

Natasha Amjed, DO, MPH; Cameron Davis, MD; Andrew Mims, MD; William Oelsner, MD; John Shapiro, MD
Nicholas Pumilia, MD; Mukta Panda, MD

Problem/Background

- Colorectal cancer (CRC) is the second leading cause of cancer-related death in the United States after lung cancer, accounting for 9% of all cancer-related deaths (5).
- Historically, guidelines recommended screening starting at age 50. In 2019, the American Cancer Society (ACS) recommended screening start at age 45 due to the increasing recognition of CRC in young patients. In 2021, USPSTF updated recommendations to 45, as well.
- Younger people with CRC are being diagnosed with more advanced disease due in part to diagnostic delays, may also represent a distinct subset of CRC with greater genetic risk (11).
- Rutten and colleagues found that while 75.5% of gastroenterologists agree with implementation of the new guidelines, surprisingly, only 38.1% of primary care providers agree with lowering the screening age to 45 (4).

Current Situation

- The overall CRC screening rate in the US is ~62%, and much lower among low income, low education, limited health literacy, lack of insurance, and racial/ethnic minority patient populations (1, 8, 9, 11)
- In one study among FQHC patients, "fear or worry" was the leading patient reported barrier to CRC screening (29.5%), followed by financial difficulties (25%), and "discomfort or disgust" with the procedure (11.5%) or bowel prep (6.6%). Only 10.9% reported never receiving a referral from their provider (8).
- Ojinnaka et al found that limited health literacy was a possible barrier to CRC screening and suggested new educational materials with the goal of improving health literacy and communication may improve screening (9).
- The CRC screening rates at the University Medical Associates at Dodson Avenue Clinic in Chattanooga, TN have been lower than what is nationally recommended. Over a three-month period in January to March of 2022, the screening rate was 2.9%.

AIM and Measures

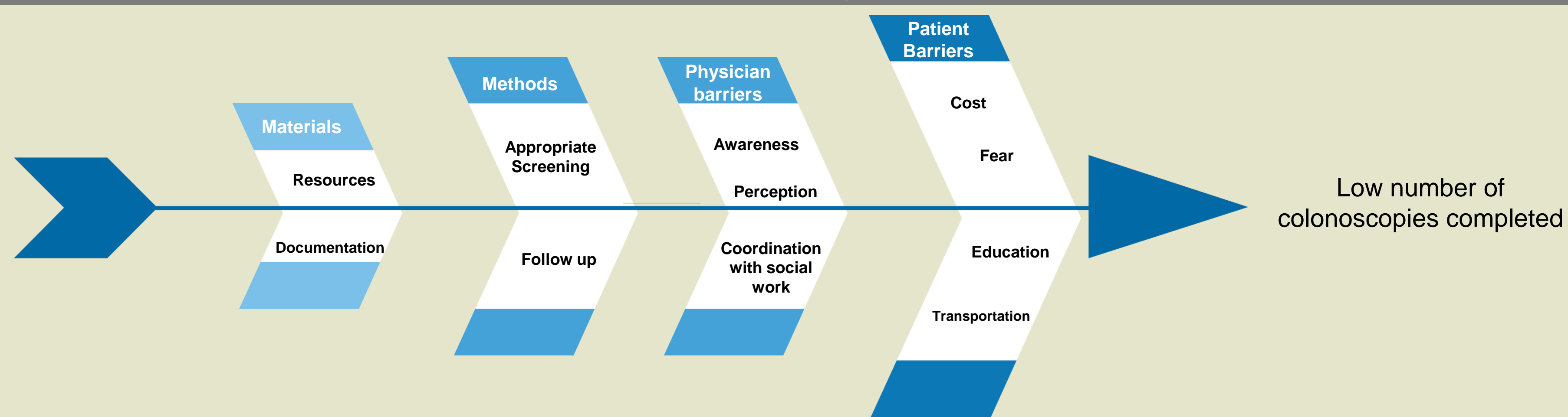
The **primary** objective is to increase CRC screening by 10% over a three-month period among patients ages 45-75 years, by addressing patient and provider hesitancy to CRC screening with the following interventions:

- Internal medicine residents were provided USPSTF updated guidelines. They were encouraged to openly discuss screening colonoscopy and other screening modalities with patients on a regular basis. Monthly sessions led by residents reviewed the updated guidelines, and key barriers including patients' fear of the procedure, concerns over cost, and the potential benefits of CRC screening.
- Residents were provided with a CRC screening handout with information from the CDC to share with patients.
- Other FQHC clinical care teams and the community outreach departments were engaged to promote awareness of the importance of CRC screening.
- Lastly, a dot phrase through the EPIC EMR was deployed to improve documentation.

The **secondary** objective is to assess prevalence of colon cancer at UMA over the past year (July 1, 2020 to June 30, 2021) using data from EPIC.

The **tertiary** objective is to characterize provider perspectives regarding their own screening practices, and perceived barriers for patients to obtaining appropriate screening using an anonymous survey.

