

# The Work

FIG

FIGHT COLORECTAL CANCER®

# CURE REPORT



### PATH TO A CURE REPORT

The four sections of this report provide progress indicators, key messages, opportunities and challenges, and the voice of survivors.

Each indicator has a plan of action to ensure that all champions know how they can play a role in contributing to a path to a cure by:

- \* Creating awareness by helping identify preventable and unpreventable causes of colorectal cancer;
- \* Promoting the importance of screening so colorectal cancer is found early when it is most treatable with less invasive methods, while also advising people to be screened if showing signs and symptoms;
- \* Supporting ongoing research and advancements in innovative treatment options; and
- \* Addressing quality of life beyond diagnosis, treatment, and surgery.

### PATH TO A CURE REPORT

#### **BIOLOGY AND ETIOLOGY**

#### **PROGRESS INDICATOR**

Applying What We Know from Biology and Hereditary Risk to Reduce Late-Stage Colorectal Cancer

#### PREVENTION AND EARLY DETECTION

2

#### **PROGRESS INDICATOR**

Advancing colorectal cancer prevention and early detection.



#### TREATMENT

#### **PROGRESS INDICATOR**

Expanding Treatment Strategies for Colorectal Cancer Patients, which have not progressed quickly enough over time.

# SURVIVORSHIP

### AND RECURRENCE

#### **PROGRESS INDICATOR**

Address quality of life issues and preventive steps to avoid recurrence.

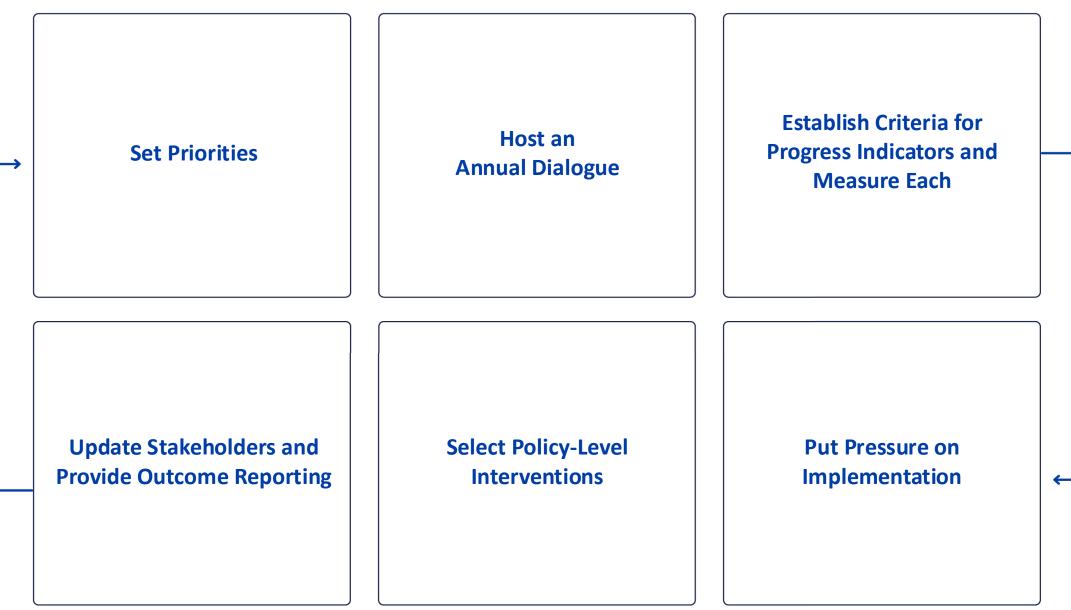








### **Everyone has a role to play.**



### **Big Wins for Early Age Onset**

### Section 1: Biology and Etiology

OBJECTIVE 1 Further research the nature, biology, and implications of colorectal cancer, throughout the continuum of age (while also considering younger adults versus older adults). Understanding parameters, including stage, location, histopathology, and underlying genetic and molecular "drivers."

- NCI Launched Funding Opportunity Notice of Special Interest (NOSI): Research on the Etiology, Early Detection, Screening and Prevention of Early-Onset Colorectal Cancer.
- NOT-CA-23-018: NOTICE OF SPECIAL INTEREST (NOSI): RESEARCH ON THE ETIOLOGY, EARLY DETECTION, SCREENING AND PREVENTION OF EARLY-ONSET COLORECTAL CANCER (NIH.GOV)

## Continued: Biology and Etiology

- Fight Colorectal Cancer hosting Early Age Onset Research meeting Dec 1 2023 in collaboration with National Cancer Institute and Vanderbilt University. Global Think Tank planned for June of 2025.
- Fight Colorectal Cancer Early Age Onset Work Group Completed review of red flag signs and symptoms and delays in diagnosis for early onset colorectal cancer. Manuscript submitted for publication the winter of 2023. SCORE!!! Drs. Kolb and Demb, New York Times

## Section 2: Prevention and Early Detection

OBJECTIVE 3 Further research and examination of colorectal cancer screening uptake for those younger than age 50 to reduce early-age onset colorectal cancer.

•Policy updates: Fight CRC is working with our partners to advance the Access to Genetic Counseling Services Act by increasing congressional support for the legislation.

•As part of Fight CRC's continued effort to promote colorectal cancer screening beginning at age 45 for those at average risk, we brought together over 50 organizations to push back against guidance from the American College of Physicians calling for screening to begin at age 50.

### Section 3: Treatment

Progress indicator: Expanding treatment strategies for colorectal cancer patients.

• Partnership with Tempus Health and Fight CRC establishing an opensource cohort of highly profiled and standardized patient tumors (information) with clinical outcomes to accelerate research in metastatic CRC.

# **EAO Patient Experience Poll**

Fight CRC conducted an online patient and survivor facing survey over a **two-week period in October, 2023** through a convenience sample approach to understand the unique experiences associated with early age onset colorectal cancer. **Shared across various social media platforms such as Twitter, Instagram, Facebook (both general and private advocate pages), Fight CRC social channels and LinkedIn**, the poll engaged a broad audience. In addition to the public outreach, targeted emails were sent to encourage participation from members of Colon Club and ColonTown. There were was an impressive response rate with

**900 survey respondents**. Respondents were patients and caregivers.

### FIGHT COLORECTAL CANCER'S EARLY-AGE ONSET THINK TANK

- Have you experienced the myth that CRC is an older person's disease? **Q**:
- Yes, thankfully, though my doctor ordered colonoscopy because of symptoms, not age. The GI was still processing his shock of a 35year-old with no family history having colorectal cancer when he told me."



of EAO patients who responded experience the CRC age myth

We're fighting for a better future.

