



Penn Medicine

# Colorectal Cancer Screening Mailed FIT Program at Penn Medicine

From Pilot to Scaled, Sustainable System.

Corinne Rhodes MD MPH; Tahira Watson  
Jefferson Health Partners Sponsored Lecture

January 10, 2023

# Agenda

PILOT

PDSA CYCLES

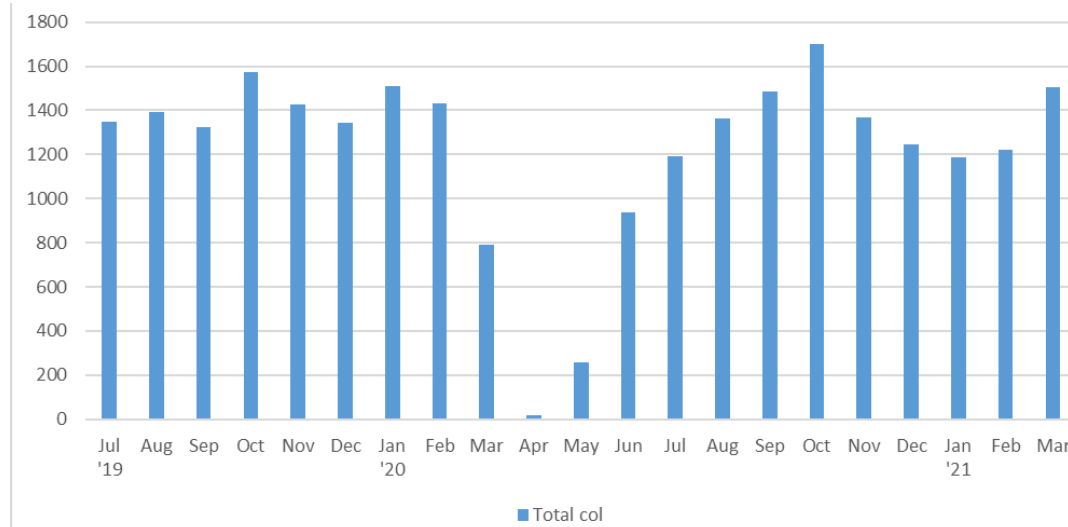
SCALING AND SUSTAINING

COUNTER MEASURES

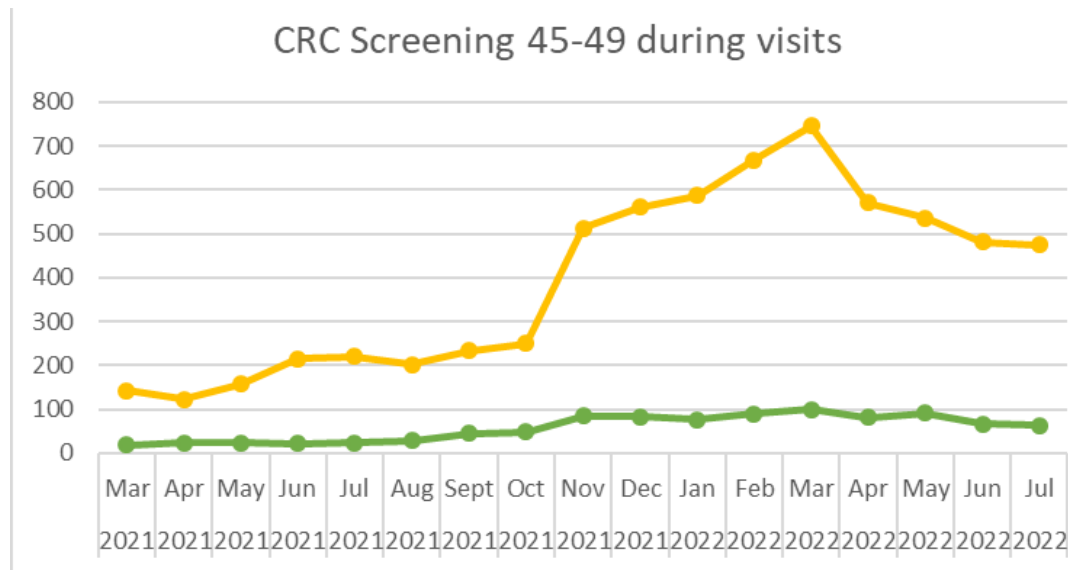
# Pilot

# What Was the Problem?

- 2020 reduced colonoscopy access during COVID pandemic
- 2021 expanded CRC screening population to 45-49 year olds



- Spring shut elective procedures down.
- With winter surges, colonoscopy volume also dipped.



- Additional population denominator expansion exacerbated supply-demand mismatch of endoscopy access.



# Focus on Stool Testing Options



## **FIT** (fecal immunochemical testing):

- Small stool sample in tube
- Every 1 year
- About \$20
- In house testing at Penn Lab
- Lower sensitivity for 1-time use with comparable mortality reduction to colonoscopy when done annually
- Penn has to do outreach and navigation
- Covered by all insurances

## **Cologuard** (Fecal immunochemical testing + stool DNA):

- Full stool in box
- Every 3 years
- About \$500
- Exact sciences
- Higher sensitivity for 1-time use but slightly lower mortality reduction when done every 3 years
- Exact Sciences performs navigation
- May not be covered by some Medicaid plans

\*Conventional guaiac-based fecal occult blood test (FOBT) is no longer recommended

\*\* Colonoscopy is still the preferred option for CRC per the Penn Medicine Pathway, but FIT is an alternative if patient declines or defers. Cologuard is also an acceptable option for screening. All three are recommended by guidelines.

# Important Considerations with Stool Testing

## Must Target Appropriate Average Risk Patients

- Iron deficiency anemia, history of polyps, family history of colon cancer, IBD history, masses should **NOT** get stool based testing


## If Positive Results repeating test is NOT appropriate.

- Colonoscopy is appropriate next step
- If patient would not get colonoscopy, reconsider if clinically appropriate for patient to order colon cancer screening

## Colonoscopy follow up Timing


- Data shows worsening outcomes with colonoscopy >6-9 months after + stool test

# Patient Education



## CHOOSING THE RIGHT TEST

Know Your Risk for Colon Cancer. Early Detection is Key.



Colonoscopy is the most effective method to reduce colorectal cancer-related deaths because it is the most sensitive test among all the available screening tests and it can BOTH detect and prevent cancer. Did you know there are screening options available?

DO YOU HAVE?

A history or family history of colorectal cancer or pre-cancerous polyps?  
OR Personal history of inflammatory bowel disease?

YES

NO

COLONOSCOPY

Provider and patient determine if testing should be started before age 45.

DISCUSS OPTIONS

Provider and patient decide which test is preferred.  
(See table on reverse side.)

ARE YOU

BETWEEN THE AGES OF  
45-75

YES

NO

IF YOU ARE

YOUNGER THAN  
45 Years

Testing is not recommended.

OLDER THAN  
75 Years

Provider and patient decide if testing is needed.

LOCATIONS

**Penn Medicine Radnor\***  
145 King of Prussia Road  
Radnor, PA 19087

*\*A facility of the Hospital of the University of Pennsylvania*


**Penn Presbyterian Medical Center**  
51 N 39th St,  
Philadelphia, PA 19104

**Perelman Center for Advanced Medicine**  
3400 Civic Center Blvd,  
Philadelphia, PA 19104

**Pennsylvania Hospital**  
Farm Journal Building, 4th Floor  
230 West Washington Square  
Philadelphia, PA 19107

**Penn Gastroenterology Limerick**  
Building B, Suite 102  
420 West Linfield-Trappe Road  
Limerick, PA 19368

For more information or to schedule an appointment, please call 215.349.8222 or 800.789.PENN (7366)



## CHOOSING THE RIGHT TEST

Know Your Risk for Colon Cancer. Early Detection is Key.


	COLONOSCOPY	FECAL IMMUNOCHEMICAL TEST (FIT)
WHAT IS THIS TEST FOR?	<b>Detection and Prevention</b> A colonoscopy is a visual test done by a doctor. It uses a tube with a tiny camera to look for and remove polyps and cancer inside your colon and rectum. Colonoscopy is the most effective method to reduce colorectal cancer-related deaths because it is the most sensitive test among all the available screening tests and it can BOTH detect and prevent cancer.	<b>Detection</b> This is a test that checks for blood in your stool. It is done at home using a kit your doctor will give you.
RECOMMENDED AGE FOR AVERAGE RISK	45-75	45-75
FREQUENCY	Every 10 years* <i>*Depending on your results and physician recommendation</i>	Every year
WHAT TO EXPECT	<b>Preparation:</b> The day before the test, you have to follow a clear liquid diet and do prep that will cause diarrhea (watery stool), so you need to stay near a toilet. This empties the colon so the doctor can have a clear look. <b>Will it hurt?</b> No. You will get medication through a vein in your arm (an IV) that puts you to sleep. You won't feel any discomfort. <b>Will I have to take time off work?</b> Yes. You will need someone to drive you to the center and take you home after.	<b>Preparation:</b> You will do this test at home. You do not have to change your diet for this test. You will place a little stool in a vial. The kit will come with instructions for how to use and mail the sample to the lab. <b>Will it hurt?</b> No. <b>Will I have to take time off work?</b> No. You do this test at home at your convenience. *If the test is positive, you will need a colonoscopy to identify if there are polyps or cancer.
KEY FACTS	<ul style="list-style-type: none"><li>✓ Reduces death from colorectal cancer.</li><li>✓ Can prevent cancer by removing polyps (or abnormal growths in the colon) during test.</li><li>✓ Examines entire colon.</li><li>✓ Finds most cancers or polyps that are present at the time of the test.</li><li>✓ Done every 10 years if no polyps are found.</li></ul>	<ul style="list-style-type: none"><li>✓ Reduces death from colorectal cancer.</li><li>✓ Safe, available, and easy to complete.</li><li>✓ Done on your own at home.</li><li>✓ Detects cancer from small amounts of blood in the stool.</li><li>✓ Finds most cancers early when done every year.</li></ul>
THINGS TO CONSIDER	<ul style="list-style-type: none"><li>• Stomach pain, gas or bloating is possible before, during or after test.</li><li>• Must be performed at a hospital or clinic, usually with sedation or anesthesia, and someone must go with you to take you home after the test.</li><li>• A clear liquid diet is required before the test.</li><li>• Must take medication that will cause loose bowel movements to clean out the colon prior to test.</li><li>• Likely need to take a day off work/activities.</li><li>• Small risk of serious complications (for example, bleeding or perforated colon).</li></ul>	<ul style="list-style-type: none"><li>• May produce positive test results, even when no polyps or cancer are in the colon.</li><li>• When the test is positive, colonoscopy is required.</li><li>• Person testing themselves comes into brief close contact with stool samples on a test kit and must mail it or take it to a doctor's office or lab.</li></ul>
COST	Most insurance plans, including Medicare, cover this test. Check with your insurance company about your coverage.	Most insurance plans, including Medicare, cover this test. Check with your insurance company about your coverage.

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April 29, 2025

# Provider and Practice Resources

 Penn Medicine

## FIT REFERENCE GUIDE

### for Providers

**Fecal Immunochemical Test (FIT)** is a colorectal cancer screening test recommended by the US Preventive Services Task Force and the American Cancer Society. It is performed in the patient's home. If the result is positive, a follow-up colonoscopy is needed. If the result is negative, FIT or colonoscopy is needed after one year.



