FIGHT
COLORECTAL CANCER

FIGHT™
COLORECTAL CANCER

Fight Colorectal Cancer (Fight CRC) is a leading patient-empowerment and advocacy organization in the United States, providing balanced and objective information on colon and rectal cancer research, treatment, and policy.

We are relentless champions of hope, focused on funding promising, high impact research endeavors while equipping advocates to influence legislation and policy for the collective good.

Learn more at
FightColorectalCancer.org

Early-Age Onset Workgroup Research Learning Session #5 Agenda

12:00-12:10p ET	Welcome and Introductions: Elsa Weltzien and Andrea (Andi) Dwyer
12:10 - 12:25p ET	Dr. Ann Zauber: Current rates and/or trends in incidence, mortality, stage at presentation, survival, and differences between Black & White individuals; Reasons for disparities
12:25-12:40p ET	Dr. Darrell Gray: intended and unintended consequences of lowering the screening age from 50 to 45
12:40-12:55p ET	Dr. Fola May: What we know about evidence-based interventions and application to the 45-49 year old populations. Needs for future research and where we go from here
12:55-1:55p ET	Discussion
1:55-2:00p ET	Close out and next steps: Andi Dwyer

RALLY on RESEARCH
EARLY-AGE ONSET CRC
JUNE 24-25, 2021 | fightcrc.org/rallyonresearch

June 24th, 11-3:30pm EST: The Patient Voice

June 25th, 11-3:30pm EST: Research Efforts & Outcomes

• Registration is FREE, we need your voice at the table

• Call for Abstracts open through May 7, scientific and advocacy submissions accepted.

FightCRC.org/rallyonresearch

Challenges and Opportunities in Achieving Health Equity:
Epidemiology and Demographics

Fight Colorectal Cancer Learning Series
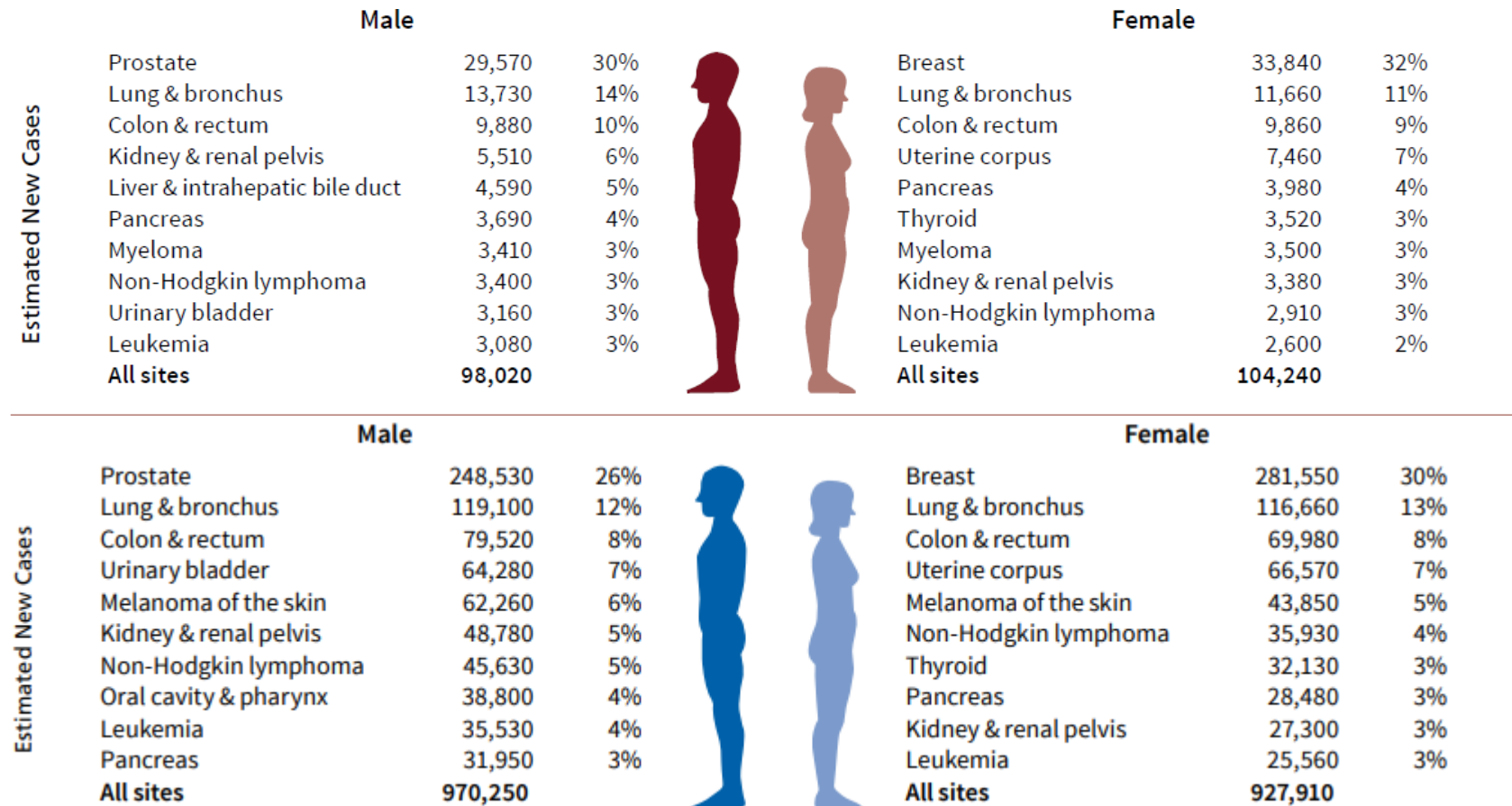
Ann G. Zauber, PhD
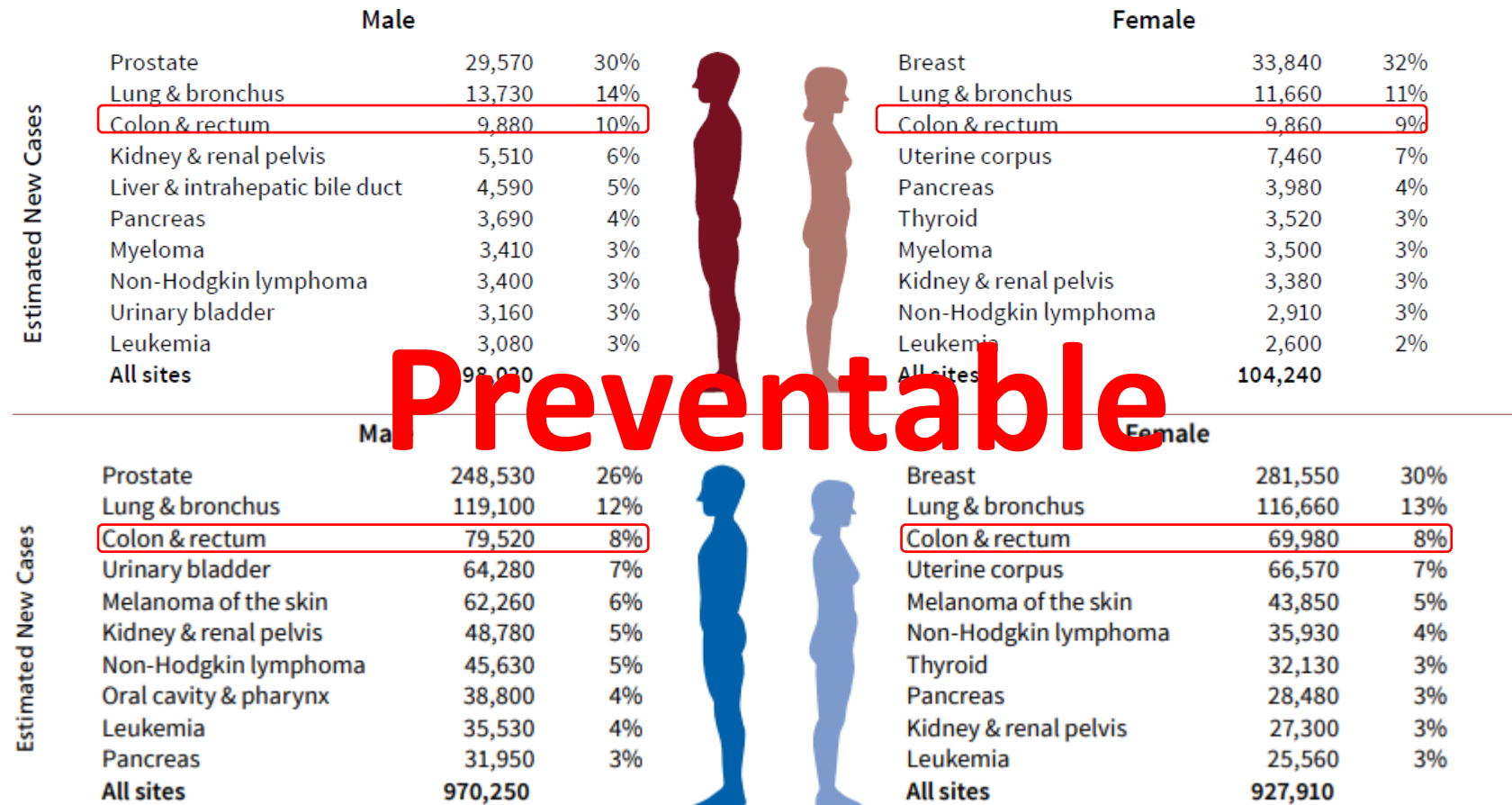
May 4, 2021

Outline:

- Background

- Trends over time:
  - Incidence
  - Mortality
  - Stage at diagnosis/survival

- Microsimulation modeling and race
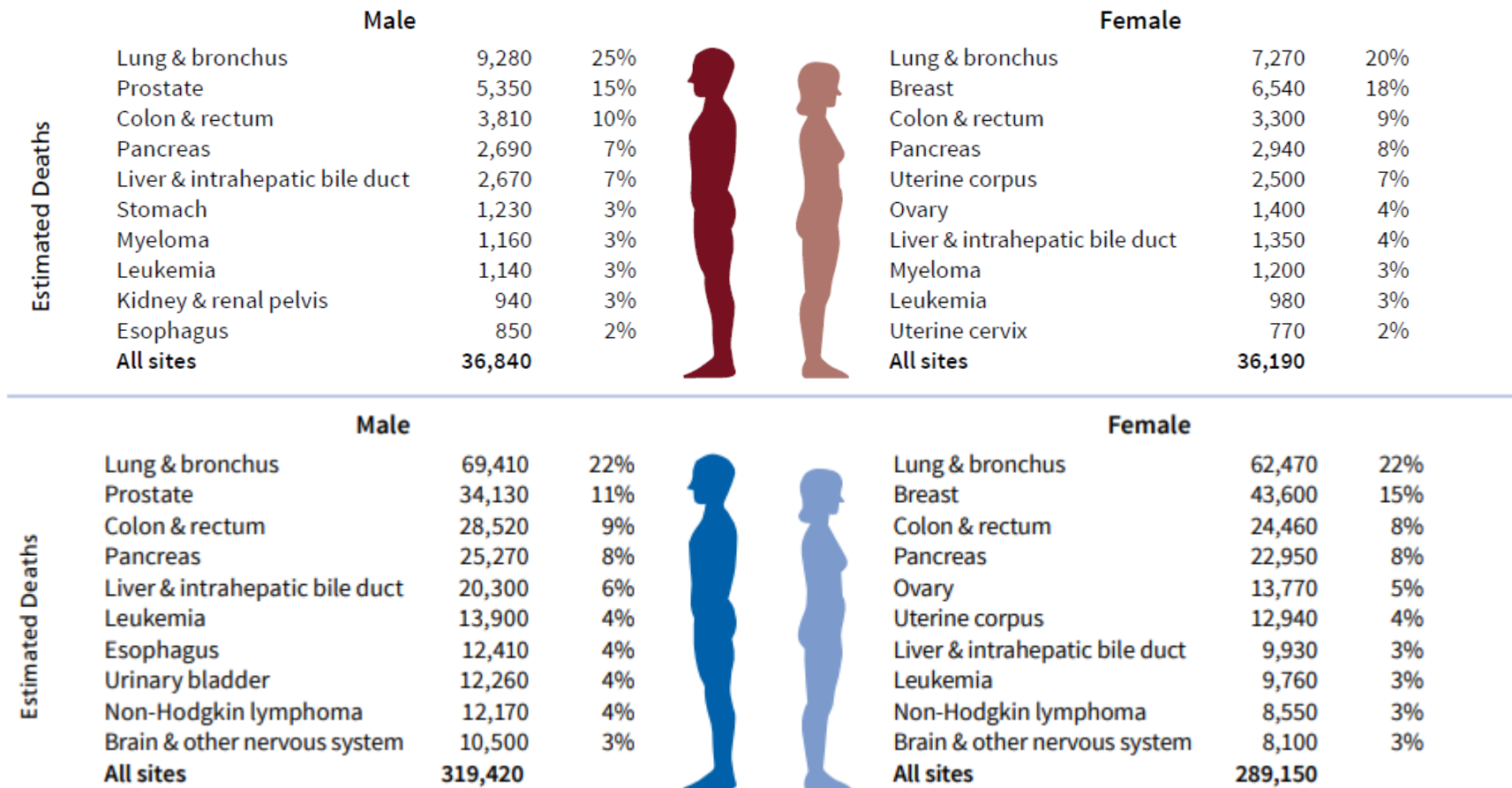
- Adherence and race

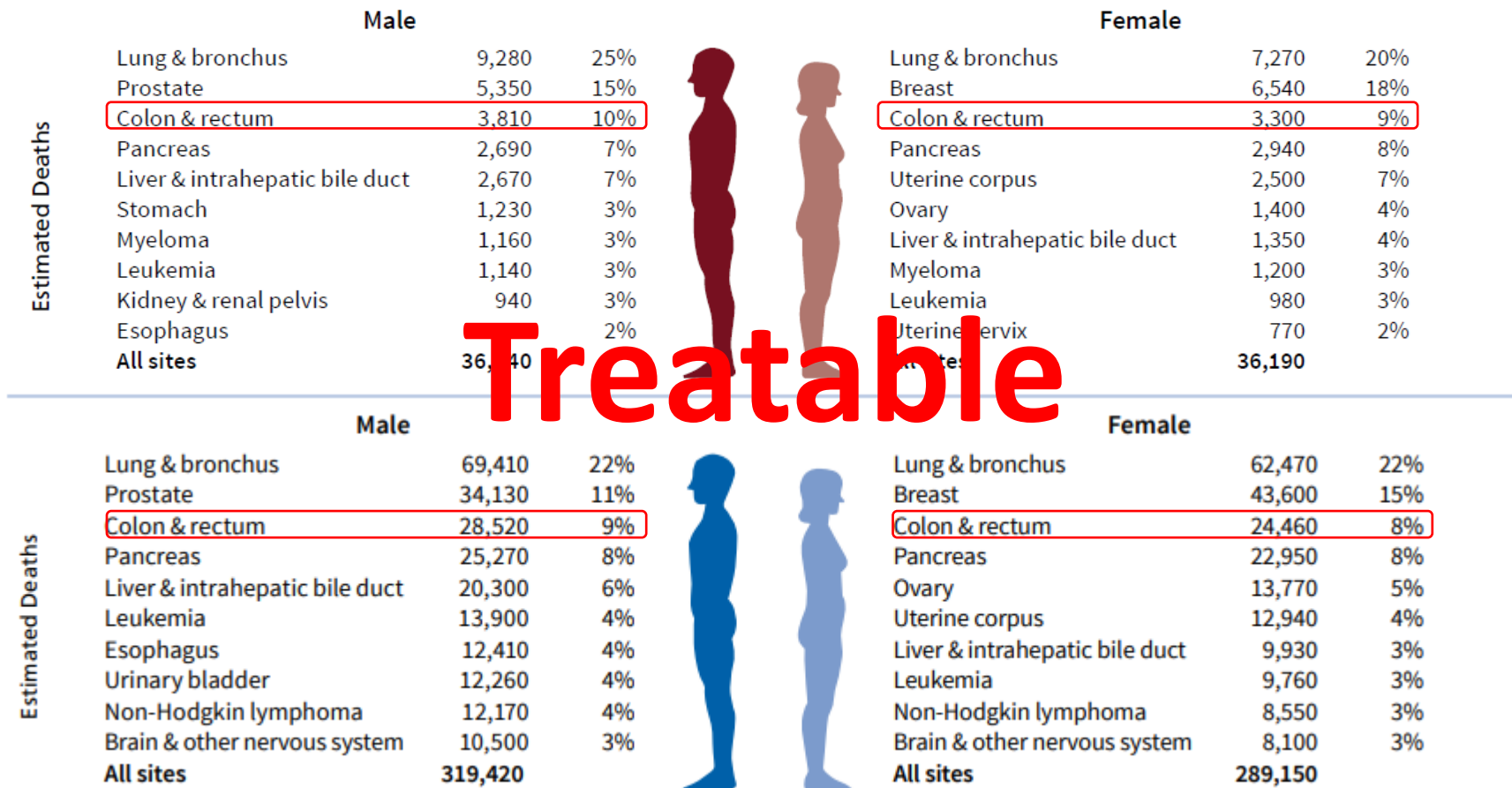# Burden of CRC Cases Among Blacks vs General Population in the US (2021)

Estimated New Cases

Male

Prostate	29,570	30%
Lung & bronchus	13,730	14%
Colon & rectum	9,880	10%
Kidney & renal pelvis	5,510	6%
Liver & intrahepatic bile duct	4,590	5%
Pancreas	3,690	4%
Myeloma	3,410	3%
Non-Hodgkin lymphoma	3,400	3%
Urinary bladder	3,160	3%
Leukemia	3,080	3%
All sites	**98,020**	

Female

Breast	33,840	32%
Lung & bronchus	11,660	11%
Colon & rectum	9,860	9%
Uterine corpus	7,460	7%
Pancreas	3,980	4%
Thyroid	3,520	3%
Myeloma	3,500	3%
Kidney & renal pelvis	3,380	3%
Non-Hodgkin lymphoma	2,910	3%
Leukemia	2,600	2%
All sites	**104,240**	

Estimated New Cases

Male

Prostate	248,530	26%
Lung & bronchus	119,100	12%
Colon & rectum	79,520	8%
Urinary bladder	64,280	7%
Melanoma of the skin	62,260	6%
Kidney & renal pelvis	48,780	5%
Non-Hodgkin lymphoma	45,630	5%
Oral cavity & pharynx	38,800	4%
Leukemia	35,530	4%
Pancreas	31,950	3%
All sites	**970,250**	

Female

Breast	281,550	30%
Lung & bronchus	116,660	13%
Colon & rectum	69,980	8%
Uterine corpus	66,570	7%
Melanoma of the skin	43,850	5%
Non-Hodgkin lymphoma	35,930	4%
Thyroid	32,130	3%
Pancreas	28,480	3%
Kidney & renal pelvis	27,300	3%
Leukemia	25,560	3%
All sites	**927,910**	

American Cancer Society. *Cancer Facts and Figures for African Americans 2019-2021.* American Cancer Society, 2019.

