessment and feedback	Evaluation of provider performance in offering and delivering screening to patients (assessment) and sharing the results with providers (feedback).
Reducing structural barriers	Reducing or eliminating noneconomic burdens or obstacles that impede access to screening by addressing things such as distance to service delivery (e.g., modifying clinic hours, offering services in alternative or nonclinical settings) or administrative procedures.
Supporting activities	
Small media	Distribution of videos and printed materials such as letters, brochures, and newsletters.
Patient navigation	Individualized assistance offered to patients to help overcome healthcare system barriers and facilitate timely access to quality screening, follow-up, and initiation of treatment if diagnosed with cancer.
Professional development/provider education	Interventions such as distribution of educational materials or continuing medical education directed at healthcare staff and providers to increase their knowledge and to change attitudes and practices around cancer screening.
Community Health Workers (CHW)	Community-based workers have a deep understanding of and are often from the community they serve. CHWs educate people about and promote cancer screening and provide peer support to people referred to cancer screening.
Other	
Clinic screening policy	A screening policy in clinics or health systems includes a defined set of guidelines and procedures in place and in use to support CRC screening, a team responsible for implementing the policy, and a quality assurance structure.
Screening champion	A champion is an individual who takes a leadership role in a public health effort. Other variables include frequency of monitoring the CRC screening rate and frequency of implementation support provided to the clinic.

Cancer Prevention and Control | The Community Guide <https://thecommunityguide.org/topic/colorectalancer>

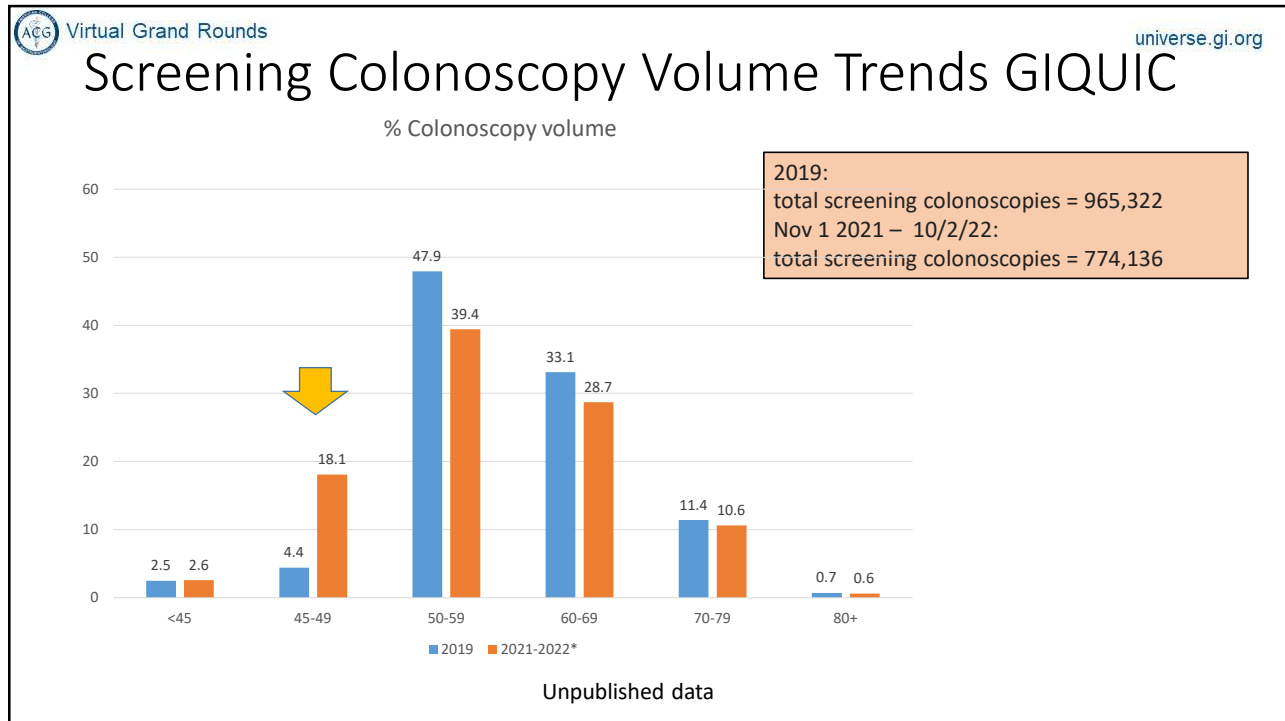
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Blood Based CRC Screening Tests

The diagram illustrates the progression of colorectal cancer through four stages: Small Adenoma, Large Adenoma, Early cancer, and Advanced cancer. Below the diagram, arrows indicate the detection range of various screening methods: FIT and FIT-DNA cover the range from Small Adenoma to Advanced cancer; Colonoscopy covers from Small Adenoma to Early cancer; and AI and Machine Learning (detecting cfDNA, Glycoproteins, mRNA, and Immune signature) covers from Small Adenoma to Early cancer.

