

Session Eight

**Panel
Innovations, Successes, and
Future Work to Increase
Timely Colonoscopy Follow-
Up to Positive (Abnormal)
Non-Colonoscopy Tests**

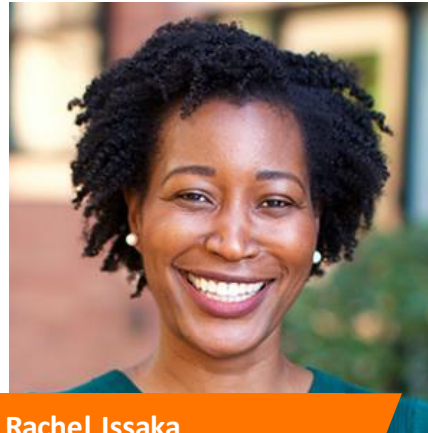


9:20 AM to 10:30 AM

Panel – Innovations, Successes, and Future Work to Increase Timely Colonoscopy Follow-Up to Positive (Abnormal) Non-Colonoscopy Tests



Moderator
Laura Makaroff
DO



Rachel Issaka
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Barriers, Interventions, & Innovations for Follow-Up Colonoscopy Completion

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Associate Professor and Director, Colorectal Cancer Screening Program
Fred Hutchinson Cancer Center and University of Washington School of Medicine



Barriers, Interventions & Innovations for Follow-up Colonoscopy Completion

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Associate Professor

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Director, Population Health Colorectal Cancer Screening Program

Fred Hutchinson Cancer Center & University of Washington

November 16, 2023

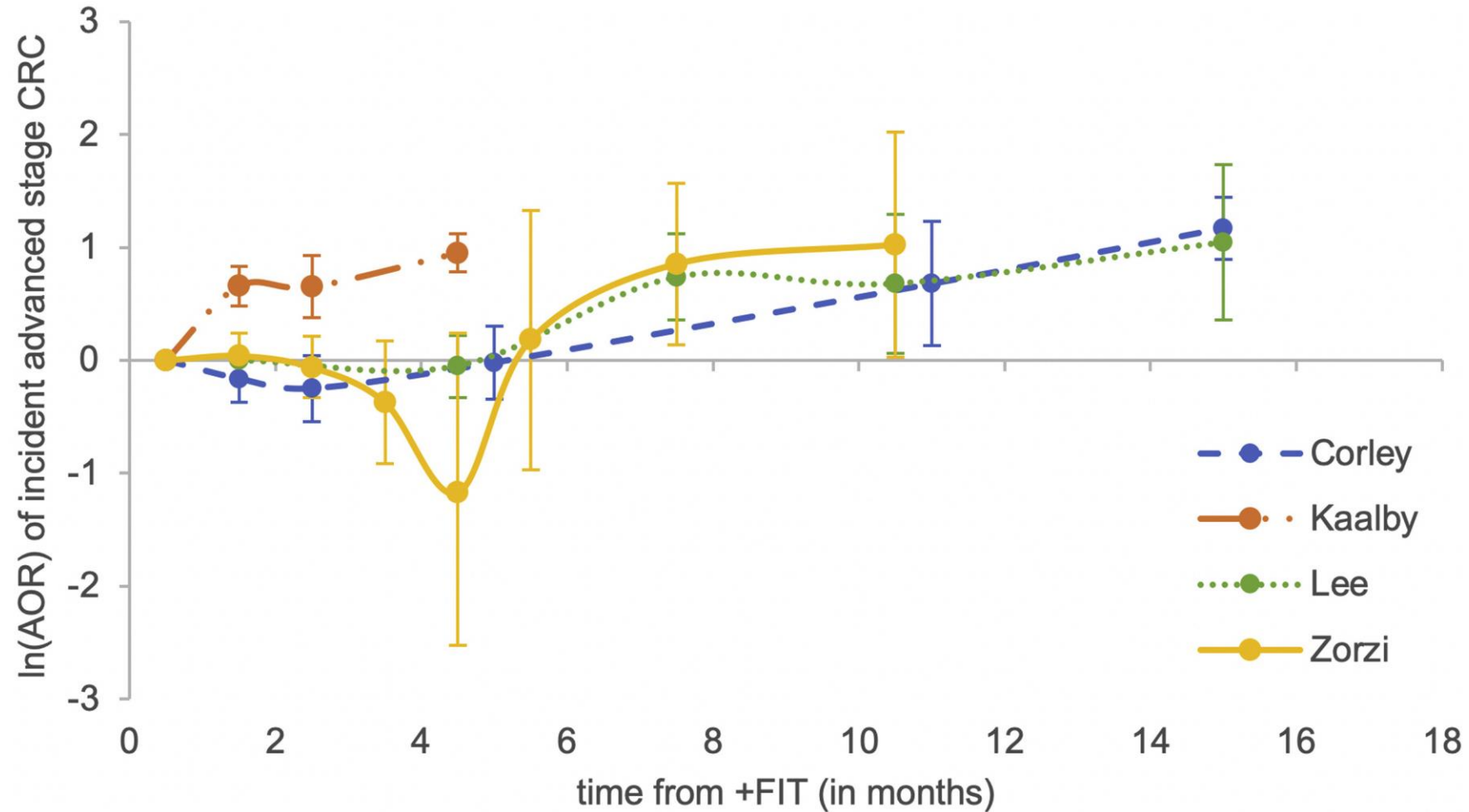
UW Medicine

Financial Disclosures

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Fred Hutchinson Cancer Center

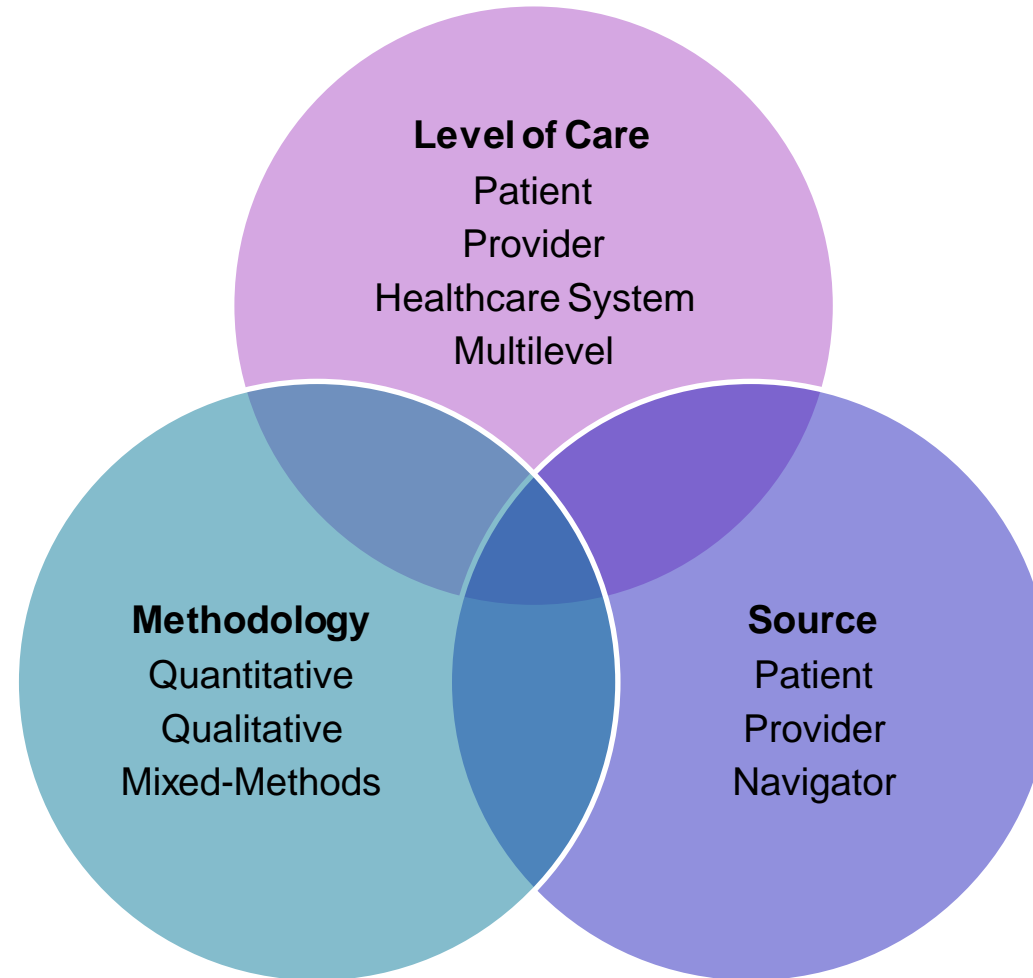
Consultant: Guardant Health, Inc.

Follow-up beyond 9 months associated with more stage III/IV CRC



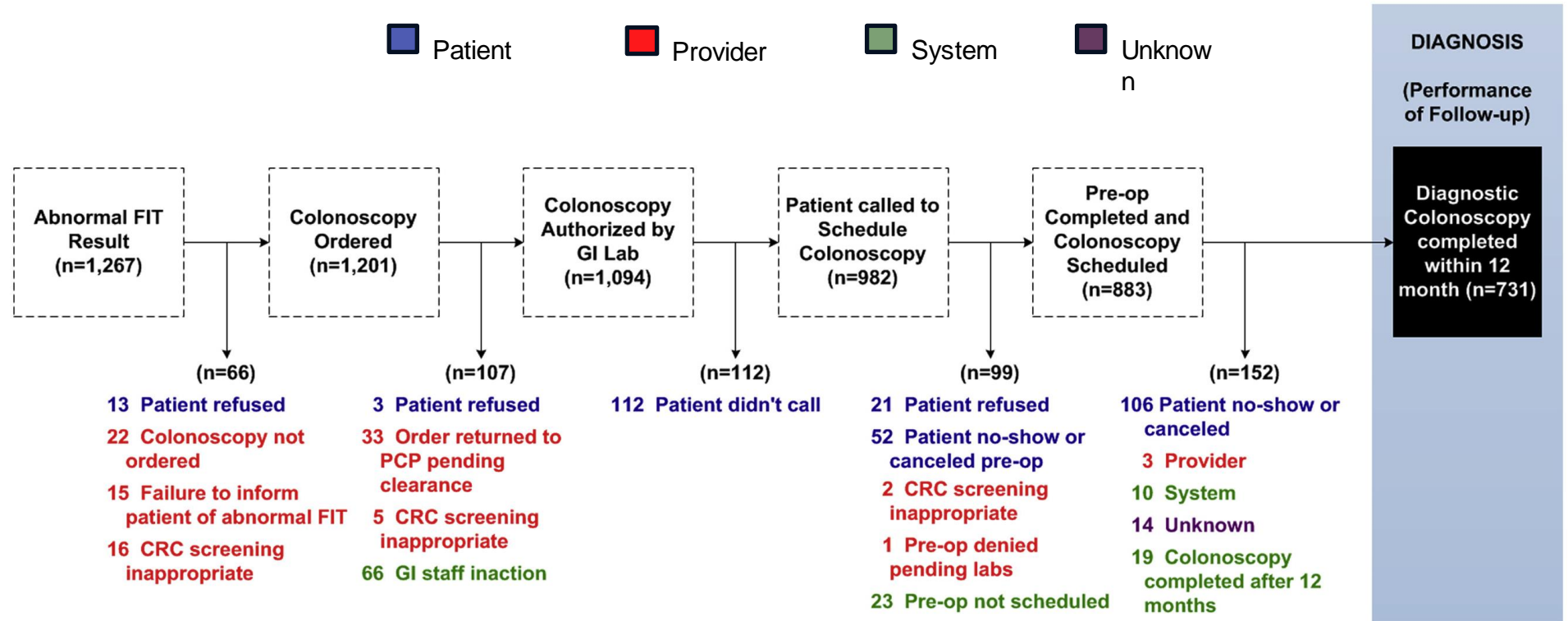
Barriers to follow-up colonoscopy completion

Multiple perspectives are needed to assess barriers to follow-up



Patient-level barriers are most prevalent in health records

In a safety-net health system, barriers to follow-up were: patient-related (57%), system-related (22%), and provider-related (18%)



