

Supplemental materials for

Davis MM, Schneider J, Petrik AF, et al. Clinic factors associated with mailed fecal immunochemical test (FIT) completion: the difference-making role of support staff. *Ann Fam Med.* 2022;20(2):123-129.

Supplemental Appendix 1. PROMPT Baseline Clinic Interview Guide

Introduction/explanation of interview

We are interested in exploring from your perspective the current activities and attitudes related to CRC screening at your clinic. We are also interested in understanding your thoughts about implementing the upcoming PROMPT mailed-FIT reminder program and related activities.

These interviews are exploratory in nature with no right or wrong answers to our questions. The interview is voluntary, so deciding not to participate will not impact your employment or role at [name of clinic]. The interviews will be audio recorded and transcribed. The transcripts will only be shared among members of the research team to help us understand your current CRC screening practices and preparation for the PROMPT program.

Your opinions and experiences are very important for getting a full understanding of this process. We want to learn how things are going from your point of view. Some of our questions are open ended while others have set response categories. We'll start by exploring your role, learning about quality improvement initiatives – then drill down to the clinic workflows for CRC screening in the practice and at the enterprise level.

Ask if the participant has any additional questions before starting.

We are scheduled to talk for 45 to 60 minutes—will this still work for you? As reviewed, we would like to record this interview and we need your verbal consent – do you agree to recording?

Background questions – *We'd like to learn more background about your clinic and your role/related activities.*

- 1) Has the clinic undergone any big changes in the last year – if so, tell me about them [see if they initiate examples, then probe on specific areas: change in staff; change in leadership; growth; new building; took on more patients, changes in EMR or reporting systems, etc.]

Quality initiatives - *We would like to learn more about your clinic's quality improvement goals, and factors that shape prioritizing these goals.*

- 2) What are the quality improvement priorities for your clinic in this year [2018]?
 - a. How many QI priorities does your clinic generally pursue each year? How are these QI priorities chosen and prioritized?
 - b. Who leads QI initiatives at your clinic? [e.g., *Is there one individual or a team? How long have they been doing this type of work?*]

- 3) Is CRC screening one of your clinic's QI priorities? – please explain
 - a. How important is CRC screening for your clinic? – please explain
 - b. How does CRC screening fit into your other quality improvement goals?
 - c. How would you describe the overall culture at your clinic as it relates to CRC screening?

- 4) What local, state, or national factors influence how you prioritize (or not) CRC screening at your clinic?
 - a. Prompt on: HEDIS or Medicare 5 STAR, UDS, Integrated healthcare association (IHA pay for performance at state level), other metrics or performance goals? [FHQC name] stated priorities?

- 5) Does your clinic have a CRC screening champion – someone who regularly keeps the importance of CRC screening at the forefront?
 - a. If so, who (PCP or other) and what types of things do they do to champion CRC screening at your clinic?
 - b. If not, why do you think that is? Have you had someone like this in the past? Please describe.

In-clinic CRC screening practices - *We would like to learn more about your clinic's approach to identifying, communicating, and facilitating CRC screening during a patient visit.*

- 6) First, can you describe how CRC screening occurs at your practice?
 - a. Do you have a protocol for CRC screening at the practice? If so, who developed and when was it implemented? [*e.g., expectation to offer FIT first over colonoscopy?*]
 - b. Do you have a process for training clinicians, MAs, and other staff in this process?

- 7) What in-clinic strategies are currently in place for identifying that a patient is due or overdue for CRC screening? [*explore who does these activities, when/how often, and variation between FIT versus colonoscopy or by staff*]
 - a. Chart scrubbing prior to appointment - who
 - b. Assess if due at point of care (POC) in EMR – who
 - c. Huddling with teams each day to go over who is due for screening - who
 - d. Other? [*e.g., panel manager/ medical record staff, etc.*]
 - e. How well do you feel these strategies are regularly followed (what gets in the way)?
 - i. Do they vary across provider teams – why or why not?
 - ii. Do they vary by type of screening (e.g., colonoscopy, FIT) – why or why not?