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All sites	104,240	

Preventable

Male

Prostate	248,530	26%
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Colon & rectum	79,520	8%
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Estimated New Cases

American Cancer Society. *Cancer Facts and Figures for African Americans 2019-2021*. American Cancer Society, 2019.

Burden of CRC Deaths Among Blacks in the US vs. General Population (2021)

Male

Lung & bronchus	9,280	25%
Prostate	5,350	15%
Colon & rectum	3,810	10%
Pancreas	2,690	7%
Liver & intrahepatic bile duct	2,670	7%
Stomach	1,230	3%
Myeloma	1,160	3%
Leukemia	1,140	3%
Kidney & renal pelvis	940	3%
Esophagus	850	2%
All sites	**36,840**	

Female

Lung & bronchus	7,270	20%
Breast	6,540	18%
Colon & rectum	3,300	9%
Pancreas	2,940	8%
Uterine corpus	2,500	7%
Ovary	1,400	4%
Liver & intrahepatic bile duct	1,350	4%
Myeloma	1,200	3%
Leukemia	980	3%
Uterine cervix	770	2%
All sites	**36,190**	

Male

Lung & bronchus	69,410	22%
Prostate	34,130	11%
Colon & rectum	28,520	9%
Pancreas	25,270	8%
Liver & intrahepatic bile duct	20,300	6%
Leukemia	13,900	4%
Esophagus	12,410	4%
Urinary bladder	12,260	4%
Non-Hodgkin lymphoma	12,170	4%
Brain & other nervous system	10,500	3%
All sites	**319,420**	

Female

Lung & bronchus	62,470	22%
Breast	43,600	15%
Colon & rectum	24,460	8%
Pancreas	22,950	8%
Ovary	13,770	5%
Uterine corpus	12,940	4%
Liver & intrahepatic bile duct	9,930	3%
Leukemia	9,760	3%
Non-Hodgkin lymphoma	8,550	3%
Brain & other nervous system	8,100	3%
All sites	**289,150**	

Estimated Deaths (row label for both tables)

American Cancer Society. *Cancer Facts and Figures for African Americans 2019-2021*. American Cancer Society, 2019.

Burden of CRC Deaths Among Blacks in the US vs. General Population (2021)

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All sites	36,?40	

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Uterine cervix	770	2%
All sites	36,190	

Treatable

Male

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All sites	289,150	

Estimated Deaths

American Cancer Society. *Cancer Facts and Figures for African Americans 2019-2021*. American Cancer Society, 2019.

Stage Distribution of CRC by Race

American Cancer Society. *Cancer Facts and Figures for African Americans 2019-2021.* American Cancer Society, 2019.

Five-Year CRC Relative Survival Rates By Race and Stage in the US

American Cancer Society. *Cancer Facts and Figures for African Americans 2019-2021*. American Cancer Society, 2019.

Colorectal Cancer Trends Over Time

Age-Adjusted CRC Incidence Among Blacks and Whites (1975 to 2017)

Rutter et al. (2021) *Cancer Epidemiol Biomarkers Prev.*

Age-Adjusted CRC Mortality Rates by Race/Ethnicity (1975-2013)

Williams et al (2016) *Clinical and Translational Gastro*

Age-Adjusted Trends in CRC Mortality Rates Among Blacks and Whites in the US (1975-2016)

American Cancer Society. *Cancer Facts and Figures for African Americans 2019-2021*. American Cancer Society, 2019.
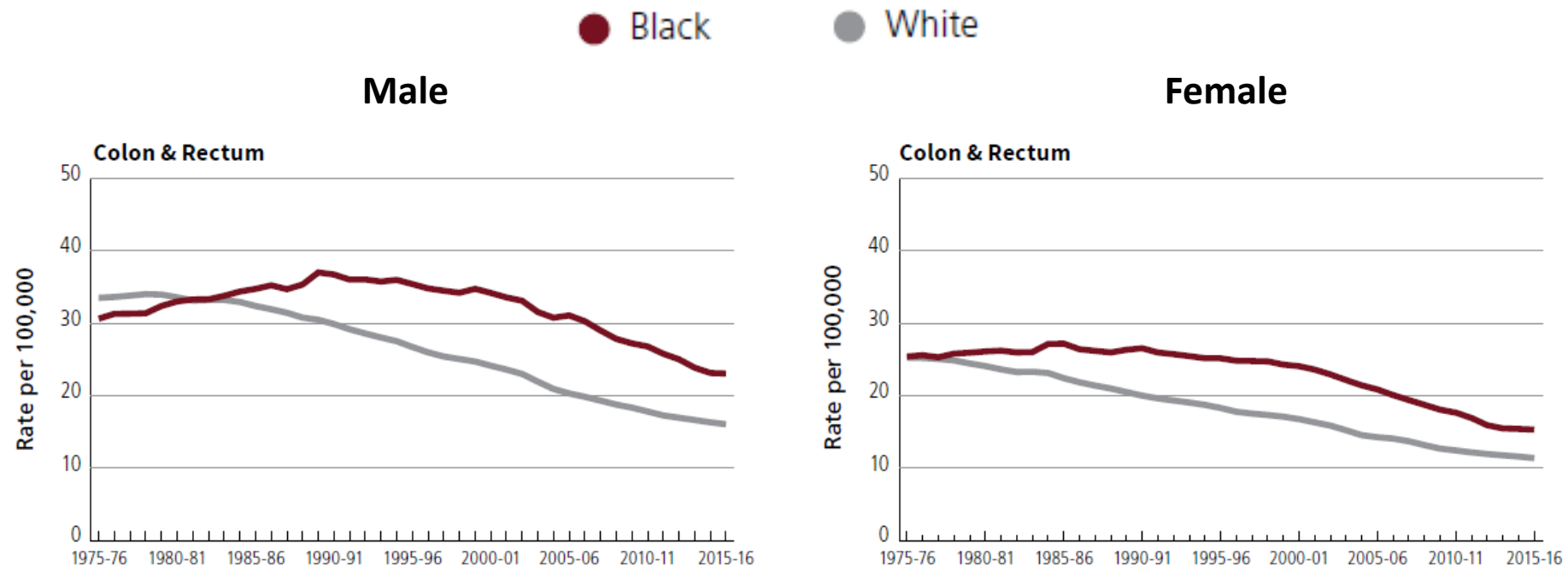
Age-Specific CRC Incidence By Race and Time Period

Rutter et al. (2021) *Cancer Epidemiol Biomarkers Prev.*

Reasons for Disparity

Daniel et al. (2017) *Frontiers in Bioscience*
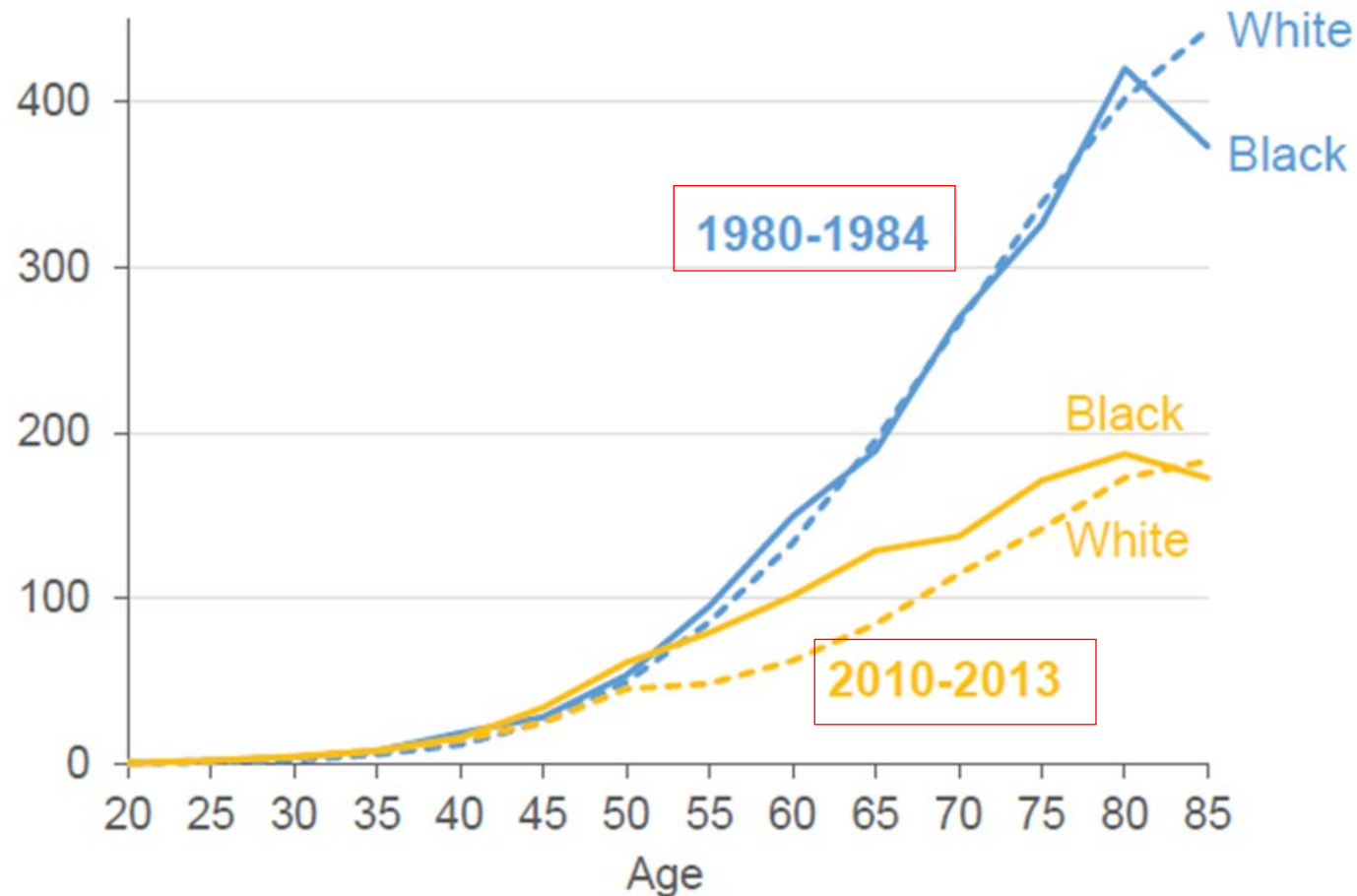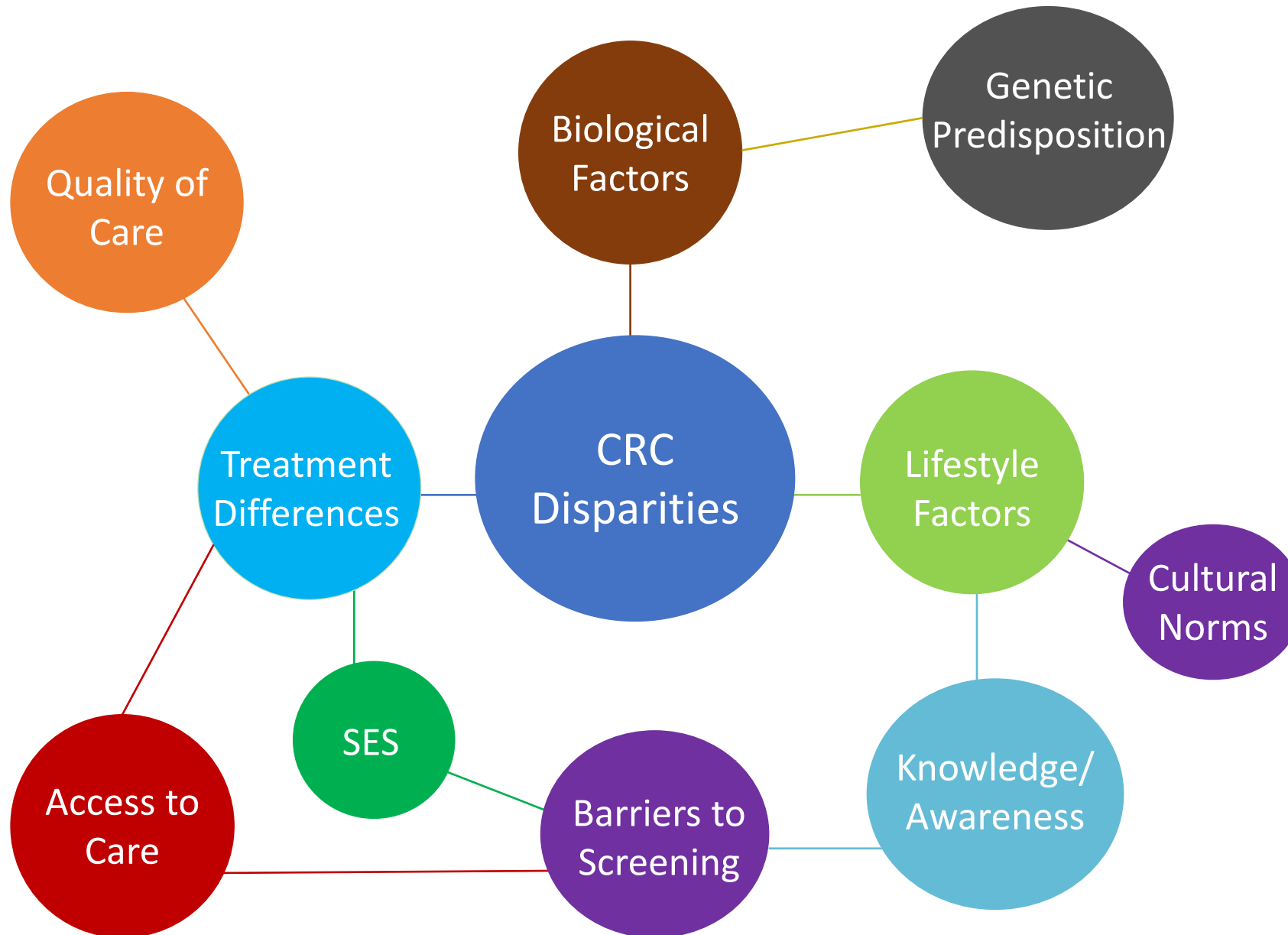
Risk Factors of CRC

Non-Modifiable

- Age

- Ethnicity

- Family history of CRC or colorectal polyps

- History of IBD

- Genetic syndromes

- Type-two diabetes

Modifiable

- Smoking

- Excessive alcohol consumption

- High consumption of red meats

- High consumption of processed foods

- Low intake of fruit and vegetables

- Body fat and obesity

- Sedentary lifestyle

Carethers and Doubeni
Gastroenterology 2020

Microsimulation Modeling of CRC Incidence and Contribution of Screening (1975-2000)

