

Northwestern University Feinberg School of Medicine



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# Developing Systems to Increase Colorectal Cancer Screening at Health Centers

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**David R. Buchanan, MD, MS**

Chief Clinical Officer, Erie Family Health Center

**David W. Baker, MD, MPH**

Director, AHRQ Center for Advancing Equity in Clinical Preventive Services  
Chief, Division of General Internal Medicine and Geriatrics

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# CRC Screening in Community Health Centers

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# Community Health Applied Research Network



- **Established by HRSA in 2010**
  - Foster comparative effectiveness research in CHCs
- **Four “nodes” and academic partners**
  - Alliance\*
  - OCHIN\*
  - AAPCHO
  - Fenway/Chase Brexton\*
- **CRC Screening Work Group**

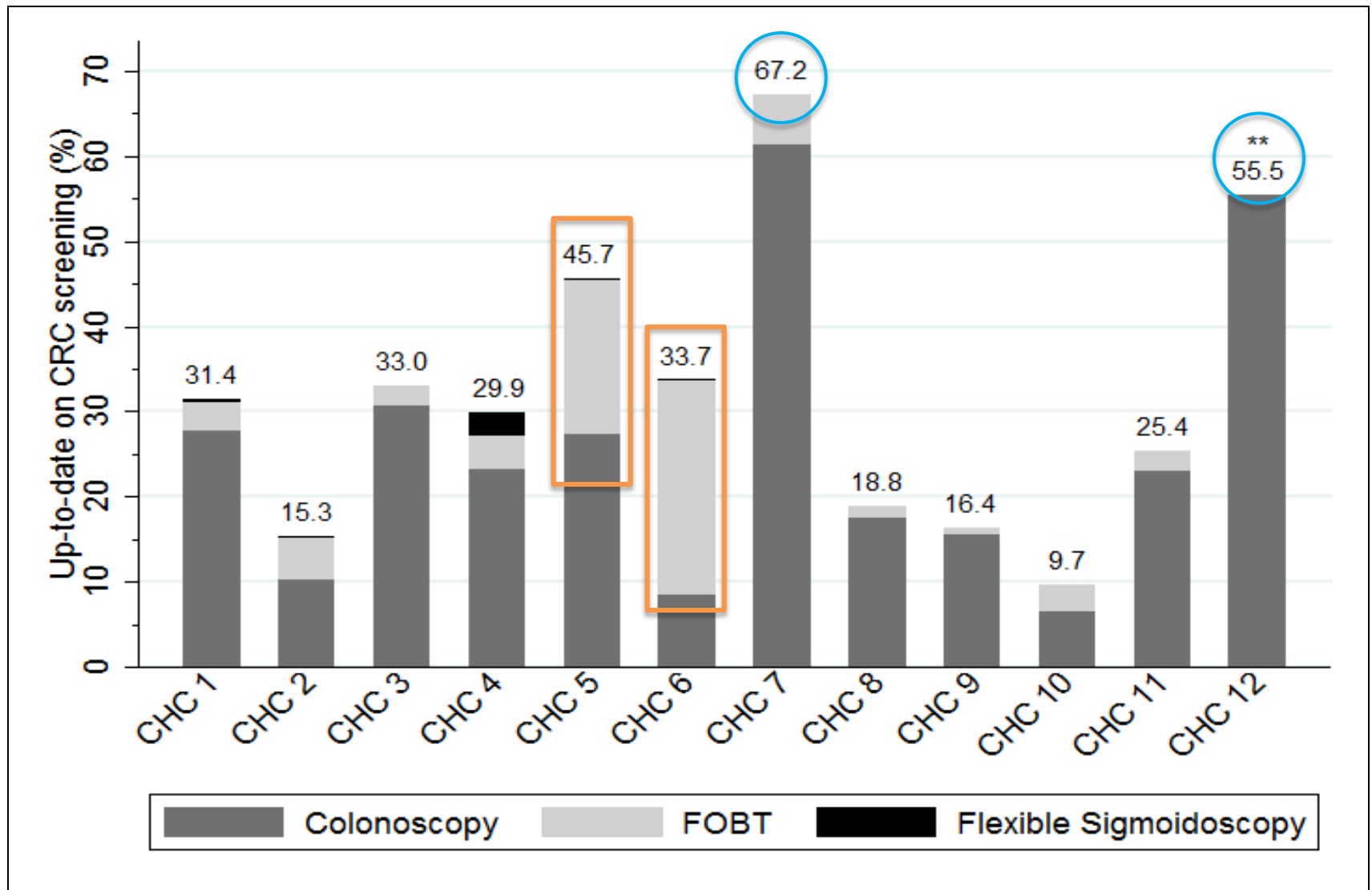


# Rates of CRC Screening at CHARN CHCs – Study Population



- **Eligibility criteria:**
  - Patient age 51-75 as of 12/31/2011
  - $\geq 2$  visits to CHC within previous 18 months
- **Classified as up-to-date on CRC screening if:**
  - Colonoscopy within the past 10 years;
  - Flexible sig within 5 years (and no colonoscopy)
  - FOBT in the last year (and no endoscopy)

# CRC Screening Rates at 12 CHCs





# CRC Screening Survey of CHC Providers

- All adult medicine providers (MD, DO, APN, PA) at the 12 CHCs invited to participate in online survey
- Survey administered April-June 2013
- 47% response rate (N=180)



# Support for CRC Screening



	N (%)
<b>Strategies to educate patients:</b>	
Providers discuss screening with patients	171 (95.0)
Staff discuss screening with patients	79 (43.9)
Letters mailed to patients	57 (31.7)
<b>Reminders:</b>	
Health maintenance flow sheet	157 (87.2)
Alert or prompt in EHR	66 (36.7)
Staff reviews patient record and notifies me	68 (37.8)