FightCRC.org/Quiz Learn your risk. Visit

### FIGHT COLORECTAL CANCER'S EARLY-AGE ONSET THINK TANK

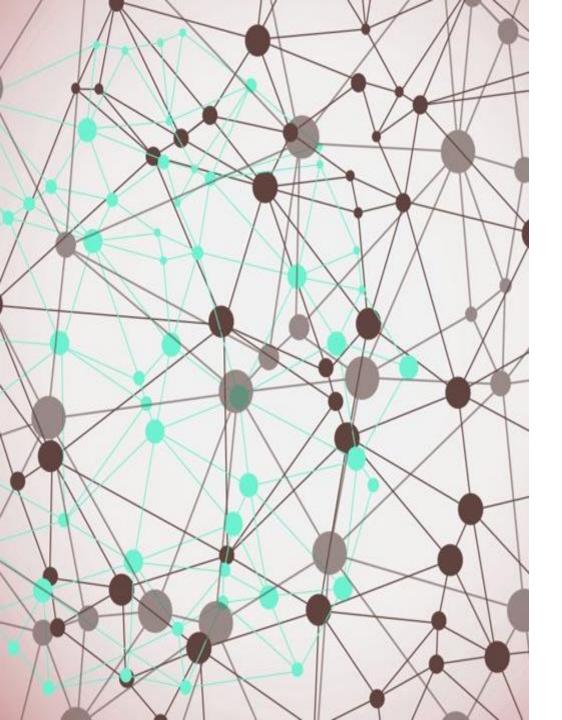
Did you experience gaslighting in your colorectal cancer diagnosis?

**The second seco** and everything was blamed on that. Sadly, it was too late by the time she was diagnosed. She was 36. "



We're fighting for a better future.

FightCRC.org/Quiz Learn your risk. Visit



### How Are The Think Tanks Funded

The Path to a Cure Think Tanks are mainly funded by families who truly believe in Fight CRC's Mission and want to help amplify our efforts

3-17 Foundation – Founded by the Insco Family after Michelle Insco passed away from colorectal cancer - was our main donor for the EAO Think Tank

We also have incredible sponsors who help with supporting key elements of the Think Tanks, such as: Wi-Fi, Scholarships for our Research Advocates to attend and the post think tank summary & webinar – Merck, Agenus and SeaGen





**Convening Experts** – Bringing healthcare professionals, researchers, patient advocates and other stakeholders together with the goal of knowledge sharing, collaboration, Patient Advocacy, Policy Discussions, Innovation & Technology, and Research opportunities

**Funding Research** – Fight CRC is committed to; Funding research grants and fellows. All grants funded by Fight CRC have supported late-state colorectal cancer. These grants are made possible by donations from our generous donors.

Research Advocates Training and Support (RATS) Program - After completing training, RATS work in partnership with both academic institutions and cancer partners to improve the scientific field by lending their experience and expertise to the research process. RATS have served on various panels; FDA, DOD Peer Reviewed Cancer Research Program, and State Cancer Coalitions.

**Clinical Trail Education –** Understanding the Clinical Trail process is an important aspect of colorectal cancer treatments. We want newly diagnosed individuals to have a better understanding of the right time to explore a clinical trial and how

Publishing Research – Huge part of our Patient Education and Research efforts. Fight CRC has published papers on various topics from COVID-19 effects on the CRC community, Precision Medicine, Survivorship, EAO

How Fight CRC Supports Research

# TIME TO GET SHIT DONE

For more information or to join us as a champion, contact <u>pathtoacure@fightcrc.org</u>



# f

### Original Investigation | Gastroenterology and Hepatology Red Flag Signs and Symptoms for Patients With Early-Onset Colorectal Cancer A Systematic Review and Meta-Analysis

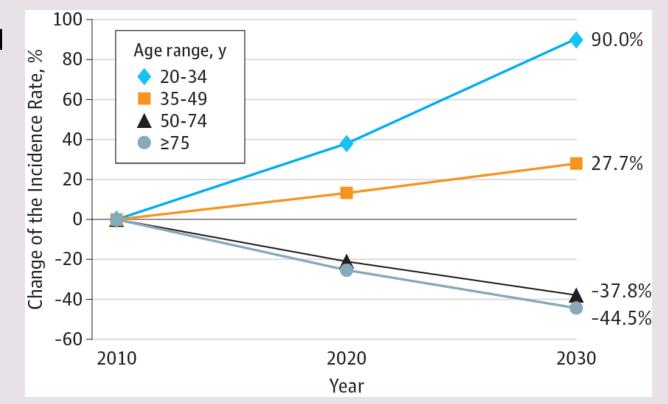
Joshua Demb, PhD, MPH; Jennifer M. Kolb, MD, MS; Jonathan Dounel, MD; Cassandra D. L. Fritz, MD, MPHS; Shailesh M. Advani, MD, PhD; Yin Cao, ScD, MPH; Penny Coppernoll-Blach, MLS; Andrea J. Dwyer, BS; Jose Perea, MD, PhD; Karen M. Heskett, MSI; Andreana N. Holowatyj, PhD, MS; Christopher H. Lieu, MD; Siddharth Singh, MD, MS; Manon C. W. Spaander, MD, PhD; Fanny E. R. Vuik, MD, PhD; Samir Gupta, MD

> Joshua Demb, PhD Postdoctoral Researcher UCSD School of Medicine

Jennifer M Kolb, MD, MS Assistant Professor of Medicine David Geffen School of Medicine at UCLA Staff Physician- Greater Los Angeles VA

### Early-onset colorectal cancer (EOCRC, age <50)

- CRC is the 4<sup>th</sup> most incident cancer and 2<sup>nd</sup> leading cause of overall cancer death in the US
- Increasing incidence of EOCRC
  - Possible cohort effect (births after 1950)
  - Often diagnosed at late stage, associated with greater mortality



Annual Percentage Change–Based Predicted Incidence Rates of Colon Cancer by Age Compared With Incidence Rate in 2010