Cause Analysis



CRC Screening Rates

Time Frame	Number of colonoscopies completed	Total number of patients	Percentage of CRC colonoscopies performed
January 1, 2022 to March 31, 2022	558	3478	16.04%
January 1, 2021 to March 31 st , 2021	86	2944	2.9%

Provider Perspective Survey Responses

60% Resident Response
40% Attending Response

How often are you discussing screening colonoscopy with your patients?

- Always (30%)
- Usually (40%)
- Sometimes (30%)
- Rarely (0%)

How often are you sending referrals for screening colonoscopy?

- Always (10%)
- Usually (60%)
- Sometimes (30%)
- Rarely (0%)

How often do you think patients follow through with the colonoscopy referral?

- Always (0%)
- Usually (10%)
- Sometimes (50%)
- Rarely (40%)

Which screening option modalities are you discussing with your patient?

- Colonoscopy (10)
- FIT testing (5)
- FOBT (0)
- Sigmoid (1)

Colorectal screening is indicated for which age groups?

- 45-75 (90%)
- 50-75 (10%)
- 50-85 (0%)
- 40-80 (0%)

How much do you think patients' hesitancy in obtaining screening colonoscopy is due to lack of knowledge of the importance of the screening test?

- Always (10%)
- Usually (70%)
- Sometimes (20%)
- Rarely (0%)

How much do you think patients' hesitancy in obtaining screening colonoscopy is due to fear regarding the procedure?

- Always (30%)
- Usually (60%)
- Sometimes (10%)
- Rarely (0%)

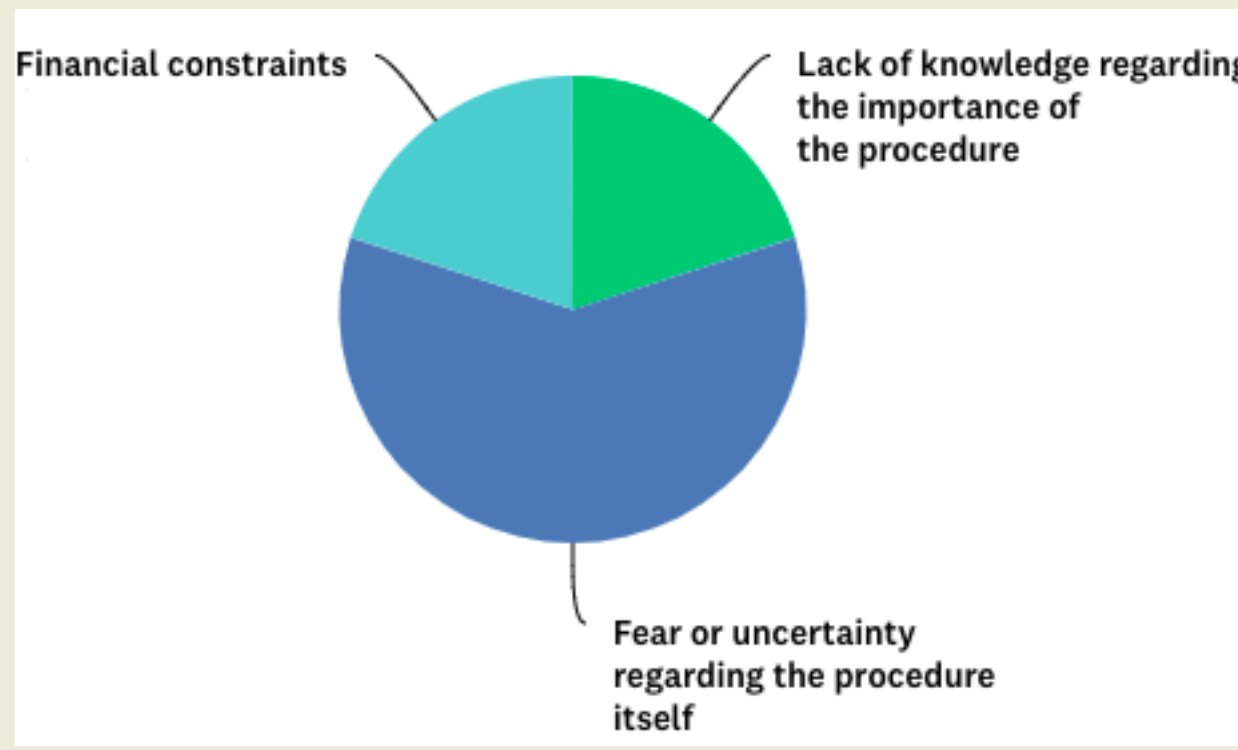
Choose one of the following which you believe is the most significant barrier for patients attaining colonoscopy.