#### COLONOSCOPY CONSIDERATIONS:

- Colonoscopy is considered the first-line method for colorectal cancer screening methods because it can BOTH detect and prevent cancer.
- Patients with a history of inflammatory bowel disease or colorectal symptoms (bleeding or iron deficiency anemia) should receive a colonoscopy.



#### PATIENT IS ELIGIBLE IF:

- Between the ages of 50 and 75
- At "average risk" for colorectal cancer<sup>1</sup>
- Due for colorectal cancer screening<sup>2</sup>



#### REMIND PATIENT TO:

- Put the sample date on the bottle and envelope.
- Include the lab form in the return envelope.
- Mail the sample within 24 hours of collection.



#### BE SURE TO:

- Label the collection tube with DOB/MRN and the lab account number.
- Put the lab form in the return envelope when giving the kit to the patient.



#### PATIENT INSTRUCTIONS:

- Patients will receive instructions about sample collection and submission with their kit.

1. No personal or family history of colorectal cancer or polyps; 2. Has not had colonoscopy in 10 years; CT colonography (virtual colonoscopy), flexible sigmoidoscopy, or double-contrast barium enema in 5 years; fecal immunochemical or guaiac-based fecal occult blood in past year; stool DNA test in 3 years.

#### WHAT IF:

##### ...patient says they sent FIT and haven't gotten a result?

Contact client services at 215.662.4808 with patient name, MRN, DOB and date of sample collection.

##### ...patient forgets to write the collection date on the sample?

The sample will be result and will include the following text: "Collection date not provided, interpret results with caution as false negative results may occur for samples tested >14 days after collection." Additionally, samples not labeled properly with patient name and second identifier will be canceled.

##### ...sample is not received within 14 days?

If the sample is not received within 14 days, the following text will be sent instead of a result: "Testing cannot be performed as specimen was received >14 days after collection; the request has been canceled."

##### ...the sample is not collected properly?

If the sample is not received properly (e.g., there is no liquid in collection tube, there is obvious blood, raw stool is submitted in container) the following text will be sent instead of result: "Polymedco OC sampling bottle improperly inoculated. Test canceled."

##### ...I have more questions?

For questions about FIT supplies, FIT results, lost FIT kits or PennChart, call:

**PENN LAB CLIENT SERVICES**  
215.662.4808

## Instructions

### QUICK START GUIDE

Read all package instructions carefully before sample collection. Test results may be invalid if test is not completed properly.

#### Test Components



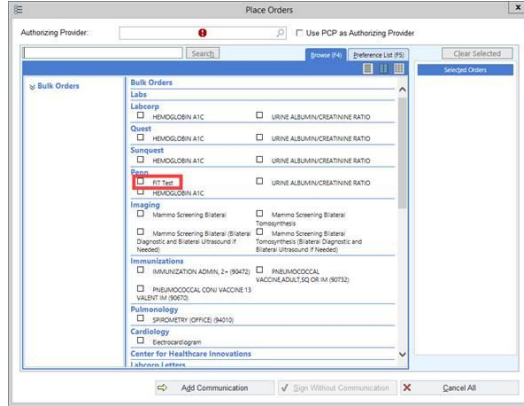
#### Sample Collection

- Place collection paper inside toilet bowl on top of water.
- Open sampling bottle by twisting and lifting green cap.
- Deposit poop on top of collection paper.
- Scrape the surface of the poop with the sample probe before paper sinks and poop touches water.
- Cover the grooved portion of the sample probe completely with poop.
- Close sampling bottle by inserting the sample probe and snap green cap on tightly. **Do not reopen.**
- Flush. Collection paper is biodegradable and will not harm septic systems.
- Fill out the sampling bottle with your information.
- Wrap the sampling bottle in the absorbent pad, place it in the biohazard bag, then place the bag in the enclosed US Postal Service approved mailing envelope. Promptly return the sampling bottle to your doctor or laboratory. **A delay may make the test invalid.**

Current US Postal Regulations prohibit mailing completed samples in this or any other standard envelope. If you are returning your sample through the mail, use the enclosed US Postal Service approved mailing envelope.



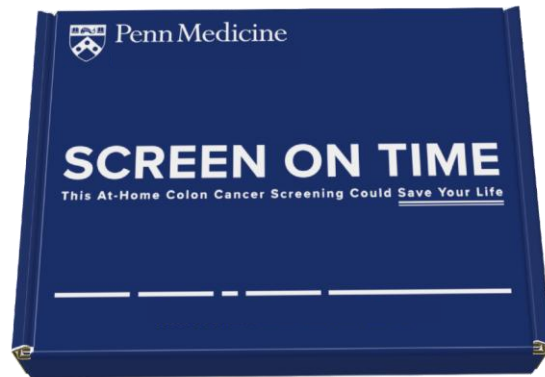
# Foundation for Centralized FIT kits mailing



Targeted reports for average risk patient



Supply Chain for FIT and Lab capacity for Tests



Vendor partner to package and mail kits



Population Health navigation and reminders via Text

# Bulk FIT kit Plan

4000  
Bulk FIT  
orders

- Average risk
- Penn labs preferred
- Results to providers

Place Orders

Authorizing Provider: [Red Error Icon] Use PCP as Authorizing Provider

Search [Browse (F4)] [Preference List (F5)] [Clear Selected]

**Bulk Orders**

**Labs**

**Labcorp**

☐ HEMOGLOBIN A1C ☐ URINE ALBUMIN/CREATININE RATIO

**Quest**

☐ HEMOGLOBIN A1C ☐ URINE ALBUMIN/CREATININE RATIO

**Sunquest**

☐ HEMOGLOBIN A1C ☐ URINE ALBUMIN/CREATININE RATIO

**Penn**

☒ FIT Test ☐ URINE ALBUMIN/CREATININE RATIO

☐ HEMOGLOBIN A1C

**Imaging**

☐ Mamm Screening Bilateral ☐ Mamm Screening Bilateral Tomosynthesis

☐ Mamm Screening Bilateral (Bilateral Diagnostic and Bilateral Ultrasound if Needed) ☐ Mamm Screening Bilateral Tomosynthesis (Bilateral Diagnostic and Bilateral Ultrasound if Needed)

**Immunizations**

☐ IMMUNIZATION ADMIN, 2+ (90472) ☐ PNEUMOCOCCAL VACCINE, ADULT, SQ OR IM (90732)

☐ PNEUMOCOCCAL CONJ VACCINE 13 VALENT IM (90670)

**Pulmonology**

☐ SPIROMETRY (OFFICE) (94010)

**Cardiology**

☐ Electrocardiogram

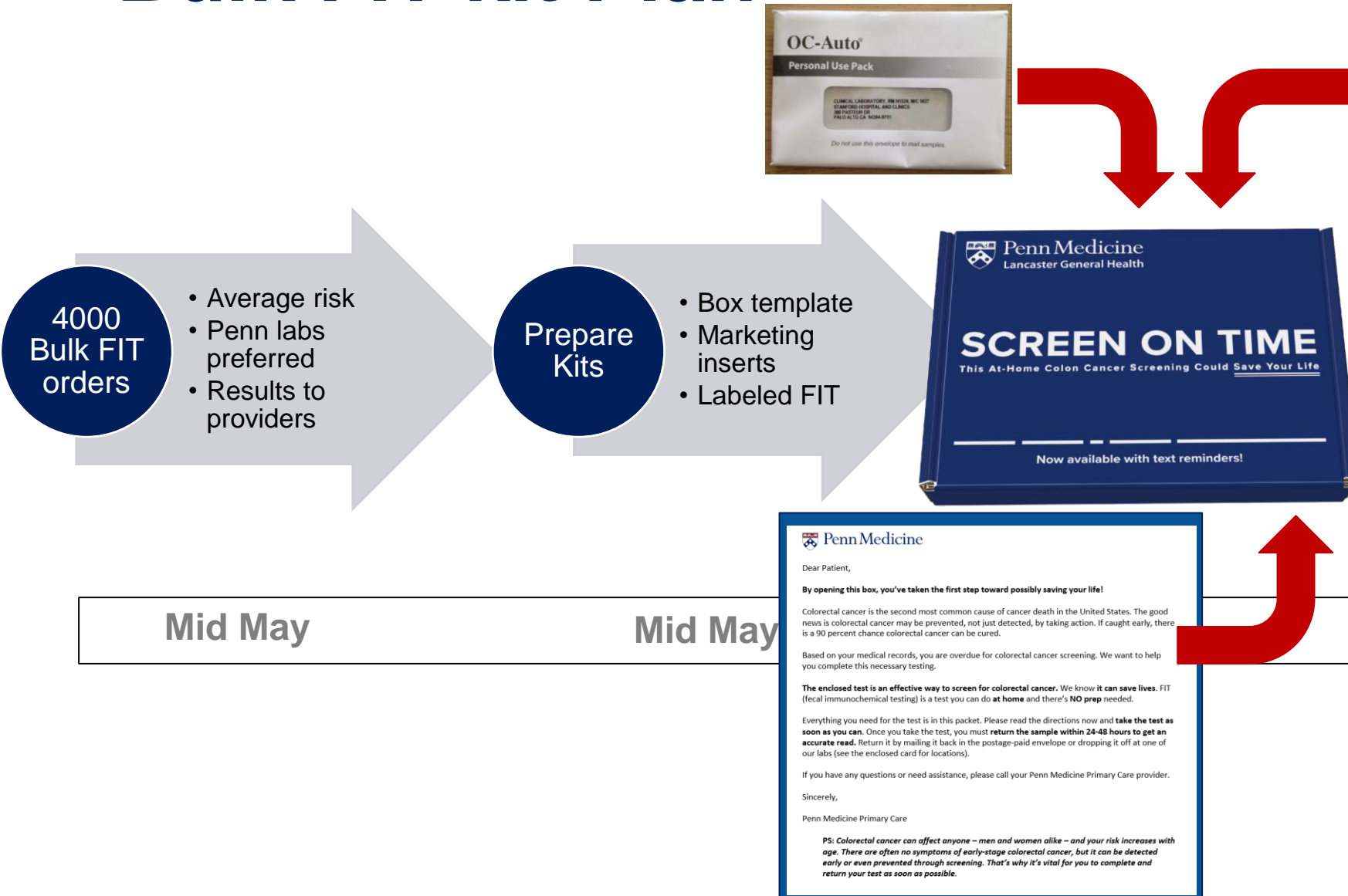
**Center for Healthcare Innovations**

**Labcorp Letters**

[Add Communication] [Sign Without Communication] [Cancel All]

Mid May

# Bulk FIT kit Plan



## Screen for Colorectal Cancer Today!

**DON'T DELAY**

The enclosed test is fast, simple... and it could save your life! This kit will expire, so act now! Don't forget to write the collection date on the specimen vial and return envelope.

**Three Easy Steps**

Read the instructions.

One day this week, collect a sample of your poop.

Return the test within 24–48 hours.

