



SOUTH DAKOTA  
**CANCER  
COALITION**

# **Quarterly Webinar Series: Colorectal Cancer**

April 7, 2025

# Biography

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## Bayan Al-Share, MD

**Hematologist and Oncologist**  
**Monument Health Cancer Care Institute, Rapid City**

- ▶ MD, University of Jordan
- ▶ Internal Medicine Residency, Ascension Providence Hospital/Michigan State University College of Human Medicine
- ▶ Fellowship, Hematology and Oncology, Wayne State University Karmanos Cancer Center
- ▶ Served with Doctors Without Borders



# **Colorectal Cancer screening & early detection**



## Objectives

Colorectal cancer epidemiology

Screening guidelines & screening methods from different societies

Benefits & risks of early screening

CRC in younger patients

National and state goals and data

Monument Health efforts

## Epidemiology

**In 2025, approximately 107,320 new cases of colon cancer and 46,950 new cases of rectal cancer are expected in the US, making colorectal cancer the fourth most common cancer overall.**

**Colorectal cancer is the second leading cause of cancer-related deaths in the U.S., with an estimated 52,900 deaths in 2025.**

**The lifetime risk of developing colorectal cancer is about 1 in 24 for men and 1 in 26 for women.**

## Epidemiology

**The five-year survival rate is 91% for early-stage (I-II) colorectal cancer but drops to 13% for stage IV cases.**

**Incidence rates among people under 50 have been increasing by about 2.4% annually since 2012, highlighting the importance of early screening**

<https://www.cancer.gov>

Siegel, Rebecca L., Lindsey A. Torre, Isabelle Soerjomataram, Richard B. Hayes, Freddie Bray, Thomas K. Weber, and Ahmedin Jemal. "Global patterns and trends in colorectal cancer incidence in young adults." *Gut* 68, no. 12 (2019): 2179-2185.

Cho, Moo Y., David A. Siegel, Joshua Demb, Lisa C. Richardson, and Samir Gupta. "Increasing colorectal cancer incidence before and after age 50: implications for screening initiation and promotion of "on-time" screening." *Digestive Diseases and Sciences* (2022): 1-6.

The current guidelines for CRC screening in the U.S. reflect updated recommendations from major medical societies, emphasizing earlier screening initiation & colonoscopy quality.

**Few differences in recommendations between societies.  
However, All agree on the same screening age for average risk individuals**

# **Key Guidelines by Society**



# SCREENING METHODS FOR COLORECTAL CANCER

## VISUAL TESTS



## STOOL TESTS



# American Cancer Society (ACS)

## Start age

45 for average-risk individuals.

## Stop age

Continue through 75 for healthy adults.

Individualized decisions for 76–85.

No screening after 85.

## Methods

Stool-based tests (high-sensitivity fecal tests) or visual exams (colonoscopy, CT colonography).

Positive non-colonoscopy tests require follow-up colonoscopy.

# U.S. Preventive Services Task Force (USPSTF)

## Start age

45.

## Stop age

76–85: Individualized.

## Methods

Recommends colonoscopy, FIT, CT colonography, or flexible sigmoidoscopy.

Excludes serum/urine tests and capsule endoscopy.

# American College of Gastroenterology (ACG)

## Start age

45 for average-risk individuals.

High-risk groups: Start at 40 (e.g., family history of CRC).

## Stop age

Individualized after 75.

## Methods

Colonoscopy (preferred) or FIT as primary options.

Other options: Multitarget stool DNA, CT colonography, colon capsule.

## Surveillance

Repeat colonoscopy every 10 years (average risk) or 5 years (family history).

# American College of Gastroenterology (ACG)

## Special Populations

Family history, First-degree relative with CRC

Start at 40 or 10 years before youngest relative's diagnosis.

Use colonoscopy if relative diagnosed under 60

# Quality Indicators for Colonoscopy (2024 Update)

The ACG and ASGE released updated benchmarks to improve screening efficacy

Adenoma detection rate (ADR)  $\geq 25\%$ .

Cecal intubation rate  $\geq 95\%$ .

Withdrawal time  $\geq 6$  minutes.

