

# A Claims Analysis of Colorectal Cancer Screening Initiation Among Medicaid Enrollees Who Received a Mailed Screening Intervention

Meghan C. O’Leary, MA, Alison T. Brenner, PhD MPH, Daniel S. Reuland, MD MPH, Stephanie B. Wheeler, MPH PhD

## Background

- Screening is effective in reducing colorectal cancer (CRC) incidence and mortality<sup>1</sup>
- Medicaid enrollees have the lowest CRC screening rates among insured individuals<sup>2,3</sup>
- Fecal immunochemical testing (FIT), a stool test recommended as an annual CRC screening modality, can reduce barriers to screening commonly associated with colonoscopy

## Objective

- To assess CRC screening patterns among Medicaid enrollees not current with screening who received a mailed FIT-based intervention

## Interventions

- 2,144 North Carolina Medicaid enrollees ages 52-64 and due for screening were previously randomized to one of two FIT interventions<sup>4</sup>:

### Reminder + FIT



Mailed reminder letter plus a FIT kit, instructions & return mailing supplies

### Reminder Only



Mailed reminder letter that patient is due for screening & instructions for obtaining a FIT kit

vs.

## Methods

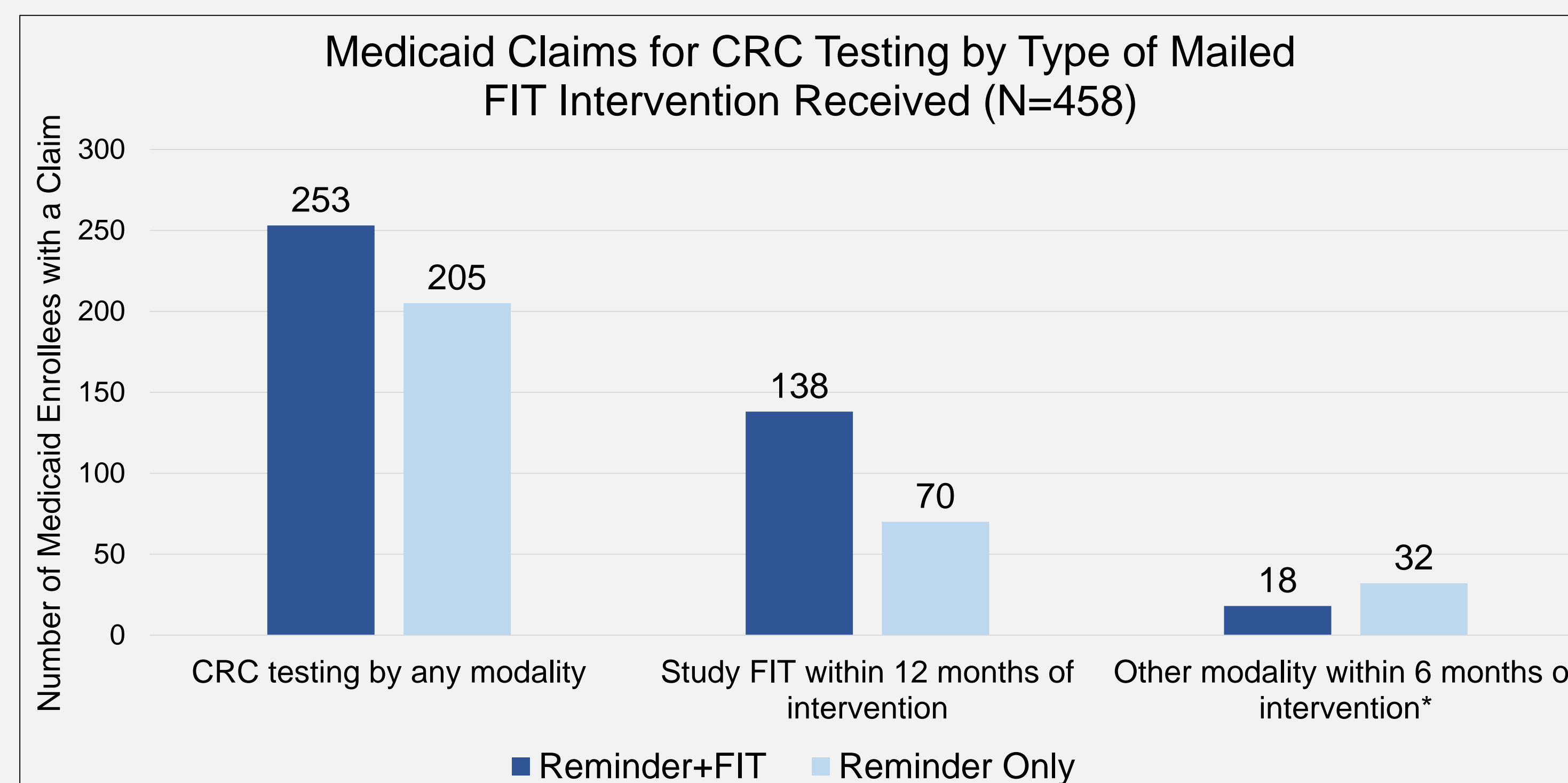
- Obtained Medicaid claims for this cohort from October 2016 to August 2018, providing 18 months of follow-up from the initial mailings
- Determined the proportion of enrollees with a completed FIT within 12 months of intervention
- Identified other non-FIT modalities of CRC screening within 6 months of the intervention