<b>Mechanism to offer screening w/o clinician involvement:</b>	
Medical assistant or other staff hands out an FOBT kit	54 (30.0)
Standing orders to refer for endoscopy	40 (22.2)



# Perceptions of the Effectiveness of CRC Screening Modalities

	Believe modality to be “very effective” N (%)
Guaiac-based FOBT	16 (8.9)
Immunochemical FOBT	44 (24.4)
Flexible Sigmoidoscopy	43 (23.9)
Colonoscopy	166 (92.2)



# Colonoscopy Favored but Access Barriers are Common

	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
It is the best screening test	4 (2.2)	18 (10.0)	54 (30.0)	103 (57.2)
It is readily available for my patients	40 (22.2)	52 (28.9)	57 (31.7)	28 (15.6)
It is available, but many of my patients face financial barriers to screening colonoscopy	13 (7.2)	18 (10.0)	63 (35.0)	84 (46.7)



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# Barriers to Endoscopy



	Report encountering barrier “Sometimes” or “Usually”
Can't refer patient for screening endoscopy because patient is uninsured or underinsured	135 (75.0)
Can't refer patient for diagnostic colonoscopy following <u>positive FOBT</u> because patient is uninsured or underinsured	85 (47.2)
Can't refer patient for screening endoscopy because of a shortage of endoscopists in my geographic area	25 (13.9)
Can't refer for diagnostic colonoscopy following +FOBT because of a geographic shortage of endoscopists	14 (7.8)



# Conclusions

- **Most CHCs in CHARN rely heavily on colonoscopy**
- **Most providers think colonoscopy is best test and have negative perceptions towards FOBT**
- **However, most report that a high proportion of their patients have barriers**
- **Screening with Fecal Immunochemical Tests (FIT) is a reasonable alternative**
  - Lower cost
  - Save resources to do colonoscopy on patients with + FITs



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# Systems to Improve CRC Screening

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# Systems Implemented at Erie