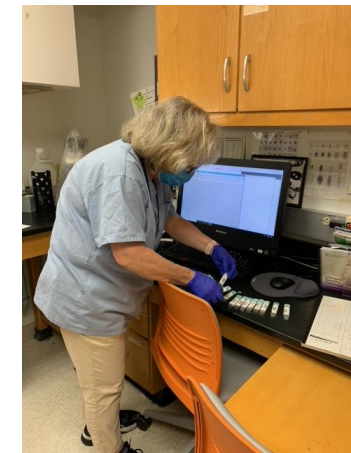
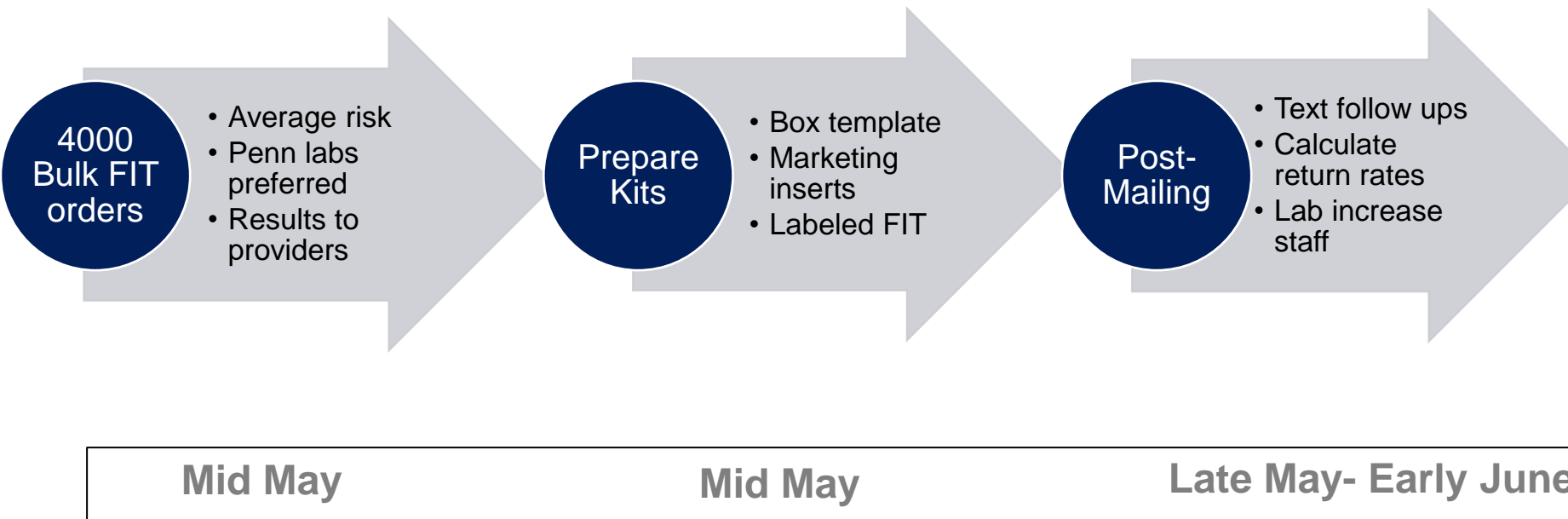
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**To Return:**  
Once completing your test, please return it within 24 to 48 hours by mail in the postage-paid envelope provided or drop it off at any Penn Medicine Outpatient Laboratory listed below. No appointment necessary.

**LOCATIONS**

<b>3701 Market Street</b> Mon-Thurs: 7 am to 6:30 pm Friday: 7 am to 6 pm	<b>Penn Medicine Radnor</b> Mon-Fri: 7 am to 4:45 pm Saturday: 7 am to 11:15 am	<b>Penn Medicine Woodbury Heights</b> Mon-Fri: 6 am to 4:30 pm
<b>Penn Medicine Bucks County Washington Square</b> Mon-Fri: 7 am to 3 pm Saturday: 7 am to noon	<b>Penn Medicine Perelman Center for Advanced Medicine</b> Mon, Wed-Fri: 8 am to 5:30 pm Tuesday: 7 am to 5:30 pm	<b>Penn Presbyterian Medical Center</b> Mon-Fri: 8 am to 5 pm
<b>Penn Medicine Cherry Hill</b> Mon-Fri: 6:30 am to 5 pm	<b>Penn Medicine Mount Laurel</b> Mon-Fri: 7:30 am to 4 pm	<b>Pennsylvania Hospital</b> Mon-Fri: 7 am to 5 pm
<b>Penn Medicine Valley Forge</b> Mon-Fri: 7 am to 4:45 pm	<b>Penn Medicine University City</b> Mon-Fri: 8 am to 5 pm	

# Bulk FIT kit Plan



# Bulk FIT kit Plan

Report Settings - FIT Tests with Results: 6 Months [23217615]

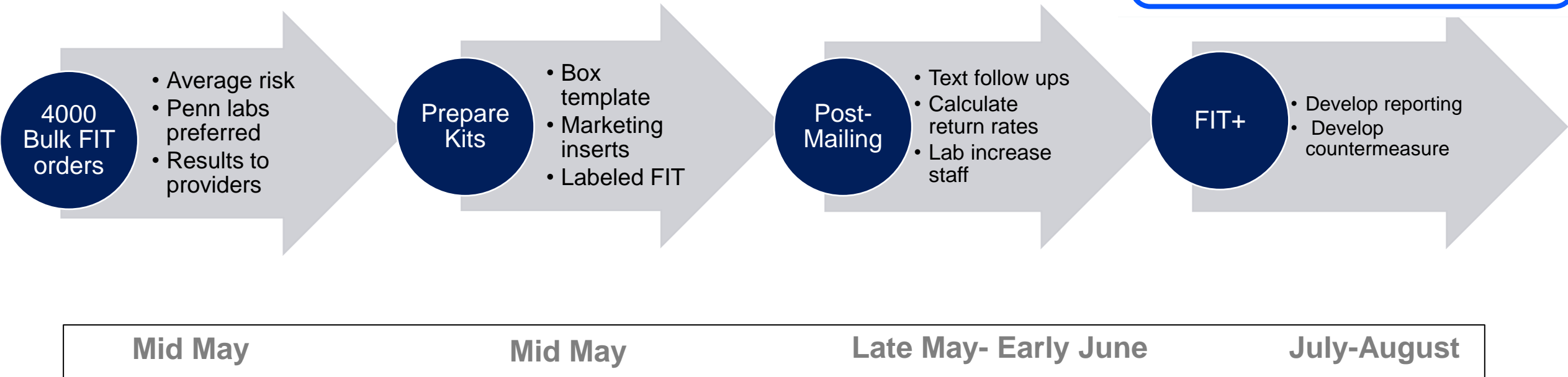
Criteria Display Appearance Summary Print Layout Toolbar Override **General**

Name: FIT Tests with Results: 6 Months

Email Settings Public Private

Description:  
This report returns patients of the PCSL who had a FIT test ordered in the past 6 months for the logon department of the user. If received, the results are included in the report. Also included is the most recent colonoscopy. The purpose is to verify that FIT tests that are ordered are received and that patients who have a positive FIT test have a colonoscopy.

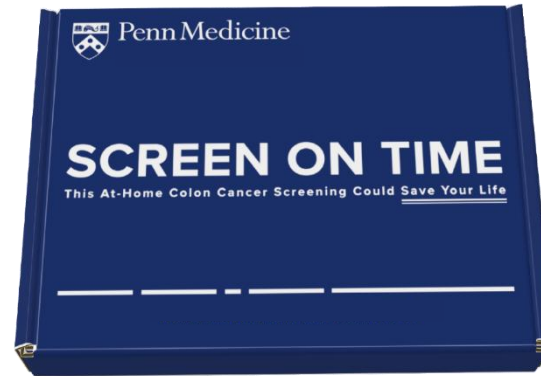
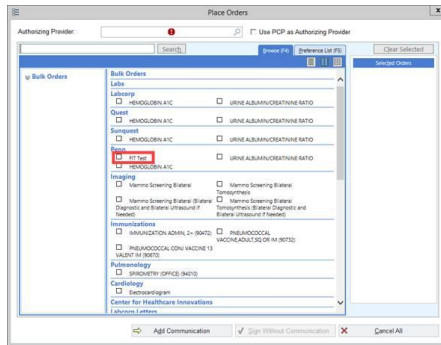
FIT Test Result	Last FIT Results	Last Colonoscopy
01/04/2021	Positive	02/19/2021
01/21/2021	Positive	02/12/2021



**Countermeasure: FIT+ to colonoscopy >80%**

# Spring 2021: Penn Med CRC Outreach

4,000 mailed FIT kits at 12 practices in Philadelphia area



**Not randomized**

**25% response rate**

**24% FIT+ scheduled or completed colonoscopy**

# PDSA Cycles

# Voice of Customer: What went well?

- “Harnessing data centrally. Having this run centrally. Strong data support. Attractive looking boxes.
- “Prioritization of CRC as a quality goal. Only sent to those who were not up to date.”
- “I like that we are trying to stay on top of patient's cancer screenings, especially after the pandemic when most people kind of let health concerns go.”
- “That MAs got trained to counsel patients on the instructions for FIT testing.”
- “Great to see those FIT tests rolling in.”
- “Like that I was able to get a patient in for COY following positive result.”
- “Automatic, didn't involve my time until there were results to manage.”
- “Centralized process with nice kit developed by marketing. Looks better than what we normally give out.
- “Texting support also great.”

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**ONE PENN MEDICINE**

A Blueprint for Quality & Patient Safety



# Voice of Customer: What didn't work well?

- “My patient had every plan to do a COY but did FIT anyway.”
- “I'm not certain if pts knew how to do it correctly.”
- “Didn't hear many details, would have liked a 1 page explanation or brief email with details.”
- “Trouble with mail not getting returned appropriately.”
- “Would be great to create a colonoscopy scheduling pool for +FIT tests so once we inform pt. of results
- we can route it to PSR that can assist with scheduling colonoscopy directly with out having to call and go through the call center.”
- “I don't recall getting a general message stating this was going to take place. I found out after FIT kits were already mailed.
- Also, some patients already had Cologuards in process or colonoscopies scheduled, thereby duplicating the process.”