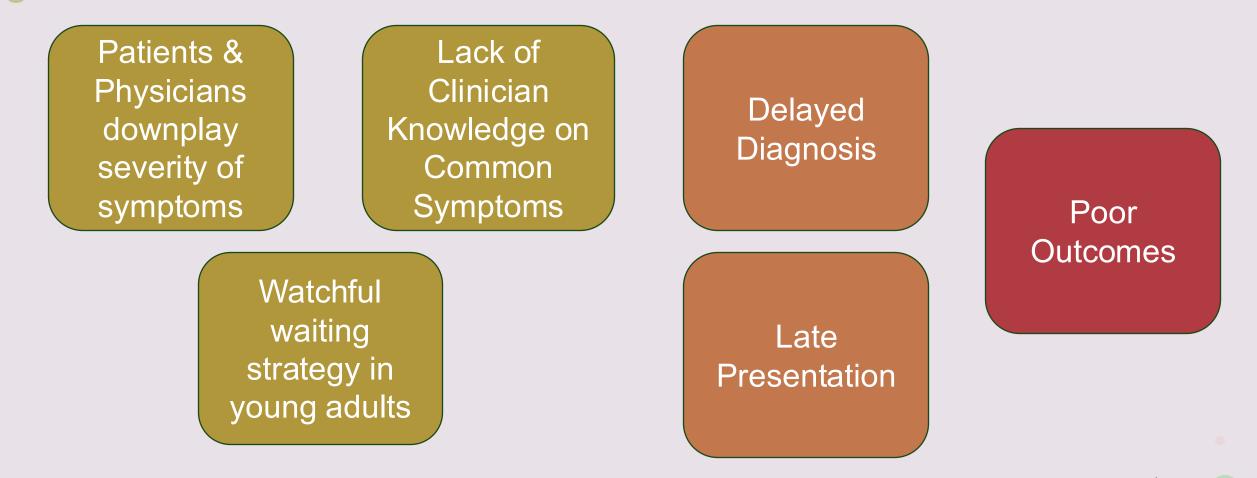
### \* Start screening average risk individuals at age 45 \*

	CRC screening start age			
MSTF, 2021	"We suggest that clinicians offer CRC screening to all average-risk individuals age 45-49 (weak recommendation; low-quality evidence)."			
	"For average-risk individuals who have not initiated screening before age 50, we recommend that clinicians offer CRC screening to all average-risk individuals beginning at age 50 (strong recommendation, high-quality evidence)."			
USPSTF, 2021 <sup>90</sup>	Grade A: "The USPSTF recommends screening for colorectal cancer in all adults ages 50 to 75 years." Grade B: "The USPSTF recommends screening for colorectal cancer in adults aged 45 to 49 years."			

\*\*Screening only addresses part of the issue\*\*

\*\*Early detection is critical\*\*

### Early Detection of Symptomatic EOCRC is Suboptimal



Continuum from sign or symptom presentation to EOCRC diagnosis and treatment

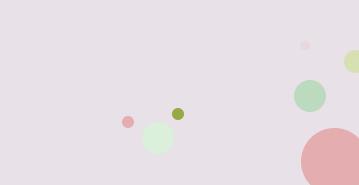
# . Study Aims: 3 key questions for EOCRC

1) Which signs and symptoms are most commonly present?

- 2) What is the association between EOCRC sign or symptoms exposure and EOCRC risk?
- 3) What is the time from sign or symptom presentation to diagnosis of EOCRC?



- Data Sources: PubMed/MEDLINE, Embase, CINAHL, Web of Science from inception through May 2023.
- Study review and data extraction performed by two independent reviewers with third reviewer providing consensus when needed.



# Study Criteria

### Inclusion:

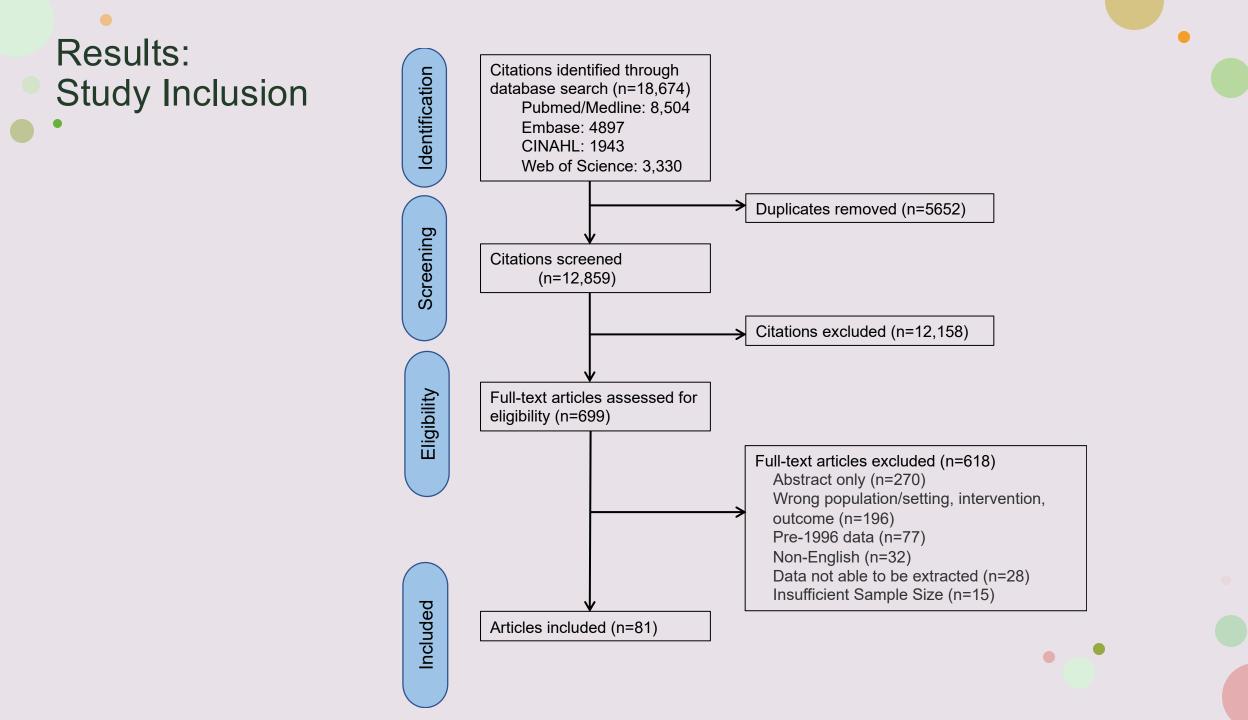
- Adults age <50 years diagnosed with nonhereditary CRC</li>
- Reporting on sign or symptom presentation or diagnosis
- Full length, peer reviewed manuscripts