Edwards et al. (2010) *Cancer.*
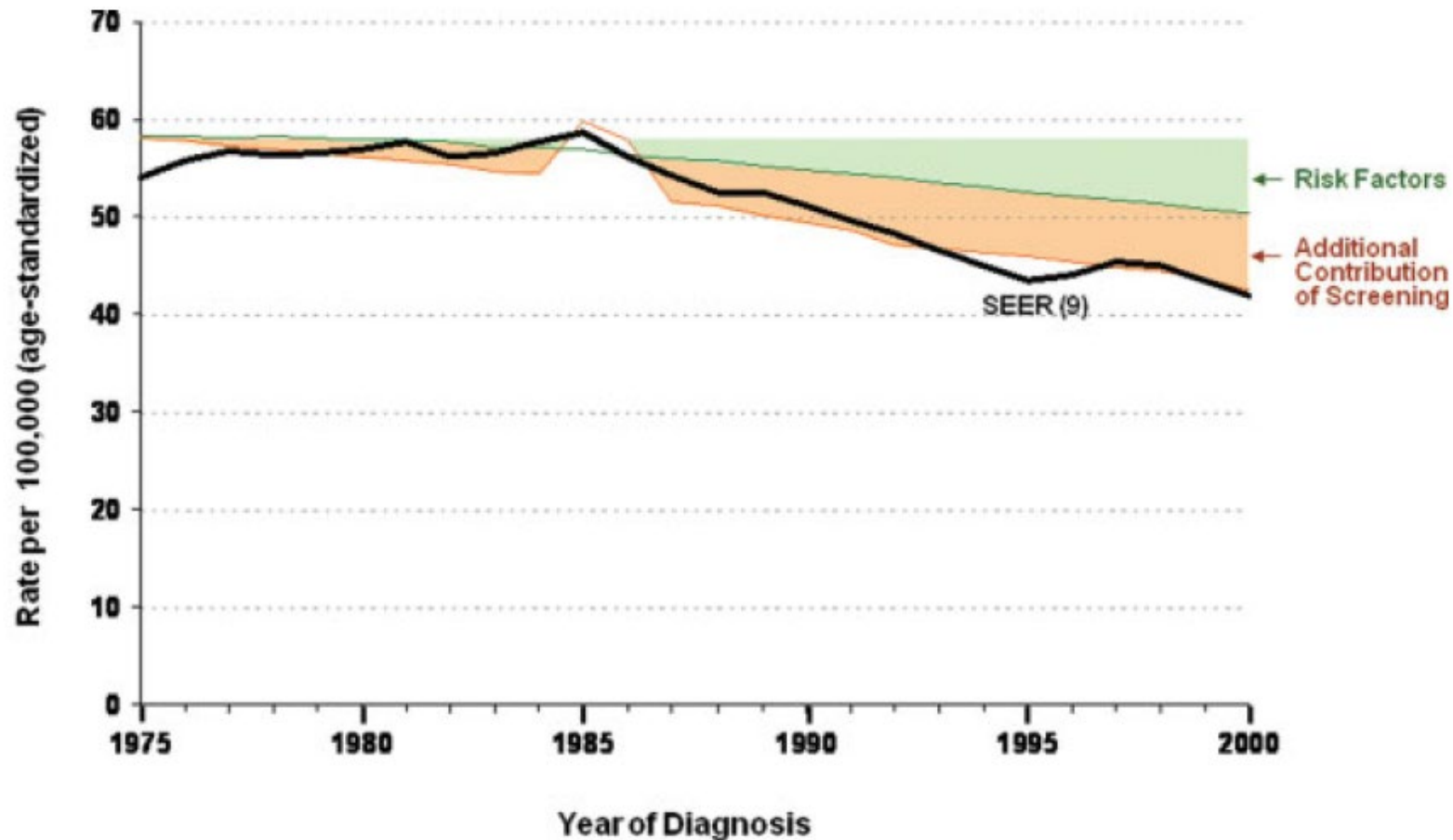
Microsimulation Modeling of CRC Mortality and Contribution of Screening and Treatment

Edwards et al. (2010) *Cancer.*
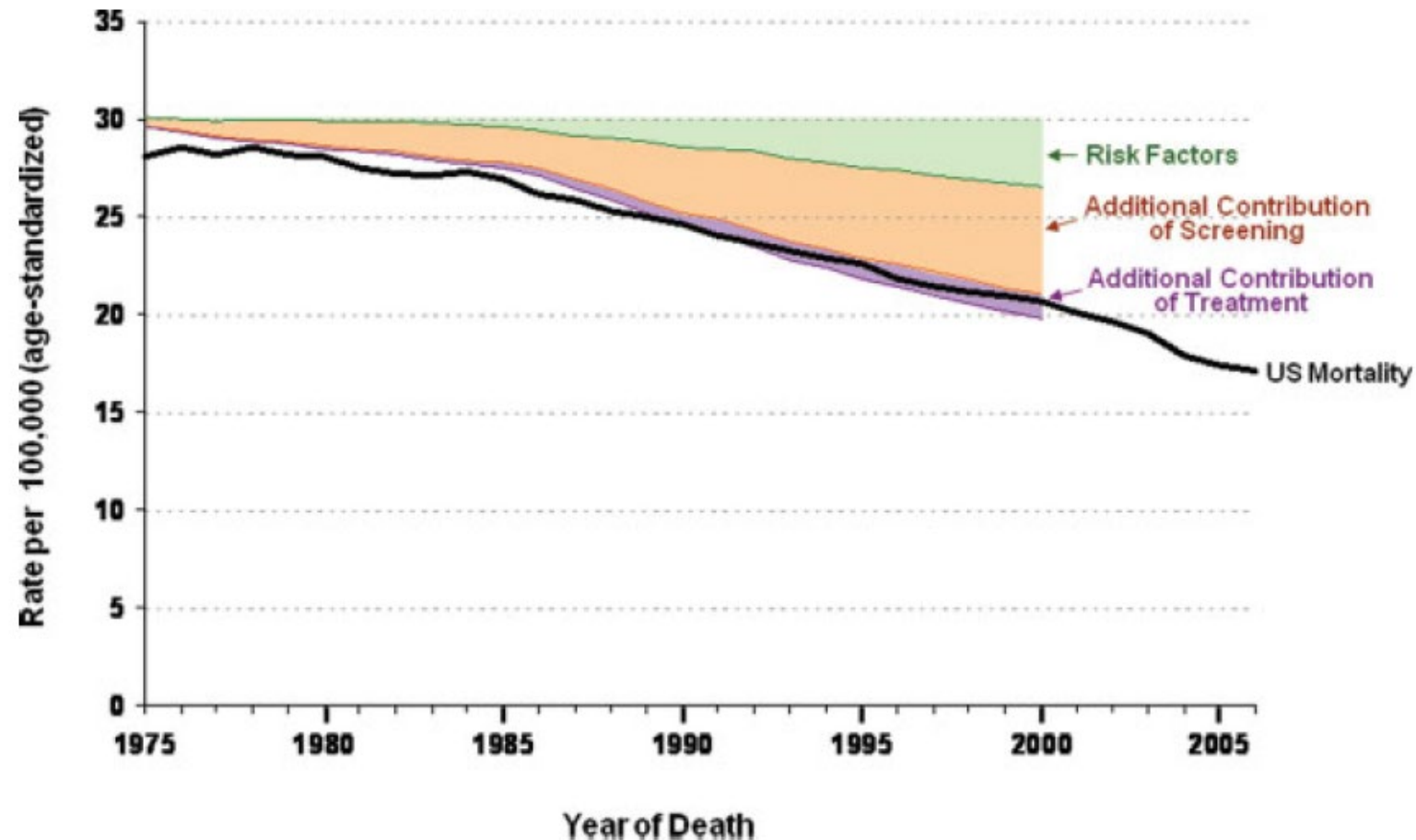
Microsimulation Modeling If Blacks Had Similar Screening and Treatment As Whites

CRC *Incidence* By Race/Screening
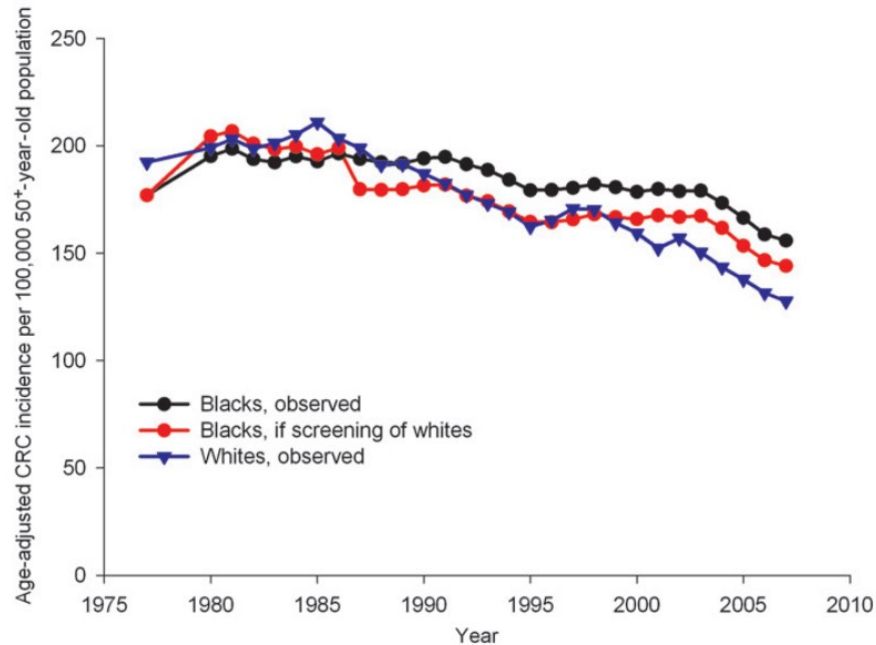
CRC *Mortality* by Race/Screening

Lansdorp-Vogelaar et al. (2012) *Cancer Epidemiol Biomarkers Prev.*
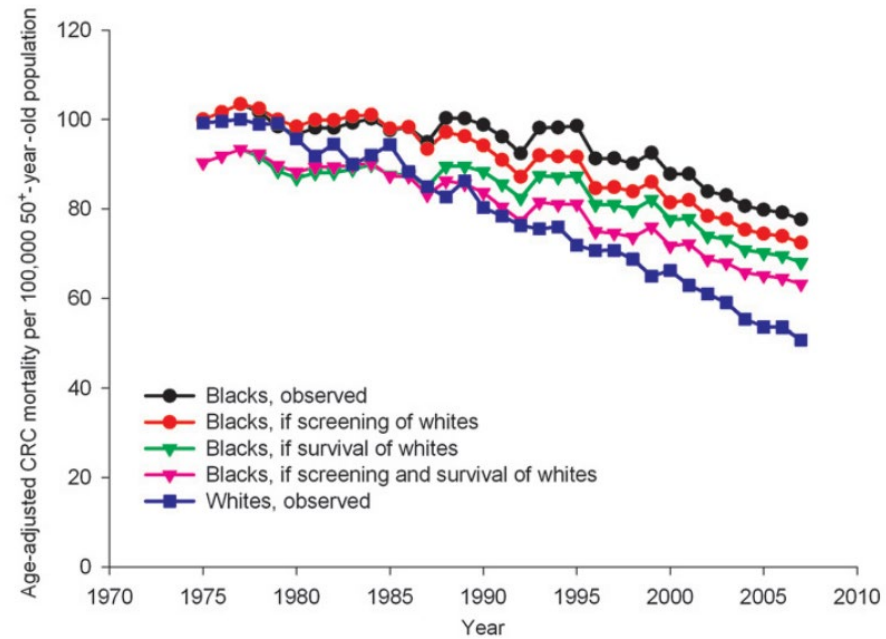
Disparities in CRC Incidence and Mortality Between Blacks and Whites

Lansdorp-Vogelaar et al. (2012) *Cancer Epidemiol Biomarkers Prev.*
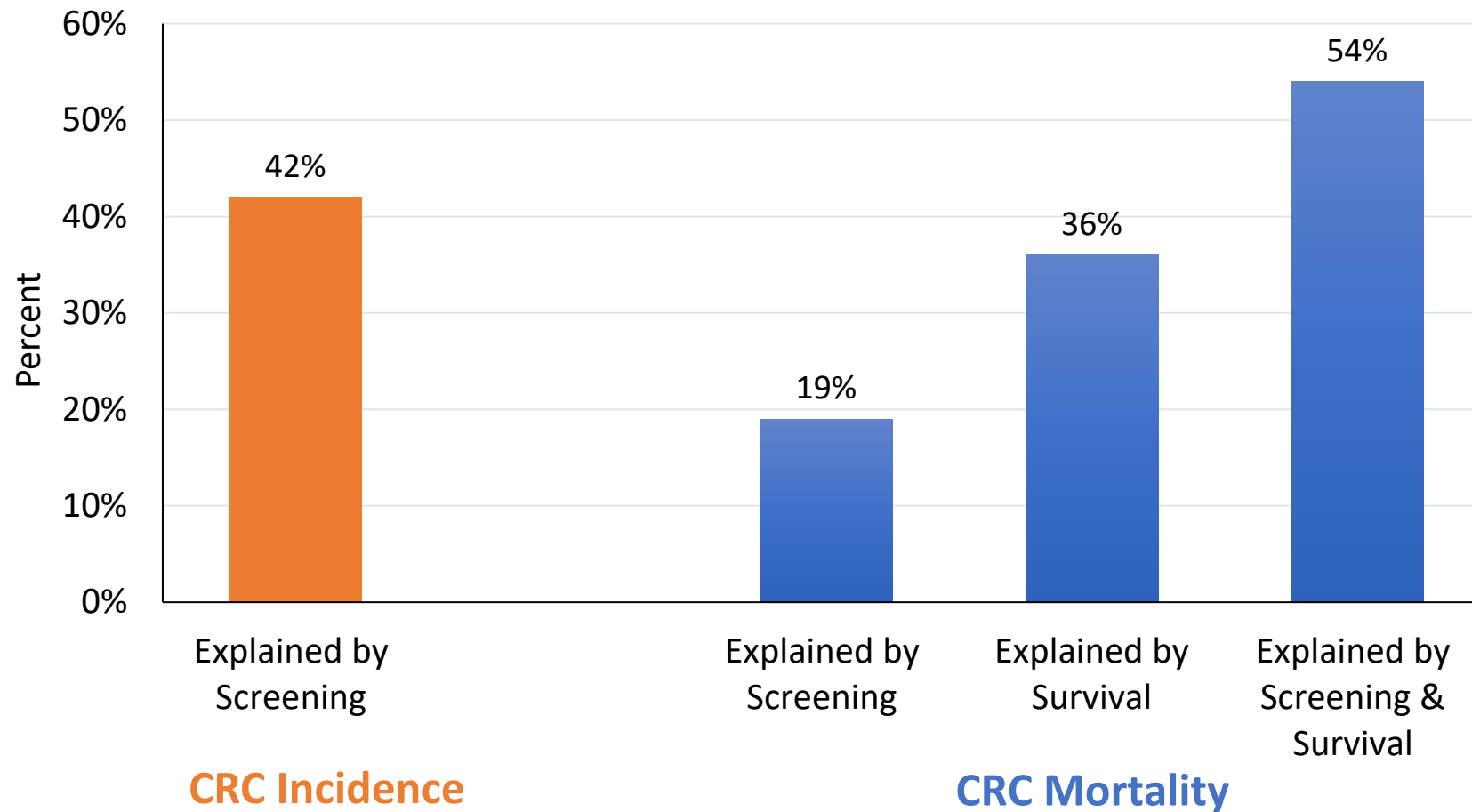
Microsimulation Modeling of CRC Mortality and Intervention 1975- 2020

Edwards et al. (2010) *Cancer.*
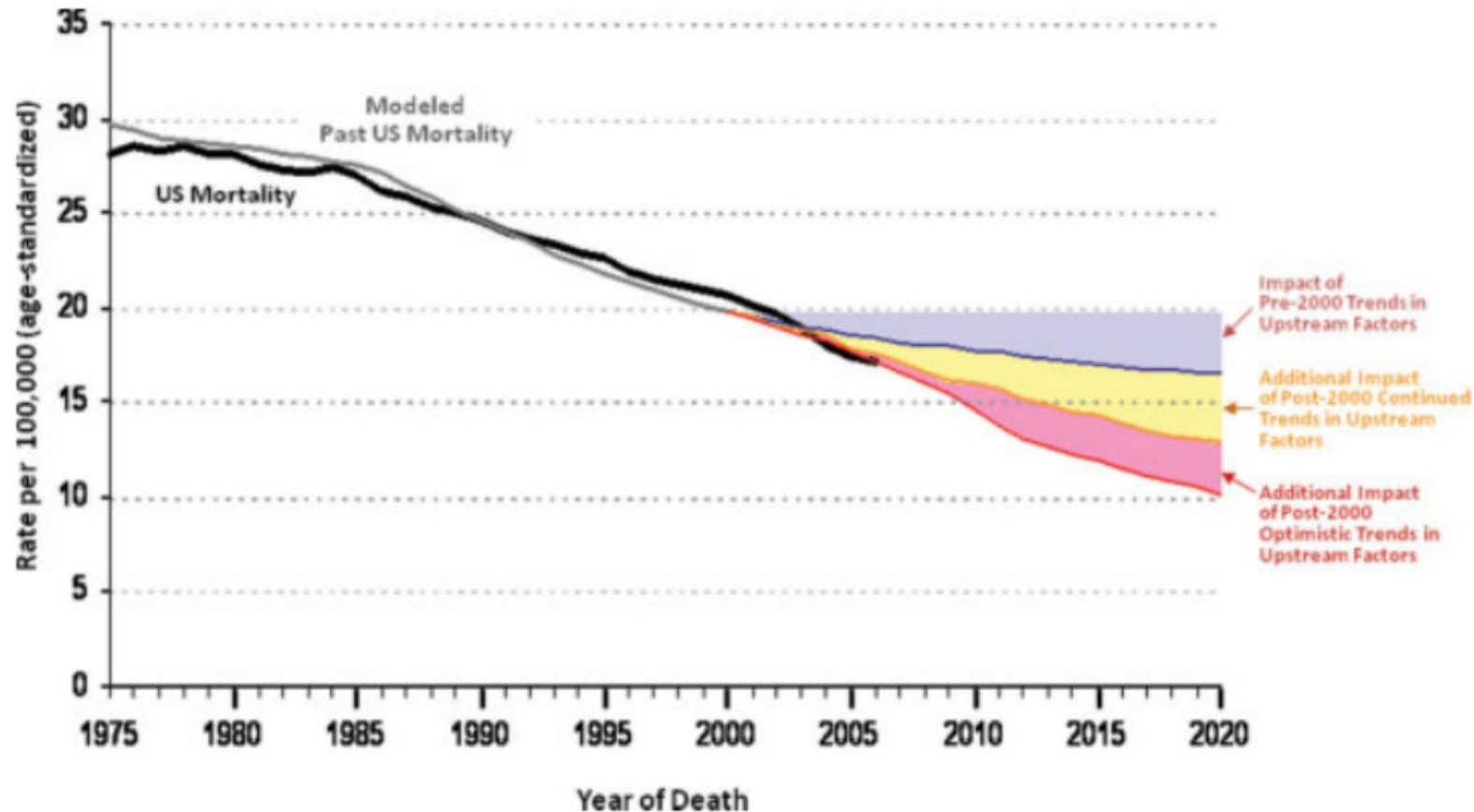
Microsimulation Modeling of CRC Mortality and Further Opportunities for Screening and Treatment (1975-2020)