## Family Health Centers

- **Quality Measurement and performance feedback**
  - Health Center screening rate reported monthly
  - Individual provider rates reported quarterly
  - Providers chose CRC screening for Quality Incentive
  - Included in executive's annual incentive plan
- **FIT distributed prior to visits**
  - Standing order for FIT distribution
  - Part of Medical Assistant Pre-visit protocol
  - Basic Clinical Decision Support to support MA's
- **Limited access to colonoscopy for high risk uninsured patients through Northwestern Memorial Hospital**



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# Use of Outreach and FIT to Increase CRC Screening

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# FIT Outreach Highly Effective

- **Kaiser, Group Health now do this routinely**
  - Use EHR to identify those needing CRC screening
  - Mail FIT, send reminders if not returned
- **Studies now show this works also even among vulnerable populations**
  - Gupta compared FIT outreach, colonoscopy outreach, and usual care
  - Screening higher for FIT (40.7%) and colonoscopy outreach (24.6%) than usual care (12.1%)
- **However, unclear if possible to get high rates of adherence over multiple years**

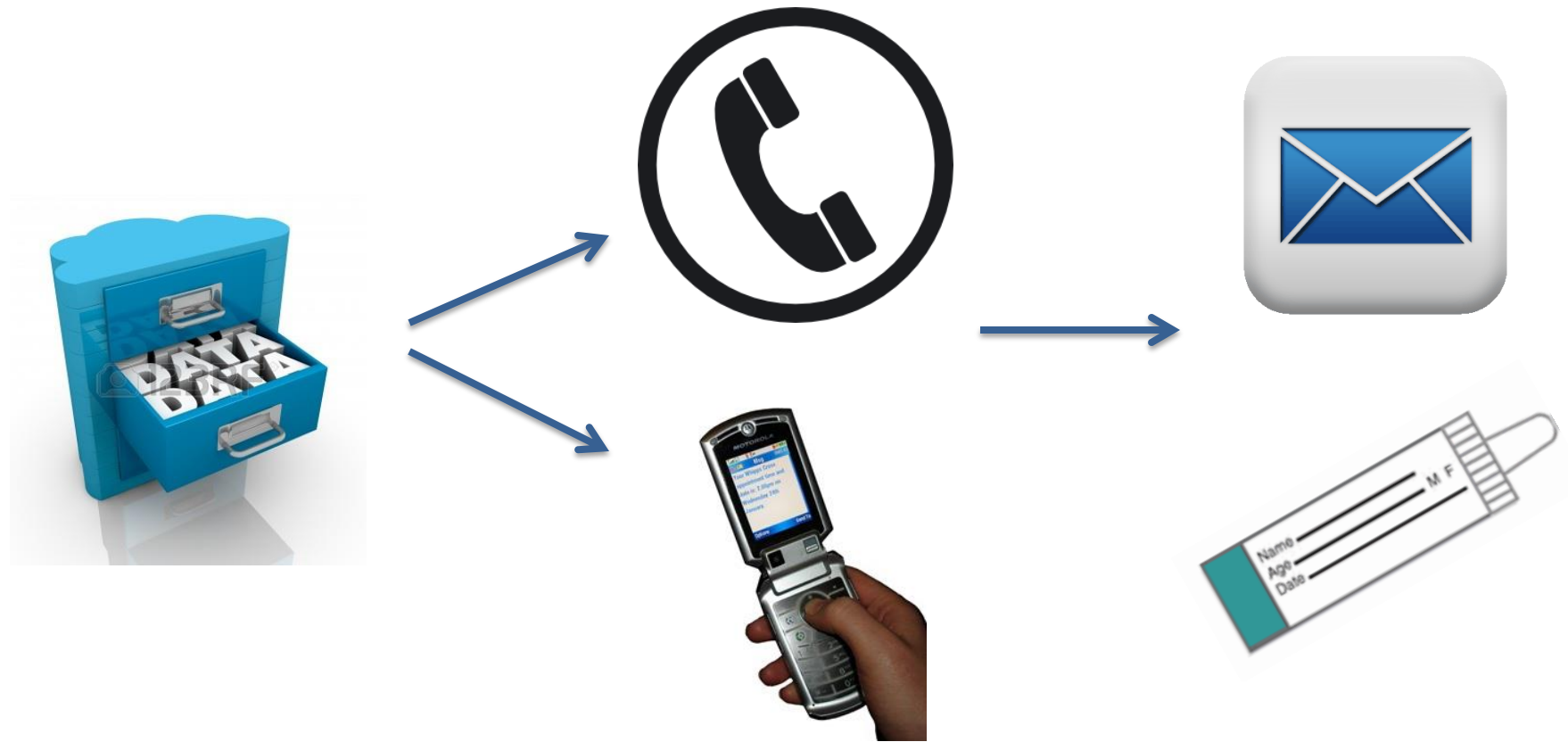


# Methods-Overview

- **Study site**: Erie Family Health Center
- **Target population**: Patients who completed FOBT the prior year (2011) and had negative test
- **Study design**: RCT with an IRB approved waiver of informed consent comparing usual care to multifaceted intervention
- **Primary outcome**: completion of FOBT within 6 months of due date



# Initial Outreach



# Low-Literacy FIT Instructions

## How to use the test

**Read all these instructions before doing the test!**

1. Unfold the paper and put it in your toilet bowl, on top of the water.



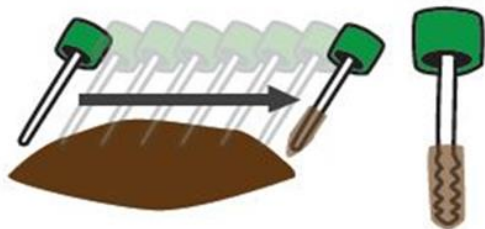
2. Have a small bowel movement on top of the paper. Collect the stool (poop) right away! Do not let the paper sink or let the stool get wet.



3. Get the test bottle. Check to make sure it has your name and birth date on it. Unscrew the green cap. Pull the cap straight out.



4. Scrape the stool (poop) with the stick. Scrape it a few times until the grooves near the end of the stick are filled completely with stool.



5. Push the stick straight into the test bottle. Press in hard, and screw the cap on tightly. Wipe off the outside of the bottle with some tissue. Flush the toilet. It is safe to flush the paper.