- 8) What in-clinic strategies are currently in place for ensuring a discussion occurs with the patient during their visit about being due or overdue for CRC screening? [*explore who does these activities, when/how often, and variation*]
 - a. MA or other staff enact a standing medical order if screening is due
 - b. MA discuss CRC screening and FIT test while rooming patient / explains how to complete FIT test?
 - c. MA notifies PCP if patient declines or wants colonoscopy
 - d. PCP discusses screening options/colonoscopy vs FIT with patient at visit
 - e. Other?

- f. How comfortable are MAs or other support staff educating patients about CRC screening importance? On how to complete a FIT test? [*probe on any training process or not*]
 - g. How do providers typically negotiate whether to offer FIT or screening colonoscopy with patients?
 - h. How well do you feel these strategies are regularly followed (what gets in the way)? Do they vary across provider teams – why or why not?
- 9) What in-clinic strategies are currently in place for ensuring a patient is given a FIT test for CRC screening? [*explore who does these activities, when/how often, and variation*]
- a. Standing medical order placed by MA/team
 - b. MA hands to patient at visit / do any other staff give FITs out to patients
 - c. If screening colonoscopy, PCP places order for it including authorization
 - d. Other?
 - e. How well do you feel these strategies are regularly followed (what gets in the way)? Do they vary across provider teams – why or why not?
- 10) What in-clinic strategies are currently in place for reminding patients to complete and return the FIT test? [*explore who does these activities, when/how often, and variation*]
- a. Live telephone reminder call
 - b. Reminder by mail
 - c. Reminder by email
 - d. Chart reminder at time of visit to return
 - e. Other (*specify*): [*insert text box*]
 - f. We currently do not have any reminder mechanisms in place – please explain
 - g. How well do you feel these strategies are regularly followed (what gets in the way)? Do they vary across provider teams – why or why not?
 - h. When you are able to do reminders, how are they documented in your EMR? Or is it a manual log?
- 11) What strategies do you currently have in place for ensuring completed FIT results are communicated to patients? Do these strategies differ by normal versus abnormal results? [*explore who does these activities, when/how often, and variation*]
- a. *Normal result*: automated letter? Other?
 - b. *Abnormal result*: PCP or MA call to book appt to discuss? / or auto letter?
 - c. By letter or email if can't reach?
 - d. Other
 - e. How well do you feel these strategies are regularly followed (what gets in the way)? Do they vary across provider teams – why or why not?
- 12) What strategies do you currently have in place for ensuring patients with abnormal FIT result are referred for a follow-up colonoscopy? [*explore who does these activities, when/how often, and variation*]
- a. Coordinate visit with specialist for patient / help with scheduling visit
 - b. Deliver appointment reminder by telephone or letter
 - c. Enroll patients in insurance or other resources for colonoscopy
 - d. Case management / patient navigation
 - e. Other (*specify*): [*insert text box*]
 - f. We currently do not have any reminder mechanisms in place – please explain

- g. How well do you feel these strategies are regularly followed (what gets in the way)? Do they vary across provider teams – why or why not?
- 13) What types of community resources or strategies (*informal or formal*) does your clinic have in place to assist in making CRC screening affordable and accessible to your patients?
- a. Offer FIT for free or low-cost? What do uninsured patient generally pay for FIT? For colonoscopy services?
 - b. Any collaboration with GI doctors or local hospitals?
 - c. Any collaboration with other organizations to help make CRC screening more affordable?
 - d. Resources to help with barriers re: Transportation assistance for colonoscopy? Interpretation/translation services? Help with childcare or time off work? Other?
 - e. Offer different screening locations or hours

Enterprise Direct mail program questions – *We would like to ask you some questions about the yearly Enterprise direct mail FIT program that typically occurs in the summer months...*

- 14) How do you understand how this direct mail program works?
- a. Who receives the kits?
 - b. When are they sent?
 - c. What's the process for patient follow-up or reminders?
- 15) How do you feel about this direct mail FIT program?
- a. How well does this approach “fit” with your clinic and patients? With [FQHC name] as a whole?
 - b. From your experiences, what works well for this program?
 - c. How helpful or not is it for patients at your clinic? Please describe.
 - d. How helpful or not is it for providers or staff at your clinic? Please describe.
- 16) From your experiences, what types of challenges have arisen from the Enterprise direct mail FIT program?
- a. Challenges for providers? Challenges for patients? Challenges for other staff?
 - b. Any duplication challenges from in-clinic effort?
 - c. Any other challenges (e.g., resources for follow-up colonoscopy)?
- 17) What might you like to see changed or improved upon for this direct mail program?
- a. Is additional clinic-level support needed?
 - b. Should this program continue – why or why not?