Edwards et al. (2010) *Cancer.*
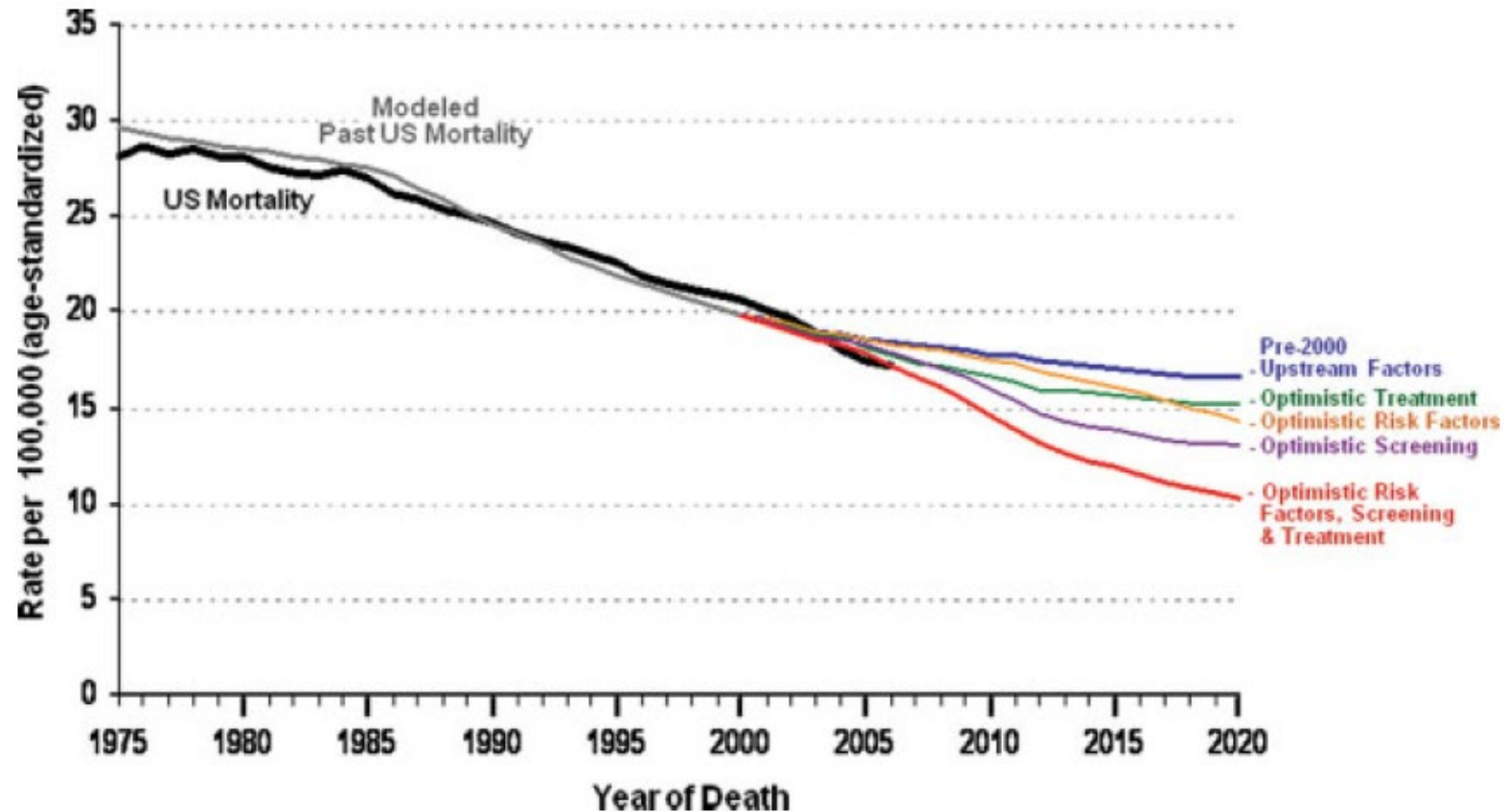
Adherence to Colonoscopy and Colonoscopy Findings by Race with Facilitated Access

Mendelson et al (2017) *Clinical Gastro and Hepatology*
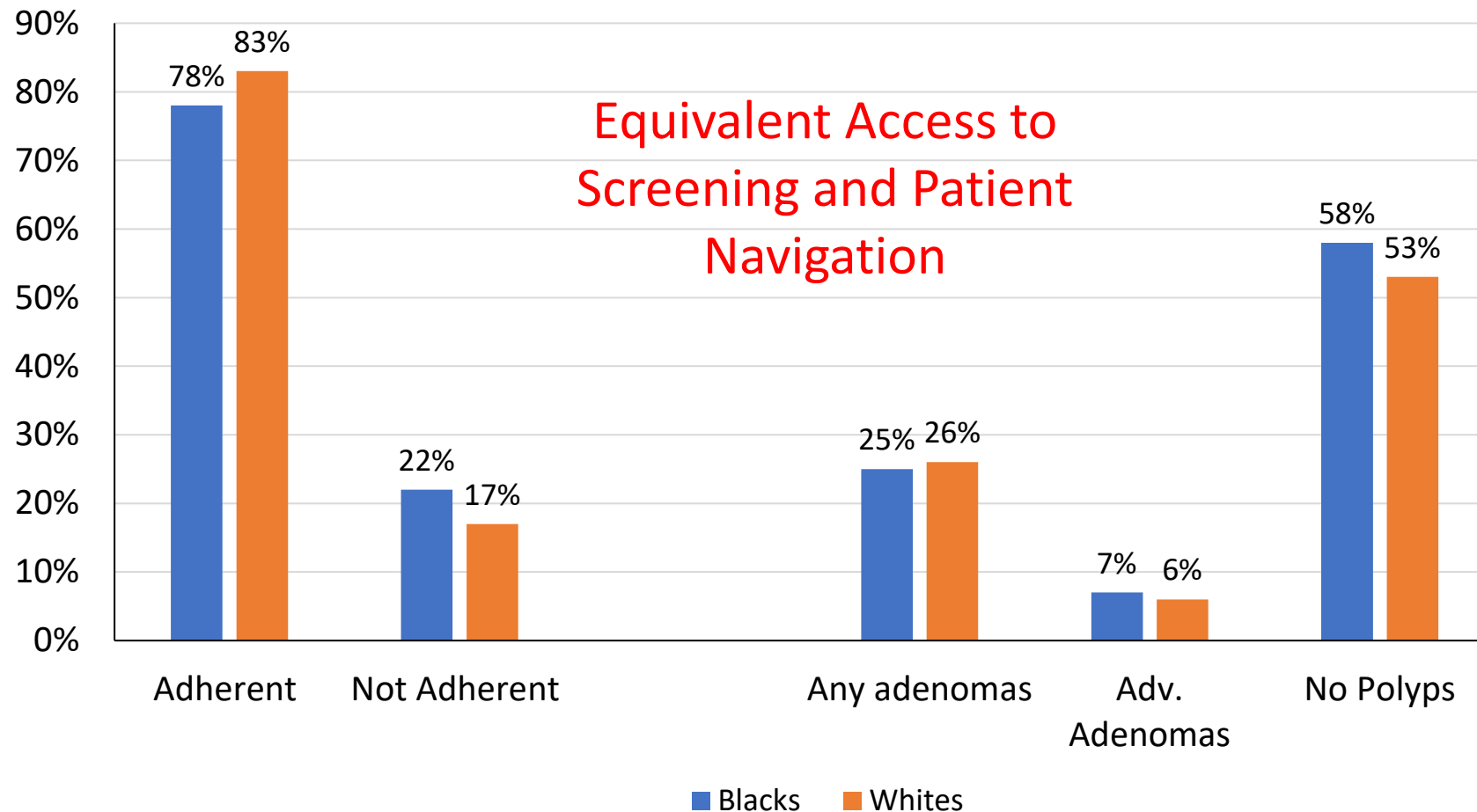
Thank You!
Any Questions?

The Double-Edged Sword of Guideline Recommendations Lowering the Age of Screening Initiation to 45

ACG Magazine, Spring 2021, cover image

Darrell M. Gray, II, MD, MPH

@DMGrayMD

Guidelines for CRC screening have been evolving

PROCTOSIGMOIDOSCOPY AND POLYPECTOMY
IN REDUCING THE INCIDENCE OF
RECTAL CANCER

VICTOR A. GILBERTSEN, MD

Diagnosis of Large-Bowel Cancer
in the Asymptomatic Patient

David H. Greegor, MD

1990s
Winawer SJ, Zauber AG et al, 1993
Winawer SJ et al., 1997

American College of Gastroenterology Guidelines for
Colorectal Cancer Screening 2008

Douglas K. Rex, MD, FACG[1], David A. Johnson, MD, FACG[2], Joseph C. Anderson, MD[3], Phillip S. Schoenfeld, MD, MSEd, MSc (Epi), FACG,
Carol A. Burke, MD, FACG[3] and John M. Inadomi, MD, FACG[3]

2018
ACS recommends earlier
Screening (45yo) among
all average-risk

USPSTF has announced new draft guidelines
for colorectal cancer screening.
Screening for colorectal cancer should
BEGIN AT 45
Share your support!

Oct 2020
USPSTF draft
recommendation

Colorectal Cancer Screening for Average-Risk Adults:
2018 Guideline Update From the American Cancer Society

Andrew M.D. Wolf, MD[1]; Elizabeth T.H. Fontham, MPH, DrPH[2]; Timothy R. Church, PhD[3]; Christopher R. Flowers, MD, MS[4];
Carmen E. Guerra, MD[5]; Samuel J. LaMonte, MD[6]; Ruth Etzioni, PhD[7]; Matthew T. McKenna, MD[8]; Kevin C. Oeffinger, MD[9];
Ya-Chen Tina Shih, PhD[10]; Louise C. Walter, MD[11]; Kimberly S. Andrews, BA[12]; Otis W. Brawley, MD[13];
Durado Brooks, MD, MPH[14]; Stacey A. Fedewa, PhD, MPH[14]; Deana Manassaram-Baptiste, PhD, MPH[14];
Rebecca L. Siegel, MPH[17]; Richard C. Wender, MD[18]; Robert A. Smith, PhD[18]

GASTROENTEROLOGY 1997;112:594 –642

Colorectal Cancer Screening: Clinical Guidelines and
Rationale

Evidence exists that reductions in colorectal cancer (CRC) mortality can be achieved through detection and treatment of early-stage CRCs and the identification and removal of adenomatous polyps, the precursor to these cancers. An expert, multidisciplinary panel was convened to review this evidence and to produce recommendations to guide clinicians and the public in making decisions regarding CRC screening and surveillance. As part of its review, the panel also commissioned a simulation model that estimates and compares the clinical consequences (benefits and major complications) of each screening approach. This guideline report presents the panel's recommendations with respect to screening and surveillance in people at average risk for CRC and those at increased risk because of a family history of CRC or genetic syndromes or a personal history of adenomatous polyps, inflammatory bowel disease, or curative-intent resection of CRC. The cost-effectiveness of potential screening strategies was taken into account when preparing the recommendations. A summary of the evidence on each screening test's performance, effectiveness, frequency, complications, and patient acceptance is included. Also provided are suggestions for ways to increase compliance with the recommendations, questions for which additional research is needed, and the results of the simulation model on screening consequences.

1960s-70s
Early large studies of
Endoscopy and stool-based
screening programs

2008
1st guideline to recommend
earlier screening (45yo)
among African Americans

Screening rates among those 50-75 have increased over time, but are below goal

Based on 2018 Behavioral Risk Factor Surveillance System, among those 50-75 years of age:
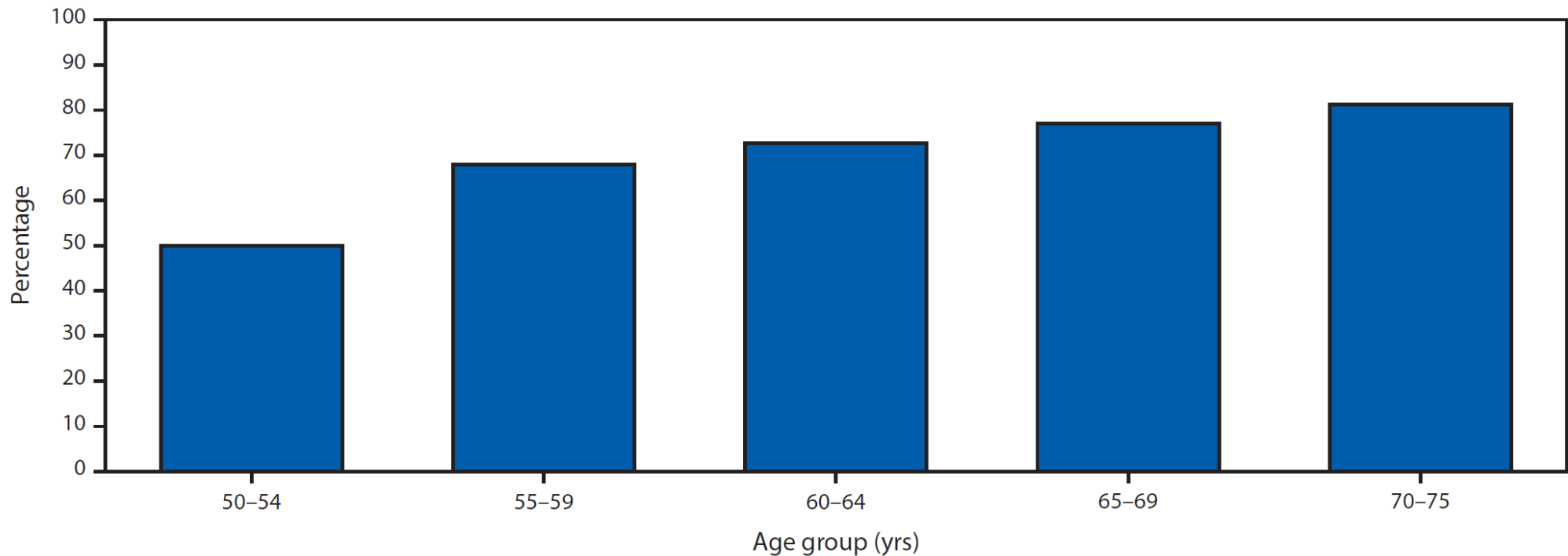
Race or ethnicity	Non-Hispanic White	Non-Hispanic Black	Asian/Pacific Islander	Hispanic
Screening rate	71.0%	70.0%	64.8%	56.1%

Joseph DA et al, *MMWR Morb Mortal Wkly Rep*. 2020.