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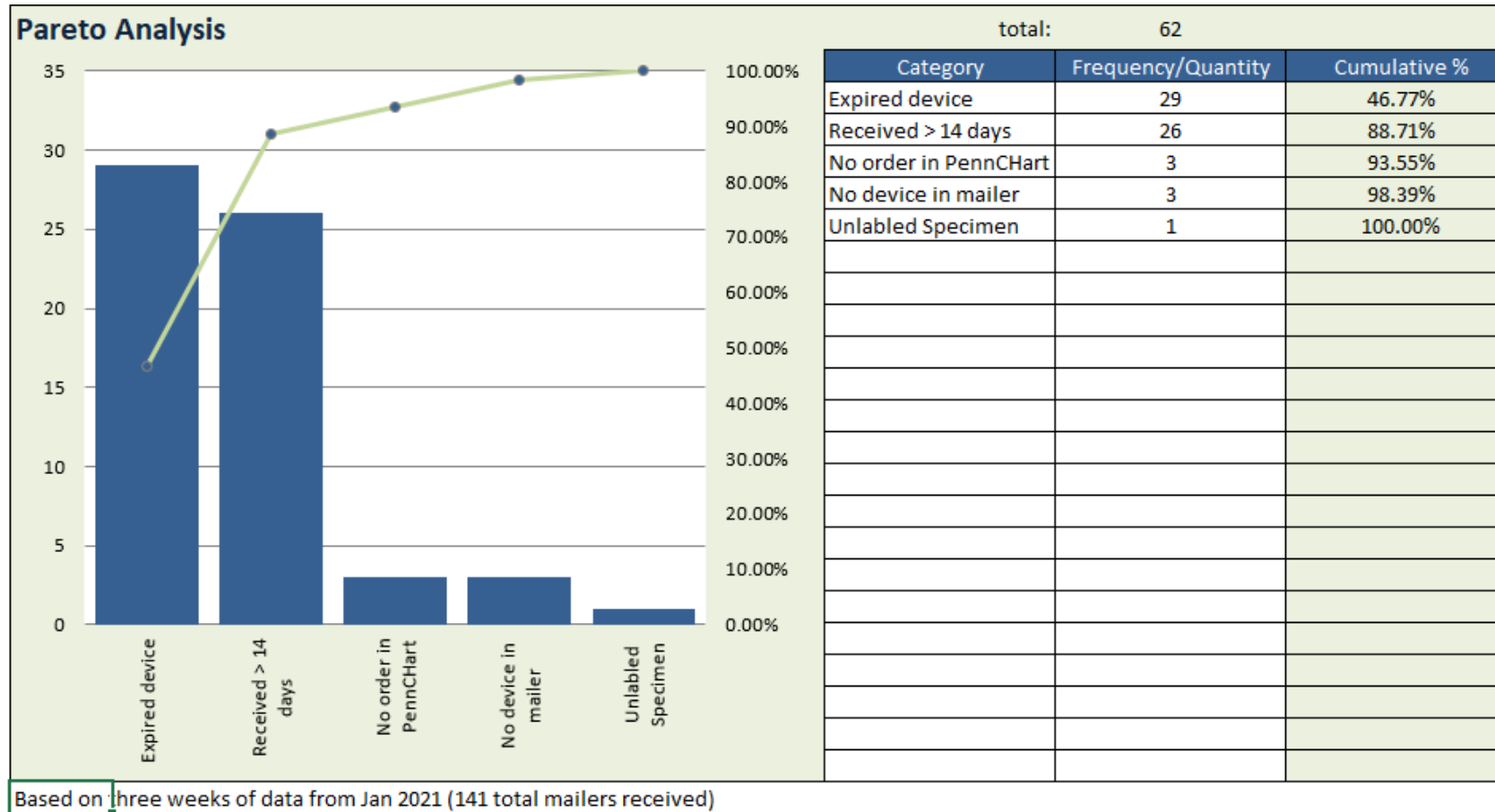
**ONE PENN MEDICINE**

A Blueprint for Quality & Patient Safety

# Voice of Customer: Change one thing.

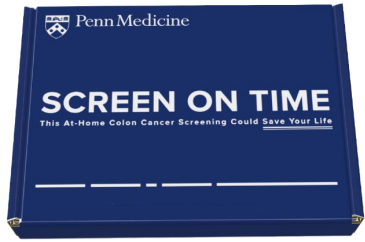
- “Having and instruction sheet outside the envelope would make it easier/faster to explain.”
- “Make clear (or clearer) who has received a kit.”
- “More advertising / notifications ahead of time - the roll out was a little fast.”
- “Phone outreach to high risk pts.”
- “Automatic notification of patient of negative results with a note and CC to the provider. If Positive result - automatic next steps in place (like if positive mammogram) including a staff RN to call patient and discuss, auto consultation to colonoscopy with GI reach out, education about prep, and prescribing the prep.”
- “Continuous mailing out and managing over the year rather than a single campaign, or a way to refer someone into the text reminder system if I give them a FIT kit in the office.”

# FIT Failures



# Spring 2022: Pragmatic Trial of FIT Outreach

Goal: Evaluate different approaches to increase colorectal cancer screening among primary care patients at Penn Medicine through a centralized screening outreach program, including:



Differentiated packaging



Text reminders



Personalized mailed reminders

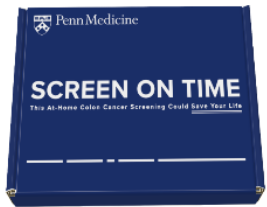
Publication Pending

# 4 Month FIT Completion

## Primary Outcome, by combined arm

4 Month FIT Completion: 924/5,244 (17.6%)

### 1 Package Type



17.4%



17.8%

-0.4  
(P=.74)

### 2 Text Messaging



20.9%



14.3%

+6.6% (P<.0001)

### 3 Mailed Reminders



20.0%



15.3%

+4.7% (P<.0001)

# Evolving Outreach via PDSA Cycles

## IMPROVED PACKAGING

 Penn Medicine

### QUICK START GUIDE

Read all package instructions carefully before sample collection.  
Test results may be invalid if test is not completed properly.




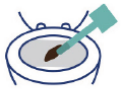





### ▶ TEST COMPONENTS



Scan the QR code with your smart phone to watch the **Quick Start Guide** or visit [bit.ly/4etb4iE](https://bit.ly/4etb4iE).

*Continued on back*

### ▶ SAMPLE COLLECTION

1. Place collection paper inside toilet bowl on top of water.
2. Open sampling bottle by twisting and lifting green cap.
3. Deposit poop on top of collection paper.
4. Scrape the surface of the poop with the sample probe before paper sinks and poop touches the water.
5. Cover the grooved portion of the sample probe completely with poop.
6. Close sampling bottle by inserting the sample probe and snapping green cap on tightly. **Do not reopen.**
7. Flush. Collection paper is biodegradable and will not harm septic systems.
8. Check to ensure your name is correct on the label. **Put the date of collection on the sampling bottle and the return envelope.**
9. Wrap the sampling bottle in the absorbent pad, place it in the biohazard bag, then place the bag in the enclosed US Postal Service approved mailing envelope. Promptly mail the envelope or drop it off at a Penn Medicine Outpatient Lab. Call **866.912.7438** or visit **PennMedicine.org/Labs** for more information. **A delay may make the test invalid.**

Current US Postal Regulations prohibit mailing completed samples in any standard envelope. If you are returning your sample through the mail, use the enclosed US postal service approved mailing envelope.

# Evolving Outreach via PDSA Cycles

## ENCOURAGE DROP OFF AT LABS

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**DON'T DELAY**

**Screen for Colorectal Cancer Today!**

The enclosed test is fast, simple... and it could save your life! This kit will expire, so act now!  
**Don't forget to write the collection date on the specimen vial and the return envelope.**

### ▶ THREE EASY STEPS



**Read the instructions.**



**One day this week, collect a sample of your poop.**



**Return the test immediately after completion.**

*Drop off as soon as possible to nearest Penn Medicine laboratory, locations on back of card. Please mail sample if you are unable to drop off.*

### ▶ TO RETURN

Once you have completed your test, please return it **immediately** by mail in the postage-paid envelope provided or drop it off at any Penn Medicine Outpatient Laboratory listed on the back side.

No appointment necessary. For questions, please call **866.912.7438**. For more information, please visit **[PennMedicine.org/Labs](https://pennmedicine.org/Labs)**.

*Continued on back*

### ▶ LOCATIONS

**Penn Internal Medicine University City**  
3701 Market Street, Ground Floor  
Philadelphia, PA 19104

**Penn Medicine Bucks County**  
777 Township Line Road  
Yardley, PA 19067

**Penn Medicine Cherry Hill**  
1865 Route 70 East  
Cherry Hill, NJ 08003

**Penn Medicine Mount Laurel**  
5000 Dearborn Circle, Suite 100  
Mount Laurel, NJ 08054

**Penn Medicine Valley Forge**  
1001 Chesterbrook Boulevard  
Berwyn, PA 19312

**Penn Medicine Radnor**  
145 King of Prussia Road  
Suite 105 North  
Radnor, PA 19087

**Penn Medicine Washington Square**  
800 Walnut Street, 8th Floor  
Philadelphia, PA 19107

**Perelman Center for Advanced Medicine**  
3400 Civic Center Boulevard  
East Pavilion, 1st Floor  
Philadelphia, PA 19104

**Penn Medicine University City**  
3737 Market Street, 7th Floor  
Philadelphia, PA 19104

**Penn Medicine Woodbury Heights**  
1006 Mantua Pike  
Woodbury Heights, NJ 08097

**Penn Presbyterian Medical Center**  
51 N. 39th Street  
Cupp Pavilion  
Philadelphia, PA 19104

**Pennsylvania Hospital**  
800 Spruce Street  
1 Cathcart  
Philadelphia, PA 1910

**Kennett Medical Campus**  
400 McFarlan Road  
Suite 301  
Kennett Square, PA 19348

**Penn Medicine Exton**  
700 West Lincoln Highway  
Suite 716  
Exton, PA 19341

**Penn Medicine Southern Chester County**  
455 Woodview Road  
Suite 110  
West Grove, PA 19390



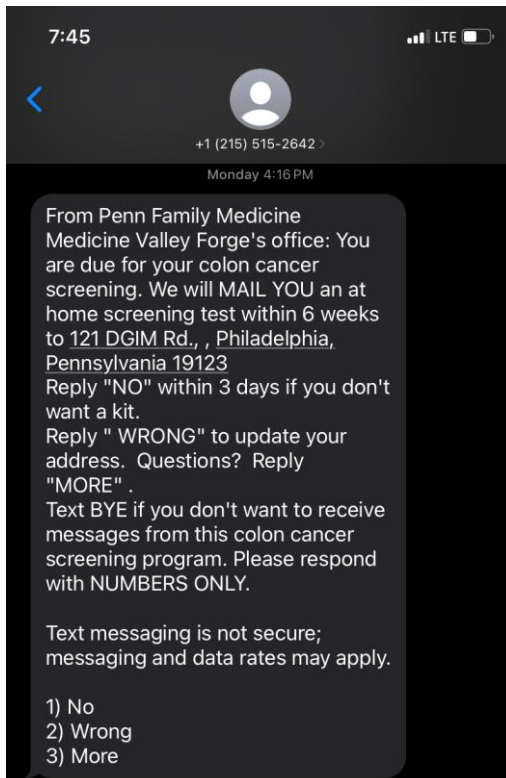
Scan the QR code with your smart phone for Penn Medicine laboratory hours or visit **[PennMedicine.org/Labs](https://pennmedicine.org/Labs)**.