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Test	Details of Technology	Special Considerations	Expected Completion
Stool and blood based			
Clinical genomics	Stool and blood-based biomarker (NCT00843375) for CRC and AN	Study plans to recruit 1800 average risk individuals 18 years+	◆ 2022
Blood-Based			
Freenome	Cell free DNA plus artificial intelligence for CRC and AN (NCT04369053)	Aims to recruit 25,000 average risk individuals between 45-85	◆ 2022
Guardant	ctDNA LUNAR test to detect cell free tumor DNA in blood (NCT04136002)	Aims to recruit 10,000 average risk individuals between 45-84 years	◆ 2022
CancerSEEK	Multi-cancer detection test for 8 common cancers, including CRC Detects circulating proteins and mutations in circulating tDNA	(NCT04213326) has enrolled 6399 cancer free as well as individuals with cancer, ages 50 and older since 2019	◆ 2022
GRAIL	◆ Multi-cancer early detection test (breast, colorectal, pancreatic, lung and hematologic malignancies)	◆ In validation study, specificity 99.5%, sensitivity for cancer 51.5% ◆ Ongoing prospective validation study with 6,600	◆ Not covered by insurance and the list price is \$949

Shaukat, A., Levin, T.R. Current and future colorectal cancer screening strategies. *Nat Rev Gastroenterol Hepatol* (2022). <https://doi.org/10.1038/s41575-022-00661-3>

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Setting the Bar: CMS National Coverage Decision

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← Back to Screening for Colorectal Cancer - Blood-Based Biomarker Tests

Contents

- Decision Summary
- Decision Memo
- Bibliography

National Coverage Analysis (NCA)
Decision Memo

Screening for Colorectal Cancer - Blood-Based Biomarker Tests

CAG-00454N Expand All | Collapse All

Decision Summary

The Centers for Medicare & Medicaid Services (CMS) has determined that the evidence is sufficient to cover a blood-based biomarker test as an appropriate colorectal cancer screening test once every 3 years for Medicare beneficiaries when performed in a Clinical Laboratory Improvement Act (CLIA)-certified laboratory, when ordered by a treating physician and when all of the following requirements are met:

Sensitivity for CRC	74%
Specificity for CRC	90%
FDA approval	

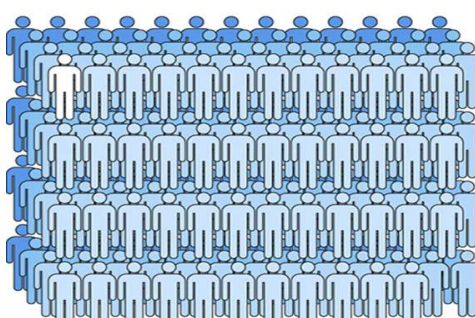
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Adherence to Blood Based Tests

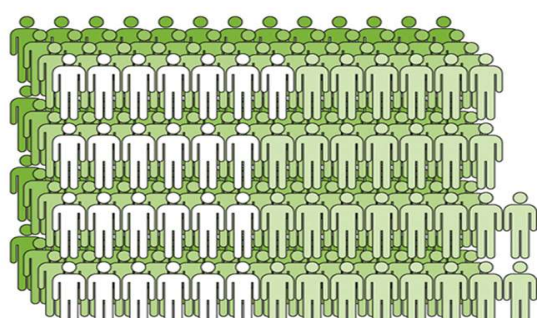
413 randomized adults

Blood Test Arm



99.5% (CI95: 97.3%-100%)
completed test

FIT Arm



88.1% (CI95: 83.0%-91.8%)
completed test

= a difference of **11.4%** (CI95: 6.9%-15.9%, p<.001)

Liles EG et al. Uptake of a colorectal cancer screening blood test is higher than of a fecal test offered in clinic: A randomized trial. 2017 Cancer Treatment and Research Communications;10: 27-31

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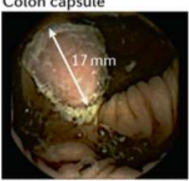
Summary

Blood-based tests

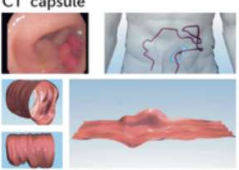
Blood test name or vendor	Analytes	Target
mSEPT9	ctDNA	CRC specific
Freenome	cfDNA + protein	CRC specific
CancerSEEK	ctDNA + protein	Multi-cancer
Guardant	ctDNA	CRC specific
Grail	ctDNA	Multi-cancer
Clinical Genomics	ctDNA	CRC specific