6. Wrap the bottle with the small pad.



7. Put the bottle and the pad inside the plastic bag. Put the plastic bag in the return envelope.



8. Seal the envelope. Write today's date on the envelope.

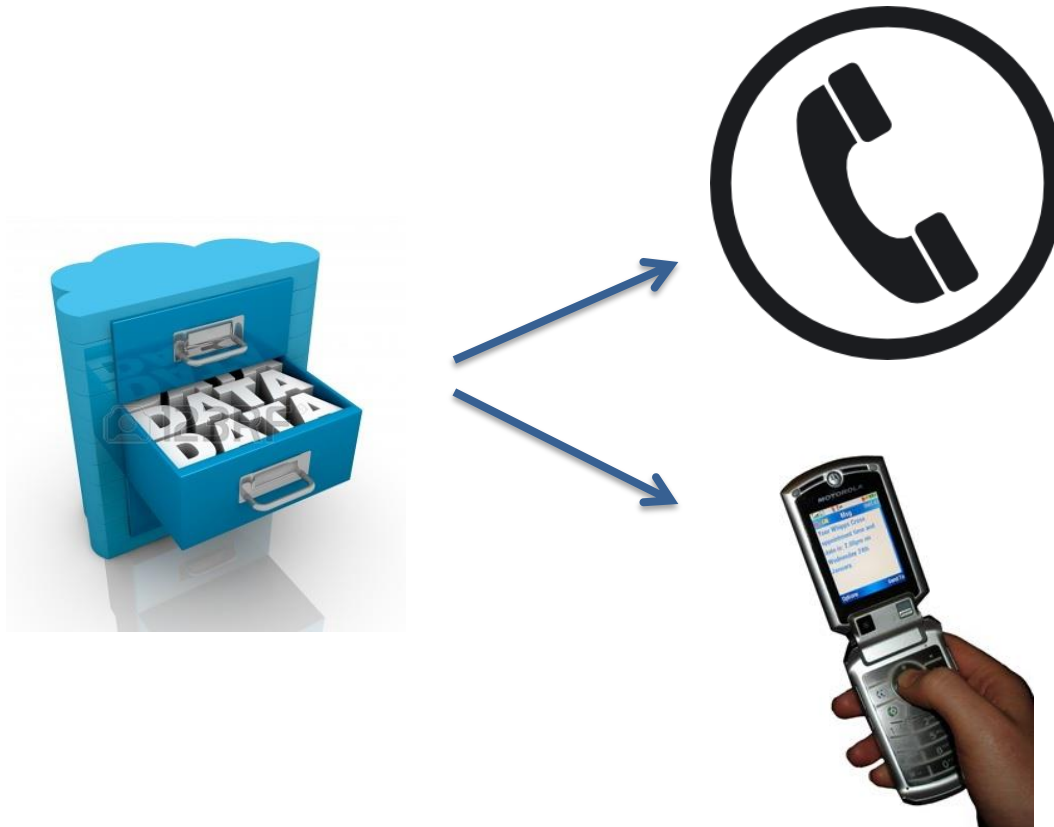


9. Mail the test to us right away. Now you are done!

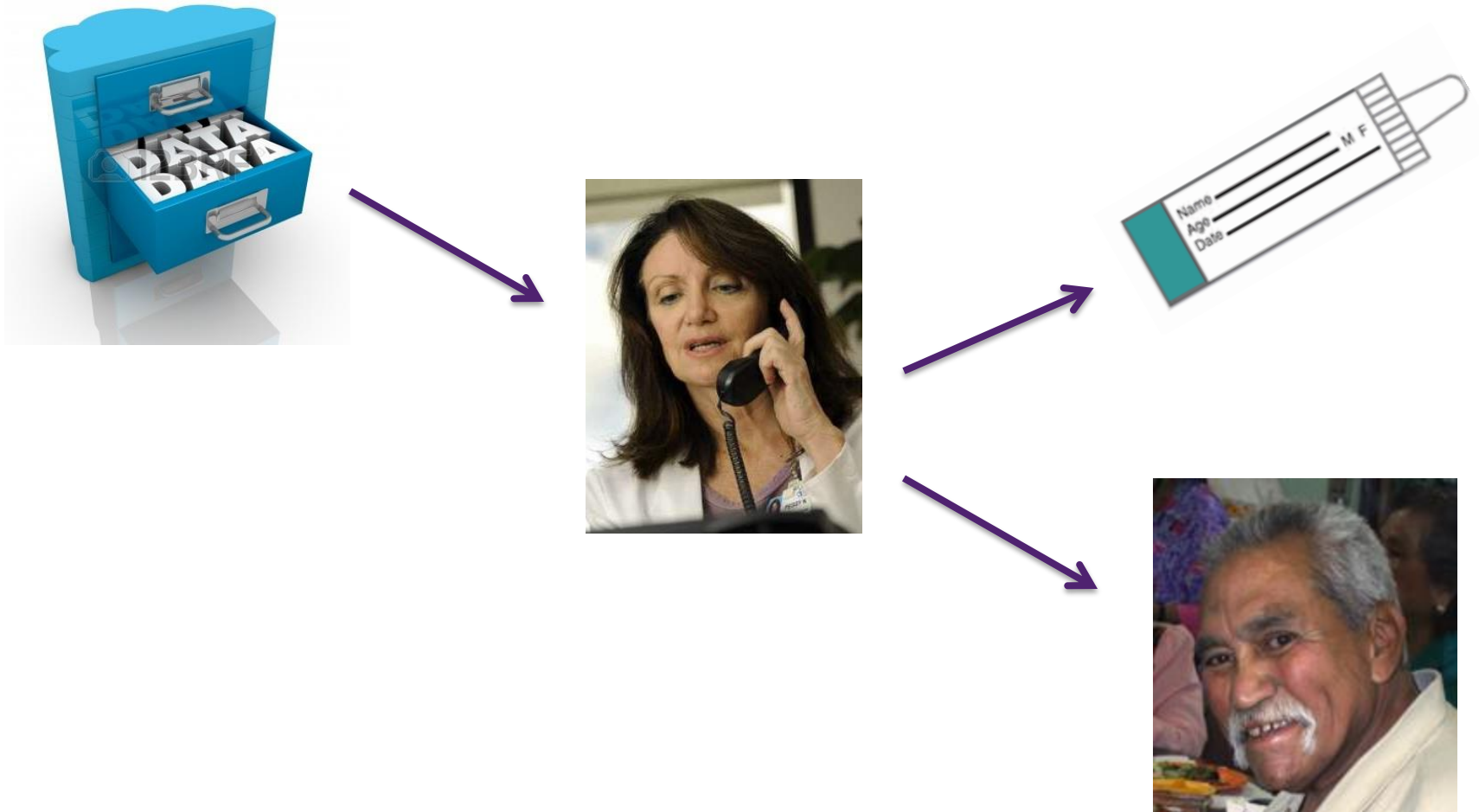




# 2-Week Reminder



# 3-Month Navigator Call





# Completion of CRC Screening within 6 months of due date



	Intervention (n=225)	Usual Care (n=225)
Completed FIT/FOBT*	185 (82.2)	84 (37.3)
Completed Colonoscopy†	6 (2.7)	6 (2.7)
Completed Either CRC Screening Test*	191 (84.9)	90 (40.0)

\*  $p < 0.001$  by chi-square test

† This does not include patients who had a positive FIT/FOBT and subsequently underwent diagnostic colonoscopy. Most patients had a clinic condition for which a diagnostic colonoscopy was done.

# Completion of FOBT by Time from Initial Due Date



Time Completed	Intervention (n=225)	Usual Care (n=225)
Prior to due date	23 (10.2%)	25 (11.1%)
0-2 weeks	89 (39.6%)	8 (3.6%)
>2 to 13 weeks	54 (24.0%)	27 (12.0%)
>13 to 26 weeks	19 (8.4%)	24 (10.7%)
Total completed	185 (82.2%)	84 (37.3%)



# Low Rate of Completion of Diagnostic Colonoscopy Among Patients with + FIT

- Among 29 (11%) of patients with positive FIT, 16 (55%) completed colonoscopy, 6 (21%) refused, and 7 (24%) still being attempted
- Consistent with previous studies that found low rates of diagnostic colonoscopy after + FOBT
- Among 193 EFHC patients with a positive result on FOBT or FIT between Jan 2011-Jan 2013, 97 (50%) had colonoscopy within 6 months of positive test

# Possible Approach to Improve Rate of Colonoscopy Among Patients with +FIT



- **Have patients come for visit**
- **Show patients video about why they need colonoscopy and what a colonoscopy is**
- **Provide them with prep kit and plain-language, pictorial instructions**

# Conclusions



- **It is possible to achieve the high adherence level to annual FOBT that is required to reduce mortality**
- **However, to use FOBT screening as a primary modality will require multi-level interventions:**
  - **Point of care distribution of FITs**
  - **Outreach, reminders**
  - **Navigation of patients with positive FITs to ensure high rates of colonoscopy**

# Barriers to Implementation of FIT Outreach at CHCs



- **FQHCs paid on per visit basis and cannot bill for FIT**
- **No funding mechanism for outreach**
  - **This is the main cost!**
- **Lack of access to stage 2 colonoscopy**
  - **Patients in our study had access to charity care program**



**Thank you**