FY25-42591 9/24

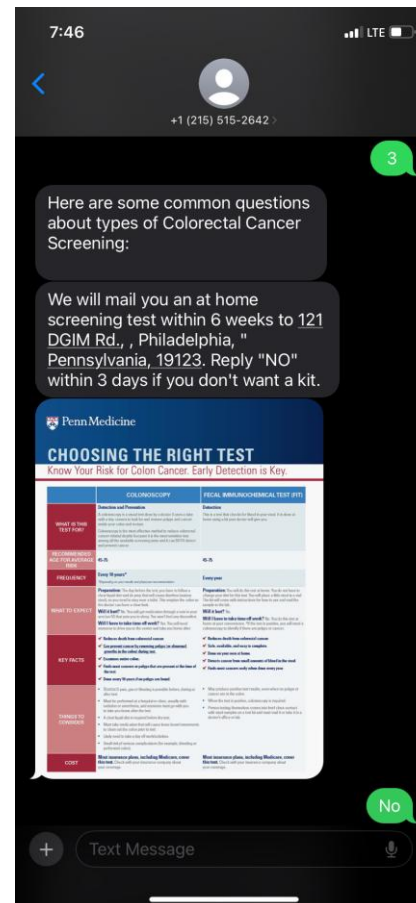
# Evolving Outreach via PDSA Cycles

## IMPROVED MESSAGING – OPT OUT

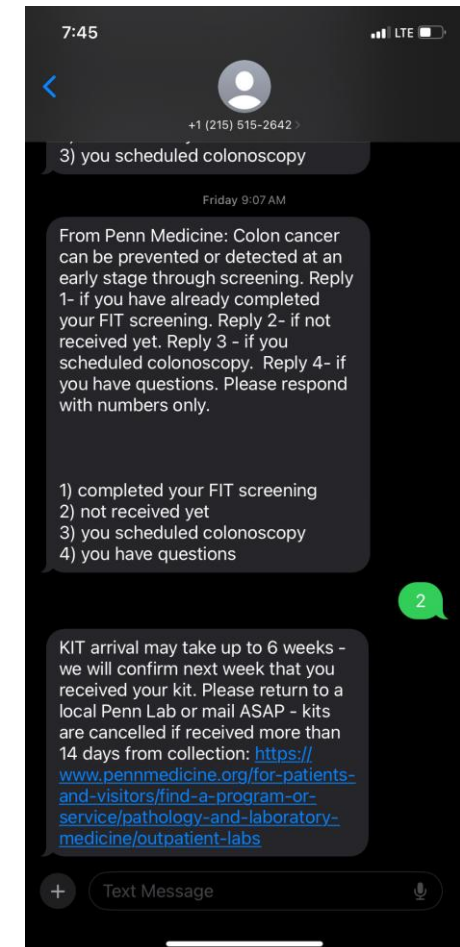
### Day 1 Message 1



### More Prompt:



### Reminder Message:





# Evolving Outreach via PDSA Cycles

## ADDING NAVIGATION

- Referral available in system

CONSULT TO NAVIGATION - COLORECTAL CANCER SCREENING

Process Instructions:

1. This navigation order is an internal order for PCSL practices in Philadelphia.
2. Please inform patient to expect a call from the Navigation Team.
3. Only refer patients NOT at average risk - FIT completion support not provided by this team.

Reason for Navigation Order (barriers):

☐ Additional Education ☐ Escort ☐ Obtaining Prep ☐ Prior Missed Colonoscopy ☐ Prior Poor Prep ☐ Transport

Supportive Clinical Data: ☐ Change in Bowel Habits ☐ FIT+ ☐ GI Bleeding ☐ IDA ☐ Other High Priority ☐ Screening ☐ Weight Loss ☐ Prior Polyp

Special Contact Considerations:

Comments:

CC Results:

Class: **Internal referral**

Next Required

Caution: There is another patient with the same name and date of birth. Before pressing this record make sure you are accessing the right one. Verify at least additional data elements of the following: address, last four of SSN, parents' names.

After Visit: CONSULT TO NAVIGATION - COLORECTAL CANCER SCREENING

HUP - PCAM Pharmacy 19104 Philadelphia, PA 3400 Civic Cntr Blvd 101 W  
215-662-6260 215-243-2345 215-662-6260

LEVEL OF SERVICE PEND SIGN ORDERS

- Navigation team is outreaching to black patients that have not returned their Fit Kits
- Centralized and navigation team share a patient list to keep track of patient outreach

### Possible Outcomes

- Patient has kit
  - Patient is reminded to complete FIT Kit
- Patient has not received kit
  - Patient will be added to our next outreach
- Patient wants colonoscopy instead
  - GI contact provided to patients and order will be pended if needed

# Evolving Outreach via PDSA Cycles

## IMPROVING PRACTICE COMMUNICATION

- Target Practice Regions at same time frame each year
- Work with leadership to ensure messages get to practices, call centers, staff, and providers

# Planned Outreach with Penn Primary Care

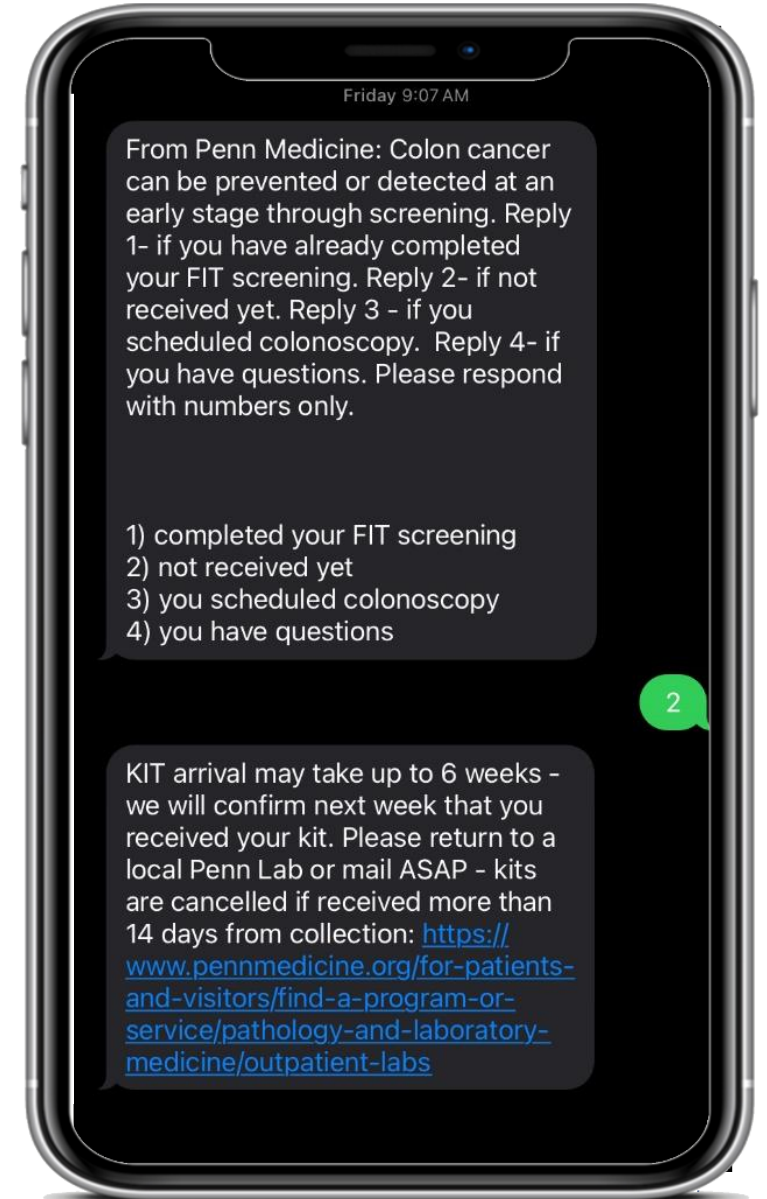
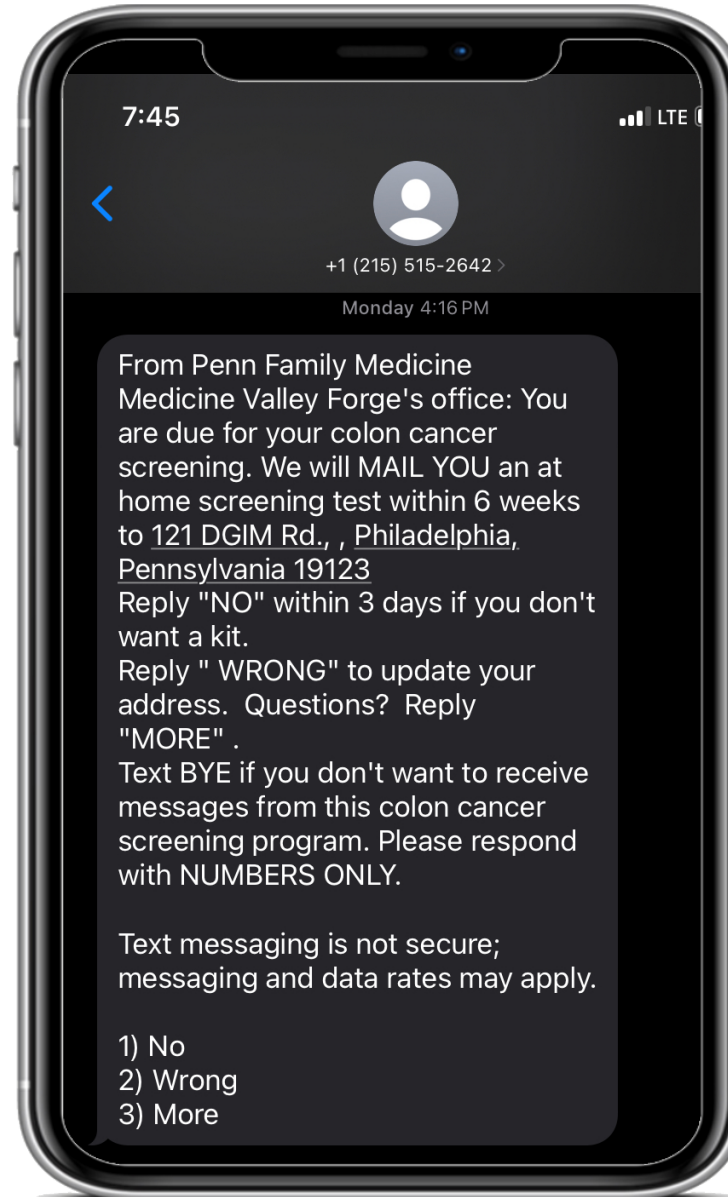
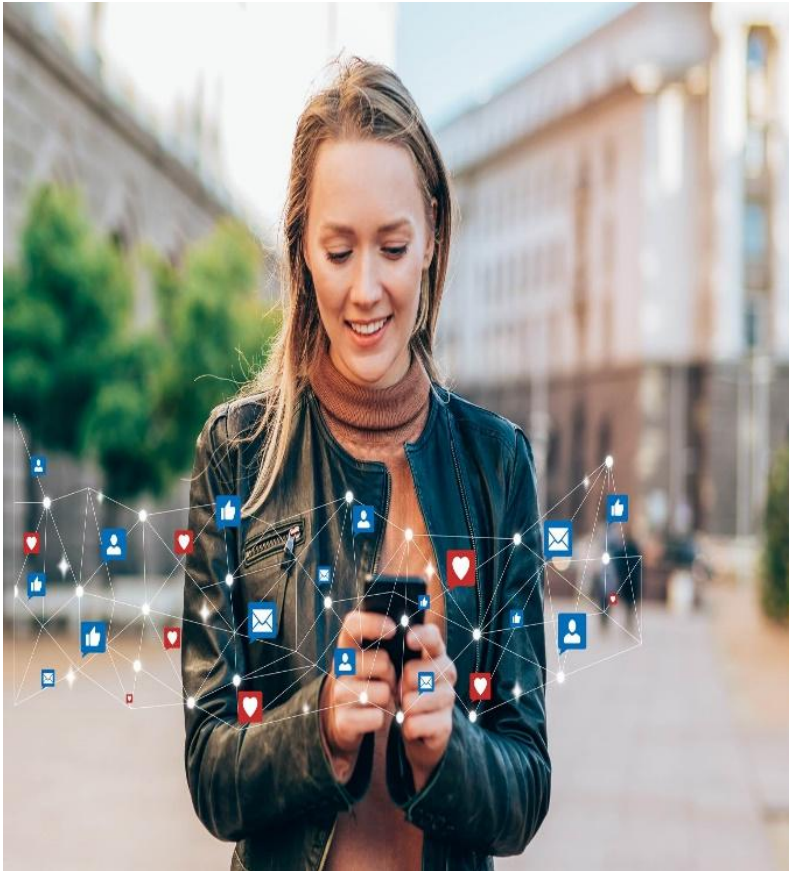
The goal of these colon cancer screening text messages is to provide **direct outreach for eligible average risk patients to increase colorectal cancer screening**. This will be done on a *centralized* basis, to reduce the burden on providers and clinics.