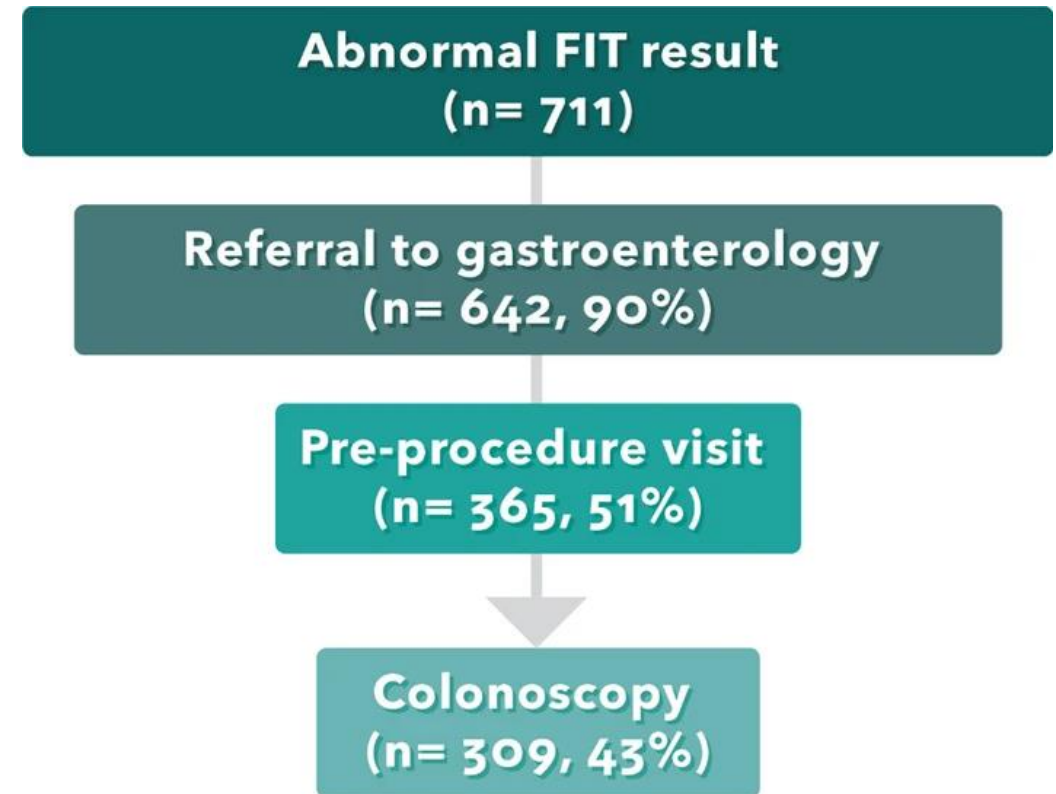
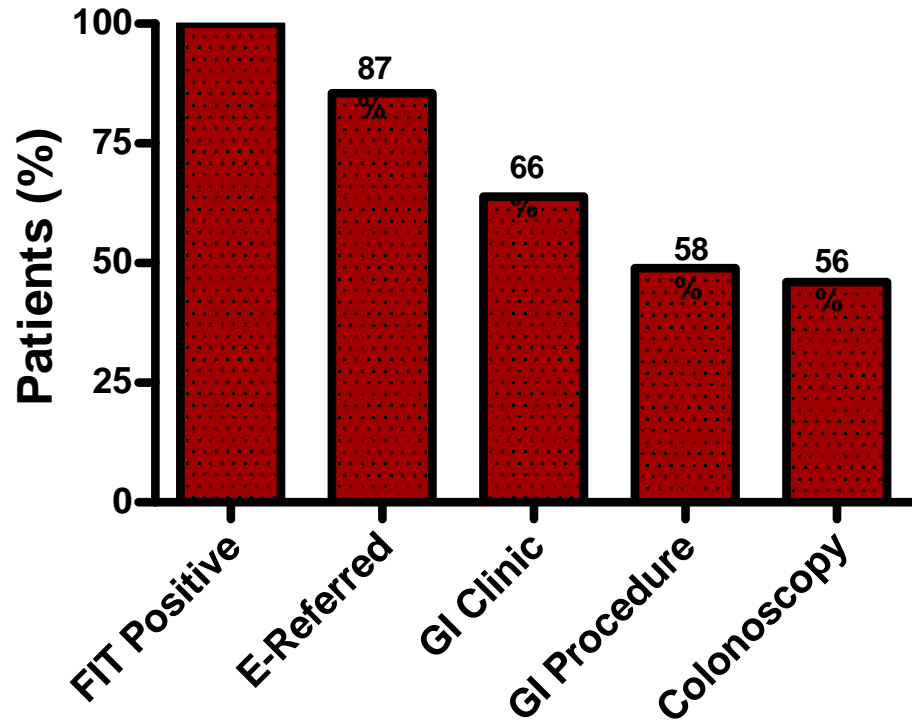
Provider-level barriers may differ by type of stool-based test

Providers were more likely to attribute an abnormal result to another cause when it was a FIT vs. a mt-sDNA-FIT

Provider-Level Barrier	FIT (n=164)	mt-sDNA (n=92)
Attributed to false positive	3 (1.8)	0 (0.0)
Failure to inform patient	0 (0.0)	7 (7.6)
Attributed to other reasons	39 (23.8)	1 (1.1)
Recent colonoscopy done	24 (14.6)	1 (1.1)
Other health issue to prioritize	8 (4.9)	11 (12.0)
Total	95 (57.9%)	40 (43.5%)

System-level multi-step scheduling contributes to poor follow-up

In two safety-net systems, lack of referral and missed pre-procedure appointments were the most common barriers to follow-up

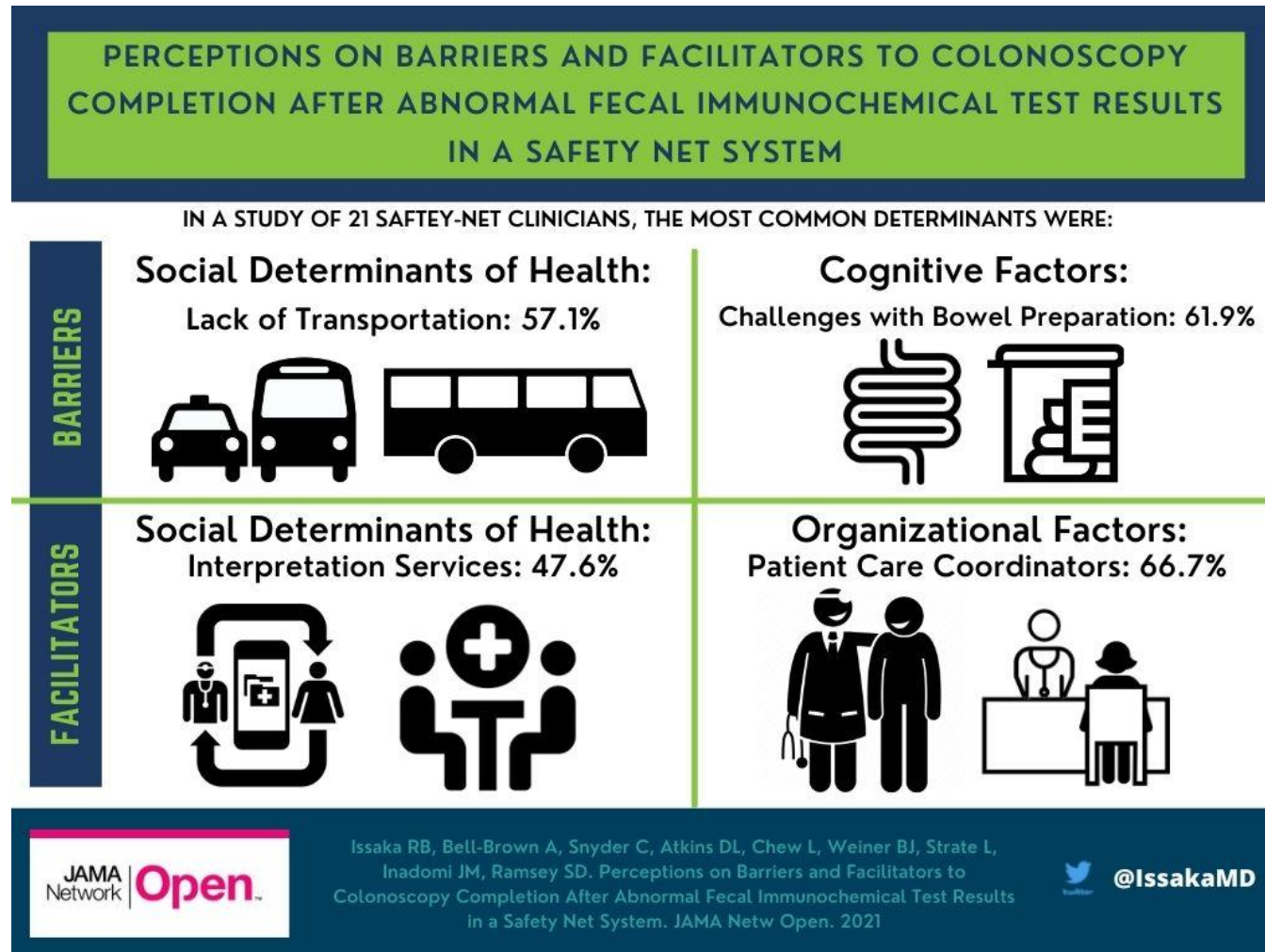


Patient-identified barriers might differ across language groups

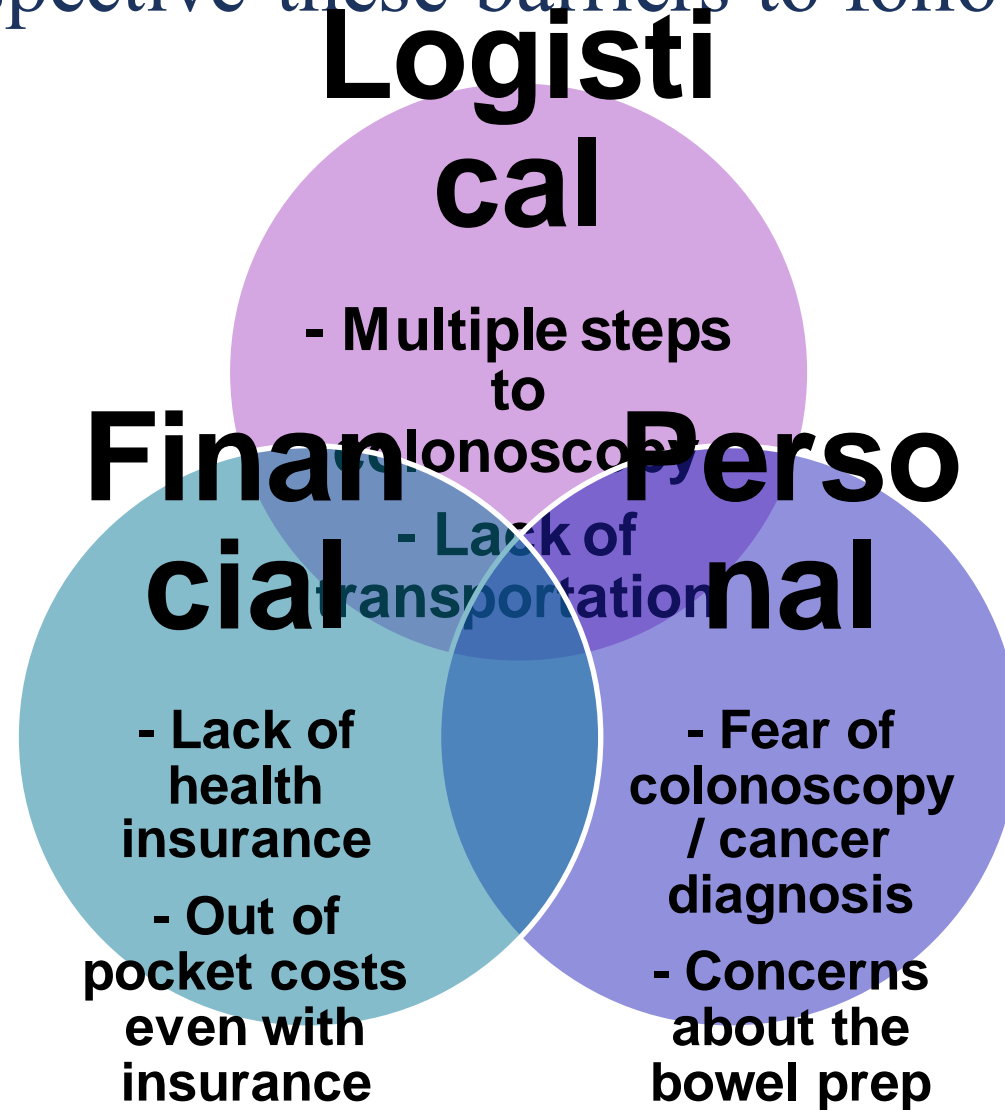
In telephone interviews with patients in community clinics, fear of the colonoscopy was the most common barrier to follow-up

Language Group	Common Barriers
Both (N=32)	Fear and anxiety about the colonoscopy procedure - 34% (11/32) Lack of assistance in scheduling appointment - 25% (8/32)
Spanish Speakers (N=16)	Cost or lack of insurance - 38% (6/16) Lack of concrete information and description about the procedure - 31% (5/16)
English Speakers (N=16)	Lack of reliable transportation - 63% (10/16)