## Results

458 (21.4%) enrollees had at least one claim related to CRC testing during the study period

Over half (56%) of those with claims likely screened for CRC in response to their mailed intervention – either by a study FIT within 12 months or another modality within 6 months

50 enrollees in the full cohort screened within 6 months of the mailed intervention by a modality other than the study FIT – a 2.3 percentage point bump in CRC screening



\*We assessed completion of other CRC testing modalities within 6 months to determine if receipt of a mailed FIT intervention reminded or encouraged enrollees to initiate screening independently through a modality of their choice.

### Types of Non-Study FIT Modalities Used Within 6 Months of Mailed FIT Intervention by Study Arm (N=50)

Reminder+FIT (N=18)	Reminder Only (N=32)
15 colonoscopies	25 colonoscopies
3 non-study stool tests	6 non-study stool tests
	1 barium enema

### Repeat CRC Testing Claims

- 25 enrollees (12%) who returned a study FIT and had a normal result completed routine repeat screening in the subsequent year
- Of these enrollees, 20 (80%) received the Reminder+FIT and 5 (20%) received the Reminder Only

## Conclusions

- Both interventions were associated with improved CRC screening in a population with relatively low screening rates
- Reminder+FIT initiated higher screening rates both overall and specifically by FIT, while the Reminder Only was associated with more CRC testing through other modalities
- In addition to increasing FIT screening, mailed FIT interventions promote other healthy screening behaviors

## Limitations

- 6-month window for assessing screening uptake may have missed other screens motivated by the intervention
- 18-month study period did not allow for assessing repeat FITs among all enrollees

## Acknowledgements

- We are grateful to the Community Care of North Carolina for their assistance with obtaining the claims data.
- This study was supported by UNC Lineberger Comprehensive Cancer Center and the University Cancer Research Fund through a Tier 2 Stimulus Award (Wheeler/Brenner), and Cooperative Agreement Number U48-DP005017 from the Centers for Disease Control and Prevention (CDC) Prevention Research Centers (PRC) Program and the National Cancer Institute (NCI), as part of the Cancer Prevention and Control Research Network (CPCRN). MCO is supported by the Cancer Care Quality Training Program, Grant No. T32-CA-116339.

## References

1. Bibbins-Domingo K, Grossman DC, Curry SJ, Davidson KW, Epling JW, Jr., Garcia FAR, et al. Screening for Colorectal Cancer: US Preventive Services Task Force Recommendation Statement. JAMA. 2016;315(23):2564-75.
2. Medicaid and CHIP Payment and Access Commission. Access in brief: Use of cervical, breast, and colon cancer tests among adult Medicaid enrollees. 2016.
3. Wheeler SB, Kuo TM, Goyal RK, et al. Regional variation in colorectal cancer testing and geographic availability of care in a publicly insured population. Heal Place. 2014;29:114-123.
4. Brenner A, Rhode J, Yang JY, et al. Comparative effectiveness of mailed reminders with and without fecal immunochemical tests for Medicaid beneficiaries at a large county health department: a randomized controlled trial. Cancer. 2018;124(16):3346-3354.