Other activities to promote CRC screening – *We would like to ask you a few more questions about things you might be doing at your clinic to promote CRC screening...*

- 18) Does your clinic do any of the following activities to increase patient awareness of and understanding in CRC screening? [*If so, probe for who, how often, and how helpful / if not, probe for why not*]
- a. Group education
 - b. One on one education [*asked in prior set of questions on in-clinic strategies*]

- c. Information tables/booths or health fairs focusing on CRC screening
 - d. Information flyers/videos in waiting rooms/offices or other small media (patient newsletters)
 - e. Incentives for completing screening
 - f. Any mass media (local ads in radio, TV, billboards)
 - g. Any social media promotion
 - h. Other?
- 19) Does your clinic do any of the following activities to increase provider or staff involvement in CRC screening? [*If so, probe for who, how often, and how helpful / if not, probe for why not*]
- a. Offer education or training to staff/providers on how to talk about CRC screening with patients
 - b. Offer reminders to staff/providers to identify and discuss CRC screening with patients
 - c. Offer assessment and feedback to staff/providers on their CRC screening rates
 - d. Offer financial performance incentives to staff/providers for meeting CRC screening goals
 - e. Offer other “rewards” to staff/providers for their CRC screening rates, such as gift cards
 - f. Offer public recognition of CRC screening rates in staff meetings, staff newsletters, or other settings
 - g. Other (e.g., Flu FIT or combine with outreach on other prevention screenings)?

General CRC screening questions/barriers and facilitators – *We have a few questions about what you have heard or observed regarding barriers to CRC screening at your clinic...*

- 20) Overall, what do you believe to be the primary barriers to CRC screening at your clinic?
Probe:
- a. What barriers have you experienced or are concerned about regarding offering FIT as a CRC screening option (e.g., *concerns not as effective as colonoscopy, patients won't complete it, uncertainty as to best fecal test to use, etc.*)
 - b. Is there anything else you would like to add or comment on regarding FIT as an option for CRC screening?
 - c. What barriers have you experienced or are you concerned about regarding offering colonoscopy as a CRC screening option or for diagnostic purposes (e.g. *financial barriers for patients, not easily accessible, patient won't follow through, etc.*)?
 - d. Is there anything else you would like to add or comment on regarding colonoscopy as an option for CRC screening?
- 21) Overall, what do you believe to be the primary facilitators to CRC screening at your clinic? (e.g., *resources, staff, training; local, state, or national support; legislative changes, community resources or partnerships, dedicated staff, etc.*)
- 20) Overall, what do you think would be the most helpful to increase CRC screening at your Health Center?

- a. What staff or system related supports?
- b. What patient related supports?

PROMPT program awareness/communication/reaction – *We have some questions about the PROMPT program that will be implemented soon in your clinic...*

21) How aware of/ or familiar with the PROMPT direct mail-FIT reminder program are you?

[Insert brief description of PROMPT program after answer]

- a. How do you feel the *PROMPT* program differs from the current Enterprise direct mail program?
- b. Do you think the *PROMPT* reminder program will facilitate FIT return? Why or why not?

22) How has AtlaMed been handling communication about the decision to implement the *PROMPT* reminder program, including how the intervention works?

- a. What has worked well about the communication?
- b. Do you have any suggestions for how communication could have been handled differently?

23) Overall, what are your reactions to this program? [e.g., probe for like/dislike/any concerns from staff/providers/managers about it]

24) Anything else you would like to share or let us know about regarding CRC screening efforts at your clinic?