Providers identified lack of transportation and bowel prep issues



Regardless of perspective these barriers to follow-up persist



Interventions for follow-up colonoscopy completion

Best evidence to date supports navigation to colonoscopy

Summary of studies conducted by intervention type and research category

	Randomized	Non-Randomized	Other
Patient Level			
Change to invitation strategy	0	2	0
Providing test results or follow-up appointments	3	0	3
Patient navigator	2*	0	3
Provider Level			
Provider reminders & performance data	0	0	5
System Level			
Automated GI referral	0	0	2
Replace pre-colo visit with phone call	0	0	1
Test-positive registry	0	0	1
Multicomponent quality improvement efforts	0	0	4#

* Research studies included symptomatic patients and flexible sigmoidoscopy follow-up

Difficulty disaggregating effects of individual interventions for a clear recommendation

Innovations for follow-up colonoscopy completion

Background

- Using mixed-methods, we identified **lack of transportation and/or chaperone** were important barriers to follow-up
- **Hypothesis:** Rideshare non-emergency medical transportation (NEMT) platforms are a potentially scalable and cost-effective strategy to increase colonoscopy completion
 - Aim 1:** Identify barriers, facilitators, and process recommendations to implement a rideshare NEMT for patients receiving procedural sedation in a safety-net system
 - Aim 2:** Pilot a rideshare NEMT in a safety-net population requiring colonoscopy for CRC screening

Operationalizing rideshare for colonoscopy completion

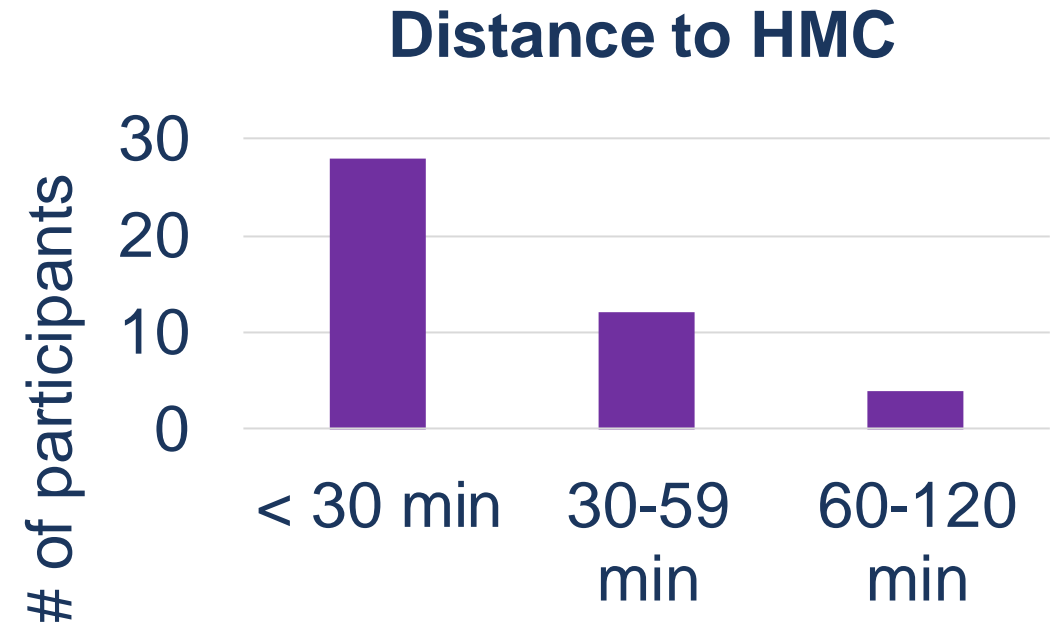
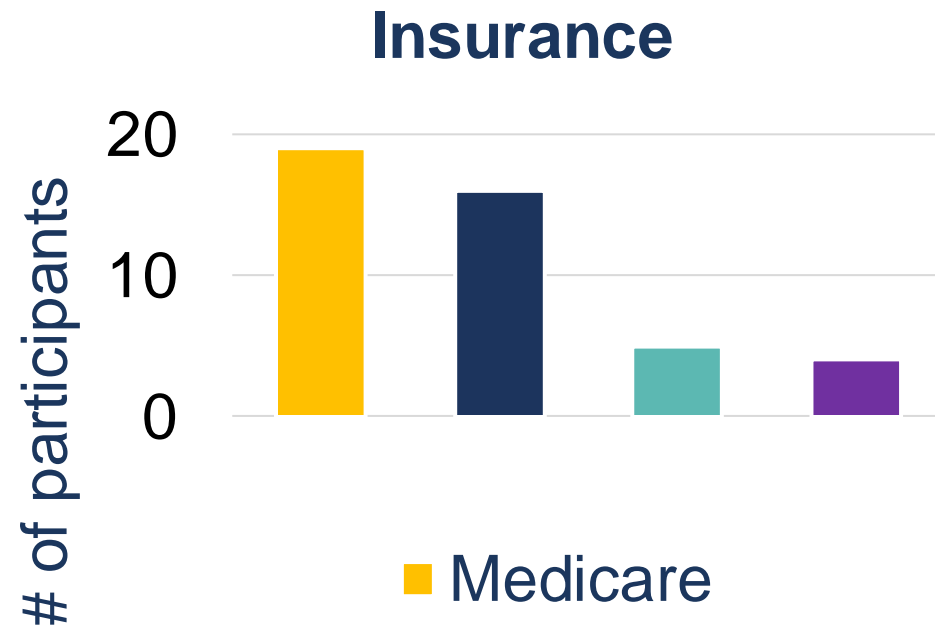
Informal stakeholder engagement meetings

- Aug 2020 - Aug 2021
- 22 data collection points from 34 individuals
- Storyboards to engage stakeholders
- Nominal group technique with 5 stakeholders to finalize the rideshare NEMT workflow

Stakeholders				
Patient(s)	Chief of Anesthesia	Endoscopy Business Operations Supervisor	Risk Management & Compliance	Health System Contracting
Primary Care & Ambulatory Care Medical Directors	Chief of Nursing	Patient Care Coordinators	Infection Prevention	Rideshare Healthcare Senior Manager
Gastroenterology Medical Director	Procedural Unit Nurse Manager	Endoscopy Nurses	Social Work	Rideshare Contracting
State Healthcare Authority	Managers of Healthcare System Transportation Vendors			

Rideshare pilot program – quantitative results

- As of 10/23/23, **44** patients have consented to the study and **39** rides have been completed
 - Majority are men (75%) and primarily speak English (89%)
 - 50% self-identify as White, 18% Black, 14% Asian, 5% AI/AN and 2% as multi-racial
 - 18% self-identify as Hispanic or Latinx



Rideshare pilot program – quantitative results

To date, **44** patients have consented to the study and **39** rides have been completed

- The average cost of ride is **\$23.84**
(range \$9.99-\$54.49)
- The average distance of ride is **3.98 miles** (range 0.19-13.80)
- The average length of ride is **13.81 mins**
(range 2.98-28.57)



Rideshare pilot program – qualitative results

All 39 patients got to their destination safely and in post-ride interviews (n=36 to date) said they would use the service again and recommend to others getting procedural sedation



Key barriers that the program addresses include:

Access to procedure: patients noted they would have to reschedule or cancel without this option

Autonomy: not having to rely on an escort allowed for autonomy in attending to health needs

“I just feel like there’s a lot of need for people who are ... low income and ..., have disabilities and stuff just to be able to rely on this more ...the option would be to not have the procedure ..., that’s not a really good ...that’s not ideal.”
- Participant

“Well, I would like to thank you because everything went smoothly with no problem at all and I got home safe and sound. Great service!” - Participant

Conclusions

- Follow-up colonoscopy is typically between **50%-60%**, although there are outliers
- Failure to complete a follow-up colonoscopy is associated with increased **CRC incidence, later stage CRC and CRC-mortality**
- There are **barriers at multiple levels of care** – most consistent ones appear to be logistical, financial and personal
- **Interventions to date are sparse** especially in safety-net settings and often focus on a single-level of care
- **Innovative multilevel interventions are needed** to address multiple barriers to care and to move the needle for this persistent challenge

Acknowledgments

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- UW Medicine

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- Richard Kincade, MD, MSHA
- Susan Onstad
- Martine Pierre-Lewis, MPH
- Joycelyn Thomas, DNP, ARNP

Harborview Medical Center

- EthnoMed
- GI nurses and care coordinators
- Interpreter services

Community Partners

- BLKHLTH
- Colon Cancer Stars
- Colorectal Cancer Alliance
- Fight Colorectal Cancer
- Marvin Williams Recreation Center
- New Beginnings Christian Fellowship
- Public Health Seattle & King County
- Urban League of Metropolitan Seattle

Fred Hutch Office of Community Outreach & Engagement

And many others!



Thank You



Pop Health CRC
Program

Contact Us!
crcscreening@fredhutch.org

UW Medicine



Thank You

nccrt.org @NCCRTnews #80inEveryCommunity

ASGE Colorectal Cancer Screening Project: “Closing the Gaps Along the Screening Continuum”

Jason Dominitz, MD, MHS

Executive Director, National Gastroenterology and Hepatology Program

Director, National Colorectal Cancer Screening Program

Staff Physician, VA Puget Sound Health Care System; Veterans Health Administration

Professor of Medicine, University of Washington School of Medicine



American Society for
Gastrointestinal Endoscopy

**ASGE Colorectal Cancer Screening Project
“Closing the Gaps Along the Screening Continuum”**

Jason A. Dominitz, MD, MHS

**ACS NCCRT Annual Meeting
November 16, 2023**

About ASGE

ASGE has nearly 16,000 members around the world, including gastroenterologists and allied health care professionals

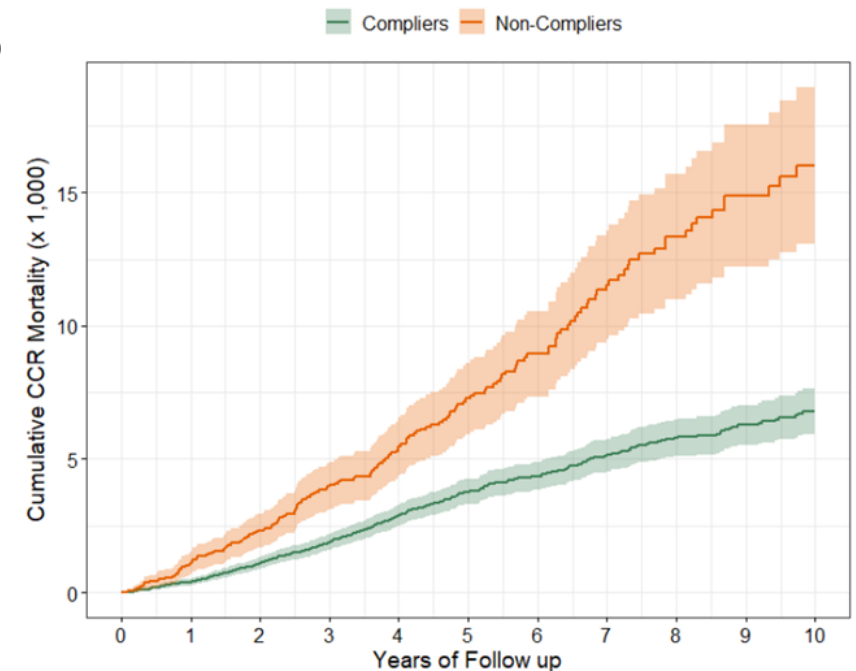
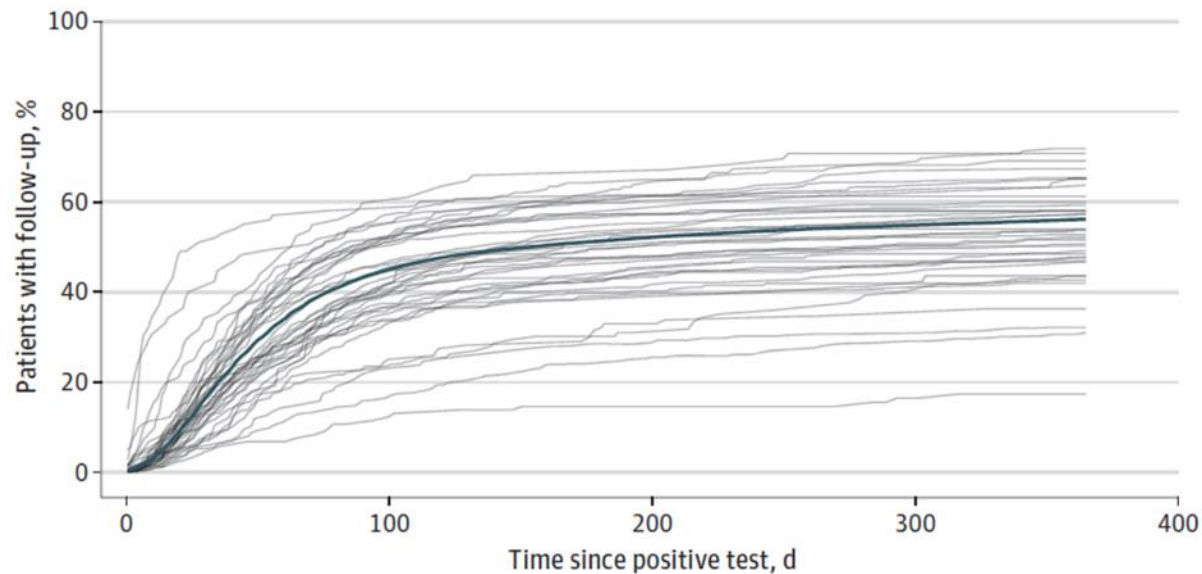
ASGE's mission is to advance patient care and digestive health by promoting excellence and innovation in gastrointestinal endoscopy