Documentation Clear reporting of findings and follow-up intervals.

Sedlack, Robert E., Walter J. Coyle, Keith L. Obstein, Mohammad A. Al-Haddad, Gennadiy Bakis, Jennifer A. Christie, Raquel E. Davila et al. "ASGE's assessment of competency in endoscopy evaluation tools for colonoscopy and EGD." *Gastrointestinal endoscopy* 79, no. 1 (2014): 1-7.

Hilsden, Robert J., Sarah M. Rose, Catherine Dube, Alaa Rostom, Ronald Bridges, S. Elizabeth McGregor, Darren R. Brenner, and Steven J. Heitman. "Defining and applying locally relevant benchmarks for the adenoma detection rate." *Official journal of the American College of Gastroenterology/ ACG* 114, no. 8 (2019): 1315-1321.

# Comparative Summary

	ACS	USPSTF	ACG
Start age (average risk)	45	45	45
Primary methods	Stool tests/visual	Colonoscopy/FIT	Colonoscopy/FIT
High-risk start age	Not specified	Not specified	40
Quality metrics	Not specified	Not specified	ADR $\geq$ 25%

# Screening methods

Screening Method	Type	Frequency	Invasiveness	Prep Required	Detects Polyps	At-Home Option	Follow-up if Positive
<b>Colonoscopy</b>	Visual (Endoscopic)	Every 10 years	Invasive	Yes	Yes	No	Not needed if clear
<b>CT Colonography</b>	Visual (Imaging)	Every 5 years	Minimally invasive	Yes	No (only detects)	No	Colonoscopy
<b>FIT (Fecal Immunochemical Test)</b>	Stool-based	Every year	Non-invasive	No	No	Yes	Colonoscopy
<b>Multitargeted DNA Test (e.g., Cologuard)</b>	Stool-based	Every 3 years	Non-invasive	No	No	Yes	Colonoscopy



**Why not to start screening earlier?**

# Benefits

## Earlier Detection of Cancer

Risk in individuals aged 45–49 is comparable to those aged 50–54, with similar polyp detection rates and cancer diagnosis rates following colonoscopy.

Leads to reduced mortality and prevents advanced-stage cancers, which are more difficult to treat.

# Benefits

## Increasing Incidence in Younger Adults

CRC incidence among individuals under 50 has been rising, justifying earlier screening to address this trend.

Starting screening at 45 is suggested to increase life-years gained and reduce CRC cases and deaths compared to starting at 50.

Peterse, Elisabeth FP, Reinier GS Meester, Rebecca L. Siegel, Jennifer C. Chen, Andrea Dwyer, Dennis J. Ahnen, Robert A. Smith, Ann G. Zauber, and Iris Lansdorp-Vogelaar. "The impact of the rising colorectal cancer incidence in young adults on the optimal age to start screening: microsimulation analysis I to inform the American Cancer Society colorectal cancer screening guideline." *Cancer* 124, no. 14 (2018): 2964-2973.

# Benefits

## Cost-Effectiveness

Prevents future CRC cases and reduces treatment costs for advanced cancers.

## Comparable Effectiveness of Tests

Non-invasive tests like FIT have comparable detection rates for CRC in individuals aged 45–49 compared to older groups, making screening accessible and less burdensome for younger adults.

However, FIT has slightly lower positivity and polyp detection in younger adults.

Monahan, Kevin J., Michael M. Davies, Muti Abulafi, Ayan Banerjee, Brian D. Nicholson, Ramesh Arasaradnam, Neil Barker et al. "Faecal immunochemical testing (FIT) in patients with signs or symptoms of suspected colorectal cancer (CRC): a joint guideline from the Association of Coloproctology of Great Britain and Ireland (ACPGBI) and the British Society of Gastroenterology (BSG)." *Gut* 71, no. 10 (2022): 1939-1962.

# Harms

## Increased Number of Procedures

Lowering screening age requires an additional 1,400 colonoscopies per 1,000 individuals screened over their lifetime, increasing the burden on healthcare systems and patients.