Interviewee Demographics *[send separately via email after the interview is completed to fill out given these will likely be group phone interviews]*

1. What is your age?
2. What is your gender?
3. Race (circle those that apply)
 - a. Black or African American
 - b. White
 - c. American Indian or Alaskan Native
 - d. Asian _specify _____
 - e. Native Hawaiian or Pacific Islander
 - f. Other: _____
4. Are you Hispanic or Latino?
 - a. Yes _specify (Mexican, Puerto Rican, Cuban, Other) _____
 - b. No _____

5. What is your job title?(MD, PA, DO, Nurse, etc.)_____

6. How many years have you performed in your current job title?_____

7. How many years have you worked at your current site? _____

PRACTICE CHARACTERISTICS [*at end of interview find out who can best answer these questions about the clinic/practice setting and send questions via email*]

1) Please provide the number of clinicians (MD, DO, NP, PA) and their combined full-time equivalent (FTE):

a. Number clinicians:

b. Combined clinician FTE:

2) Individuals filling out practice characteristics, please provide information for all who provided input:

a. Name and role at practice:

b. Contact email(s):

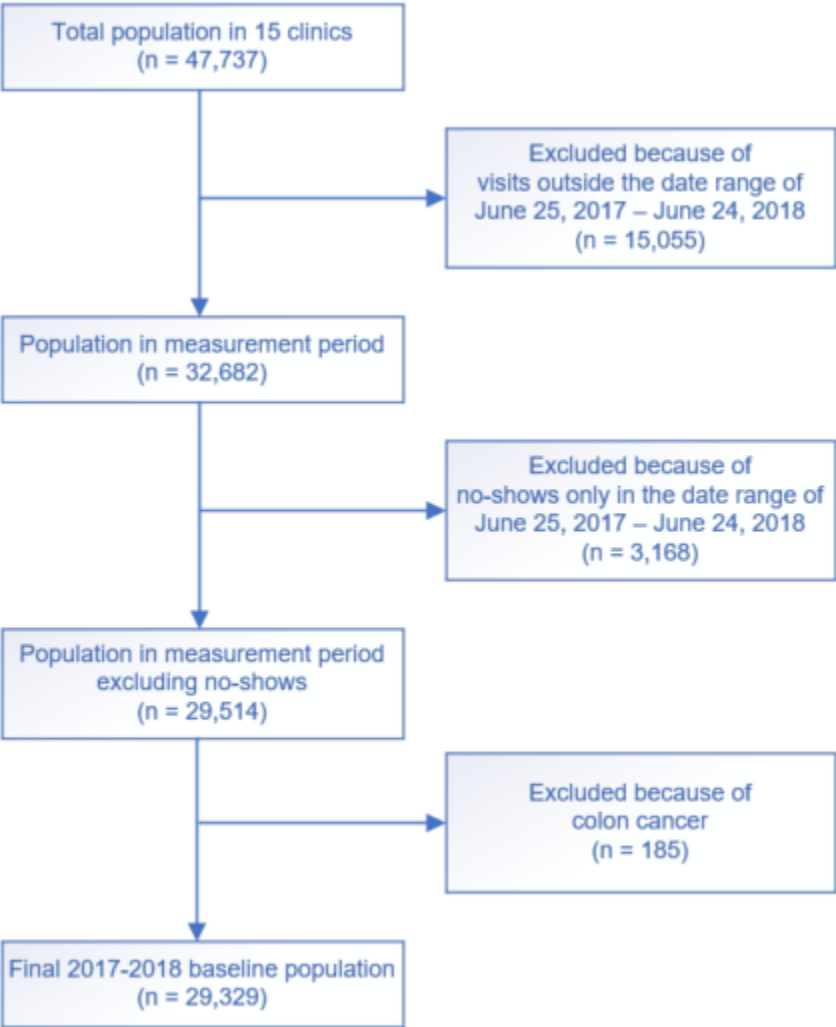
Supplemental Table 1. Interview Guide Questions Aligned with CFIR Domains