### Exclusion:

- Studies with <15 patients</li>
- Majority of patients under age 18
- Published before 1996 (or >50% of study period before 1996)

# **Statistical Analysis**

- 1) Most common signs and symptoms
  - Proportions of symptoms pooled individually across studies via randomeffects meta-analysis
    - Stratified analyses by geographic study location, age groups, risk of bias, data source type
- 2) Association between EOCRC sign/symptom exposure and EOCRC risk
  - Measured estimates of EOCRC risk across at least 3 studies using forest plots
- 3) <u>Time from sign/symptom presentation to diagnosis of EOCRC</u>
  - Aggregated based on whether estimate provided was a mean or median
  - Stratified by data source type



# Study Characteristics (n=81)

- 76 cross-sectional studies
- 4 case-control studies
- 1 cohort study
- Study Location
  - Africa (5 studies)
  - Asia/Middle East (26 studies)
  - Europe (19 studies)
  - North America (23 studies)
  - South America (5 studies)
  - Oceania (2 studies)

# Sign/Symptom Proportions

### 78 studies reported on 17 signs and symptoms

 Top 3 symptoms same across geographic location and age group

Sign/symptom	Studies, No.	Patients, No./ total No.	Weighted proportion (95% CI)
Hematochezia	76	11319/35431	0.45 (0.40-0.50)
Abdominal pain	73	12 527/32 447	0.40 (0.35-0.45)
Altered bowel habits	63	5737/24660	0.27 (0.22-0.33)
Weight loss	53	2679/25075	0.17 (0.12-0.22)
Loss of appetite	9	234/3213	0.15 (0.06-0.34)
Constipation	23	1709/15425	0.14 (0.10-0.19)
Abdominal distension	12	205/1507	0.14 (0.08-0.23)
Diarrhea	21	1941/15361	0.12 (0.09-0.18)
Acute presentation	7	59/590	0.12 (0.07-0.20)
Tenesmus	11	108/874	0.11 (0.07-0.18)
Anemia	34	3241/25350	0.11 (0.08-0.16)
Obstruction	27	652/9135	0.11 (0.08-0.16)
Perforation	10	124/945	0.09 (0.04-0.22)
Fatigue	15	939/13083	0.08 (0.06-0.13)
Nausea or vomiting	12	771/7637	0.08 (0.04-0.15)
Abdominal mass	13	110/1807	0.08 (0.04-0.13)
Rectal pain	12	495/11886	0.05 (0.03-0.07)

0

0.1

Figure 2. Pooled Proportions of Presenting Signs and Symptoms for Early-Onset Colorectal Cancer

Weighted proportion (95% CI)

0.3

0.2

0.5

0.4

# Association with EOCRC Risk

- 5 Studies measured association
- Hematochezia: 5-54x increased risk
- Abdominal Pain: 1.3-6x increased risk
- Constipation: 1.3-7.9x increased risk
- Diarrhea: 1.4-7.7x increased risk

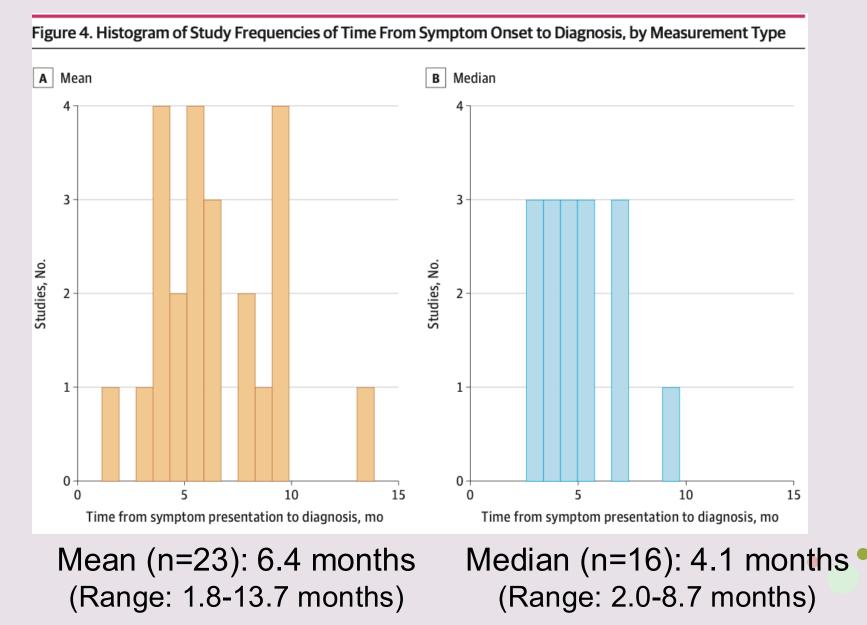
Estimate Study type Estimate (95% CI) Abdominal pain + Fritz et al, 44 2023 Odds ratio 1.34 (1.20-1.50) Glover et al, 47 2019 Odds ratio 4.47 (4.06-4.92) Stapley et al,93 2017 6.00 (4.17-8.64) Odds ratio Syed et al, 95 2019 Odds ratio 4.73 (4.49-4.98) Anemia Demb et al, 36 2021 Hazard ratio 10.81 (8.15-14.33) Fritz et al, 44 2023 Odds ratio 2.07 (1.61-2.66) Glover et al, 47 2019 Odds ratio 9.14 (8.27-10.10) Constipation Fritz et al, 44 2023 Odds ratio 1.27 (0.99-1.63) Glover et al, 47 2019 Odds ratio 5.65 (5.05-6.32) Stapley et al,93 2017 Odds ratio 7.90 (4.38-14.25) Diarrhea Fritz et al, 44 2023 Odds ratio 1.43 (1.14-1.79) Glover et al. 47 2019 Odds ratio 4.96 (4.43-5.56) Stapley et al.93 2017 Odds ratio 7.70 (4.27-13.89) lematochezia Demb et al. 36 2021 Hazard ratio 10.66 (8.76-12.97) Fritz et al, 44 2023 Odds ratio 5.13 (4.36-6.04) Glover et al,<sup>47</sup> 2019 Odds ratio 13.66 (11.61-16.08) Stapley et al,93 2017 Odds ratio 54.00 (26.25-111.07) Syed et al, 95 2019 Odds ratio 9.83 (9.12-10.60) Nausea or vomiting Fritz et al,<sup>44</sup> 2023 0.86 (0.70-1.06) Odds ratio Glover et al,<sup>47</sup> 2019 Odds ratio 4.28 (3.87-4.73) Stapley et al.93 2017 Odds ratio 2.70 (1.41-5.15) 0.5 10

