

Early Implementation Results from a Population Health Intervention to Close Colorectal Cancer Screening Gaps Using an Electronic Patient Decision Aid

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Introduction: Population health interventions are needed to increase colorectal cancer (CRC) screening participation. WiserCare is an electronic-based patient decision aid ordered by primary care providers (PCPs) that assesses patient preference and provides individualized risk analysis and options for CRC screening modalities. This study is a preliminary analysis of process measures related to the implementation of WiserCare in an academic health center.

Methods: The study was conducted at a large academic health center with over 60 primary care clinics and 420,000 primary care patients. Following a pilot and feasibility study for the WiserCare patient decision aid, the health center implemented the My Action Plan (MAP) intervention. MAP is a large electronic outreach program independent of clinical visits designed to engage patients individually each year during their birthday month about their preventive care gaps. As part of the MAP intervention, patients overdue for CRC screening receive the WiserCare CRC screening module via the electronic patient portal. We evaluated average-risk patients overdue for screening age 45-75 who received the MAP intervention between 2/8/2023 and 9/13/2023. Module endpoints were choice of colonoscopy, choice of FIT, prior screening reported, and further discussion with PCP needed. We calculated frequencies of each WiserCare module endpoint and time to module completion. We also calculated FIT completion and colonoscopy completion over time.

Results: The study included 20,980 patients and 396 PCPs. Patients were 46.5% female, 49.7% non-Hispanic White, 4.3% non-Hispanic Black, and 6.8% Hispanic with mean age of 56.6 yrs (SD: 8.3 yrs). 685 patients (3.3%) engaged with but did not complete the module. 878 patients (4.2%) completed the module. 19,417 pts (92.6%) did not open the module. Of patients who completed the module, median time to completion was 1 day (IQR 0-6) and 80% did so within 8 days of receipt. The most common endpoints were colonoscopy (38.0%), prior screening reported (30.4%), and FIT (27.4%) (Table). Of the 327 patients who selected colonoscopy and completed the module, 49 patients (15.0%) had colonoscopy completion. Of the 235 that selected FIT and completed the module, 67 patients (28.5%) had FIT completion (Figure).

Conclusions: Decision aids can be an effective means for increasing patient engagement to make informed clinical decisions regarding CRC screening modalities. In this early implementation process analysis, patients completed the module quickly, however overall participation was low. Low participation may be attributed to patient or PCP-related barriers and incorporation of primers and patient and PCP electronic health record reminders may help increase participation moving forward.

Tables and Figures:

Table: Patient characteristics of study population and Wisercare module endpoints; n=20,980

Patient Characteristics	Total Population (n=20,980)
Age, years [mean, (SD)]	56.6 (8.3)
Sex [n (%)]	
Male	11,224 (53.5)
Female	9,751 (46.5)
Race [n (%)]	
Non-Hispanic White	10,318 (49.7)
Non-Hispanic Black	898 (4.3)
Hispanic	1,412 (6.8)
NH Asian	1,864 (9.0)
NH Other	852 (4.1)
Unknown/Declined to State	5,424 (26.1)
Insurance Status [n (%)]	
Private/Commercial	16,026 (76.9)
Federal	3,799 (18.2)
None	1,022 (4.9)
SVI [median (IQR)]	28 (12.1 – 48.7)
Preferred Language	
English	20,283 (96.7)
All Other Languages	697 (3.3)
Wisercare Module Endpoints¹	
FIT	235 (26.8)
Colonoscopy	327 (38.0)
Prior screening reported (patient up-to-date)	261 (29.7)
Further discussion with primary care required/Prior Abnormal	55 (6.3)
¹ Percentages are calculated out of total number of patients who completed module (n=878)	

Figure: Cumulative screening completion over time by screening modality; n=878