Interview Guide Questions	Related CFIR Domain(s)
Background/Contextual Questions	
Please describe your role at the clinic and how long you have been in that role?	<ul style="list-style-type: none"> - Characteristics of individuals - Process
What changes has the clinic undergone in the last 12 months (e.g., growth, loss of staff/providers, etc.)	<ul style="list-style-type: none"> - Inner Setting
What are the quality improvement priorities for your clinic this year? How does colorectal cancer (CRC) screening fit into your other quality improvement goals? How does CRC screening fit into these priorities?	<ul style="list-style-type: none"> - Inner Setting
What local, state, or national factors influence how you prioritize (or not) CRC screening at your clinic?	<ul style="list-style-type: none"> - Outer setting
Colon Cancer (CRC) Screening Priority Questions	
How important is CRC screening for your clinic? How would you describe the overall culture at your clinic as it relates to CRC screening? Does your clinic have a CRC screening champion – someone who regularly keeps the importance CRC screening at the forefront?	<ul style="list-style-type: none"> - Inner setting - Intervention characteristics - Process
In-Clinic CRC Screening Practices Questions	
Please describe in general how CRC screening occurs at your practice? What in-clinic strategies are currently in place for identifying a patient is due or overdue for CRC screening? What in-clinic strategies are currently in place for ensuring a discussion occurs with the patient during their visit about being due or overdue for CRC screening? What in-clinic strategies are currently in place for ensuring a patient is given a FIT test for CRC screening? What in-clinic strategies are currently in place for reminding patients to complete and return the FIT test? What strategies do you currently have in place for ensuring completed FIT results are communicated to patients? What strategies do you currently have in place for ensuring patients with abnormal FIT result are referred for a follow-up colonoscopy?	<ul style="list-style-type: none"> - Inner setting - Intervention characteristics
Resources / Community Partnership Questions	
What types of community resources or strategies (<i>informal or formal</i>) does your clinic have in place to assist in making CRC screening affordable and accessible to your patients?	<ul style="list-style-type: none"> - Outer setting
Training and Education Questions	
What activities does your clinic do to increase patient awareness of and understanding in CRC screening (e.g., flyers, educational tables, mass media, etc.)? What activities does your clinic do to increase provider or staff involvement in CRC screening (e.g., performance incentives, ongoing trainings, etc.)?	<ul style="list-style-type: none"> - Inner setting - Characteristics of individuals - Process
General Barriers and Facilitators to CRC Screening at Clinic Questions	

Overall, what do you believe to be the primary barriers to CRC screening at your clinic?
Overall, what do you believe to be the primary facilitators to CRC screening at your clinic?
Anything else you would like to share or let us know about regarding CRC screening efforts at your clinic?

- Outer setting
- Inner setting
- Process

Supplemental Figure 1. Consort Diagram of FQHC Patients Eligible for Colorectal Cancer Screening and Exposed to the Mailed FIT Program



Supplemental Table 2. Patient Demographics Across Clinics with Higher versus Lower FIT Completion Rates (N = 155,316)

	Higher (N = 9)			Lower (N = 6)		
	Mean	Range		Mean	Range	
Total Patients	10,590	2,970	21,090	10,001	1,062	20,783
Hispanic (%)	27	12	71	50	34	60
Medicaid (%)	58	43	71	56	42	61
Uninsured (%)	26	16	41	31	22	46

Supplemental Table 3. Qualitative Factors Included in CCMs Analysis.