100

Estimate (95% CI)

Figure 3. Association Between Symptoms and the Risk of Early-Onset Colorectal Cancer

# Time from symptom to diagnosis (n=34)



# Takeaways

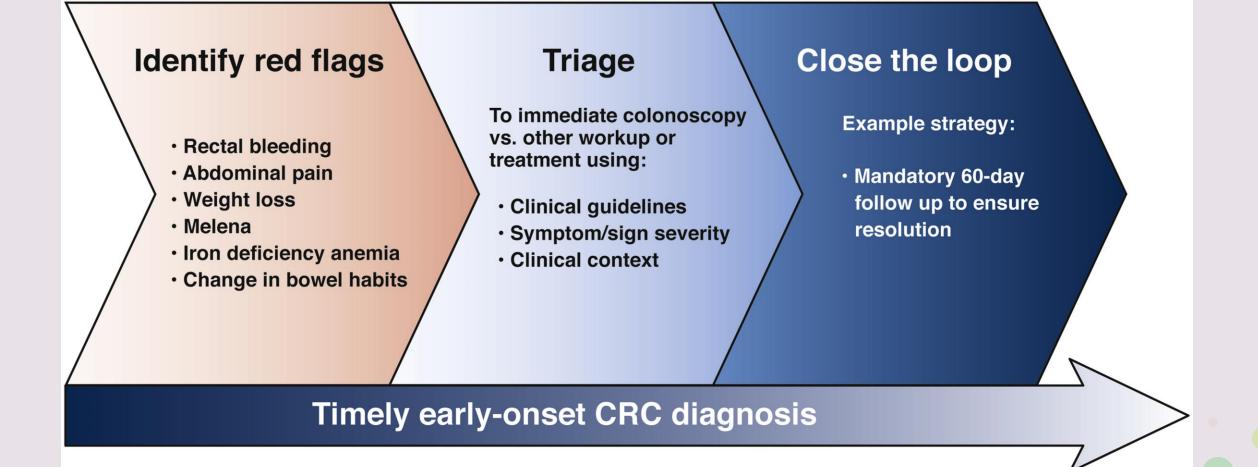
Most common presenting signs and symptoms of EOCRC are hematochezia, abdominal pain and altered bowel habits

Hematochezia, abdominal pain, constipation, diarrhea and anemia are associated with higher EOCRC risk

Time from sign or symptom presentation to diagnosis ranged between 4-6 months

Where do we go from here?

# Proposal for timely diagnosis of EOCRC



#### Identify red flags

- Rectal bleeding
- Abdominal pain
- Weight loss
- Melena
- Iron deficiency anemia
- Change in bowel habits

#### Triage

To immediate colonoscopy vs. other workup or treatment using:

- Clinical guidelines
- Symptom/sign severity
- Clinical context

#### **Close the loop**

Example strategy:

 Mandatory 60-day follow up to ensure resolution

#### **Timely early-onset CRC diagnosis**

Educational initiatives Raise awareness Remove stigma Refine diagnostic algorithms Clinical pathways D&I for guidelines

Clinical care: team approach

# Thanks to our team!





### Intervention for the prevention and/or early detection of EOCRC:

### The UK perspective

Dr Kevin Monahan FRCP PhD Gastroenterologist St Mark's: The National Bowel Hospital Medical Advisor Bowel Cancer UK



### EOCRC: Interventions & Health Systems



# Thresholds for intervention

Positive predictive values (PPV)? Opportunity cost

Relative vs Absolute Risk

Need to avoid creating inequalities What is the

Rare for GPs:

1 CRC patient annually 1-2 EOCRC patient in their careers

Patient navigation

How can we make the pathway more effective? What interventions do we offer?

# **Never Too Young**

# Every year more than 2,600 younger people are diagnosed with bowel cancer in the UK

Our Never Too Young campaign was launched in 2013 and is leading the change for younger bowel cancer patients. Since then, we've raised awareness amongst the public and clinical community about bowel cancer in younger people, campaigned for the identification of those at high risk of developing the disease, provided information and support to this frequently overlooked group, and influenced policy changes to improve early diagnosis, treatment and care.

#### But more needs to be done

Our report published in 2020 surveyed over a thousand young people living with bowel cancer. It found:

- Half of younger people surveyed didn't know that they could develop the disease before their diagnosis.
- Four in ten people had to visit their GP three or more times before being referred for further tests.
- Nearly half of those diagnosed with bowel cancer after 2017 hadn't been offered testing for Lynch syndrome, a genetic condition that can increase the lifetime risk of bowel cancer to up to 80%.
- One in five younger patients with bowel cancer told us they did not have access to a Clinical Nurse Specialist (CNS). Patients experienced varying levels of support at different points in their diagnosis, treatment and care.
- 240% of people were not satisfied with the amount of support and information about fertility and family planning they received.

"I was told I was too young to have bowel cancer"



### Early age-onset CRC

# Increasing incidence CRC < 50 worldwide

- USPSTF: commence national screening age 45
- England age 50
- Environmental risk
- Other factors?

### Genetic diagnosis

- Test CRC any age Lynch syndrome
- NHS: Diagnosis CRC age ≤ 40 years
- Accounts <20% EOCRC

## EOCRC & Symptoms



For a year before my diagnosis, I was going back and forth to my doctors with red flag symptoms. I even asked if it could be bowel cancer, but I was told I was too young. My cancer was only discovered by accident during a separate operation, and by then I was stage 4. Sophie, stage 4, diagnosed aged 36



### Half of younger people surveyed didn't know that they could develop the disease before their diagnosis.

As a result, they were more likely to delay getting help as they assumed their symptoms were something less serious or would go away. We want to raise awareness of the small but present risk to people under 50, not to alarm, but to ensure that younger people recognise symptoms need to be reported to their GP.