## Complications from Colonoscopy

Serious complications such as colonic perforation or major bleeding can occur, with risks increasing with the number of procedures performed over a lifetime.

## Anxiety and Psychological Impact

Abnormal test results can lead to anxiety and stress for patients, along with a cascade of follow-up tests that may not always result in significant findings.

# Harms

## Limited Empirical Evidence

Most randomized trials supporting CRC screening efficacy focus on adults aged 50 or older; evidence for benefits in younger populations is largely based on simulation models rather than direct clinical trials.

## Low Uptake Rates

Despite guideline changes, adherence to screening recommendations remains low among adults aged 45–49, limiting the population-level impact of earlier screening

Rubin, Lily, Christian Okitondo, Lauren Haines, and Mark Ebell. "Interventions to increase colorectal cancer screening adherence in low-income settings within the United States: A systematic review and meta-analysis." *Preventive Medicine* 172 (2023): 107522.

# CRC in younger individuals

## Disease Aggressiveness

Younger patients tend to have more aggressive disease characteristics.

CRC in younger adults is often diagnosed at more advanced stages (65% vs. 52% at Stage III or IV).

**The natural history of colorectal cancer differs significantly between younger ( $\leq 50$  years) and older ( $> 50$  years) adults**

## Tumor Characteristics

Poorly differentiated tumors are more common in young adults (28% vs. 18%).

Higher prevalence of microsatellite instability-high (MSI-H) tumors in young adults (18% vs. 12%).

Young-onset CRC may arise from different molecular processes compared to late-onset cases.

Genomic landscapes show significant differences in several genes relevant to cancer biology.

-MSS/*BRAFV600E* genotype had poor prognosis and was more prevalent in early-age CRC (9% vs. 3%).



## Survival Outcomes

Despite more aggressive presentation, younger adults have better 5-year overall survival rates (68% vs. 48%).

## Family history

Plays a crucial role in CRC risk, especially for younger adults.

Individuals aged 30-39 with parental history of CRC have a more than quadrupled risk compared to those without family history.

Bleyer, Archie. "Latest estimates of survival rates of the 24 most common cancers in adolescent and young adult Americans." *Journal of adolescent and young adult oncology* 1, no. 1 (2011): 37-42.

Leu, Monica, Marie Reilly, and Kamila Czene. "Evaluation of bias in familial risk estimates: a study of common cancers using Swedish population-based registers." *JNCI: Journal of the National Cancer Institute* 100, no. 18 (2008): 1318-1325.

## SD CRC screening

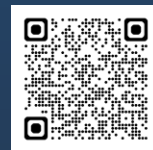
**70.6%** of SD adults **50-75 years** had undergone recommended colorectal cancer screenings within the appropriate time intervals.