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Screening rates among those 45-49 are increasing

2018 National Health Interview Survey
Self-reported screening within the past year
Screening rates computed by interview quarter
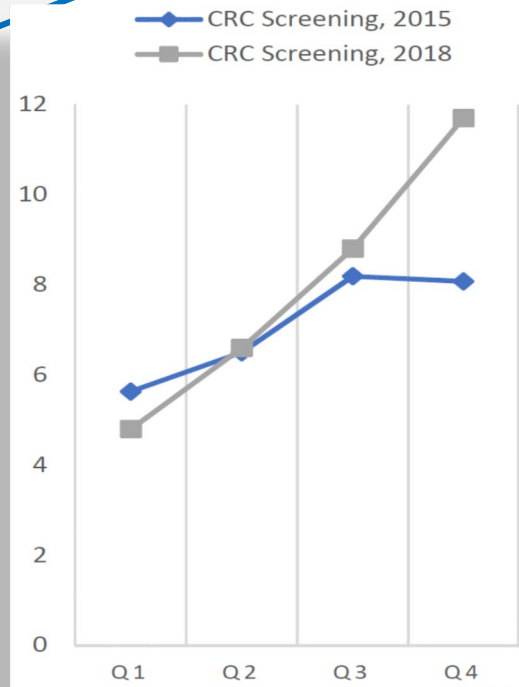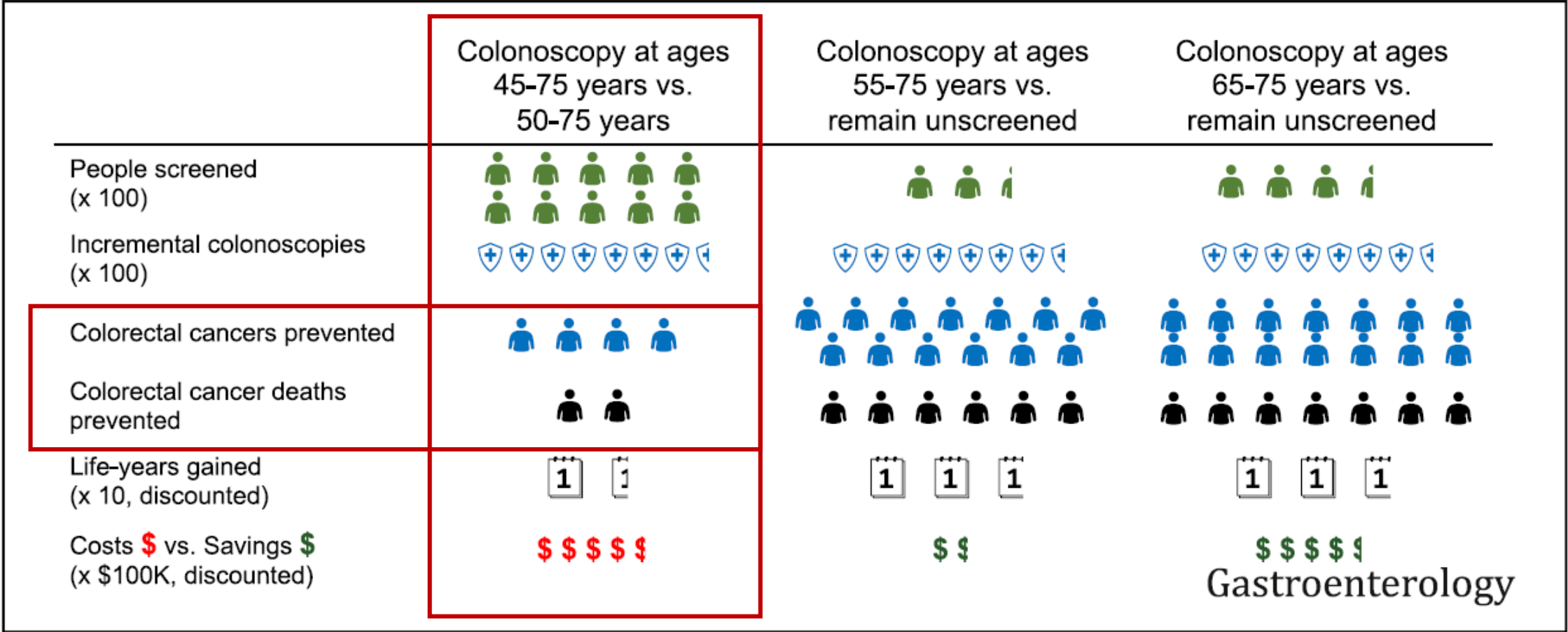
Screening rates
↑ 4.8% (Q1) → 11.7% (Q4)

**Estimated 226,656 individuals (Q1)
vs
592,351 (Q4)**

Fedewa SA et al, *Cancer*. 2020.

Potential intended consequences
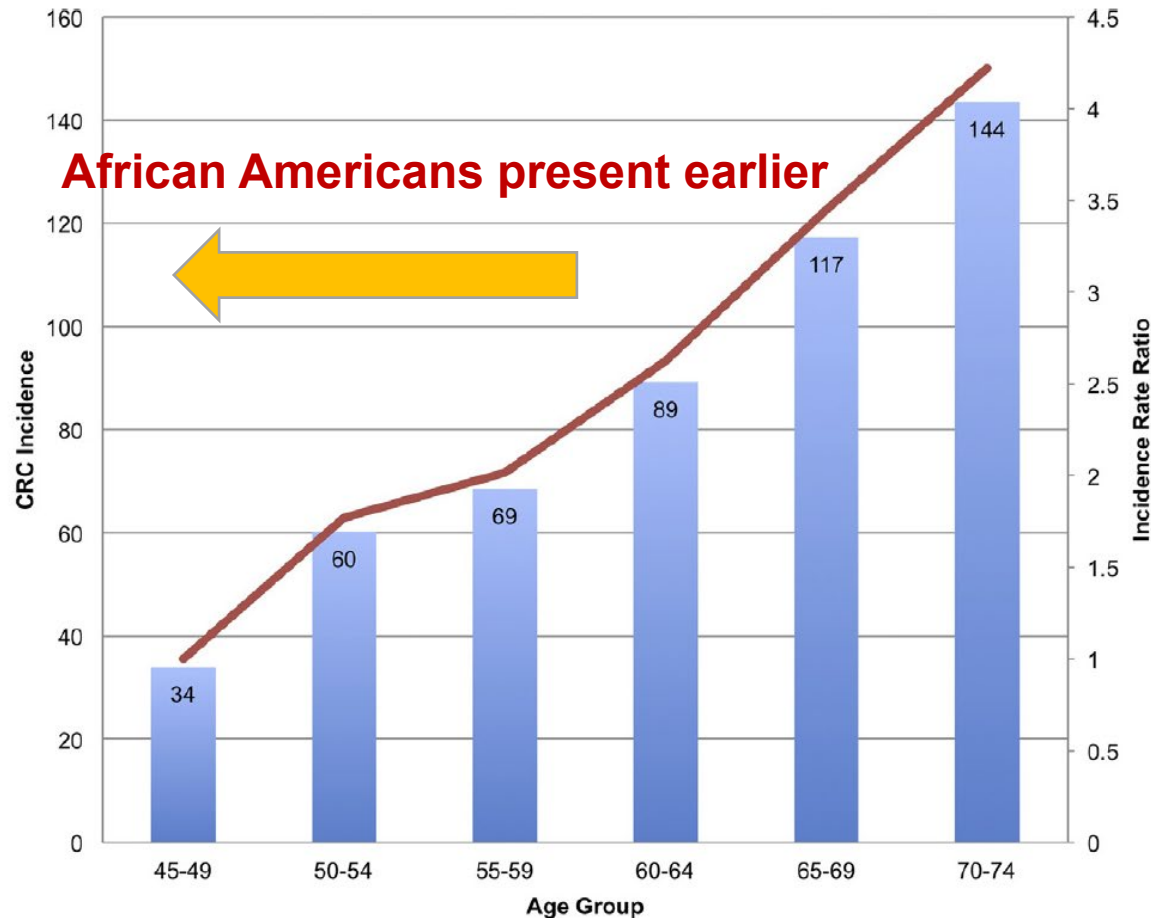# of lowering the age of screening initiation to 45

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Prevent colorectal cancers and colorectal cancer deaths

Laudabaum U et al, *Gastroenterology*. 2019.

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↓ Burden of CRC in high-risk minority groups – e.g. African Americans

African Americans present earlier

	Proportion of cancers under target age for group (%)	Proportion of cancers over target age for group (%)
Caucasians (age 50 years)	5.5	94.5
African Americans (age 50 years)	10.6	89.4
African Americans (age 45 years)	5	95

↑ Relative risk of polyps > 9mm & proximal adenomas as compared to Whites

Modified from Liang PS et al, *Gastroenterology*. 2018; Carethers JM. Dig Dis Sci. 2015; Lieberman et al, *JAMA*. 2008; Lieberman DA et al, *Gastroenterology*. 2014; Corley DA et al, *Clin Gastroenterol Hepatol*. 2013.
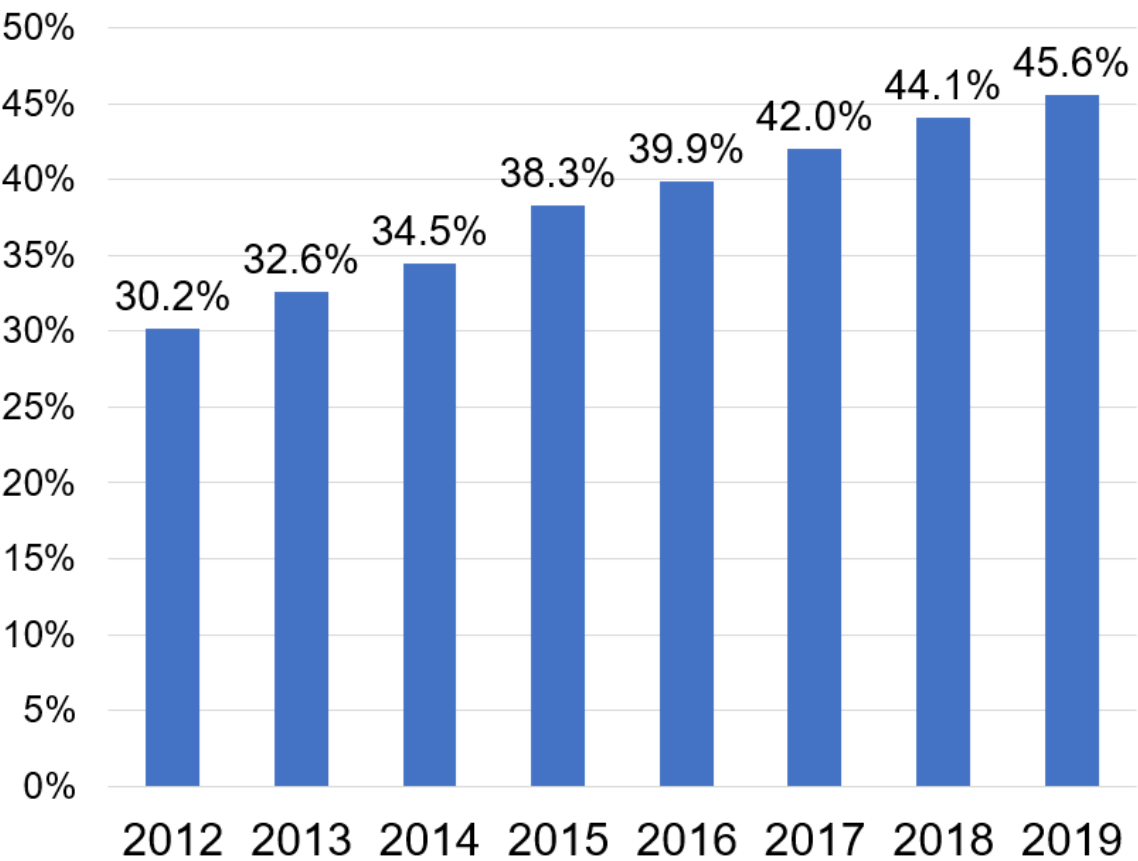
Potential unintended consequences
of lowering the age of screening initiation to 45

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Diversion of resources from where it may be needed most – e.g. follow-up after abnormal FIT test

Proportion of patients by FIT process of care
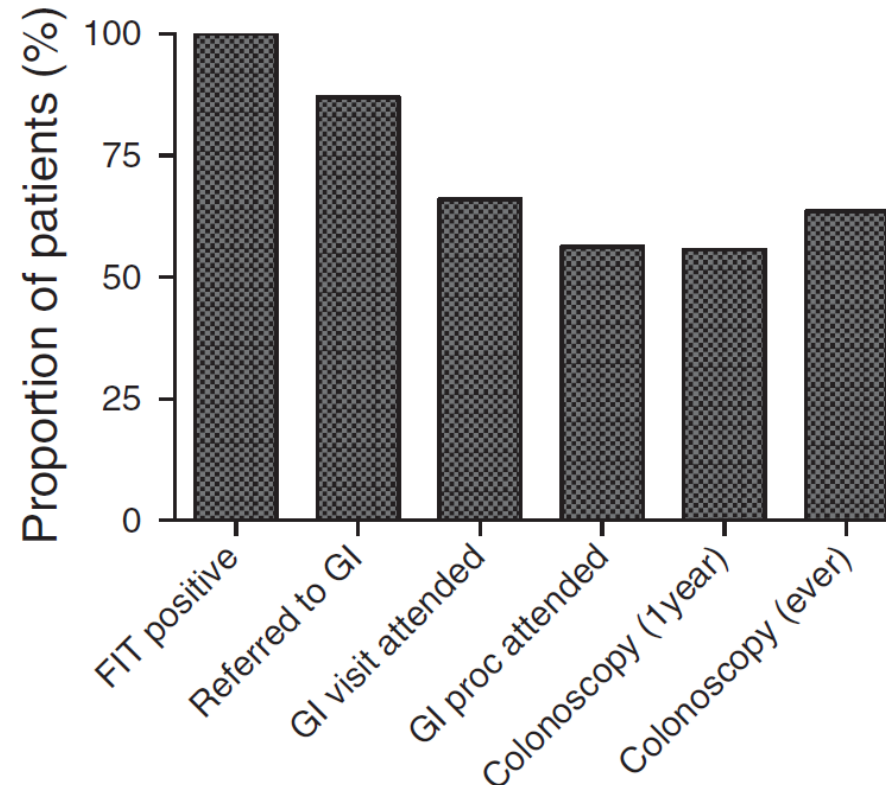
Issaka RB et al, *Am J Gastro*. 2017.

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Diversion of resources from where it may be needed most – e.g. follow-up after abnormal FIT/FOBT test
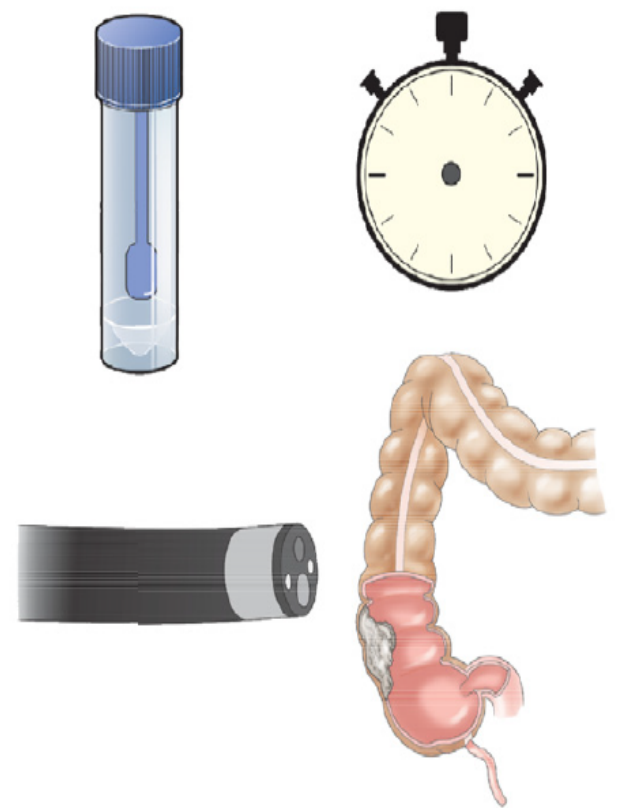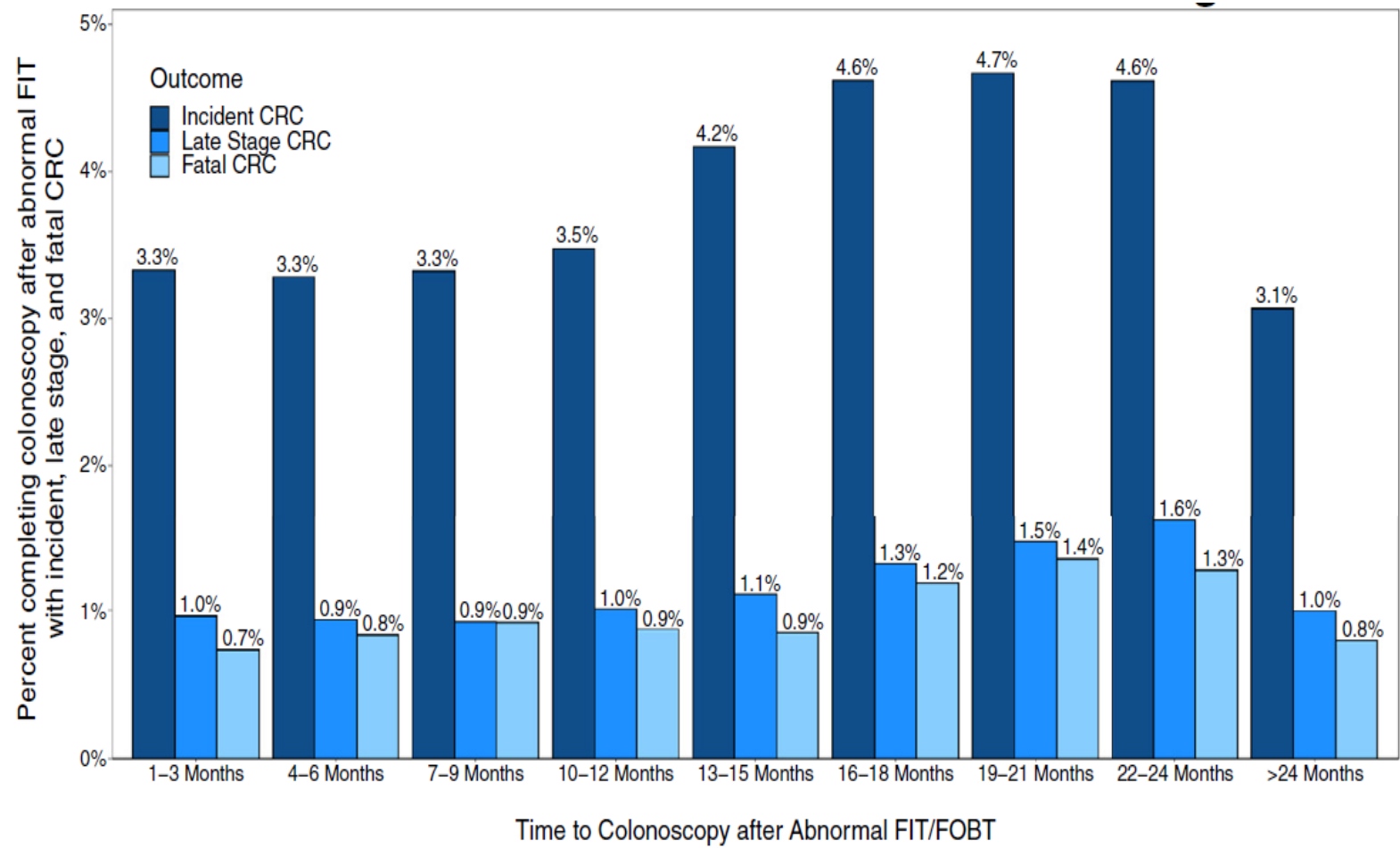
San Miguel Y et al, *Gastroenterology*. 2021.
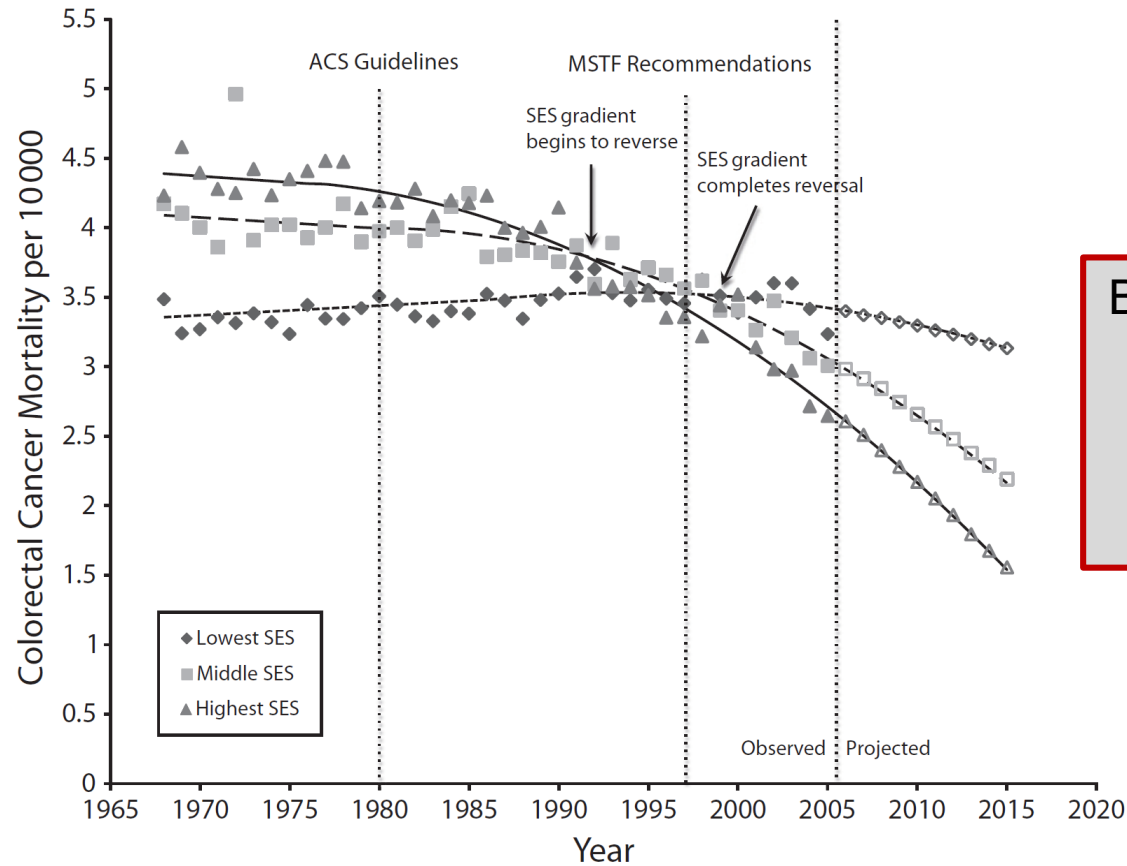
Darrell M. Gray, II, MD, MPH