## Four in ten people had to visit their GP three or more times before being referred for further tests.

GPs play the vital role of 'gate-keeper' to further investigation; they must be equipped with the knowledge and tools to refer younger people with bowel cancer symptoms at the earliest opportunity. Although there is guidance for GPs for the referral of people under 50 with symptoms of bowel cancer, this hasn't been effectively translated into practice and as a result patients are still facing damaging delays. We found that some patients were even told by their GP that they were too young to have the disease, leading to unacceptable delays to their diagnosis and treatment.





I remember thinking that my GP didn't think much of my symptoms as I was young and healthy. I tried to stay as positive as I could; my wife was pregnant with our first child so I had a lot to live for. He's now two years old.



### From: Red Flag Signs and Symptoms for Patients With Early-Onset Colorectal Cancer: A Systematic Review and Meta-Analysis

JAMA Netw Open. 2024;7(5):e2413157. doi:10.1001/jamanetworkopen.2024.13157

Sign/symptom	Studies, No.	Patients, No./ total No.	Weighted proportion (95% CI)
Hematochezia	76	11319/35431	0.45 (0.40-0.50)
Abdominal pain	73	12527/32447	0.40 (0.35-0.45)
Altered bowel habits	63	5737/24660	0.27 (0.22-0.33)
Weight loss	53	2679/25075	0.17 (0.12-0.22)
Loss of appetite	9	234/3213	0.15 (0.06-0.34)
Constipation	23	1709/15425	0.14 (0.10-0.19)
Abdominal distension	12	205/1507	0.14 (0.08-0.23)
Diarrhea	21	1941/15361	0.12 (0.09-0.18)
Acute presentation	7	59/590	0.12 (0.07-0.20)
Fenesmus	11	108/874	0.11 (0.07-0.18)
Anemia	34	3241/25350	0.11 (0.08-0.16)
Obstruction	27	652/9135	0.11 (0.08-0.16)
Perforation	10	124/945	0.09 (0.04-0.22)
Fatigue	15	939/13083	0.08 (0.06-0.13)
Nausea or vomiting	12	771/7637	0.08 (0.04-0.15)
Abdominal mass	13	110/1807	0.08 (0.04-0.13)
Rectal pain	12	495/11886	0.05 (0.03-0.07)

Weighted proportion (95% CI)

#### Figure Legend:

Pooled Proportions of Presenting Signs and Symptoms for Early-Onset Colorectal Cancer

## Symptoms and action thresholds

NICE: 3% CRC risk = criteria (PPV) for urgent investigation

• Individual symptoms do not accurately predict PPV

Symptom	PPV %	PPV EOCRC% ??
Diarrhoea	0.94-1.5	0.1
Constipation	0.4-0.8	0.05
CIBH	2.8	0.3
PR bleeding	4.41	0.6
Abdominal Pain	1.02	0.3
Weight loss	3.0	0.2
Anaemia	4.09	0.1

## FIT: Faecal Immunochemical Test

- Quantitative assay
- Detects Hb in stool
- Screening 50-75 years every 2 years
  - Threshold 120  $\mu g/g$  (England)
- Symptomatic triage
  - Threshold 10  $\mu$ g/g
  - Sensitivity CRC is high



## NICE-FIT study

- Patients referred for urgent wait colonoscopy also have a FIT
- >10,000 recruited England
- FIT threshold of  $2\mu g$  Hb/g faeces
  - CRC Sensitivity 97%
  - CRC PPV 8.7%
  - Advanced adenomas (AA)?

Table 3 Diagnostic accuracy of FIT for CRC at different cut-offs												
Cut-off (µg/g)	Positivity (%)	NNS	Sensitivity (%)	Specificity (%)	PPV (%)	NPV (%)	ТР	FN	FP	TN		
2	37.2	11.5	97.0 (94.5 to 98.5)	64.9 (63.9 to 65.8)	8.7 (7.8 to 9.7)	99.8 (99.7 to 99.9)	319	10	3336	6157		
10	19.0	6.2	90.9 (87.2 to 93.8)	83.5 (82.8 to 84.3)	16.1 (14.4 to 17.8)	99.6 (99.5 to 99.7)	299	30	1563	7930		
150	7.6	3.2	70.8 (65.6 to 75.7)	94.6 (94.1 to 95.0)	31.1 (27.8 to 34.6)	98.9 (98.7 to 99.1)	233	96	516	8977		
<2	62.8	616.7	3 (1.5 to 5.5)	35.1 (34.2 to 36.1)	0.2 (0.1 to 0.3)	91.3 (90.3 to 92.2)	10	319	6157	3336		

95% CIs within brackets.

CRC, colorectal cancer; FIT, faecal immunochemical test; FN, false negatives; FP, false positives; NNS, number needed to scope; NPV, negative predictive value; PPV, positive predictive value; TN, true negatives; TP, true positives.



Nigel D'Souza et al. Gut doi:10.1136/gutjnl-2020-321956

Symptoms, FIT and action thresholds

### NICE:

### 3% PPV

FIT 10 µg/g:

16.1 % PPV

What are appropriate FIT thresholds for intervention?

## Risks of colorectal cancer

Risk of colorectal cancer in a 60 year old **with abdominal pain and change in bowel habit** is



Risk of colorectal cancer in a 60 year old **without symptoms** is



Nicholson BD (2020)

Risk of colorectal cancer in a person with a **positive FIT** is



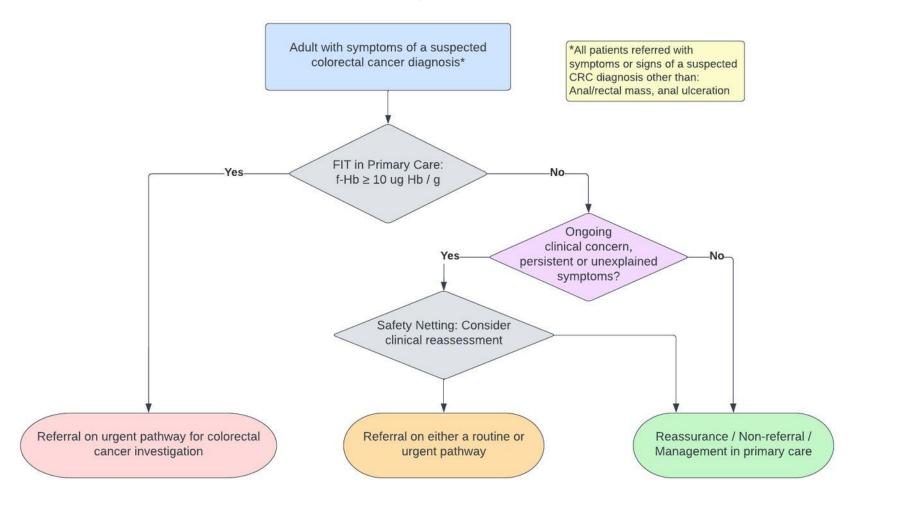
NICE recommend **2-week-wait** referral when the risk of cancer is



Risk of colorectal cancer in a person with a **negative FIT** is



Pathway for FIT in adults with signs or symptoms of a suspected diagnosis of colorectal cancer (CRC), including symptoms such as those with per rectal bleeding, and signs including iron deficiency anaemia.