This is the 5th annual outreach – we hope this will be a streamlined process for patients, providers, and staff.

# What you need to know

- **Patients will be getting text messaging** (next slides) to remind them to complete their FIT – target date of first message \*\*\* \*\*, 2025.
- We expect to get increased calls and messages as a result of this message
  - **Some patients will request a colonoscopy order instead of FIT OR Request a 2<sup>nd</sup> kit**
    - Please use your clinic's usual workflow (telephone message to provider ± pended order, etc.)
  - **Other patients will report they had a colonoscopy completed somewhere else**
    - Please get date and site of colonoscopy completion and ask patient to send to send documentation to clinic. Please route to population health team and FYI to PCP.
  - **Potential other feedback:**
    - If patient had inappropriate outreach, has a complaint about outreach, or is referring to PCP's participation please let them know **"This was a centralized outreach by Penn's population health team, thank you for your feedback, I will pass along to your PCP and the planning team."** Route to PCP who can pass to central team if appropriate.

# What The Patients See



# Scale and Sustain

# Population Health Outreach Overview

LONGITUDINAL, CONTINUOUS CENTRAL OUTREACH PROGRAMS  
INFORMED BY 3 YEARS OF RESEARCH AND PDSA CYCLES.



## MONTHLY DIABETES LAB OUTREACH

DOTBot (Diabetes Outreach Text Bot):  
Text-based program encouraging patients  
to complete lab work previously ordered  
by their provider.

~1500 patients/month



## WEEKLY MED ADHERENCE

Ensuring medication supply for patients  
by proactively prompting refills via text.  
~200 outreach/week

Centrally  
Managed



## MONTHLY MAMMOGRAM OUTREACH

Breast cancer screening program: Remind  
patients to schedule mammograms via text.

~1500 patients per month.

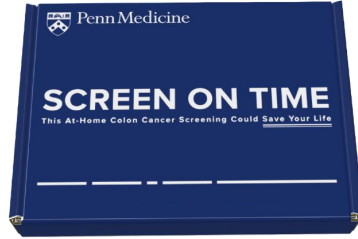
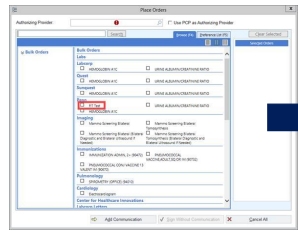


## MONTHLY COLORECTAL CANCER OUTREACH

FIT Kit outreach program.  
Complements active research  
program

~2000 kits mailed/month

# Evolution of Centralized FIT Campaigns



- April 2021
  - 4000 kits to ~12 CPUP and Philly clinics

- April 2022 RCT
  - 5000 kits to ~20 CPUP and PPC clinics

- April-June 2023
  - 3000 kits to 4 Chester County Clinics

- September-October 2023
  - 4000 kits to Tri-County Clinics

February 2024

- Launch cyclical central FIT outreach campaigns monthly

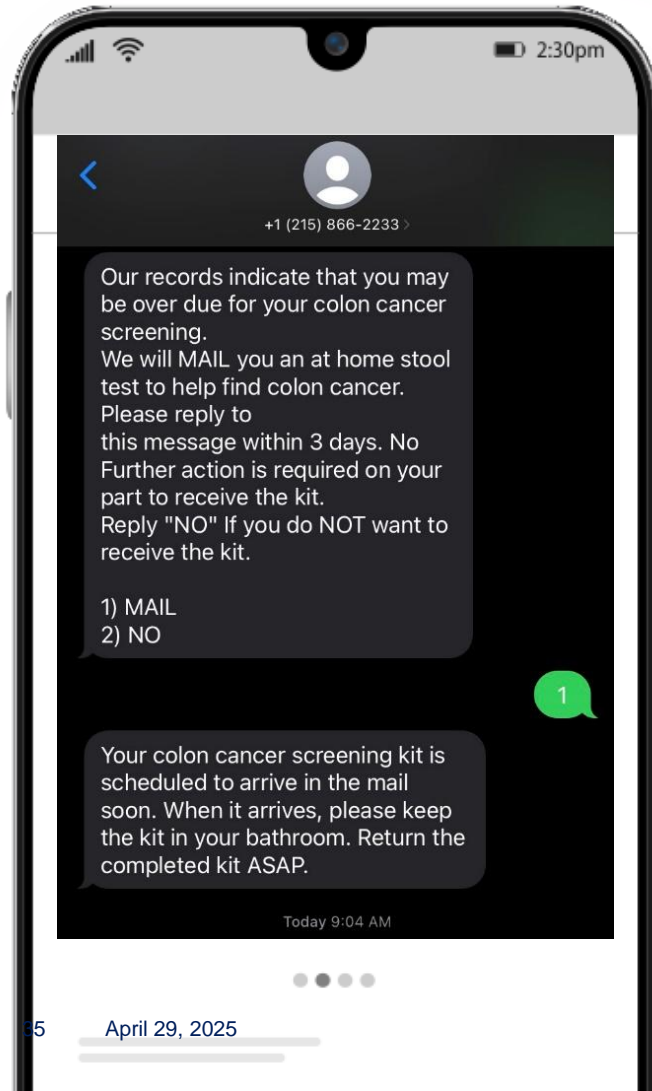


# Monthly Cycle:

- About a 2 month cycle from bulk signing to return of kits
- Data analytics target average risk patients WITHOUT upcoming colonoscopy scheduled
- Initial Opt – in to ensure kits not sent to patients who do not want – and opportunity to close gaps by eliciting any colon cancer screening
- Each patient gets 2 reminders at day 35 and 42 and responses go out our population health team

June 2024						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1 bulk sign june
2	3	4 June opt out	5	6	7	8
9	10 List to 3 <sup>rd</sup> party vendor	11	12	13	14	15
16	17	18	19	10	21 june Kits ship	22
23	24	25	26	27	28	29 bulk sign july
July 2024						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
30	1	2 July Opt out	3	4	5	6
7	8 List to 3 <sup>rd</sup> party vendor	9	10	11	12	13
		Fit reminder June +35				
14	15	16	17	18	19 july Kits ship	20
		Fit reminder June +42				
21	22	23	24	25	26	27
28	29	30	31			