Go to [ASGE.org](https://www.asge.org) for additional information

ASGE CRC Screening Project


The Problem

Overall CRC screening rates in the U.S. have increased in the last 10 years, but the follow-up colonoscopy rate for uninsured & underinsured patients who have a positive stool-based test remains unacceptably low – just 50-70%



ASGE CRC Screening Project

The Solution (Project's Goals)



Develop a financially sustainable model to ensure that uninsured/underinsured patients who have an abnormal a stool-based CRC screening test get a timely follow-up colonoscopy

Develop a roadmap to help patients navigate the CRC care process from beginning to end – including screening, follow-up and treatment (if applicable)

Fund developmental programs in Georgia and Maryland that have education, navigation and outreach components

Educate lawmakers on the need for funding for timely follow-up colonoscopies

ASGE CRC Screening Project

Key Outcomes & Deliverables

- Increase CRC screening in underserved communities
- Reduce the time interval from abnormal stool test to colonoscopy
- Gain a better understanding of the barriers along screening continuum
- Use metrics to demonstrate how to develop sustainable programs
- Develop a “playbook” that can be used to institute programs across U.S.
- Develop prototype legislation for sustainable funding

ASGE CRC Screening Project

Phase One (2023): Building the Foundation

Identify primary sites/FQHCs in Georgia and Maryland

Educate legislators in Georgia and Maryland (e.g., hosting summits in Georgia on June 27 and Maryland on July 13)

Develop partnerships with hospital-based or private practice GIs to provide timely follow-up colonoscopy

Develop a communications process for participating patient navigators, primary care providers, patients, GIs & primary care clinics

Finalize the project metrics

ASGE CRC Screening Project

Primary Site/FQHC Selection Criteria

- Established CRC screening program
- Proven track record of working with uninsured/underinsured
- Serve high need demographics (i.e., project's target population)
- Provide full continuum of care after colonoscopy (e.g., charity care or emergency Medicaid)
- Ability to work with hospital-based or private practice gastroenterologists to perform follow-up colonoscopies

ASGE CRC Screening Project

Phase I Accomplishments

- Hosted well-attended summits with key state legislators and other stakeholders in Georgia and Maryland in June & July
- In final stages of selecting primary sites/FQHCs in Georgia and Maryland
- Finalizing workflow process (e.g., data collection mechanism)
- Finalizing educational resources (e.g., workflow process overviews, patient communications, talking points for primary care clinics)
- Hosted high-profile national summit at ASGE on August 24

ASGE CRC Screening Project

National CRC Screening Summit

- Included nearly 50 leading physicians & stakeholders
- Featured presentations by leading subject matter experts addressing advocacy, research, innovation in screening, barriers, patient navigation & best practices
- Participants discussed best practices to increase CRC screening & timely follow-up colonoscopy for uninsured/underinsured
- Key outcomes expected to be highlighted in an ASGE journal article

ASGE CRC Screening Project

Examples of Summit's Key Takeaways

- Need for a quality metric to assess colonoscopy completion after abnormal stool tests
- Need to develop/solidify relationships between key stakeholders (e.g., GI groups, PCPs)
- Need to review specialty's nomenclature (e.g., “completion” vs. “diagnostic” or “follow-up” colonoscopy) to determine what resonates with PCPs & patients
- Need to minimize wait times & low conversion rates after an abnormal stool test
- Encourage Medicare & other insurers to provide patient navigation after abnormal test

ASGE CRC Screening Project Implementation (Phase II/2024)

- Community outreach
- Identify and screen 300 underinsured/uninsured patients in Georgia & Maryland (600 total) using FIT-DNA (Cologuard®) test
- Collect data (patient demographics, quantitative outcomes, patient follow-up colonoscopy, endoscopy outcomes & follow-up patient navigation)
- Cover costs associated with participants' care, including follow-up colonoscopy

ASGE CRC Screening Project Metrics

Patient Demographics (EMR)

- VID/MRN/Unique Identifier
- Date of Birth
- Sex at Birth & Gender
- Ethnicity & Race
- City, State & Zip
- Insurance Type
- Prior CRC Screening
- Primary Language
- Annual Household Income
- Education
- Whether Patient Has Permanent Address

Quantitative Outcomes

- Date FIT-DNA (Cologuard®) Ordered
- Date FIT-DNA (Cologuard®) Shipped
- Date FIT-DNA (Cologuard®) Processed
- FIT-DNA (Cologuard®) Result
- Date of Result Notification
- PCP Follow-Up Colonoscopy Recommendation

ASGE CRC Screening Project Metrics

Patient Follow-Up Colonoscopy Data

- Date of Follow-Up Colonoscopy Referral
- Date of Colonoscopy
- Time To Colonoscopy
- Pathology Outcome

Endoscopy Outcomes (from GI)

- Bowel Prep Quality
- Cecum Reached
- Withdrawal Time

Follow-Up Patient Navigation

- Patient Contact Dates
- Patient Contact Success Rates
- Patient Contact Types (e.g., call, text, etc.)
- Patient Contact/Outreach Notes
- Patient Transportation Needs (e.g., Lyft)
- Patient Cologuard & Colonoscopy Comprehension
- Reason(s) Follow-Up Not Completed
- Other Patient Notes & Barriers (e.g., language, no chaperone, etc.)

ASGE CRC Screening Project Analysis, Playbook & Implementation (Phase III/2025)

- Complete data analysis
- Advocate for state funding in Georgia & Maryland to ensure that people who have a positive stool-based test who don't qualify for public assistance or Medicaid have access to a timely follow-up colonoscopy
- Develop a “playbook” that other states can use to develop solutions
- Host a national summit & organize a DDW symposium to review and evaluate project outcomes
- Fund a strategic communications program (social media, earned media, advertising) to promote the project's key findings and encourage other states to adopt comparable policies

ASGE CRC Screening Project Advisory Council



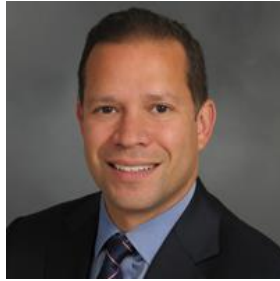
Jennifer Christie, MD, FASGE, The University of Colorado (Chair)



Tonya Adams, MD, Gastro Health-Virginia Division



Iman Boston, MD, MBA, University of Arkansas for Medical Sciences



Juan Carlos Bucobo, MD, FASGE, Northwell Health



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Jason Dominitz, MD, MHS, MASGE, National GI & Hepatology Program VA Administration



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Colleen Schmitt, MD, MHS, MASGE, Galen Medical Group



Edward Sun, MD, MBA, FASGE, Peconic Bay Medical Center, Northwell Health



Javelle Wynter, MD, Columbia University Medical Center

Key Takeaways

- The follow-up colonoscopy rate for uninsured/underinsured patients who have a positive stool-based test is unacceptably low.
- ASGE believes this project can save lives.
- Monitor ASGE & NCCRT communications for updates.
- We welcome and value your suggestions & perspectives.



Thank You

nccrt.org @NCCRTnews #80inEveryCommunity

Real World Measure Testing and Strategies on Follow-up After Abnormal Stool-Based CRC Screening: Insights from 20 U.S. Health Systems

Elizabeth Ciemins, PhD, MPH, MA
Senior Vice President, Research & Analytics
American Medical Group Association



Colonoscopy Follow Up: Rates, Predictors, Measurement, & Learning Collaborative Insights

Elizabeth L. Ciemins, PhD, MPH, MA, Senior Vice President, Research & Analytics

National Colorectal Cancer Roundtable Annual Meeting, Houston, TX
November 16, 2023

Presentation Outline

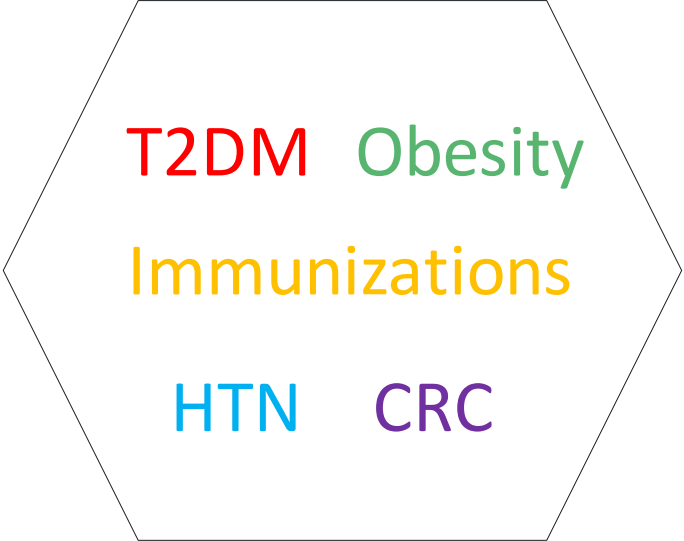


- AMGA and Research and analytics department overview
- CRC follow-up rates retrospective observational study & qualitative insights
- New quality performance measure development
- AMGA's CRC Screening Best Practices Learning Collaborative