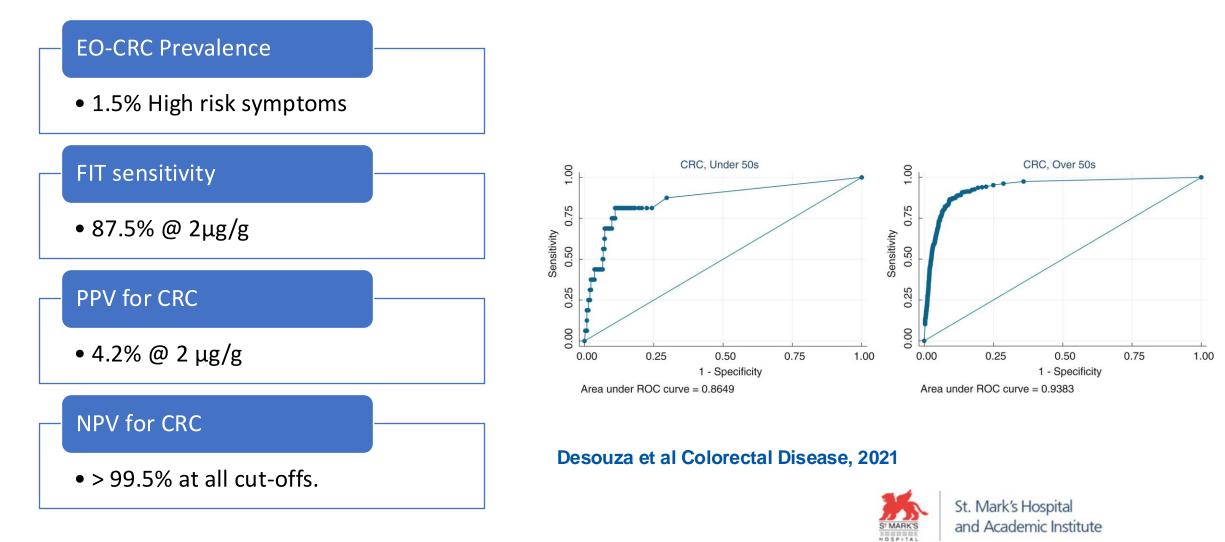


Kevin J Monahan et al. Gut 2022;71:1939-1962

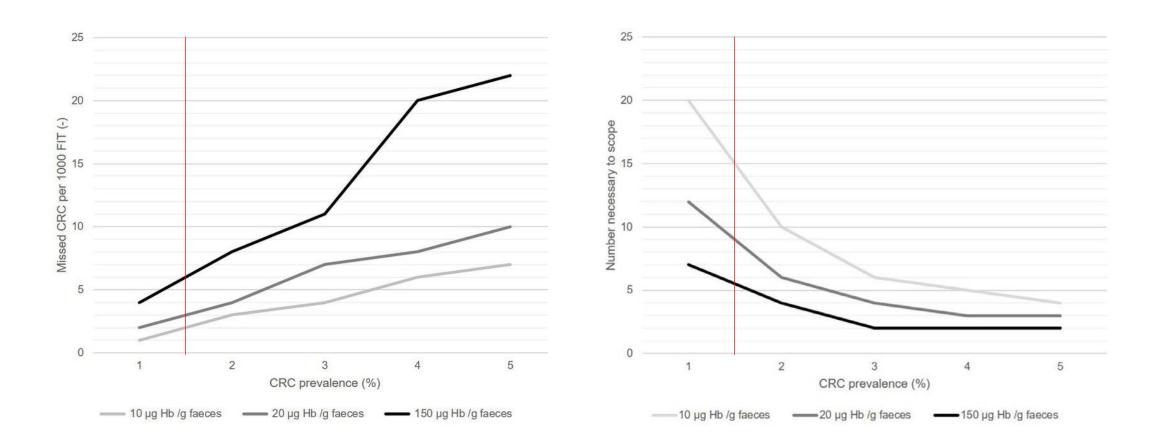


Copyright © BMJ Publishing Group Ltd & British Society of Gastroenterology. All rights reserved.

"Finding the needle in the haystack: the diagnostic accuracy of the faecal immunochemical test for colorectal cancer in younger symptomatic patients"



### Number of patients necessary to scope to find one CRC and number of missed CRC per 1000 patients.



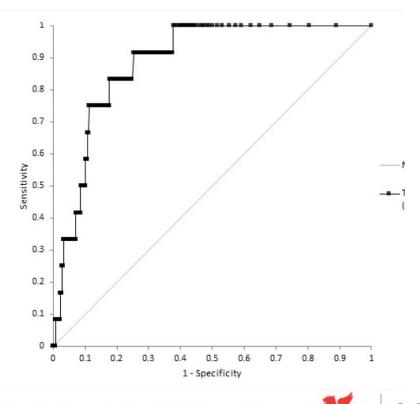
Noel Pin-Vieito et al. Gut 2022;71:950-960



GUT

# Low & high risk symptoms i.e. lower prevalence EOCRC population

- 3119 people with symptoms age 18-50 in primary care
- Population prevalence CRC 0.38%
- FIT fHb 10 threshold
- PPV = 2.7%



Tibbs 2023 Annals Clin Biochem (Similar results Pin-Vieito UEGJ 2021)

Figure 4. Receiver operating characteristic (ROC) curve analysis.