# FIT Campaigns – Expected Results



~5%

PROVIDED RECORDS



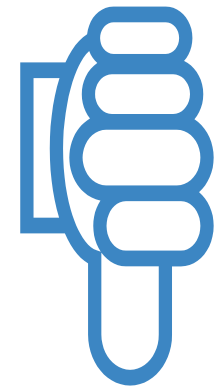
15%

KITS COMPLETED



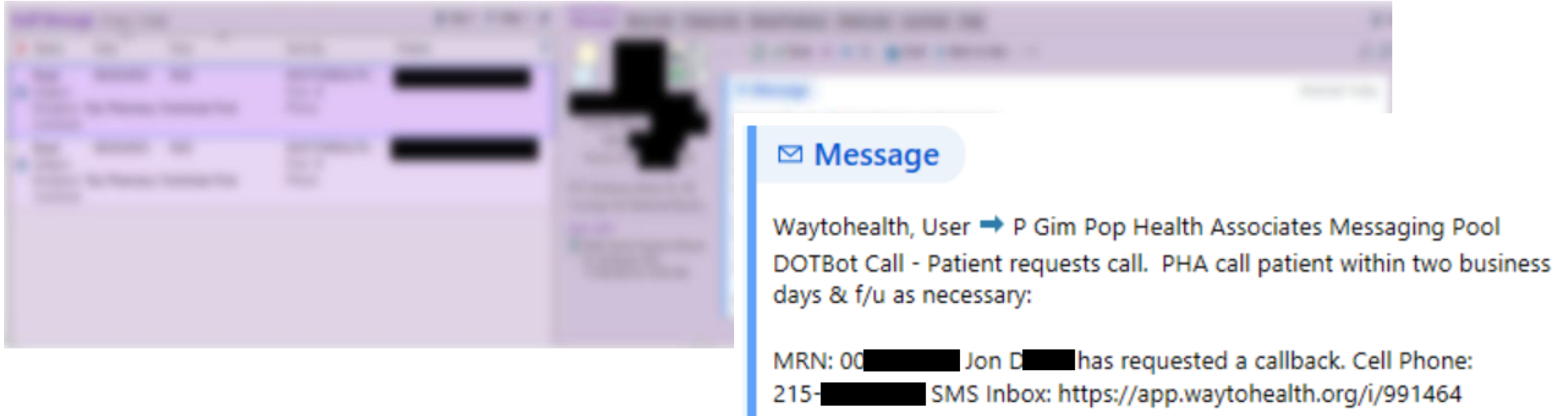
11%

OPTED OUT



# Population Health Team EHR View

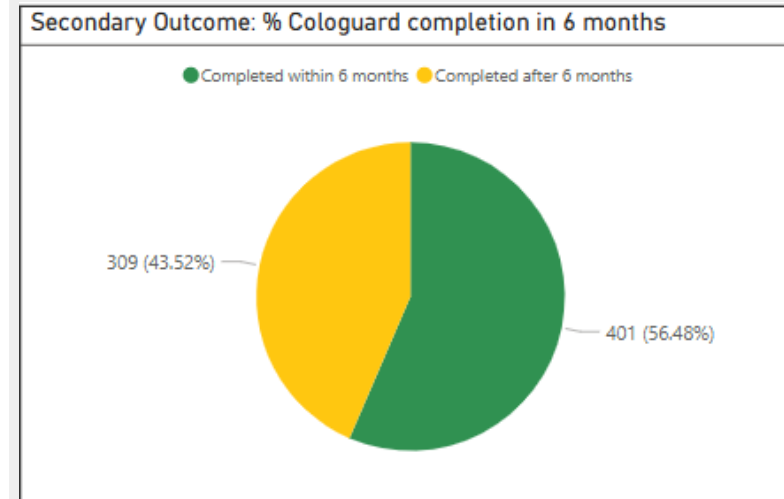
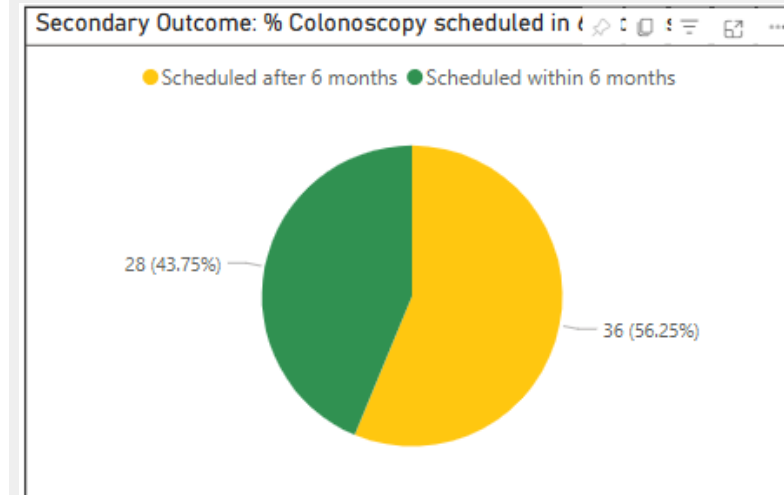
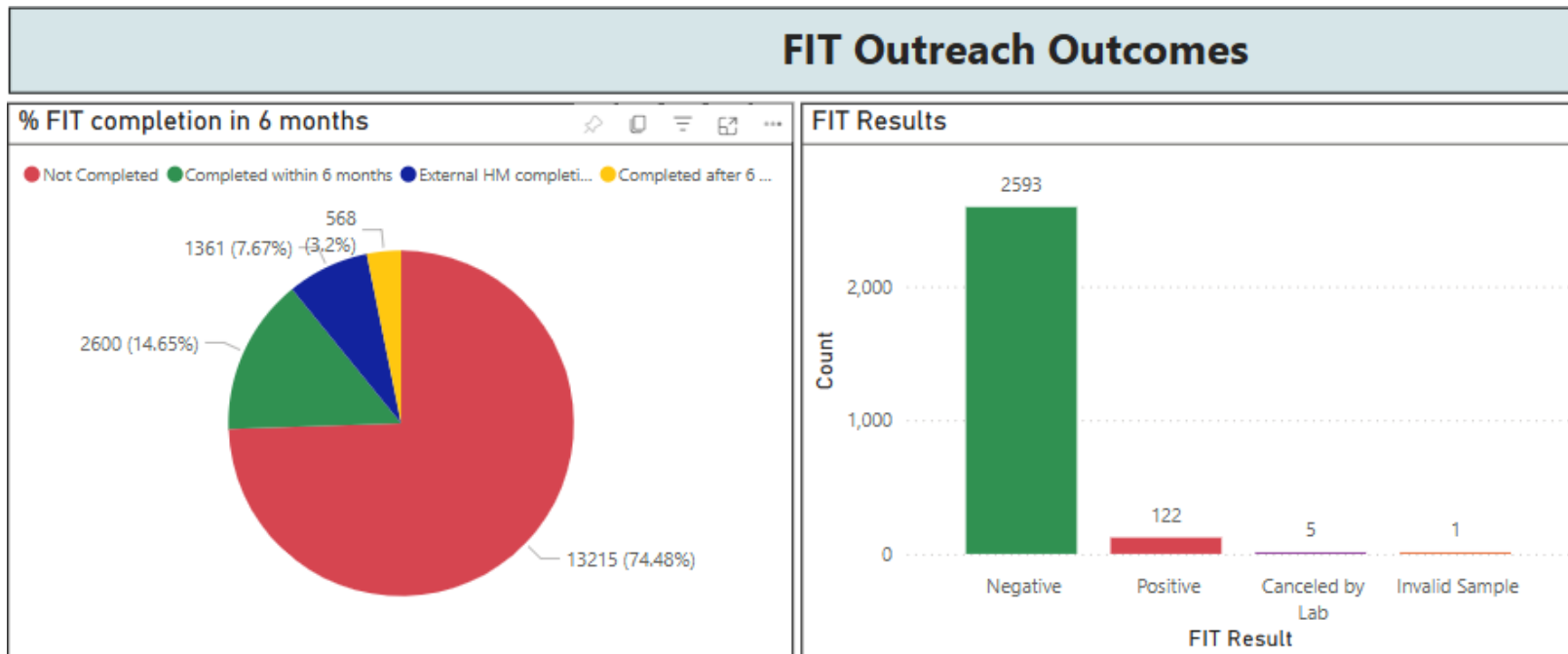
INTEGRATE TASKS DIRECTLY INTO EHR



This allows our team to directly respond in EHR via text or call

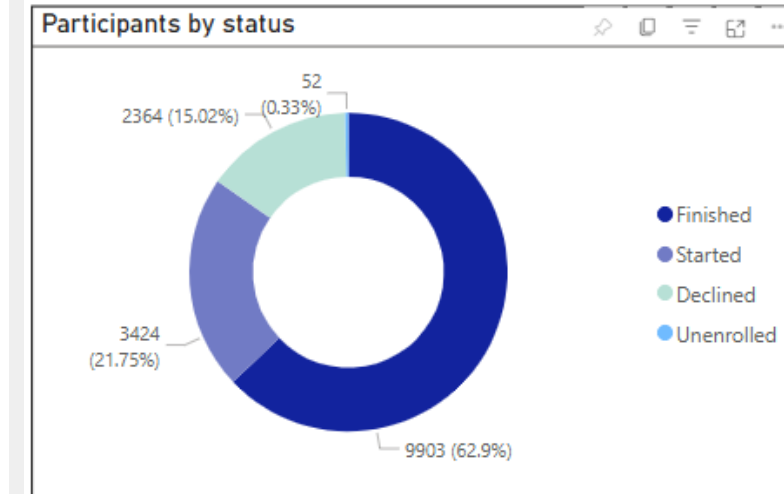
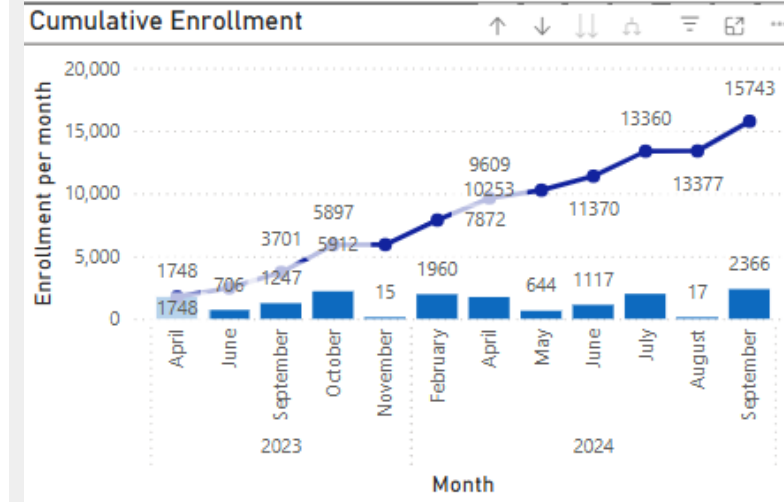
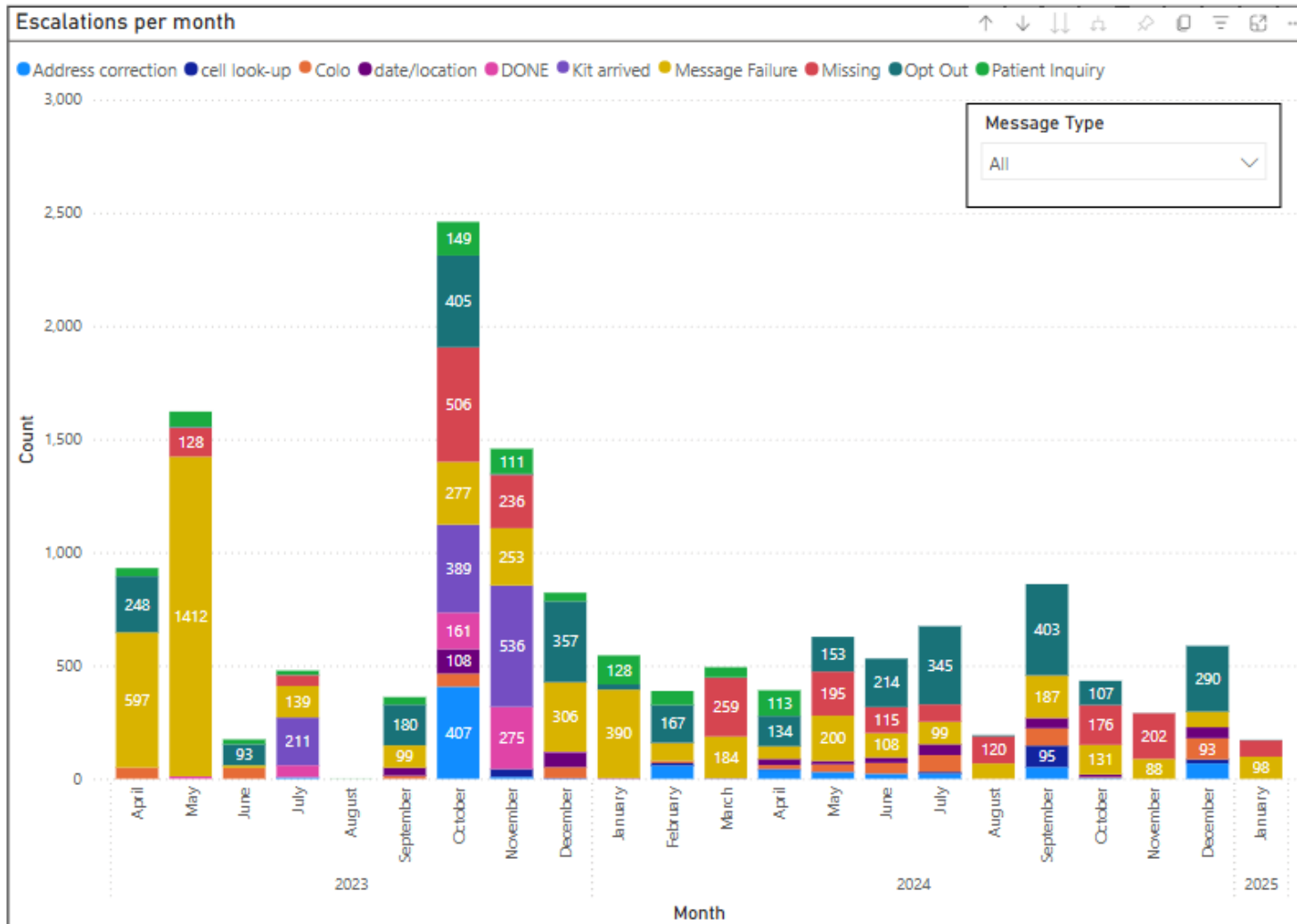
# Tracking Dashboards:

