OPTIMIZING PRIMARY CARE PHYSICIAN ATTRIBUTION STRATEGIES FOR HEALTH SYSTEM INTERVENTIONS TO INCREASE COLORECTAL CANCER SCREENING RATES

Shailavi Jain MD[1], Sarah Meshkat MHA[2], Folasade P. May MD PhD MPhil[1, 3, 4]

(1) Department of Medicine, David Geffen School of Medicine, University of California, Los Angeles, California; (2) Office of Population Health & Accountable Care, University of California, Los Angeles, California; (3) The Vatche and Tamar Manoukian Division of Digestive Diseases, Department of Medicine, David Geffen School of Medicine, University of California, Los Angeles, California; (4) Division of Gastroenterology, Department of Medicine, VA Greater Los Angeles Healthcare System, Los Angeles, California

Abstract Society: AGA
Category: Clinical Practice
Subcategory: Performance Metrics, Process Improvement, Quality Improvement and Implementation Science
Character Limit: 2898/2900 (with spaces)
Submission Deadline: December 1, 2022 at 6pm PST

Introduction: There is increasing attention in health systems to implement interventions that increase patient participation in colorectal cancer (CRC) screening. Our large academic health system has a well-established biannual mailed fecal immunohistochemical test (FIT) outreach program that mails FIT kits to average-risk patients overdue for CRC screening. This program, and many similar programs nationally, exclude patients without an attributed primary care physician (PCP) due to lack of a provider to act on abnormal results. Nationally, many programs struggle to develop a PCP attribution model that accurately excludes patients without an active PCP. We aimed to assess the accuracy of the PCP attribution model developed in our health system for our mailed FIT outreach program with the goal to optimize attribution for future mailing cycles.

Methods: The study was performed in a large academic health system with over 420,000 primary care enrollees. The PCP attribution model requires that a patient was seen by an active PCP within the last 3 years and that the PCP relationship was not terminated in the electronic health record (EHR) at the time the PCP attribution data were collected. The PCP attribution logic is updated at the end of every quarter and reflected in the EHR. For this study, we identified the patients overdue for CRC screening and excluded from mailed FIT outreach in March 2022 due to lack of an attributed PCP. We then selected a random sample of 100 of these patients and performed a chart review to confirm lack of attributed PCP. We also collected demographic and healthcare utilization data for the study population. We tabulated frequencies, means, and standard deviations for these patient characteristics.

Results: There were 683 patients excluded from the March 2022 FIT mailer cycle due to lack of an attributed PCP (**Figure**). In the random sample of 100 patients, 59.0% were male, 26.0% were non-Hispanic White, and the mean age was 59.2 years (s.d. 6.5) (**Table**). On chart review, 80 (80.0%) of the 100 patients did not have a listed PCP, but 55 of this group of 80 (68.8%) did have a PCP assigned by their insurance plan who they had never seen. The remaining 20 (20.0%) study patients had an attributed PCP at the time of chart review; however, only 1 (5.0%) had seen their PCP prior to the date the March 2022 cycle exclusion list was populated. Of the 100 patients, 94 (94.0%) were confirmed to be overdue for CRC screening based on last documented FIT, colonoscopy, or other CRC screening modality.

Conclusions: We found that our mailed FIT outreach PCP attribution model accurately excludes patients who do not have an attributed PCP in our health system. This methodology can be used by other health systems attempting to implement interventions that require PCPs to follow up on screening or laboratory results as part of the intervention.

Figure. Determination of the population of patients excluded from mailed FIT outreach due to lack of attributed PCP, n=683