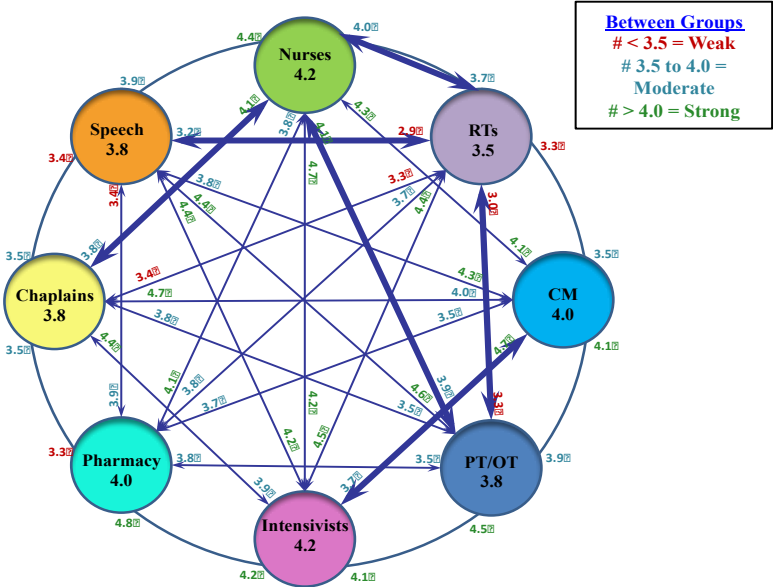
AMGA: What we do



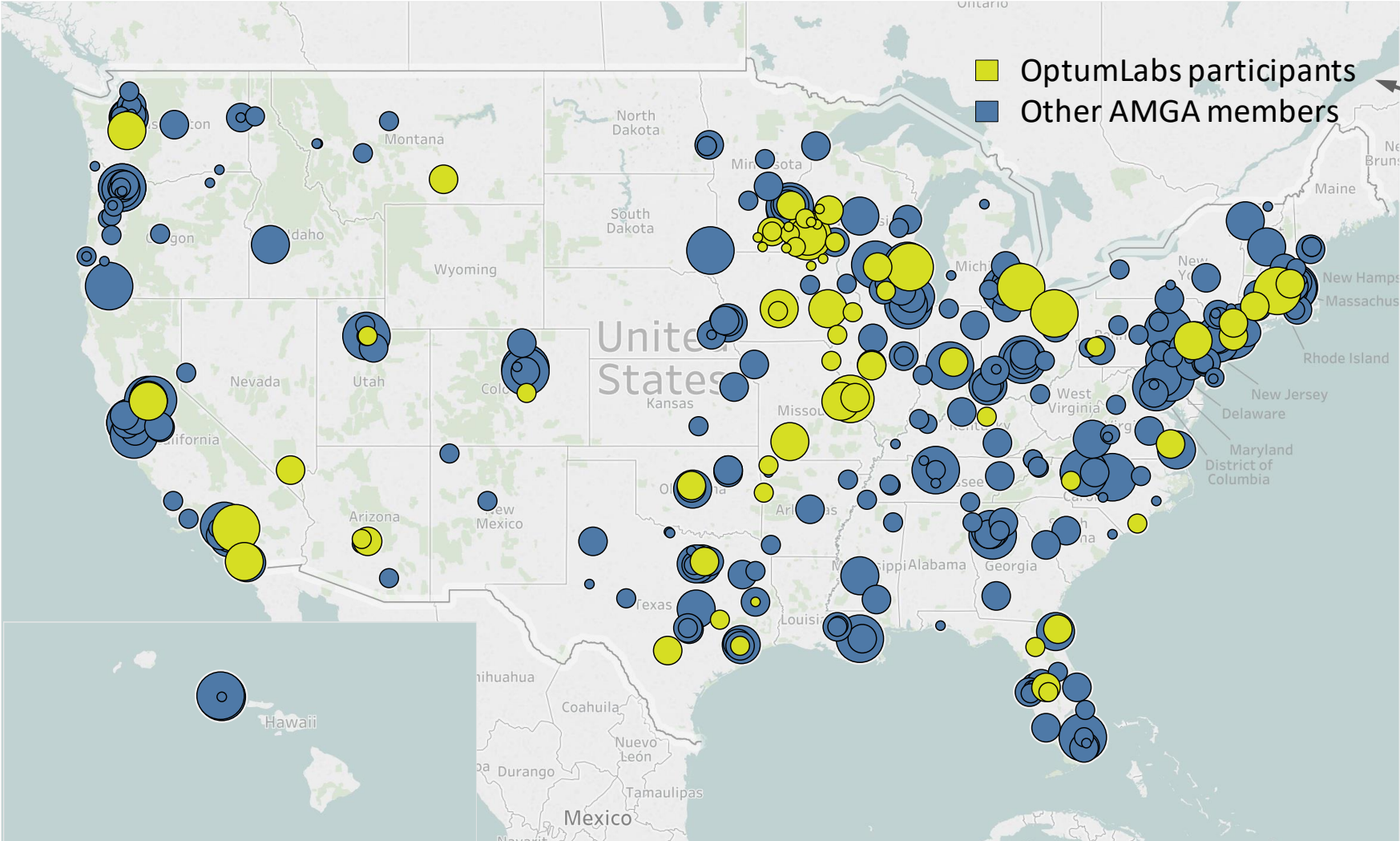
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AMGA Membership: Where we are



■ OptumLabs participants
■ Other AMGA members

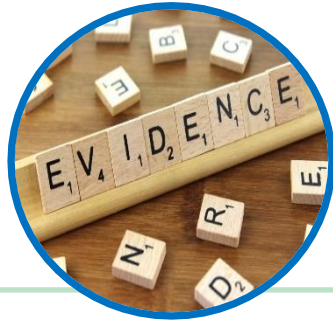
15% of AMGA members
25% of patients

Representative AMGA Members



AMGA Research:

Leveraging Evidence to Advance Practice



Integrating Evidence

Studying methods for integrating evidence-based practice into routine health care



Fostering Innovation

Discovering innovations originating in clinics that are responding to real-world challenges



Driving Change

Uncovering hidden meanings in data and the reasons driving behavior and process changes

More information at: research@amga.org

<https://www.amga.org/performance-improvement/best-practices/research-analytics/>



AMGA Research & Analytics

Mixed Methods Study



Original Investigation | Oncology

Rates of Follow-up Colonoscopy After a Positive Stool-Based Screening Test Result for Colorectal Cancer Among Health Care Organizations in the US, 2017-2020

Jeff T. Mohl, PhD; Elizabeth L. Ciemins, PhD, MPH, MA; Lesley-Ann Miller-Wilson, PhD, MS, MBA; Abbie Gillen, BS; Roger Luo, PhD; Francis Colangelo, MD

Abstract

IMPORTANCE Noninvasive stool-based screening tests (SBTs) are effective alternatives to colonoscopy. However, a positive SBT result requires timely follow-up colonoscopy (FU-CY) to complete the colorectal cancer screening paradigm.

OBJECTIVES To evaluate FU-CY rates after a positive SBT result and to assess the association of the early COVID-19 pandemic with FU-CY rates.

DESIGN, SETTING, AND PARTICIPANTS This mixed-methods cohort study included retrospective analysis of deidentified administrative claims and electronic health records data between June 1, 2015, and June 30, 2021, from the Optum Labs Data Warehouse and qualitative, semistructured interviews with clinicians from 5 health care organizations (HCOs). The study population included data from average-risk primary care patients aged 50 to 75 years with a positive SBT result between January 1, 2017, and June 30, 2020, at 39 HCOs.

MAIN OUTCOMES AND MEASURES The primary outcome was the FU-CY rate within 1 year of a positive SBT result according to patient age, sex, race, ethnicity, insurance type, Charlson Comorbidity Index (CCI), and prior SBT use.

RESULTS This cohort study included 32 769 individuals (16 929 [51.7%] female; mean [SD] age, 63.1 [7.1] years; 2092 [6.4%] of Black and 28 832 [88.0%] of White race; and 825 [2.5%] of Hispanic ethnicity). The FU-CY rates were 43.3% within 90 days of the positive SBT result, 51.4% within 180 days, and 56.1% within 360 days (n = 32 769). In interviews, clinicians were uniformly surprised by the low FU-CY rates. Rates varied by race, ethnicity, insurance type, presence of comorbidities, and SBT used. In the Cox proportional hazards regression model, the strongest positive association was

Key Points

Question What are the overall rates of follow-up colonoscopy (FU-CY) after a positive stool-based test result, and what factors are associated with FU-CY rates, including the early COVID-19 pandemic?

Findings In this cohort study of 32 769 individuals from 39 different health care organizations, the overall FU-CY rate within 1 year of a positive stool-based test result was 56%. Race, ethnicity, insurance type, type of test (fecal immunochemical tests or multitarget stool DNA), health care organization, and the COVID-19 pandemic were significantly associated with these rates.

Meaning Targeted interventions to improve overall FU-CY rates and to cover the backlog of colonoscopies from the peak COVID-19 months (March to June 2020) are necessary to achieve the full clinical benefits from stool-based colorectal cancer screening tests.

Distinguished Co-authors:

Jeff Mohl, PhD

Lesley-Ann Miller-Wilson, PhD

Abbie Gillen, BS

Roger Luo, PhD

Francis Colangelo, MD

Mohl J, Ciemins EL, Miller-Wilson LA, Gillen A, Luo R, Colangelo F. JAMA Netw Open, 2023 Jan 3;6(1).

Research Question



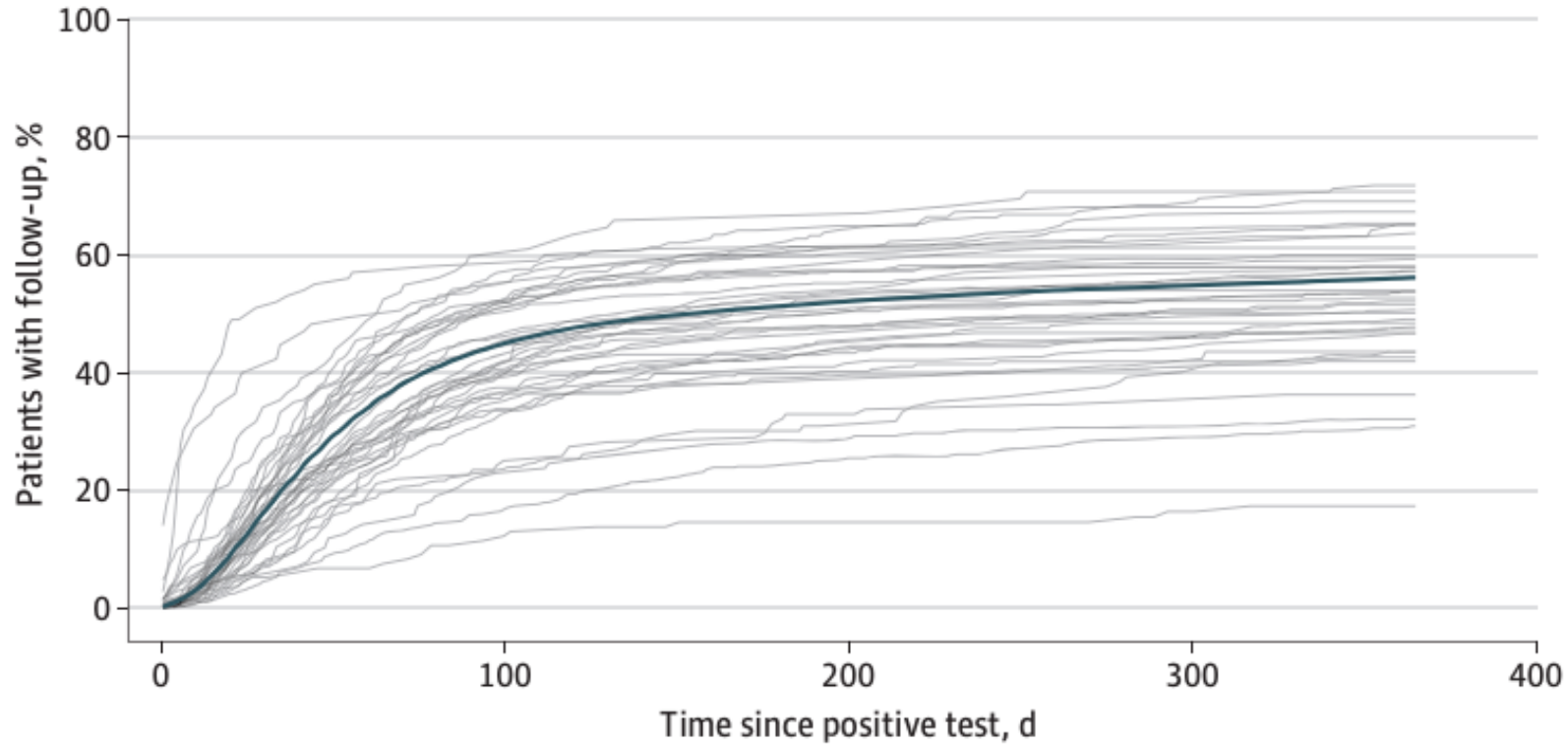
What are the overall rates of follow-up colonoscopy after an abnormal or positive stool-based test result, and what factors are associated with follow-up colonoscopy (CY) rates, including the early COVID-19 pandemic?



AMGA Research & Analytics

Time to follow-up

Figure 2. Time-to-Event Curves for Follow-up Colonoscopy

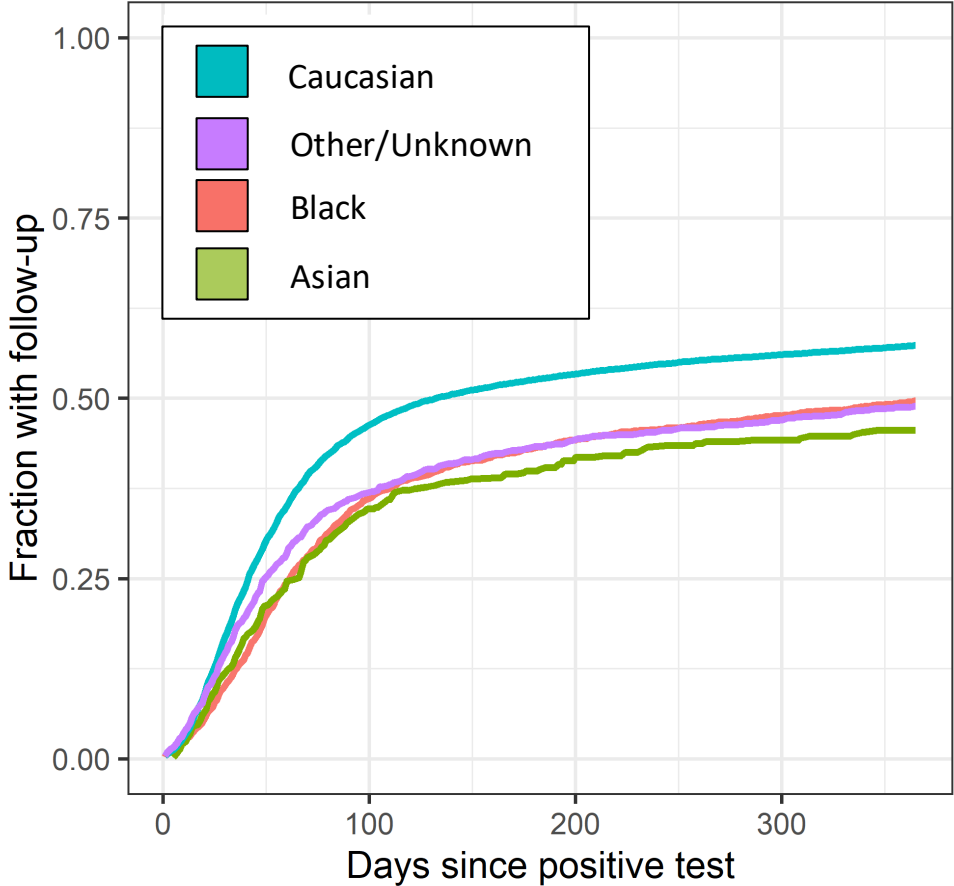


No. at risk (No. censored)	Day 0	Day 90	Day 180	Day 360
	32 769 (0)	18 560 (166)	15 159 (879)	12 284 (2331)

- 56.1% FU within 360d
- 51.4% FU within 180d
- 43.2% FU within 90d

Mohl J, Ciemins EL, Miller-Wilson LA, et al. JAMA Netw Open, 2023 Jan.