Clinic Site Description
<i>Size: larger, smaller, medium</i>
<i>Patient to clinician ratio: small, large</i>
<i>County: LA or OC</i>
<i>Age/ years site in service</i>
Changes at Clinic in Past 12 months
<i>Loss of leadership (SMD, CA, Nurse or BO manager)</i>
<i>Loss of PCP (s)</i>
<i>Loss of back office (MAs) and/or front office staff</i>
<i>Lost or removed services</i>
<i>Added leadership/change-over in leaders</i>
<i>Added PCPs or mid-level providers (e.g., nurse practitioner)</i>
<i>*Added back office (MAs) and/or front office (receptionist) staff</i>
<i>Added or expanded services</i>
<i>Changes in staff roles or work (shifting or changing work scope)</i>
<i>Changes in hours of operation</i>
<i>Moved buildings</i>
<i>Increase in patient population/growth</i>
<i>Impact of change(s) on clinic: "significant," "minor," "not mentioned"</i>
<i>Total number of changes endorsed by clinic</i>
CRC Emphasis/Priority
<i>Have local champion for CRC (yes - who, no, in past)</i>
<i>No champion and / or expectation it is all staff's responsibility</i>
<i>Current CRC screening status re targets and goals: (meeting goals, behind on goals, not stated)</i>
Return of FIT Process
<i>Encouraged to return to clinic via drop off</i>
<i>Encouraged to return either to clinic via drop off or mail in</i>
<i>Encouraged to complete during visit if possible</i>
<i>Staff (back or front office staff) check-in the returned FIT/ review if accurately labeled and completed</i>
<i>Use easy to access drop-box / no staff check-in or review of kit</i>
FIT kit Result Communication
<i>Normal result: send a letter through Patient Portal</i>
<i>Abnormal result: Staff (MA or LPN) call to book appointment with PCP to discuss / also send auto letter</i>
<i>Abnormal result: Based on PCP preference if staff call with result via phone or schedule appointment to discuss result / also send auto letter</i>
Other outreach to patients <u>due</u> for CRC screening (variation by site for FIT or COLO)
<i>No outreach activities/calls for FITs coming due</i>
<i>Back office staff call when have time to remind patient due for CRC screening (FIT)</i>
<i>Run list weekly/monthly with dedicated time and staff to make calls to pts for CRC screening that is due (FIT)</i>

<i>*Other (e.g., lab staff, promotora, front office staff) hand out kits/educate patients on the importance of FIT completion</i>
<i>Care gap coordinator (CGC) will assist with making the GI appointment, if needed</i>
<i>*MAs or CGC help with patient barriers (insurance, cost, transportation, scheduling) if patients ask and staff have time</i>
<i>Number of CRC due outreach activities per clinic</i>
Follow-up Reminders or Activities to Encourage Return of FIT (variation by site)
<i>Encourage return of FIT within 1-5 (a few) days, <u>no incentive</u> / schedule a return appointment</i>
<i>Encourage return of FIT within 1-5 (a few) days and <u>offer incentive</u> (\$5 or raffle)/ schedule a return appointment</i>
<i>If not returned after 2 weeks <u>offer incentive</u> (\$5 gift card)</i>
<i>Offer to put patient name in monthly raffle if return FIT within a month of hand out/ offer incentive one or two months a year</i>
<i>Keep manual log / call when have time (does not occur regularly)</i>
<i>Keep manual log / have dedicated time and staff to call for reminding (occurs regularly)</i>
<i>Not currently doing reminder calls</i>
<i>Number of reminder activities per clinic to return FIT kit</i>
Other CRC promotional activities at site (variation by site)
<i>Flyers about CRC importance/FIT posted everywhere/handouts offered (English & Spanish)</i>
<i>Educational video played on TV in waiting room or computer in exam room</i>
<i>Health educator/promotora on-site to assist with education and outreach efforts/ occasional information tables</i>
<i>No health educator/ promotora on-site - once or twice a year have info booth and promotion at clinic (e.g., March CRC month)</i>
<i>Prepared and packaged FITs ready for hand-out at every clinic station (hand-out by PCP team like MA)</i>
<i>Give verbal and written FIT/CRC screening instructions in both Spanish and English</i>
<i>Highlight areas of FIT label re: date/info to be filled out or pre-fill out form for patient</i>
<i>Number of other CRC promotional activities per clinic</i>
Performance Reviews and Feedback
<i>Regular review (weekly or daily) of reports from Coseva on rendering rate (offering FIT) and meeting or not HEDIS/target measures</i>
<i>Monthly rounding with teams to review reports on how doing with CRC screening efforts</i>
<i>Verbal recognition of staff/teams at monthly meetings for meeting CRC goals / sharing of innovative efforts (win lunch, raffle prizes)</i>
<i>Give teams "points" for meeting goals and celebrate with raffles/gifts for those with highest performance/ gift cards for providers from corporate for meeting goals</i>
<i>Currently not doing any team celebrations/points/competition</i>
<i>Number of performance feedback and recognition activities for staff per clinic</i>

* Indicates a clinic-level factor i