## Interventions, Symptoms & EOCRC





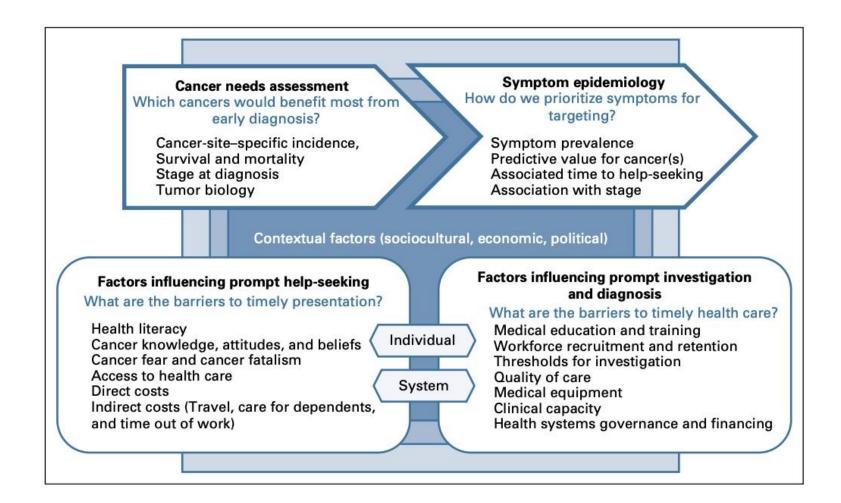
# Early diagnosis of symptomatic colorectal cancer in younger adults: US perspective

Sonia Kupfer, MD University of Chicago

# Early diagnosis of symptomatic colorectal cancer in younger adults: US perspective

Sonia Kupfer, MD University of Chicago

## Framework



Koo et al 2021

## Fragmented health care in US

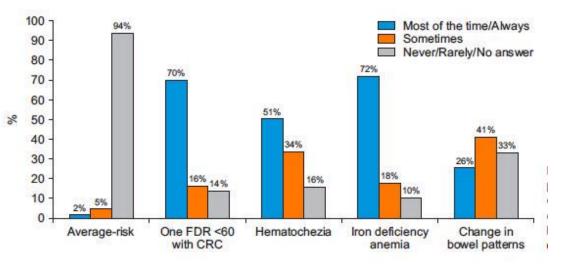


### Primary Care Provider Knowledge and Practice in Risk Assessment for Early Age Onset Colorectal Cancer: Opportunities for Improvement

Anjali Parekh<sup>1</sup>, Camille J. Hochheimer<sup>2</sup>, Jeannine M. Espinoza<sup>3</sup>, Jordan J. Karlitz<sup>4</sup>, Carmen L. Lewis<sup>4</sup>, Sachin Wani<sup>5</sup>, Swati G. Patel<sup>4</sup>

- 2020 survey of PCPs in 3 large medical centers
- 196 respondents (28%)
- 78% aware of EO-CRC incidence increasing
- 43% aware mortality increase
- 92% recommend CRC screening age 50

### PCP recommendation for colonoscopy in patient age 40-49



### Parekh A et al JCP Journal 2021

### Effect of Medicaid Expansion in Reducing Racial Disparities in Early Onset Colorectal Cancer

Published: 14 September 2023

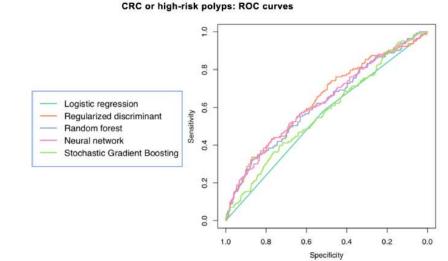
- Data from National Cancer Database
- Incidence of EOCRC among those aged 40–49 between Medicaid:
  - expansion states (ES) vs. non-expansion states (NES) by racial/ethnic groups
- ES showed a significant increase in EOCRC incidence post expansion vs. NES (p = 0.03) in Hispanics
- rate of increase in annual incidence of EOCRC among Hispanics:
  - ES: 4.3% per year (pre-expansion) and 9.8% (post-expansion)
  - NES: 6.4% (pre-expansion) and 1% (post-expansion)
- no difference among  $\overline{NHB}$  (p = 0.33) and  $\overline{NHW}$  (p = 0.94)

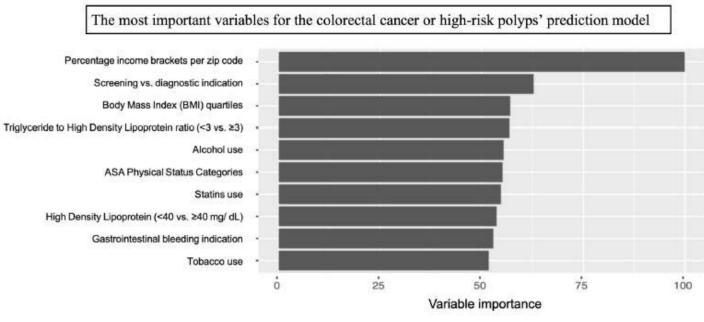
### PLOS ONE

#### RESEARCH ARTICLE

Utility of machine learning in developing a predictive model for early-age-onset colorectal neoplasia using electronic health records

Hisham Hussan <sup>1,2</sup>\*, Jing Zhao<sup>3</sup>, Abraham K. Badu-Tawiah<sup>1,4,5</sup>, Peter Stanich<sup>1</sup>, Fred Tabung<sup>2,6</sup>, Darrell Gray<sup>1,2</sup>, Qin Ma<sup>3</sup>, Matthew Kalady<sup>2,7</sup>, Steven K. Clinton<sup>2,6</sup>





Variable importance

#### Hussan et al PLOS One 2022

## Advocacy



## The Road to Barcelona 2025 Continuing the Discussion

Jose Perea and Fight CRC engaging global advocacy community to set an agenda and longstanding cadence for meetings and strategies for research and implementation

Through Delphi process understanding key areas of focus for combined strategies

Understanding greatest patient needs globally

More Information Coming Soon about how to Engage!



## Aug 28, 2024 1pET

### Title - Save the Booties: Early onset colorectal cancer

Description - Colorectal cancer diagnoses are on the rise, especially among young people, but why? Join Fight CRC as we dive into the research around early onset cancer, what we are doing to address this problem, and a discussion around the unique challenges that young adults experience when faced with a CRC diagnosis.

Registration link - <u>https://fightcrc.zoom.us/webinar/register/WN\_HVwaJd0TRD6q7DsUZUXFLw</u>