Worsen existing disparities in CRC screening and outcomes

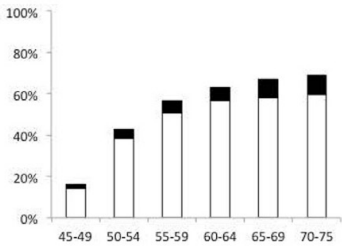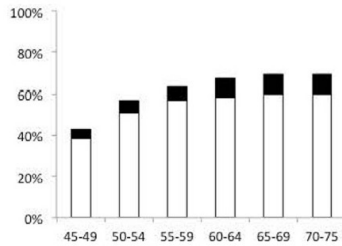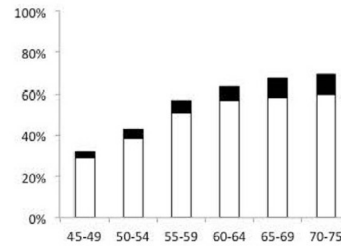Saldana-Ruiz N et al, *Am J Public Health*. 2013.

Fundamental cause hypothesis
(Link and Phelan, 2005)

Benefits of health-enhancing resources (e.g. CRC screening) "realized to a greater extent by those who are less likely to face, discrimination, and stigma and more likely to have access to socioeconomic resources"
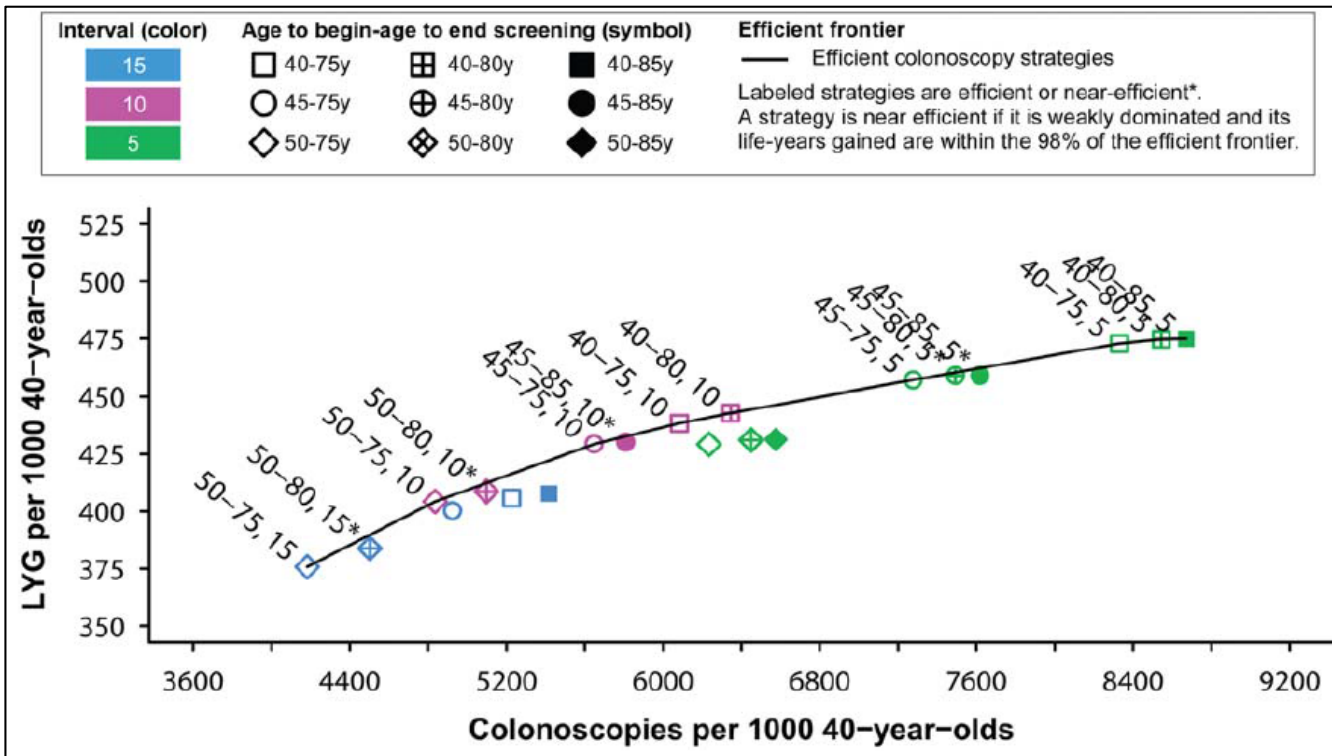
Substantial societal and individual costs

	Scenario A: Current age-specific screening participation patterns in the U.S. **	Scenario B: Begin screening at age 45 (shift current age-band-specific participation patterns by 5 years to younger ages)	Scenario C: Begin screening at age 45 (extrapolate participation rate at age 45 based on current participation patterns, without change in participation at older ages)
Age-specific screening participation rates with colonoscopy (in white) or fecal immunochemical test (in black)			
Colorectal cancer cases	696,700	667,300 (↓ 29,400)	691,100 (↓ 5,600)
Colorectal cancer deaths	244,600	233,500 (↓ 11,100)	242,600 (↓ 2,000)
Total costs (discounted)	$114.7 billion	$125.1 billion (↑ $10.4 billion)	$119.1 billion (↑ $4.4 billion)
Total number of colonoscopies	70.3 million	80.9 million (↑ 10.7 million)	73.8 million (↑ 3.5 million)

Laudabaum U et al, *Gastroenterology*. 2019.

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WEXNER MEDICAL CENTER

@DMGrayMD

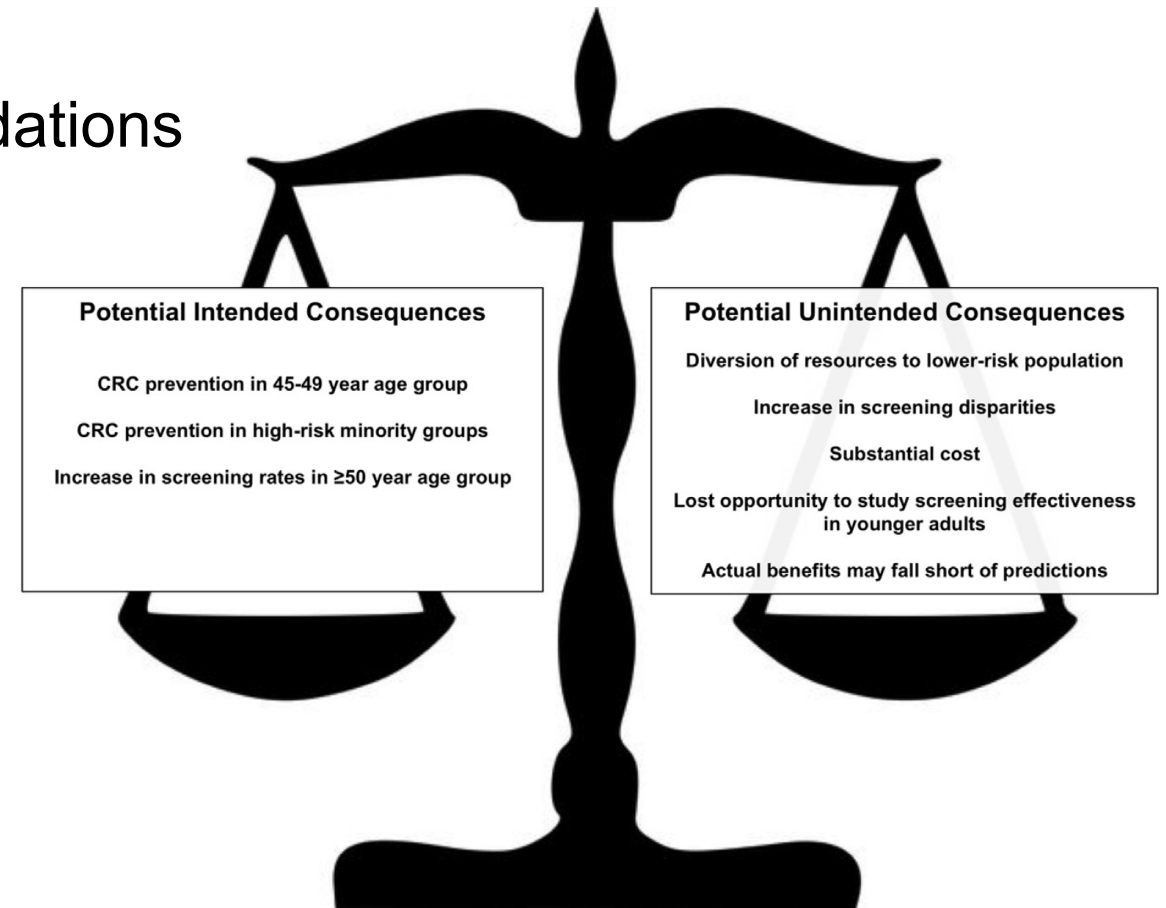# Outcomes may not match model-predicted outcomes

BUT

- Assumes higher adherence to screening and follow-up than seen in current practice

- Does not factor in:
  - Exacerbation of disparities
  - Costs
  - Impact of mixed messages
  - Potential genetic/molecular differences that may impact efficacy of screening

Peterse EFP et al, Cancer. 2018; Liang PS et al, Gastroenterology. 2018.

Summary

- Colorectal cancer screening recommendations are evolving with the available data.

- Screening rates are increasing including among 45-49 year olds.

- Guideline recommendations must be tempered against potential intended and unintended consequences.

Potential Intended Consequences

CRC prevention in 45-49 year age group

CRC prevention in high-risk minority groups

Increase in screening rates in ≥50 year age group

Potential Unintended Consequences

Diversion of resources to lower-risk population

Increase in screening disparities

Substantial cost

Lost opportunity to study screening effectiveness in younger adults

Actual benefits may fall short of predictions

Liang PS et al, Gastroenterology. 2018.

Thank you!

darrell.gray@osumc.edu

The James

Evidence-Based Interventions to Increase Screening in Racially and Ethnically Diverse Populations
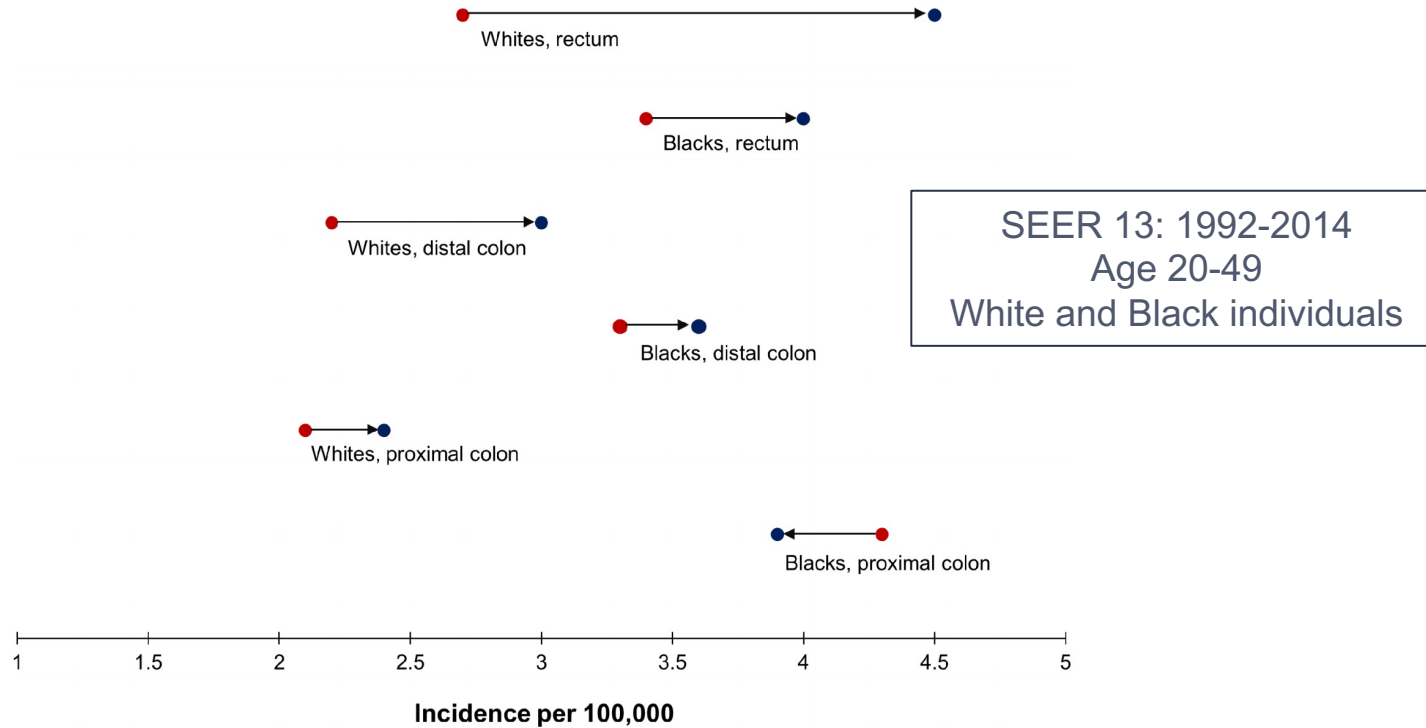
Folasade P. May MD PhD MPhil

UCLA Health

UCLA Kaiser Permanente Center for Health Equity

Veterans Affairs

UCLA Health

EO-CRC incidence highest in Black individuals

SEER 13: 1992-2014
Age 20-49
White and Black individuals

Whites, rectum

Blacks, rectum

Whites, distal colon

Blacks, distal colon

Whites, proximal colon

Blacks, proximal colon

Incidence per 100,000

1   1.5   2   2.5   3   3.5   4   4.5   5

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Murphy et al. Gastroenterology, 2019.