Time to follow-up CY, by race*



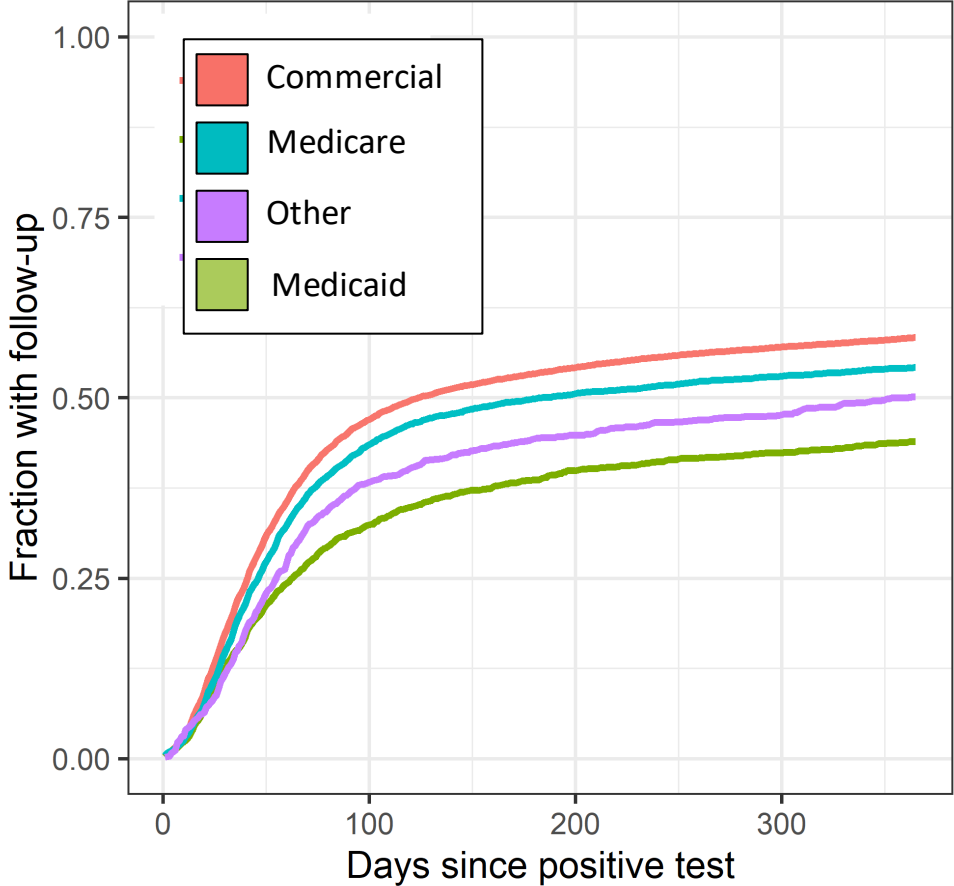
Follow up rates were significantly lower for Black and Asian patients compared with White patients (p<0.05).

180d FU rates:

- White: 52.5%
- Other: 43.3%
- Black/AA: 42.9%
- Asian: 40.7%
- Average: 51.4%

*p<0.05, when adjusted for age group, sex, race, ethnicity, insurance type, smoking status, recent SBT, year, SBT type, and CCI

Time to follow-up by insurance type*



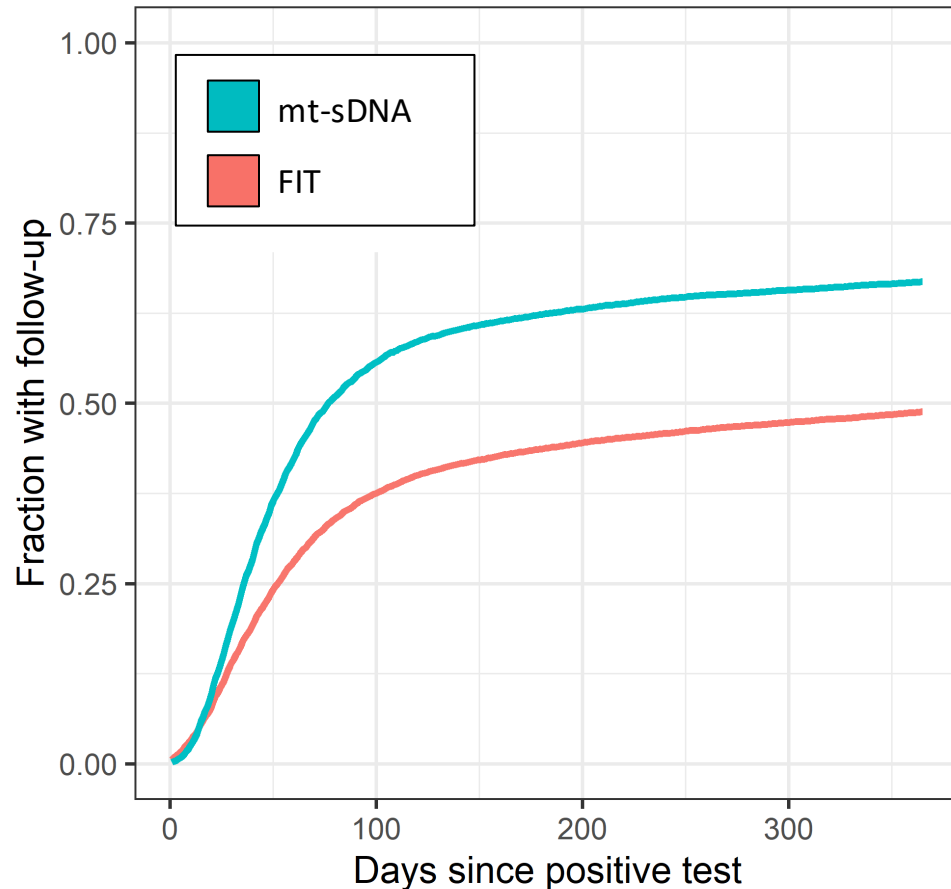
Follow up rates were significantly lower for patients with Medicare or Medicaid insurance compared with those with Commercial insurance (p<0.05).

180d FU rates:

- Commercial: 53.3%
- Medicare: 49.8%
- Other: 43.9%
- Medicaid: 38.6%
- Average: 51.4%

*p<0.05, when adjusted for age group, sex, race, ethnicity, insurance type, smoking status, recent SBT, year, SBT type, and CCI

Time to follow-up by screening test*



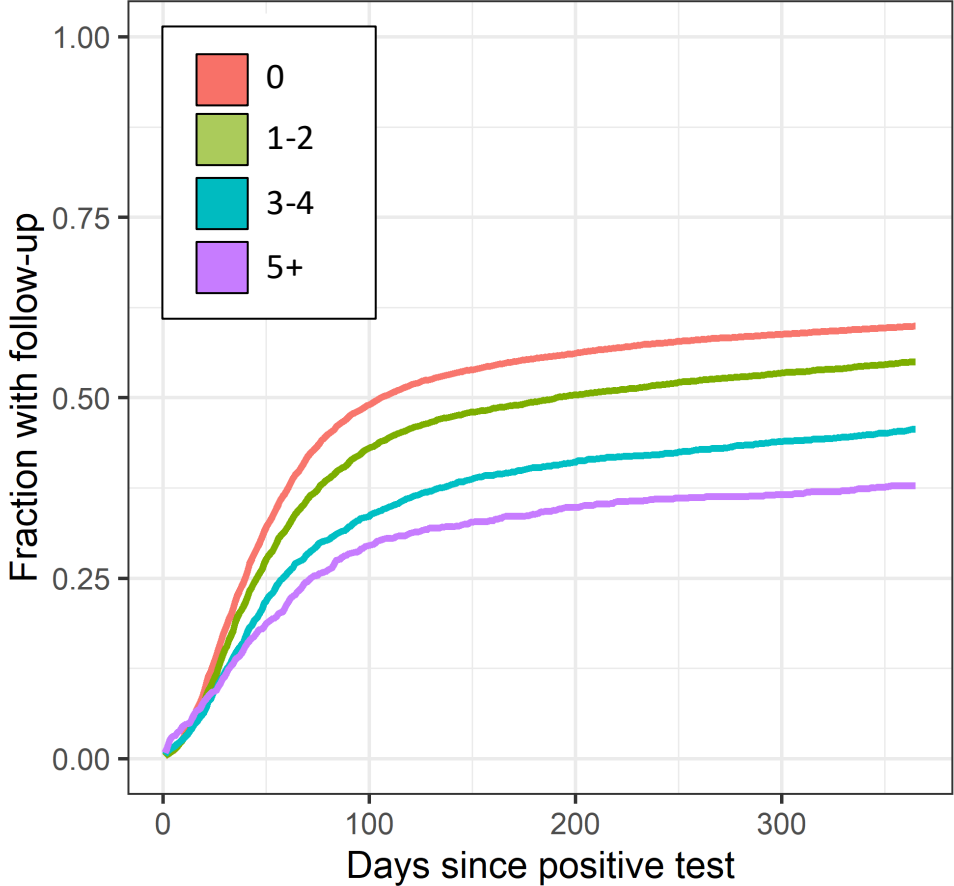
Follow up rates for those who initially used a mt-sDNA screening test were significantly higher than for those who used a FIT test ($p < 0.05$).

180d FU rates:

- mt-sDNA: 62.1%
- FIT: 43.7%
- Average: 51.4%

* $p < 0.05$, when adjusted for age group, sex, race, ethnicity, insurance type, smoking status, recent SBT, year, SBT type, and CCI

Time to follow-up by Charlson Comorbidity Index*



Follow up rates were significantly lower for patients with a higher mortality risk ($p < 0.05$).

180d FU rates:

- CCI = 0: 55.3%
- CCI = 1-2: 49.5%
- CCI = 3-4: 40.4%
- CCI = 5+: 34.4%
- Average: 51.4%

* $p < 0.05$, when adjusted for age group, sex, race, ethnicity, insurance type, smoking status, recent SBT, year, SBT type, and CCI



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Qualitative Insights

Qualitative Theme 1



Lack of knowledge about failure to follow-up

All providers expressed surprise at the low follow-up rates.

“Until we had this conversation, I assumed [the follow-up rate] was 100%.”

“I think sharing data is excellent, I wish we were doing more”

Qualitative Theme 2



Patient hesitancy around colonoscopy

Not all patients are willing to have a follow-up colonoscopy even after a positive/abnormal test.

- Discomfort with the colonoscopy preparation and procedure as a main concern of patients.
- Cost: follow-up colonoscopies after a SBT may be billed at a higher rate, or not covered (prior to 2021 change).

“Something as simple as the prep [for a colonoscopy] makes a big difference to patients. That’s the biggest thing that patients don’t want to go through”

Qualitative Theme 3



Trust and communication

- Potential need for follow-up is regularly discussed at the time of ordering stool-based tests. Discussions with patients are the biggest facilitator to completing follow-up.

“As a provider, they trust you and your recommendations”

Facilitators



Patient

Anticipatory guidance

Ease of referral

Provider/Clinic

Transparent reporting

Dedicated staff

System/IT

EHR integration

Coordinate with GI

Mixed Methods Study Summary



- More than half (51.4%) of individuals did not receive a follow-up colonoscopy within 6 months after a positive/abnormal stool-based test.
- Black or Asian race, Medicare or Medicaid, a FIT screening test (vs. mt-sDNA), and higher mortality risk were significantly associated with lower follow-up rates.
- After accounting for patient level factors, there remained significant variability in follow-up rates across health care organizations.
- Low provider awareness of FU-CY rates + lack of internal tracking – potentially due to lack of a quality performance measure.
- AMGA completed testing on a new quality measure – FU after positive SBT – publication in preparation.



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CRC Screening Follow-Up Measure

Measure Development Project



Objective: To develop and test a *Colorectal Cancer (CRC) Screening Follow-Up Measure* that measures the receipt of timely follow-up with a colonoscopy after a positive or abnormal stool-based screening test (fecal immunochemical test (FIT) or multitarget stool DNA test (mt-sDNA)) for colorectal cancer.