## OVERALL PRIMARY AND SECONDARY OUTCOMES



# Tracking Dashboards:

## OVERALL VOLUME AND ESCALATIONS



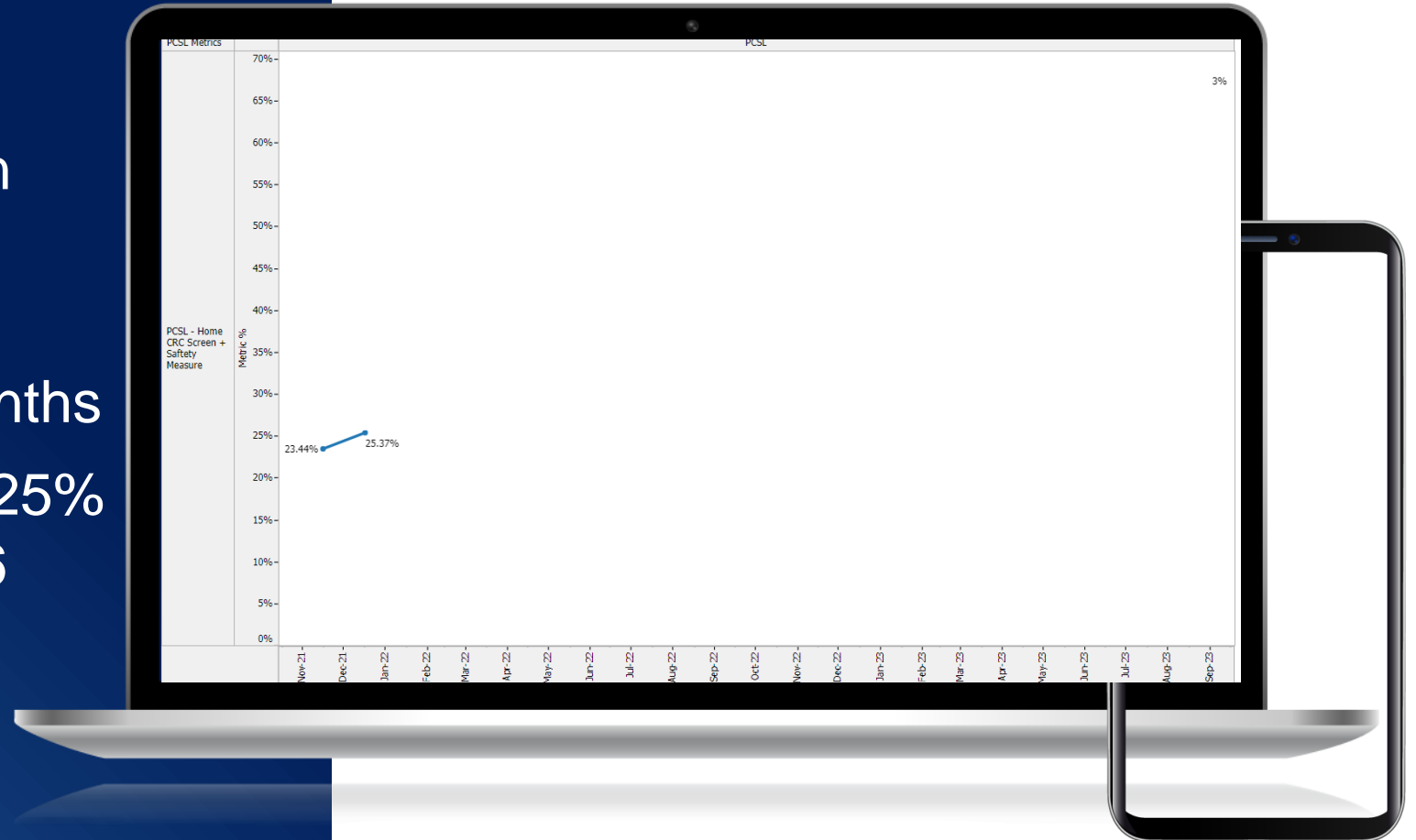
# FIT Campaign ROI Considerations

- Costs include
  - Test Kits
  - Kit Instructions and packaging (marketing materials, apply PHI to kit and envelope)
  - Postage (to patients and back to lab)
  - Text program (monthly fee and per text)
  - Re-work for cancelled labs
  - Regional Medical Director TIME for bulk orders (20 minutes per region per outreach)
- Revenues can include lab and value based contract performance

# Counter Measures

# FIT + Results

- About 5% of population
- Results to the PCP within EPIC
- Standard expectations: colonoscopy within 6 months
- Initial outreach only had 25% achieve colonoscopy in 6 months





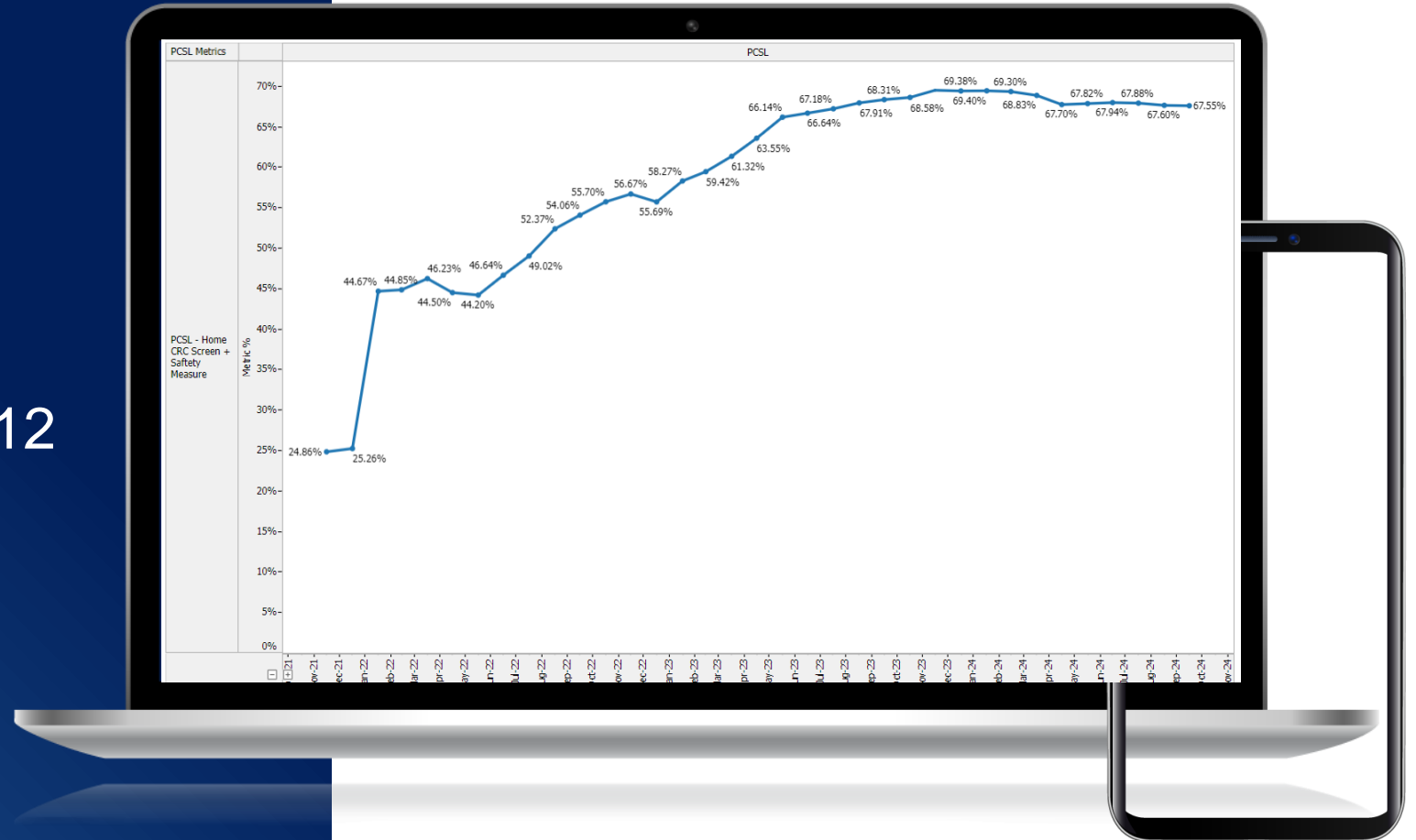
# Facilitating Standard Process and Urgent Access

- Standardized workflow identifies + stool tests
- Outreach to patients by population health team monthly x3 to connect to expedited colonoscopy
- If not successful send letter encouraging follow up
- Created new referral order to capture volume of high priority colonoscopy referrals in collaboration with GI

The screenshot shows a 'COLONOSCOPY' referral form. At the top right are 'Accept' and 'Cancel' buttons. The 'Reference Links' section includes 'AGA "Colorectal Cancer Screening Surveillance"' and 'ASGE "Coumadin Guidelines"'. The 'Requested Location' field is empty. A section titled 'Please indicate whether the patient has any of the following clinical conditions that warrant priority scheduling:' contains several checkboxes: 'Abnormal abdominal imaging causing suspicion of colorectal cancer', 'Palpable rectal mass suspicious for colorectal cancer', 'Stool test positive (fecal immunochemical test (FIT), fecal occult blood (FOBT), Multi-targeted stool DNA (Cologuard))', 'Clinically significant rectal bleeding', 'Clinically significant iron deficiency anemia (should receive EGD and colonoscopy)', and 'Procedure needed prior to cancer treatment'. The 'Patient Requires 2-Day/Extended Prep' section has 'Yes' and 'No' buttons. The 'Last Resulted:' section shows 'Patient enrolled in the following Research Studies' with a table listing 'Study Code' and 'Research Study' (850287 and 910095207-GAME Adherence). The 'Status:' section has 'Normal', 'Standing', and 'Future' buttons. The 'Class:' section has 'Internal referral', 'Normal', 'Internal referral', 'External referral', 'Back Office', and 'Historical Order' buttons. The 'Priority:' section has 'Routine' and 'Routine' buttons. The 'Quantity:' section has a value of '1' and a note 'The maximum orderable quantity for this procedure is 100'. The 'Comments:' section includes a rich text editor with a toolbar and a text area containing patient information: 'Estimated body mass index is 23.33 kg/m² as calculated from the following: Height as of 4/9/24: 6' (1.829 m). Weight as of 4/9/24: 172 lb (78 kg). Patient Preferred Language: English'. The 'Scheduling Instructions:' section shows a link to 'Lab Results Component Value Date A1C 6.0 05/14/2021 Lab Results Component Value Date CREA 1 04/07/2019'. The 'CC Results:' section has 'My List', 'Care Team', and 'Other' buttons. The 'Performing Department:' and 'Modifiers:' fields are empty. At the bottom left is a 'Next Required' button, and at the bottom right are 'Accept' and 'Cancel' buttons.

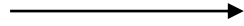
# Post Intervention

- Interventions led to an improvement from 25→68% completion of colonoscopy within 6 months, which has been maintained over the last 12 months



# In Conclusion

# Centralized screening outreach program



- Bulk ordering to average risk patients
- Mailed FIT
- Vendor for letters and *user friendly packaging*
- Pre-mailing text messaging
- Text message navigation
- Reminder messages
- Navigation as needed for those who need it
- Navigation for positive patients

There is a need for a proactive, technology-enabled, and centralized approach to make meaningful and sustained increases in cancer screening rates (goal 80%)

# Thank you!

This work of many people over many years:

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- Meredith Cripps
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