Significant impact of EO-CRC among Latinos

A. Early-onset CC/RC incidence in Hispanics — 83% increase (<50 colon), 76% increase (<50 rectum)
B. Early-onset CC/RC incidence in Whites — 17% increase (<50 colon), 34% increase (<50 rectum)
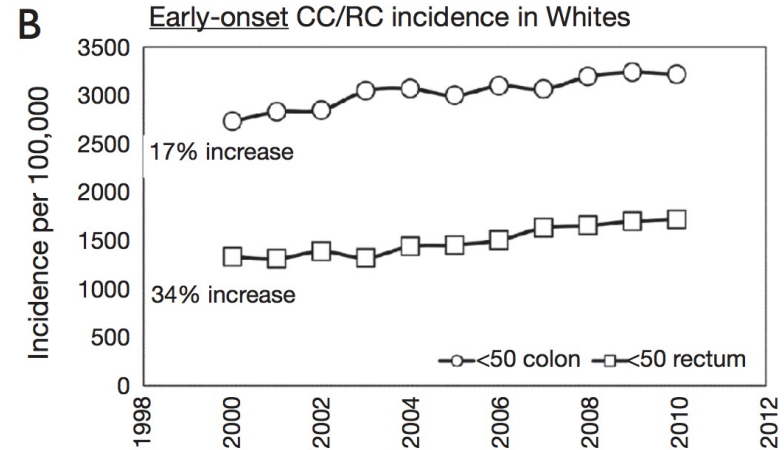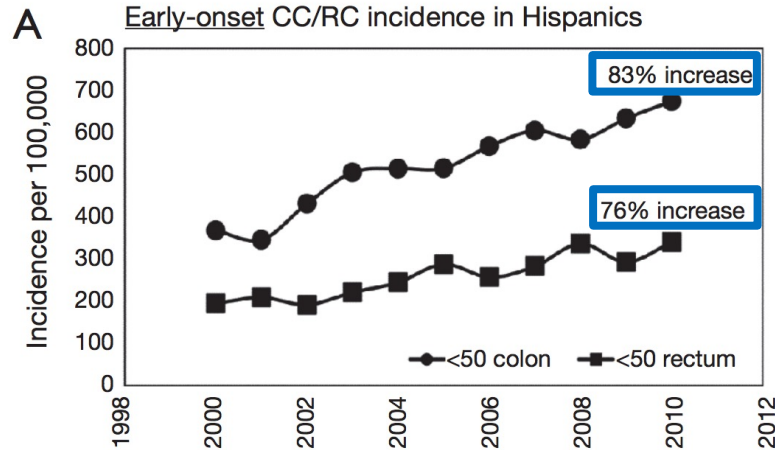
SEER 18: 2000 – 2010
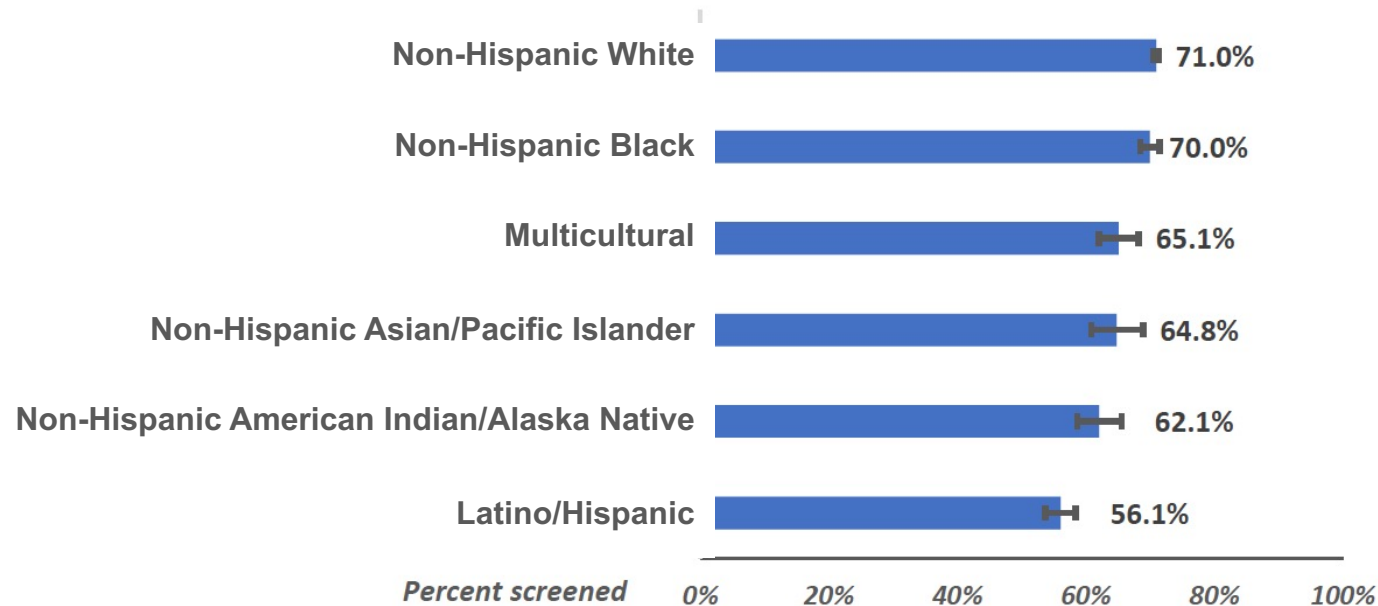EOCRC: Age<50
White and Latino individuals

Overview

- Screening test use among the medically underserved

- Barriers to screening among the underserved

- Evidence-based screening interventions

- Completion of non-colonoscopic screening

- Priority research areas

Screening test use by insurance and income

Health insurance status

Percent screened	
Insured	71.2%
Uninsured	40.1%

Annual household income ($)

Percent screened	
≥75,000	76.1%
50,000–74,999	72.6%
35,000–49,999	67.5%
15,000–34,999	62.2%
<15,000	58.0%
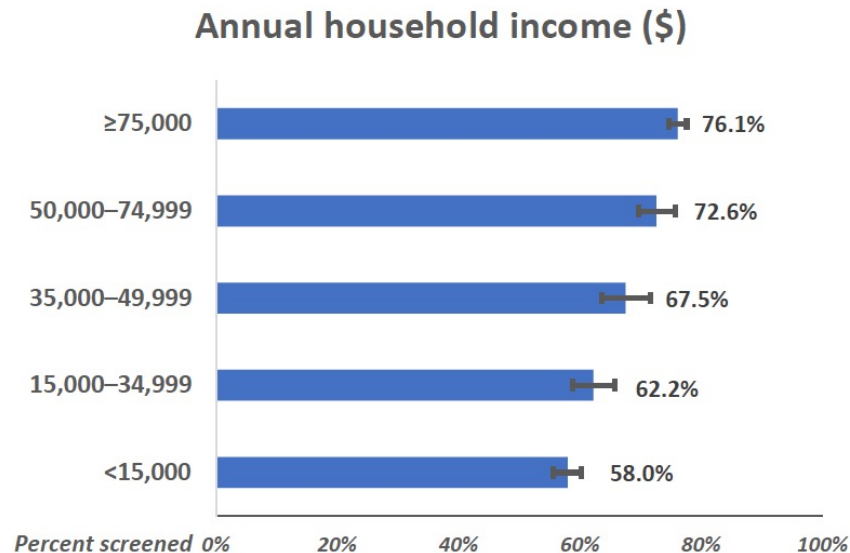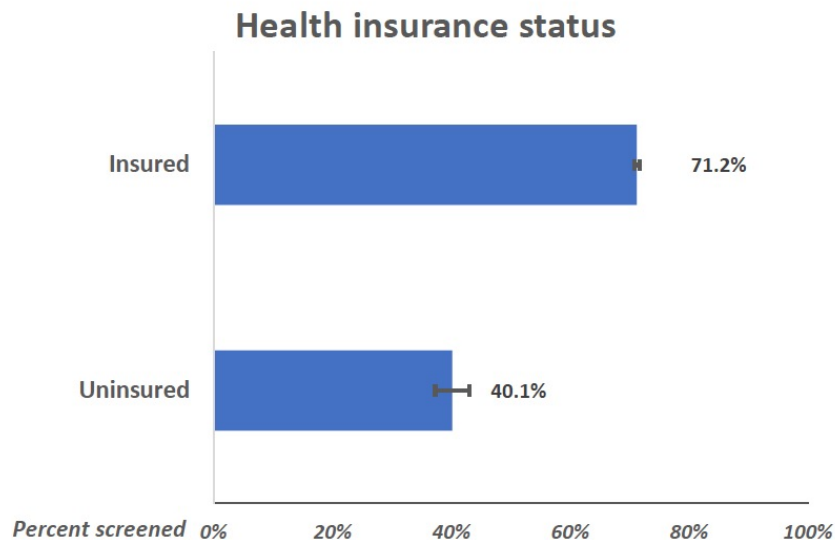
Screening test options

Stool-based strategies

gFOBT Fecal Immunochemical FIT-DNA Test (FIT)

Direct-visualization techniques

CT Colonography Flexible Sigmoidoscopy Colonoscopy

Screening test type by race/ethnicity
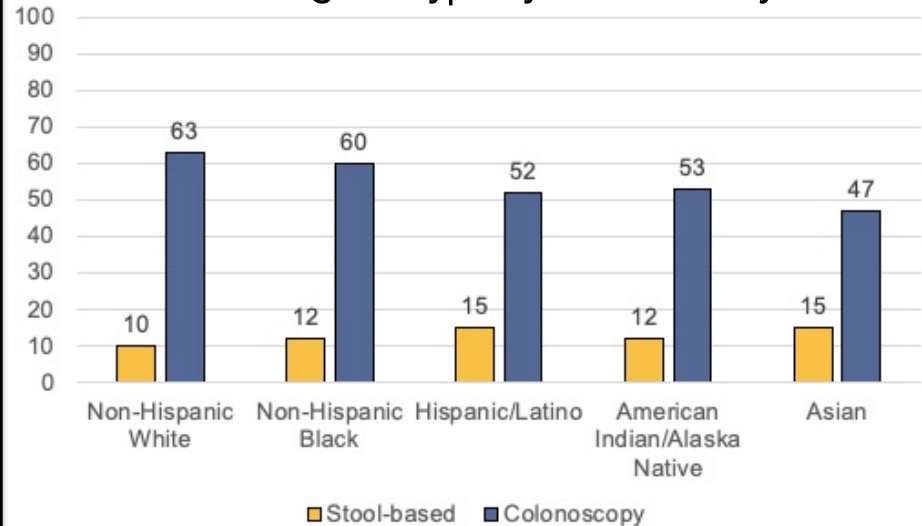

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National Health Interview Survey, 2018.

Barriers to screening in the underserved

Patient-Level Factors
Lack of Knowledge
Beliefs/Cultural factors
Education
Health Literacy
Language
Fear of procedure/prep
Fear of cancer diagnosis
Cost/Lack of Insurance
Distrust
Comorbidities
Competing demands
Logistical challenges

Provider-Level Factors
Knowledge
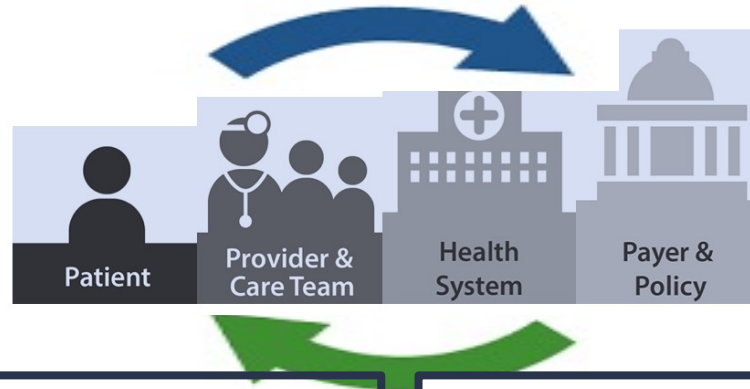Beliefs
Practice setting
Counseling practices
Lack of recommendation
Discrimination
Time constraints
Perceived need
Support/Resources

System-Level Factors
Access to screening
Colonoscopy capacity
Quality of Care
Reminder systems
Provider assessment
Provider feedback
Care coordination
Coverage policy

Policy-Level Factors
Screening guidelines
Insurance access
Insurance mandate policy
Coverage policy
Cost/Co-pay policy
Access to follow-up

May FP et al, J Ca Educ, 2016.
May FP et al. Am J Gastroenterol, 2015.
May FP et al. Med Care, 2019.
Williams R et al, Clin Transl Gastroent. 2016.
White P, Itzkowitz S. Curr Gastro Rep, 2020.
Carethers JM, Doubeni CA. Gastro, 2020.

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Barriers to screening colonoscopy in the underserved

Worry about equity treatment

(Rightful) distrust of doctors and healthcare system

Access to endoscopist

Out of pocket costs

Invasiveness of procedure

Need for escort

Concerns about provider competence/quality

Fear of Sedation

Skepticism about provider motives

Time off Work

Concerns about Prep

Sexual connotation of procedure

Fear of experimentation

Fear of discomfort

Embarrassment

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Adams et al. J Comm Health. 2017.
Bromley EG, *May FP* et al. Prev Med. 2015.
Tammana VS et al. WJG. 2014.
Bastani et al. J Psych Onc. 2001.

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Evidence-based screening interventions

Patient-Directed

- **Education** *(printed, video, telephone, mailed, electronic)*
- **Direct outreach** *(clinic, telephone, mailed)*
- **Reminders** *(printed, telephone, mailed, electronic)*
- **Barrier-directed efforts**
- **Incentives/financial assistance**
- **Navigation**
- **Decision aid**

Provider-Directed

- **Direct outreach** *(clinic, telephone, mailed)*
- **Printed media**
- **Assessment and feedback**
- **Incentives**

System-Directed

- **Reminder systems**
- **Clinical workflow changes**
- **Population health management**
- **Navigation**
- **EHR prompts/nudges**

Policy-Directed

- **Insurance mandate**
- **Federally qualified health center support**
- **Preventive services coverage**
- **Eliminate cost barriers**

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Joseph et al, MMWR Suppl, 2016.
Man et al. Prev. Med Reports. 2018.
Carethers JM, Doubeni CA. Gastro, 2020.

Mailed FIT outreach in Black individuals age 45-50

Patients, setting: Black individuals age 45-50 (N= 10,232); Kaiser Northern CA health plan.

Design: Prospective.

Exposure: Mailed FIT outreach.

Outcome: Screening utilization compared to <u>unscreened</u> Black, White, Hispanic, and Asian/Pacific Islander health plan members age 51-56.
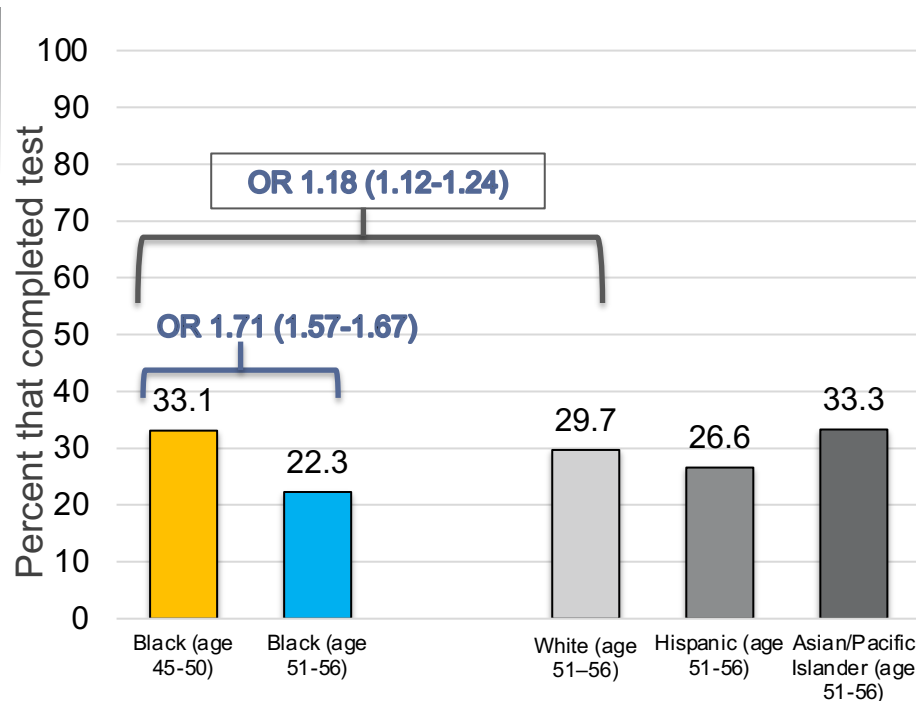
Stool-based screening in Black individuals (RCTs)

	Author	Intervention	Setting	Effect (OR)
Patient-directed education	Arnold et al	Health literacy pamphlet and video	Rural clinic	1.1 (0.6-1.8)
	Campbell et al	Lay health advisor, tailored newsletters, videos	Rural Churches (NC)	2.1 (1.0-4.4)
	Christy et al	Video+FIT or brochure+FIT	Community clinic (FL)	0.3 (0.2-0.5) (87% return)
	Friedman et al	Educational videos in clinic	Community clinic (TX)	1.4 (0.7-2.7)
	Powe et al	Multimedia education	Senior citizen centers (SC)	3.9 (1.9 -8.1)
Patient navigation	Holt et al	Lay health advisors	Churches (AL)	0.5 (0.2 – 1.0) (87% return)
	Horne et al	Education vs. patient navigation	Medicare database (MD)	1.1 (0.7 – 1.6)
	Myers et al	Mailed outreach (SI) vs. tailored mail outreach+navigation(TNI)	Urban clinics (PA)	1.5 (1.0-2.2) (TNI)
	Basch et al	Tailored telephone outreach	Urban (NYC)	39.3 (5.3-291.0)
	Goldberg et al	Mailed FOBT cards and reminders	Urban hospital (IL)	13.0 (3.7-46.5)
	Schroy et al	Decision aid +/- personalized risk assessment tool	Safety-net (MA)	1.4 (1.0-2.0)* (all modalities)

Roy et al. J Commun health. 2020.