Imaging-based tests

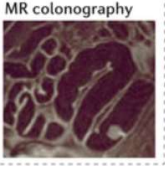
Colon capsule

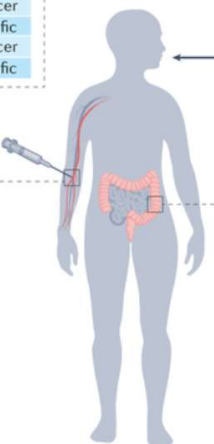


CT capsule



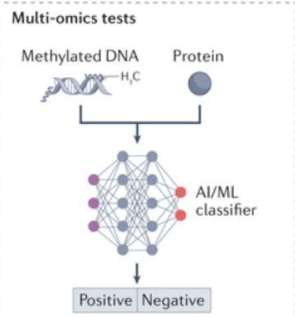
MR colonography





Multi-omics tests

Methylated DNA (H₃C) and Protein

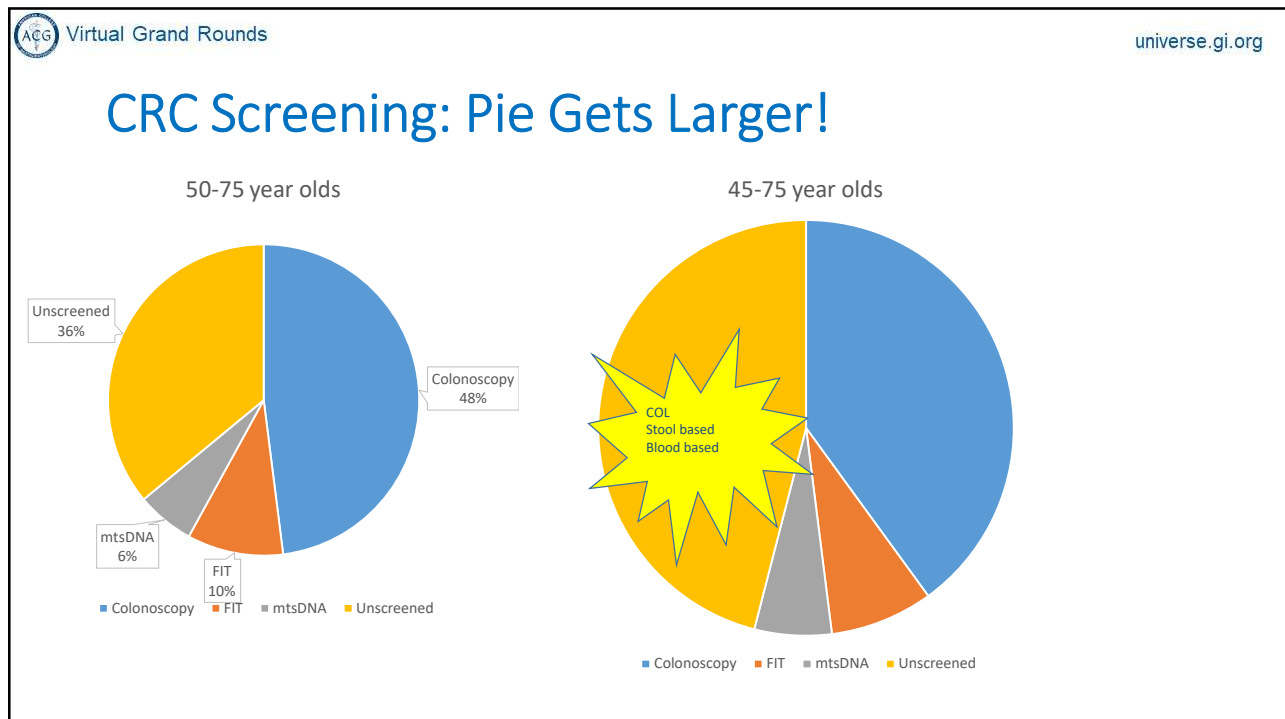


AI/ML classifier

Positive Negative

Shaukat, A., Levin, T.R. Current and future colorectal cancer screening strategies. *Nat Rev Gastroenterol Hepatol* (2022). <https://doi.org/10.1038/s41575-022-00612-y>

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Back of the Envelope Calculations

Current

- 100 million 50-75
- 67 million screened; 33million unscreened
- 20 million 45-49 unscreened
- 53 million unscreened

Colonoscopy offered only

- Adherence of 50%
- 26 million colonoscopies needed
- Current US capacity is 18 million/year

Col +Non invasive tests offered

- Adherence 80%; 7% abnormal initial test
- 42 million screened; 2.9 million positive test → Colonoscopy
- Over 10 years: 29 million colonoscopies
- Higher neoplasia yield (and more surveillance exams)

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Getting to 80% in Every Community

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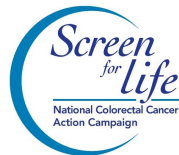
Summary

- Screening for CRC is effective, current rates at 70%
- Programmatic approaches are needed to identify unscreened
- Adherence is key
- Demand for Colonoscopy will increase, indication may shift to surveillance

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Thank you!




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Questions?



Aasma Shaukat, MD, MPH, FACG



Janice Cheong, MD

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ACG & CCF IBD Circle



GI



ACG Hepatology Circle



ACG Functional GI
Health and Nutrition Circle

ACG GI Circle

Connect and collaborate within GI



ACG Women in GI Circle

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