- Lack of knowledge (20%)
- Fear of uncertainty (60%)
- Lack of transportation (0%)
- Financial constraints (20%)

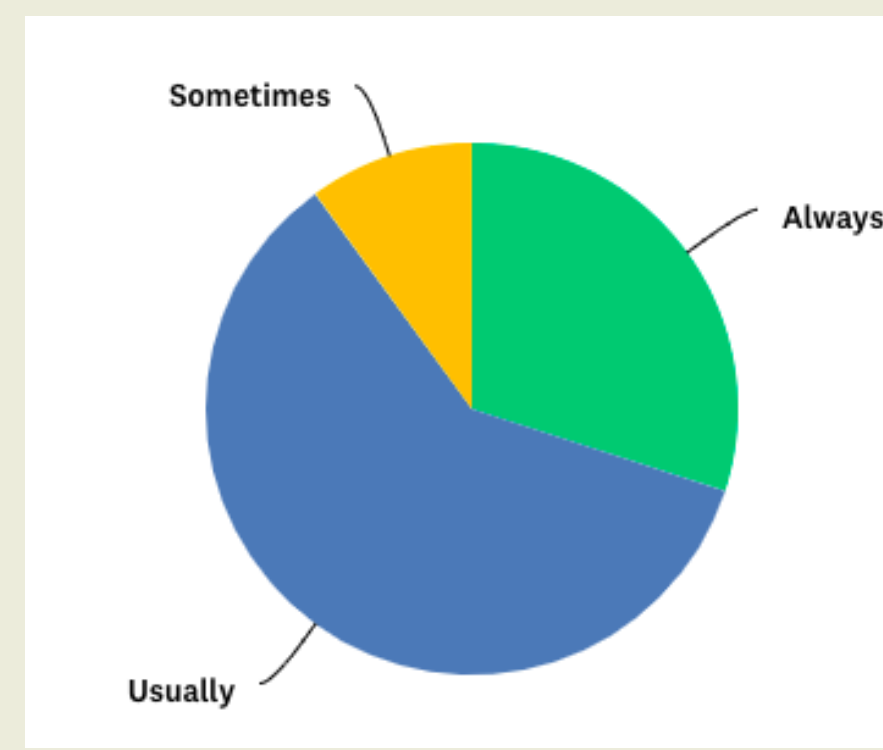
Do you feel that your patient population needs additional resources and/or education regarding routine screening for CRC?

- Yes (100%)
- No (0%)

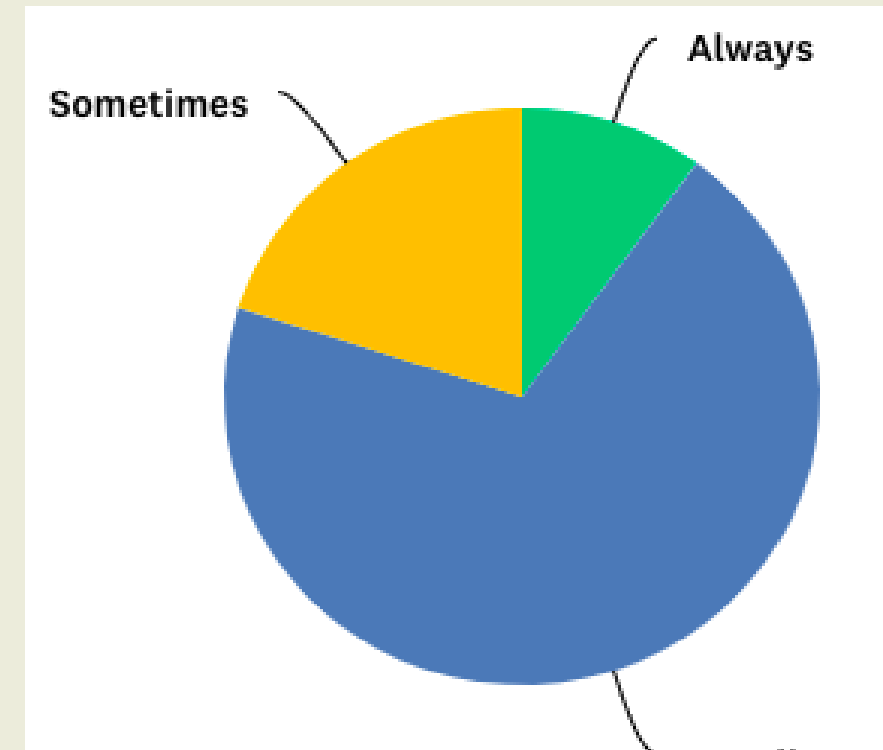
Choose one of the following which you believe is the most significant barrier for patients attaining colonoscopy



How much do you think patients' hesitancy in obtaining screening colonoscopy is due to lack of knowledge of the importance of the screening test?



How much do you think patients' hesitancy in obtaining screening colonoscopy is due to fear regarding the procedure?



Discussion and Next Steps

Our quality improvement project demonstrated an increase from 2.9% to 16.04% increase in the number of colonoscopies completed over a three-month period, thereby attaining our primary aim. This was accomplished by several approaches including expanding education for patients, improving documentation, and emphasizing the importance of age-appropriate screening amongst residents. Our survey responses highlight further areas of focus and improvement. Specifically, it appears that physicians perceive patients to be afraid of the procedure and uncertainty involving the procedure as predominant barriers for patients and hesitancy. As such, moving forward, more of an emphasis should be placed on assessing and addressing this potential barrier. Several limitations also existed in this study. It has only included patients who are new or established at Dodson Avenue Community Health Center University Medical Associates and did not expand beyond this population into the community. The study is limited to a geographic location and patient population at UMA, limiting its generalizability to other clinical populations.

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