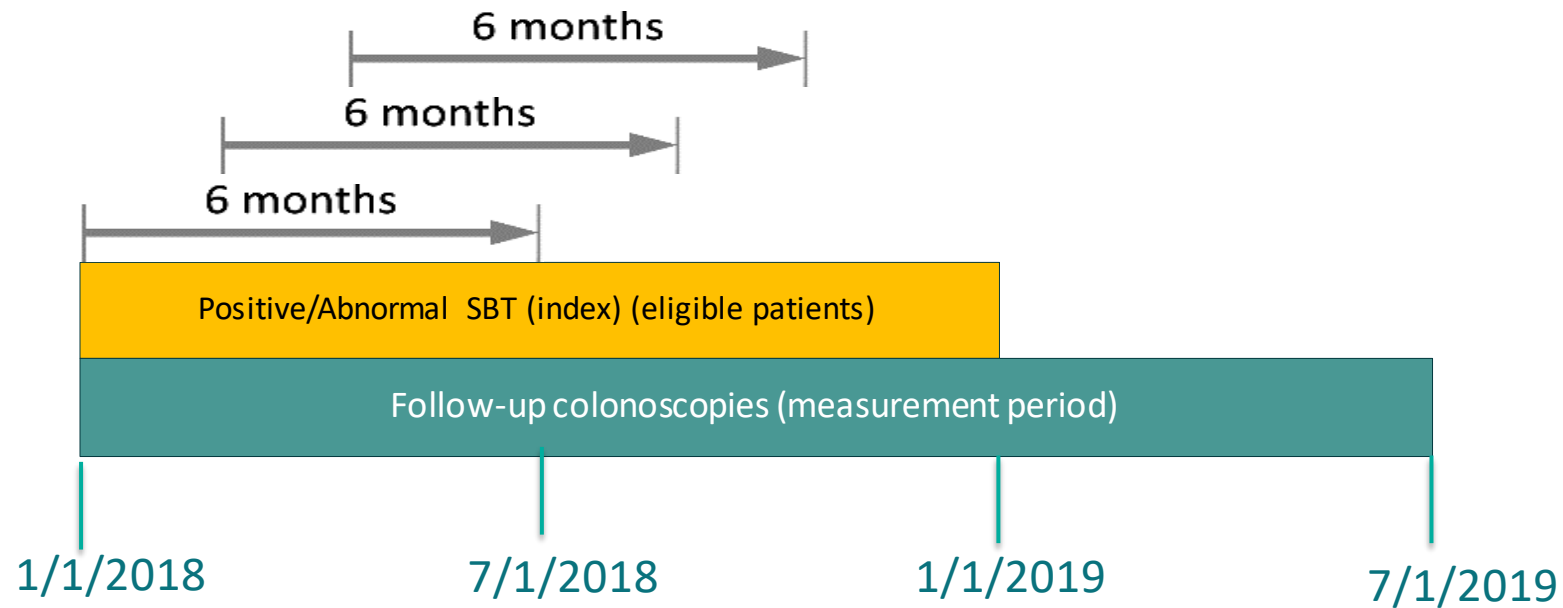




Advisors



- **Mary Barton, MD**, Vice President, NCQA (formerly)
- **Frank Colangelo, MD, MS-HQS, FACP**, Director, Outcomes Office, Allegheny Health Network; CQO, Premier Medical Associates, National Colorectal Cancer Roundtable
- **Robert Smith, PhD**, Sr. Vice President for Cancer Screening, American Cancer Society
- **Richard Wender, MD**, Chair Family Medicine and Community Health at University of Pennsylvania School of Medicine

Measure: Colorectal Cancer Screening Follow Up within 6 months after Positive/Abnormal Stool-based Test (SBT)



-  Index positive/abnormal SBT (denominator)
-  Numerator compliant (measurement period)

Measure description



The percentage of adults ages 45 through 75 who receive a diagnostic colonoscopy within 180 days following a positive/abnormal stool-based screening test (SBT) for colorectal cancer (CRC) within the eligibility year.

Reliability testing: results



Stratification	Number of groups/categories	Median # patients per group [min, max]	Reliability (mean)
Health care organization	38	274 [39, 5,012]	96%
Race	4	6,122 [1,356, 80,980]	98%
Ethnicity	3	6,231 [2,901, 85,448]	98%
Measure Year	5	18,107 [15,563, 24,283]	99%

Interpretation (across organizations): 96% of variance in the measure was due to between-system differences

Measure Development and Testing Summary



- The *CRC Screening Follow-Up Measure* meets the criteria for a quality performance measure submitted by health systems:
 - Variation in measure performance
 - Reliable
 - 96–99% of variance in the measure was due to between-group differences
 - Feasible
 - Tested by 3 independent health systems with 3 distinct EHRs
 - Passed face validity by four national expert advisors

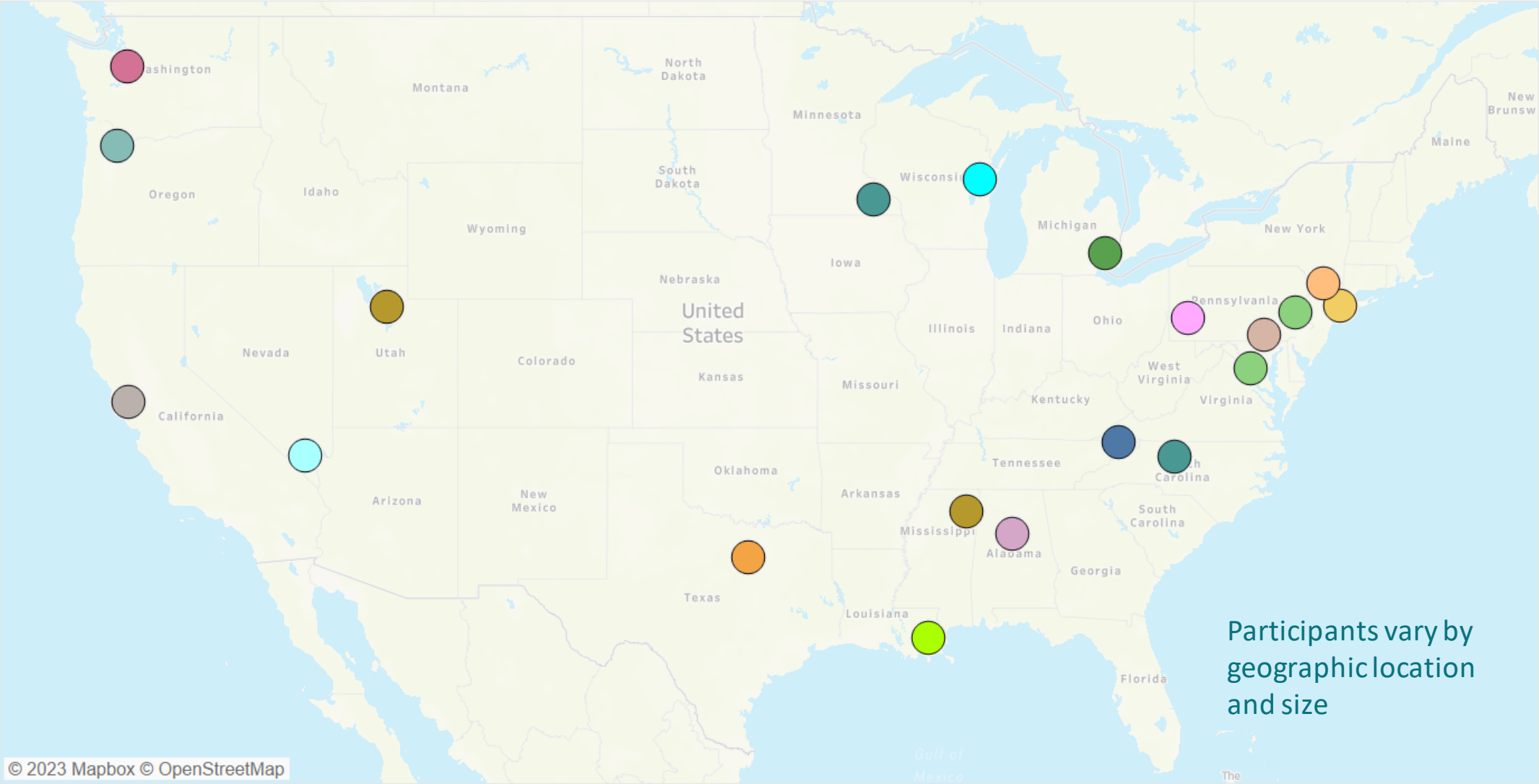


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AMGA's CRC Screening Best Practices Learning Collaborative



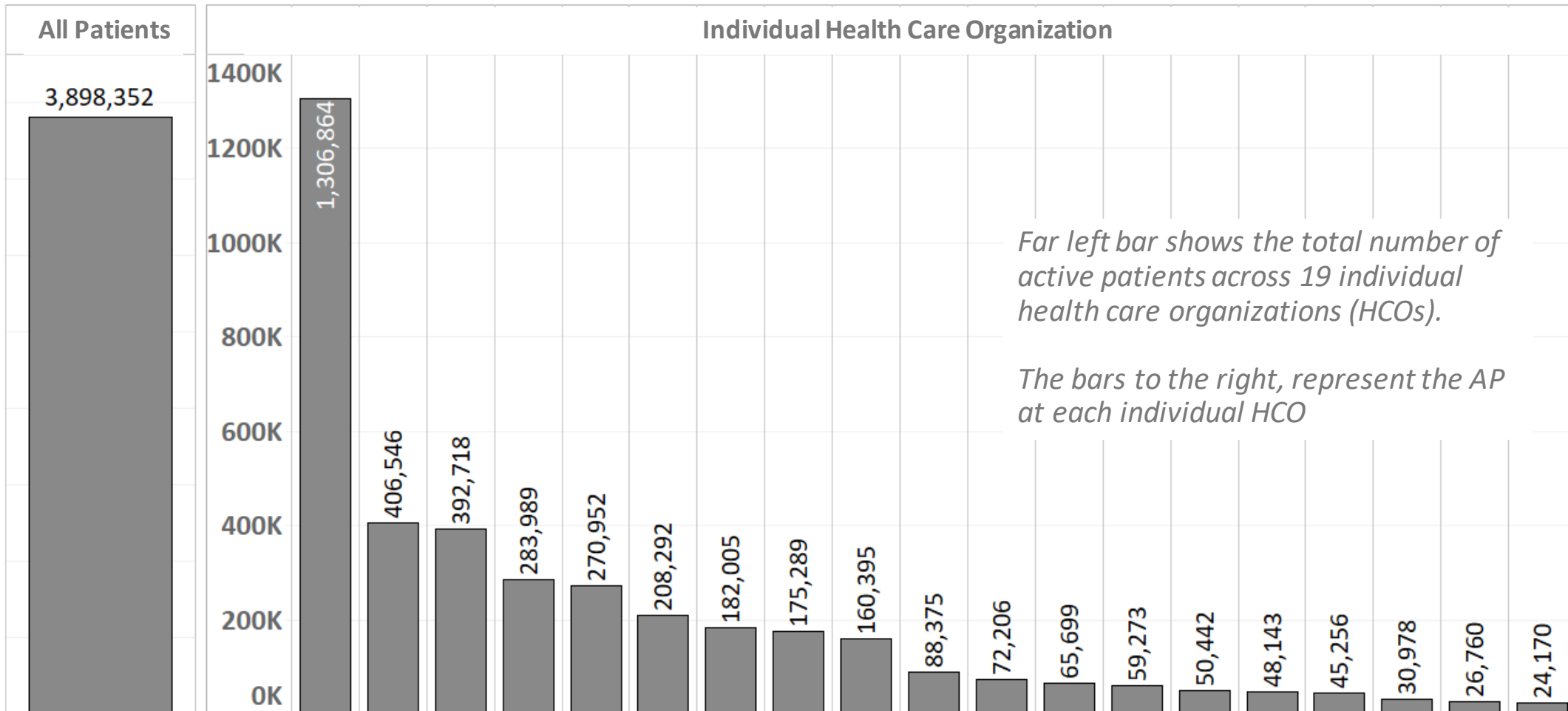
Participating Health Care Organizations (n=20)



Size in terms of Active Patient (AP) Population



- Age 45–75 on the first day of the reporting quarter (RQ).
- ≥1 ambulatory visit in 24 months with any specialty and considered a PC patient at the system (PC visit, assigned PCP, or enrollment).
- No evidence of hospice/palliative care within 24 months, CRC diagnosis or total colectomy ever, or death prior to the end of the RQ.



AMGA Best Practices Learning Collaborative on Colorectal Cancer Screening: Performance Measures*



- CRC screening among active patients (age 45–75)
 - Measure 1: Percent of patients with appropriate CRC screening
 - Measure 2: Percent of patients with a CRC screening care gap closed in the most recent quarter
- CRC screening follow-up among active patients (age 45–75)
 - Measure 3: Percent of patients with a positive/abnormal non-colonoscopy CRC screening test result who received a follow-up colonoscopy within 90 days

***Health Equity:** HCOs are required to identify a disparity (target) population unique to their organization and develop and implement an intervention to address the disparity in one or more of the measures. All measures are stratified by age, race, ethnicity, sex, and insurance (a proxy for income).