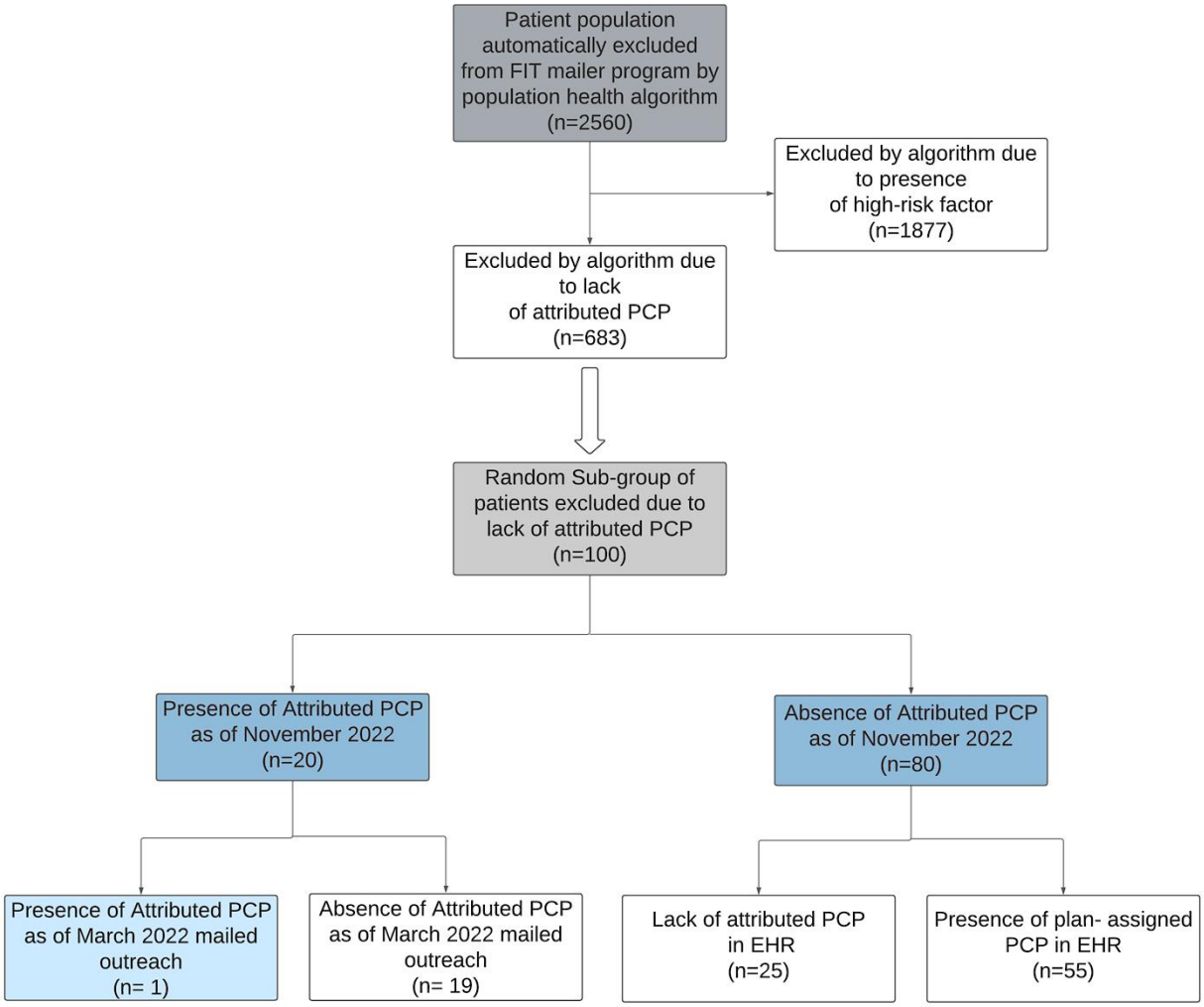

Table. Demographic and healthcare utilization characteristics for a random sample of patients excluded from mailed FIT outreach due to a lack of attributed primary care physician, n=100

Demographics	**N (%) or mean (s.d.)**
Gender	
Male	59 (59.0)
Female	41 (41.0)
Age	59.2 (6.5)
Social Vulnerability Index (SVI)*	39.1 (26.2)
Race/Ethnicity	
Non-Hispanic White	26 (26.0)
Non-Hispanic Black	8 (8.0)
Hispanic	13 (13.0)
Asian	9 (9.0)
Other Race/Ethnicity	9 (9.0)
Unknown Race/Ethnicity	35 (35.0)
Marital Status	
Single	20 (20.0)
Married	47 (47.0)
Divorced	3 (3.0)
Other/unknown	30 (30.0)
Preferred Language	
English	69 (69.0)
Spanish	2 (2.0)
Other/Unknown	29 (29.0)
Primary Insurance status	
Private Commercial	97 (97.0)
Public + Private Commercial	1 (1.0)
None	2 (2.0)
Healthcare Utilization	**N (%)**
Up-to-date CRC screening	
Yes	6 (6.0)
No	94 (94.0)
Time since last PCP Visit	
No visit documented	42 (42.0)
< 1 year	20 (20.0)
≥ 1 year	38 (38.0)
Time since Last GI Visit	
No visit documented	95 (95.0)
< 5 years	4 (4.0)
≥ 5 years	1 (1.0)

* Social Vulnerability Index (SVI) is based on U.S. Census data and measures the potential negative effects on communities caused by external stressors on human health. It uses US Census Data to determine the relative overall vulnerability as measured by 15 variables in four distinct categories:
1) socioeconomic status, 2) household composition and disability status,
3) minority status and primary language, and 4) housing and transportation.