National Colorectal Cancer Roundtable screening rate goal

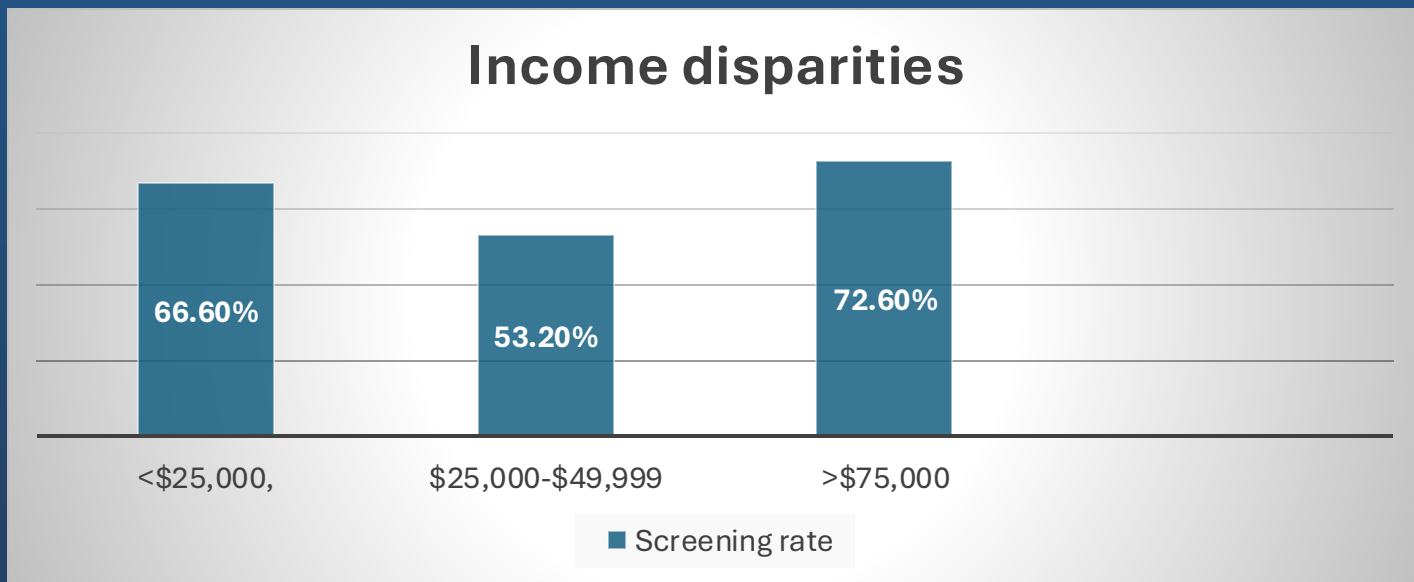
**80%** (adults aged **50 to 75**)

Current U.S. screening rates  
**71%**

All recommended colorectal cancer screening methods



# Screening by income





**Monument Health  
efforts**

**Community  
Outreach &  
Education**



**First blue day (Colon Cancer Awareness day)  
March 2024**





**First blue day (Colon Cancer Awareness day)  
March 2024**

# Black Hills home show





Second Colorectal cancer awareness day  
March 2025





# Social media/news outreach

BLACKHILLSFOX.COM  
**Healthwatch: Preventing and detecting colon cancer**  
*Tips on how to best prevent and detect colon*

## Healthwatch: Preventing and detecting colon cancer

DIRECTOR OF GASTROENTEROLOGY, MONUMENT HEALTH

## Social media/news outreach



A screenshot of a Facebook post from the verified page "KOTA Territory News". The post is dated "Mar 7" and is public. The text of the post reads: "If you missed our March Focus program on Colon Cancer Awareness Month, you can catch it here on our YouTube page." Below the text is a video thumbnail showing four men in a studio setting. They are seated around a round table. The background features a large "FOCUS" logo with a colorful, abstract design. The man on the far right is wearing a white lab coat. Below the video thumbnail, the text "YOUTUBE.COM" is visible, followed by the video title "Focus March 2025-Colon Cancer Awareness Month".

**KOTA Territory News** ✓  
Mar 7 · 🌐

If you missed our March Focus program on Colon Cancer Awareness Month, you can catch it here on our YouTube page.



YOUTUBE.COM  
**Focus March 2025-Colon Cancer Awareness Month**



EPISODE 83  
**ALI ZAKARIA, M.D.**



EPISODE 84  
**BAYAN AL-SHARE, M.D.**



# Education

MONUMENT  
**HEALTH**  
MAGAZINE

Educational materials and resources about the importance of early detection and screening options



**PATIENT STORIES**  
**A New Story to Tell**

After 41 years on the air, Jack Caudill is used to being recognized around the Black Hills as your local news anchor. Since undergoing treatment for colorectal cancer, he's now [...]



# Monument Health Screening Programs

Offering **screening colonoscopies** and referrals through primary care clinics.

Participating in statewide initiatives to improve screening rates, especially among underserved populations.

Offering **FIT kits** for patients who prefer or require non-invasive testing.



# Monument Health

Jan 2022-Dec 2024

**6875 screening colonoscopies age 45+**

**326 screening colonoscopies <45**

# Access Initiatives

Implementing **reminder systems** through patient portals or calls to encourage patients over 45 to schedule screenings.

Offering financial assistance or insurance navigation to help reduce screening barriers.



Thank you



- ▶ **Submit questions via chat box**



# Thank you!



[cancersd.com](http://cancersd.com)

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