Culturally tailored intervention

Patients, setting: Black individuals age 50-75 years (N = 330); community setting (FL).
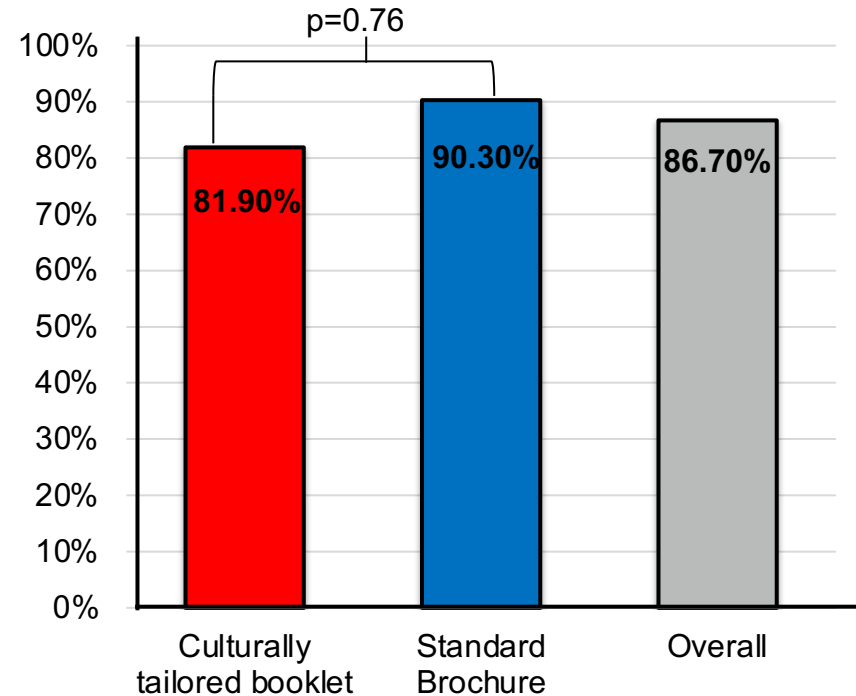
Design: Efficacy study of 2 intervention conditions promoting CRC screening.

Intervention
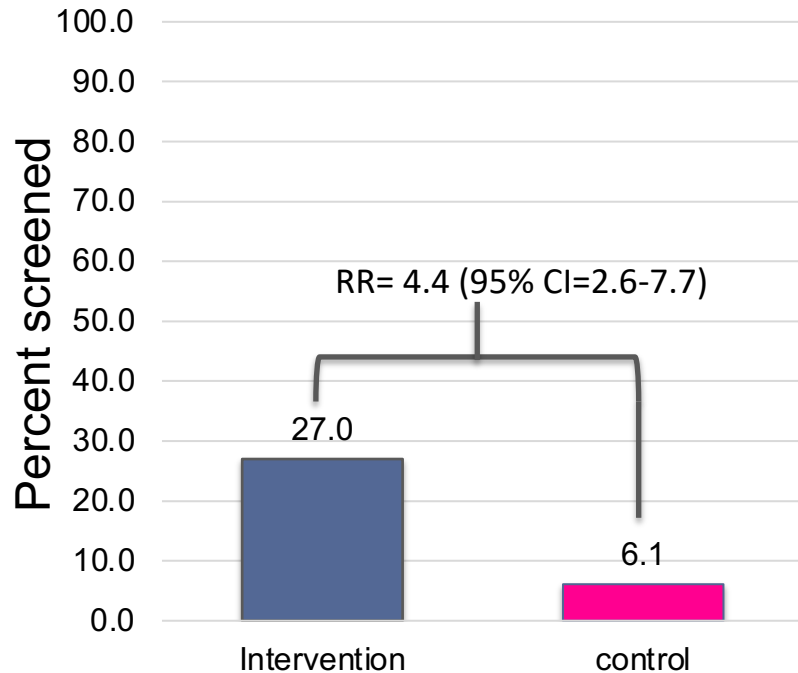 **Arm 1:** Culturally tailored CDC informational booklet + FIT kit
  Arm 2: Standard CRC screening brochure plus an FIT kit

Outcome: FIT kit screening uptake.

p=0.76

Overall 87% return

Christy et al, Cancer. 2016.

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Telephone outreach intervention

RR= 4.4 (95% CI=2.6-7.7)

Percent screened

Intervention: 27.0
control: 6.1

Patients, setting: Majority Black population (N=153/266) in NYC urban setting.

Design: RCT

Intervention:
Arm 1 (intervention): Tailored telephone outreach
Arm 2 (control): mailed printed materials

Outcome: completion of 3 FOBT, sigmoidoscopy, colonoscopy, or a barium enema in 6 months.

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Patient navigation intervention

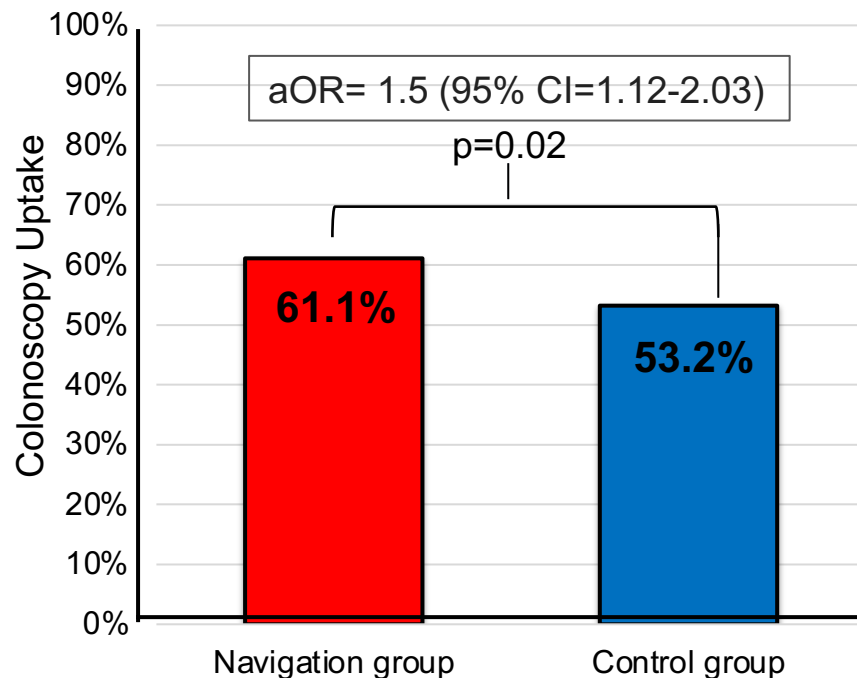**Patients, setting:** Low-income Blacks and Latinos age 50-75 years (N=843); One large medical center.

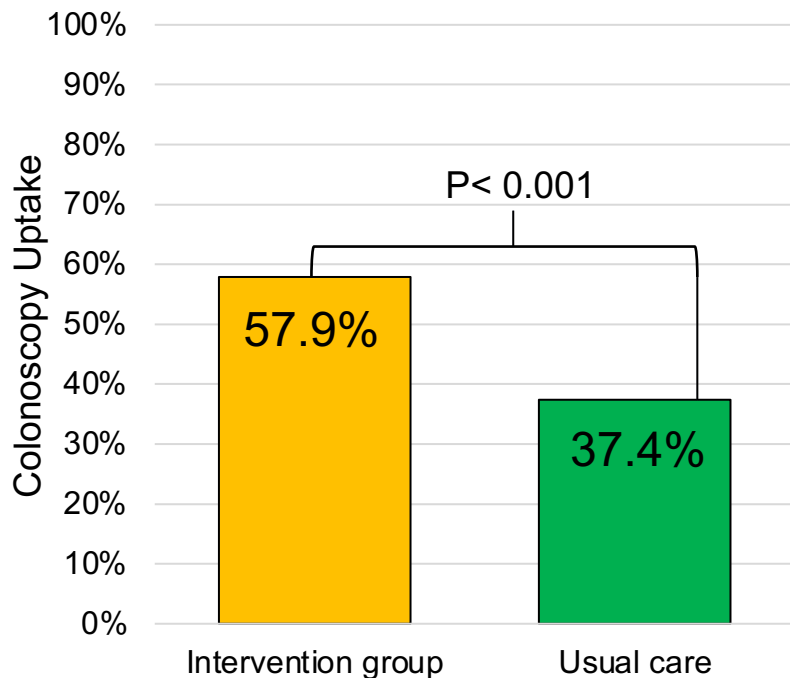**Design:** RCT.

Intervention
   Arm 1: Telephone-delivered individualized education by two bilingual navigators.
   Arm 2: Usual care

Outcome: Colonoscopy completion within 6 months

aOR= 1.5 (95% CI=1.12-2.03)

p=0.02

Colonoscopy Uptake

61.1% — Navigation group

53.2% — Control group

Mailed FIT intervention

Patients, setting: Safety-net system (8 clinics); Majority Black and Latino patients age 50-75 years. N=10,820.
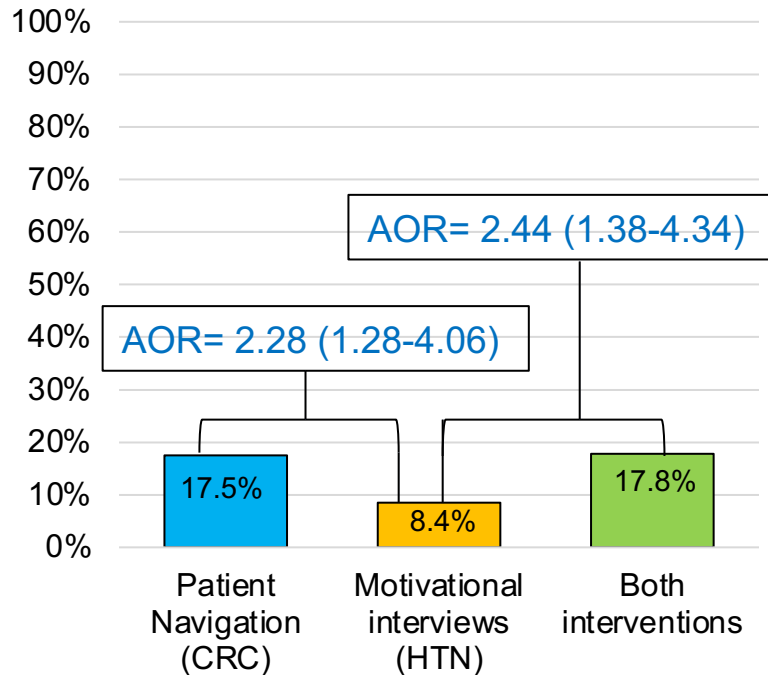
Design: Cluster randomized trial

Intervention
Arm 1: Mailed postcard + telephone call + mailed FIT kit + Reminder call
Arm 2: Usual care

Outcome: Screening participation at 1 year

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Patient Navigation in non-clinical settings (Barbershop studies)

Patients, setting: Black males (N=731) age > 50 recruited in barbershops between 2010 and 2013.

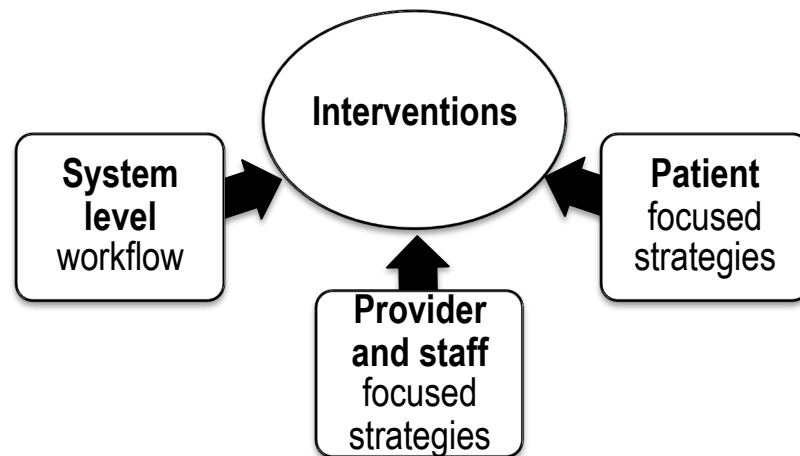**Design:** 3-arm randomized trial.

Intervention arms:
1) Patient navigation for CRC,
2) motivational interviewing for HTN,
3) both.

Outcome: CRC screening completion at 6 months.
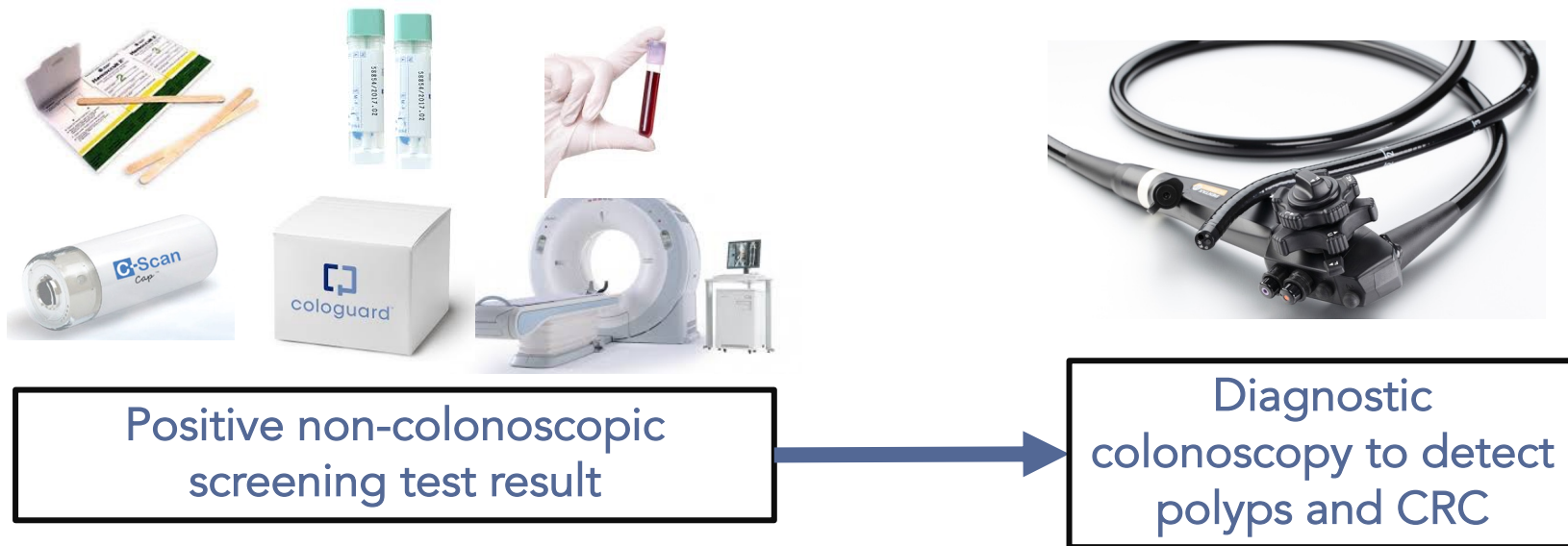
Chart data:
- Patient Navigation (CRC): 17.5%
- Motivational interviews (HTN): 8.4%
- Both interventions: 17.8%
- AOR= 2.28 (1.28-4.06)
- AOR= 2.44 (1.38-4.34)

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Cole H, Ravenell J et al. AJPH. 2017.

Features of optimal interventions

- Multi-level, multicomponent interventions (patient, provider, system, policy)

- Dissemination in community settings

- Culturally tailored navigation approaches by telephone or in-person

- Patient and stakeholder engagement

Interventions

System level workflow

Patient focused strategies

Provider and staff focused strategies

Emphasis on "Two-Step" Process

Positive non-colonoscopic screening test result → Diagnostic colonoscopy to detect polyps and CRC

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Priority research areas

- Role and effectiveness of tailored messaging to encourage screening among individuals from underserved groups age 45-49

- Evidence-based strategies to assure completion of stool-based tests annually

- Strategies to maximize follow-up after abnormal non-colonoscopic screening (policy, insurance coverage)

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Summary

- Colorectal cancer (CRC) screening remains underutilized among medically underserved populations.

- Barriers to screening among medically underserved individuals include patient, provider, system, and policy-level factors.

- Implementing evidence-based interventions to encourage uptake of CRC screening will be essential to achieve 80% of the population screened age 45-75.

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Discussion

RALLY on RESEARCH
EARLY-AGE ONSET CRC
JUNE 24-25, 2021 | fightcrc.org/rallyonresearch

FIGHT

COLORECTAL CANCER