Measure 3: CRC Screening Follow-Up among Active Patients (APs)

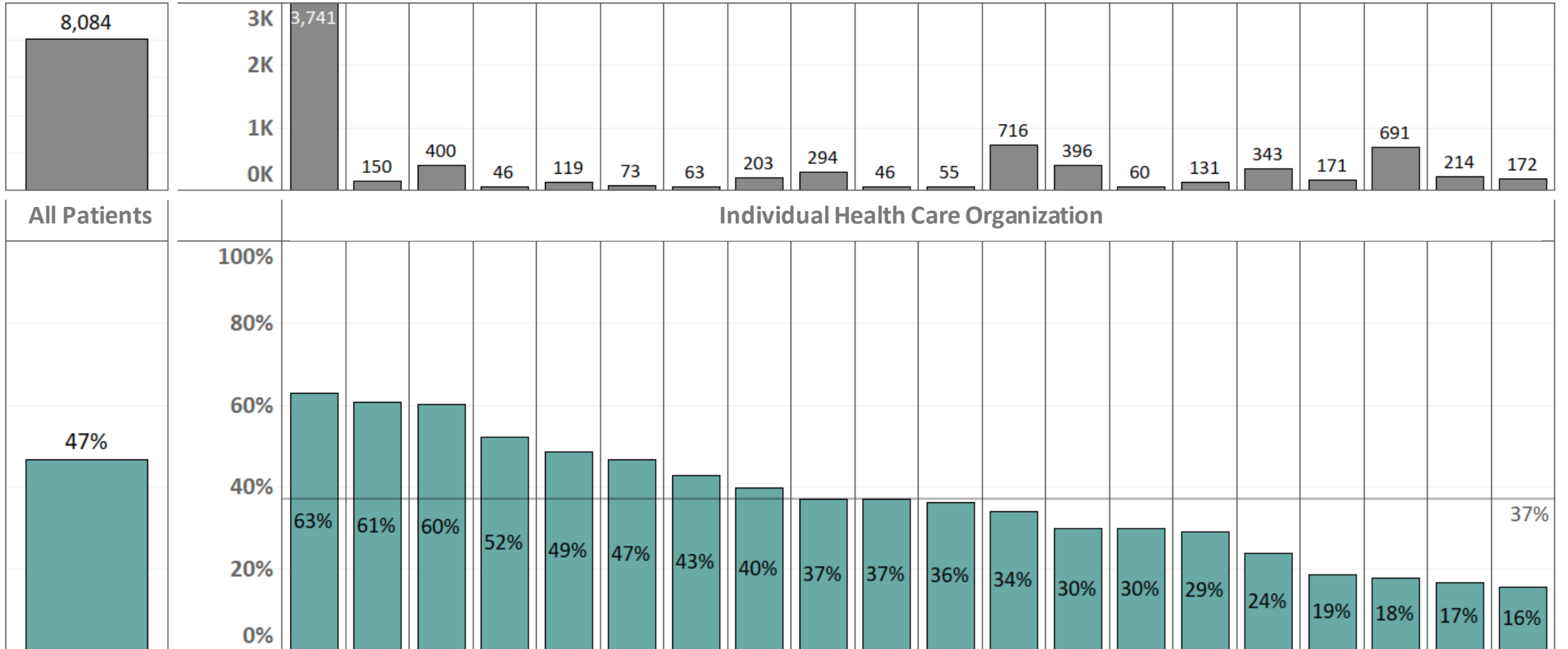


- **Denominator**: Number of active patients with abnormal non-colonoscopy (non-CY) screening result from a test performed in the prior quarter
 - Non-CY screening test includes: FOBT, mt-sDNA, flexible sigmoidoscopy, and CT colonography
- **Numerator**: Number of denominator patients with evidence of a follow-up colonoscopy within 90 days of abnormal result date
- **90-day follow-up is a function of the collaborative timeline and the need to have more frequent measures for shorter intervals.**

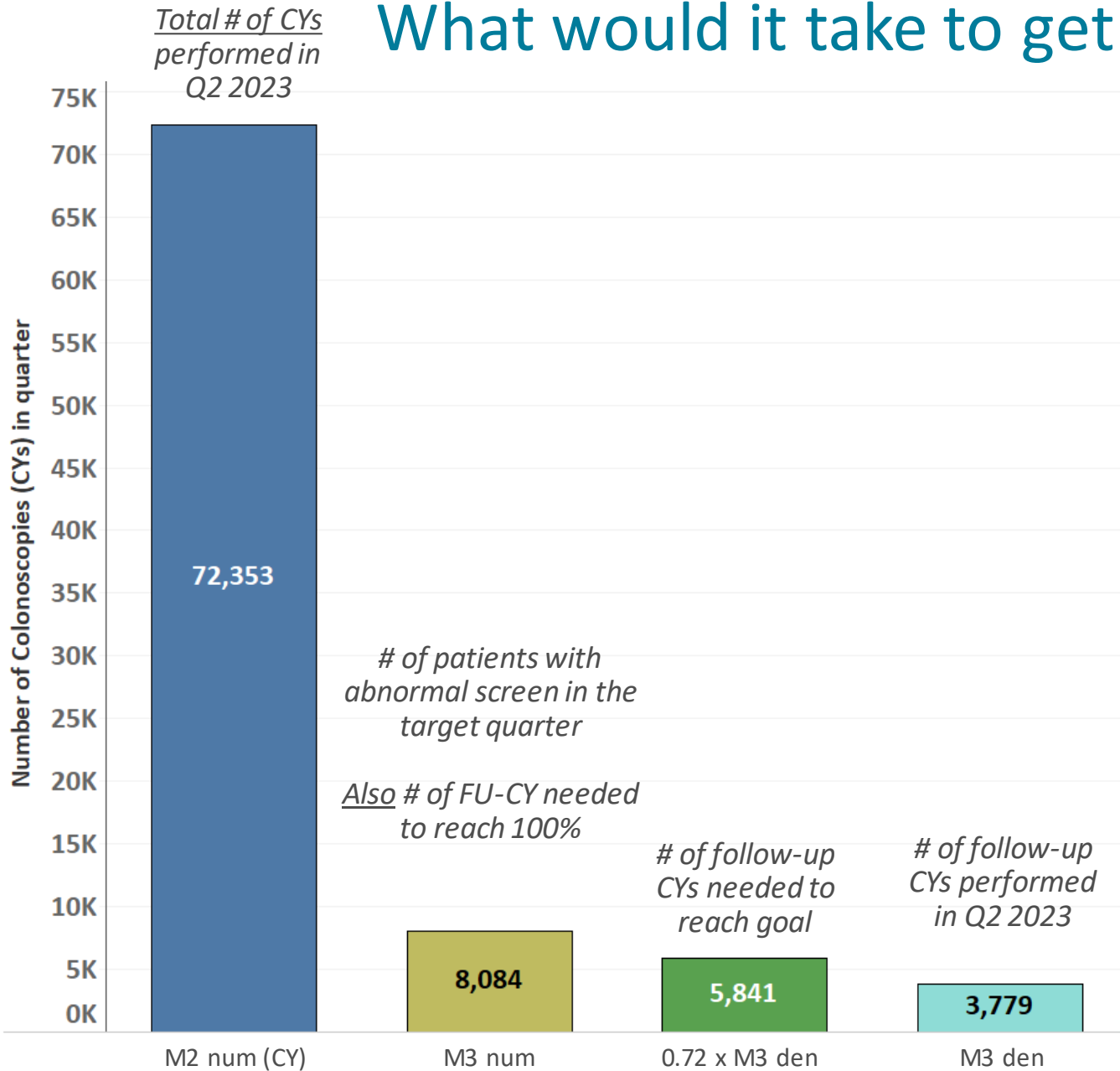
Measure 3: CRC Screening Follow-Up among Active Patients (APs)



- At baseline, among the 19 HCOs nearly 8,100 active patients with an abnormal non-colonoscopy result in the prior quarter, average rate for follow-up colonoscopy **within 90 days** was 47%.
- FU rates ranged from 16% to 63% across the individual HCOs and the group-weighted average was 37%.
- The PWA of 47% converts to 55.3% at 6 months. GWA of 37% --> 43.5% at 6 mos., based on our prior study.



What would it take to get to 72% follow-up rate?



- Reaching the goal of 72% follow-up within 90 days would require **only 2,062** more colonoscopies
 - 3% increase in the total number of colonoscopies, or
 - 3% shift of current colonoscopies to prioritize follow-up

Planned Interventions for Follow-Up Measure (n=11 HCOs)



Tracking	Access	Referral	Identification	Timing
Create team to track completion and FU	Research GI f/u colonoscopy slots	Send patients directly to GI	Dashboards to ID patients w/ positive test	Contact patient w/in 5 days; schedule Px w/in 4-6 weeks
ID current workflow, pathways and processes	Ensure closed loop referral workflow process	Indicate high-priority and note positive test	Indicate high-priority and note positive test	Discuss with Decision Support Committee
Empower GI to track patient outreach; share with PC		Notify GI when PCP notified of positive test patient	Review data; ID trends and gaps	Utilize ASAP protocol (within 2 days) (pat. called 3x, then mail)
Transparent reporting, by PCP			Additional reports or tools	
Update problem list, health maintenance			Reports for GI dept.	
Integrate SBTs into Epic			Understand choices	

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Planned Interventions (n=11 HCOs)



Identify the clinic sites with best performance and spread best practices across the region!

Data exploration, interviews, try to understand WHY patients are not following up; study patterns in the data, successes and failures



AMGA Research & Analytics

Questions & Discussion



Thank You

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Achieving High and Equitable Levels of Colonoscopy after Positive FIT in a Federally Qualified Health Center System: The Critical Role of Navigation

Michael Pignone, MD, MPH

Professor, Internal Medicine

Duke University School of Medicine

2023 80% in Every Community National Achievement Award Honoree

Achieving high and equitable levels of colonoscopy after positive FIT in a Federally Qualified Health Center system: the critical role of navigation

Michael Pignone, MD, MPH

Professor, Department of Internal Medicine

American Cancer Society Clinical Research Professor

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- No conflicts to report
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 - American Cancer Society
 - Cancer Prevention and Research Institute of Texas
 - Centers for Disease Control and Prevention
- Thanks to many collaborators!

Former member of the USPSTF – the views expressed here are mine and not necessarily those of the TF

CPRIT grants PP210045, PP200066, and PP170082

Objectives

1. Describe our program's process for achieving high rates of colonoscopy after positive mailed FIT
2. Identify how we have attempted to minimize inequities in follow-up colonoscopy
3. Propose a roadmap for spread of effective systems to achieve high levels of follow-up colonoscopy

Background

- To reduce CRC incidence and mortality through stool-based screening, it is imperative to achieve high levels of colonoscopy after positive FIT
- National data suggest only mediocre performance

Our program features

- Mailed FIT (free)
- Bilingual, easy to read instructions
- Bilingual patient navigator
- No out of pocket colonoscopy costs
- “Integrated” GI care

Data

- Examined program performance from mailings
Nov 2017 to February 2021
- Follow-up through September 2021
- 374 positive FIT; 271 (72.5%) completed COL
 - Median time 55 days

Colonoscopy completion relatively equitable across demographic groups: lower for older patients and those with public insurance; higher for Spanish speakers

Scott et al. J Gen Intern Med. 2022

		Completed colonoscopy after positive FIT	Odds ratios (any colonoscopy)
N		271	
Age group (%)*	50–59	165 (78.2)	Ref
	60–69	87 (66.9)	0.56 (0.35, 0.92)
	70–75	19 (61.3)	0.44 (0.20, 1.00)
Gender (%)†	Male	126 (72.4)	Ref
	Female	144 (73.1)	1.04 (0.65, 1.64)
Race/Eth (%)	White, non-hisp.	57 (66.3)	Ref
	Black, non-hisp.	40 (72.7)	1.36 (0.65, 2.90)
	Hispanic/Latino	121 (77.6)	1.75 (0.98, 3.16)
	Other/Multi, non-hisp.	14 (58.3)	0.71 (0.28, 1.83)
	Not recorded	39 (73.6)	1.42 (0.67, 3.08)
Language (%)	English	177 (68.3)	Ref
	Spanish	72 (86.7)	3.03 (1.58, 6.32)
	Other	22 (73.3)	1.27 (0.56, 3.16)
Payer (%)	Commercial	32 (78.0)	Ref
	Medicaid	24 (64.9)	0.52 (0.19, 1.40)
	Medicare	41 (57.7)	0.38 (0.15, 0.90)
	MAP	96 (76.2)	0.90 (0.37, 2.04)
	Uninsured/sliding scale	59 (81.9)	1.28 (0.48, 3.29)
	Other	19 (70.4)	0.67 (0.22, 2.05)

Conclusions and Implications

- Organized program produced high (>70%) completion of colonoscopy after positive FIT
- Design features ensured Spanish-speaking and uninsured patients treated equitably
 - Working on reducing age-related disparities
 - Some recent slippage due to limits in GI access

Dell Med – CUC team





Questions?



Thank You

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Q&A