WISCONSIN'S COCOLLABORATIVE APPROACH TO INCREASE COLORECTAL CANCER SCREENING

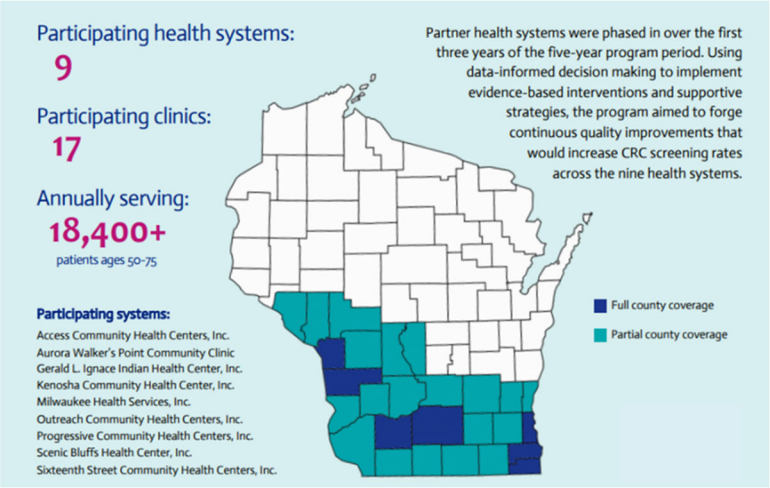
2015 -- 2020

Final Performance and Evaluation Report

Contents

Summary

Wisconsin's Colorectal Cancer Control Program (WCRCCP) recruited nine partner health centers over the course of five years to participate in this evidence-based project aimed at increasing colorectal cancer (CRC) screening rates. Partner health centers included eight federally qualified health centers and one low-cost community clinic representing 17 individual clinics which annually serve over 18,000 patients aged 50-75.



WCRCCP staff supported each partner health system to complete an in-depth clinical and environmental assessment and baseline data review to determine which evidence-based interventions (EBIs) and supportive strategies (SSs) should be selected. EBIs and SSs were selected based on individual clinic needs and appropriateness. Annual workplans were developed to outline annual objectives and action steps to track progress towards each partner's screening goals. WCRCCP staff provided significant programmatic and evaluation technical assistance and support to guide partners through this five-year project. Ongoing implementation data tracking and monitoring strategies were utilized to create opportunities for data-informed decision making as the project evolved. The nine partner health centers also participated in a Peer Learning Collaborative that fostered collaboration and sharing among partners.

Evidence-Based Interventions

- Patient reminder system
- Provider reminder system
- Provider assessment & feedback
- Reducing structural barriers

Supportive Strategies

- Small media
- Health Information Technology (HIT)
- Professional development
- Community-clinical linkages
- Patient navigation

Screening rates increased by **17 percentage points** before the pandemic. Although screening rates took a small dip in the final project year due to the COVID-10 pandemic, screening rates ultimately increased by 12 percentage points after five years in the program compared to baseline rates. Over the course of the five-year project period, over 9,000 take-home stool tests were distributed, and a 60.7% completion rate was achieved.

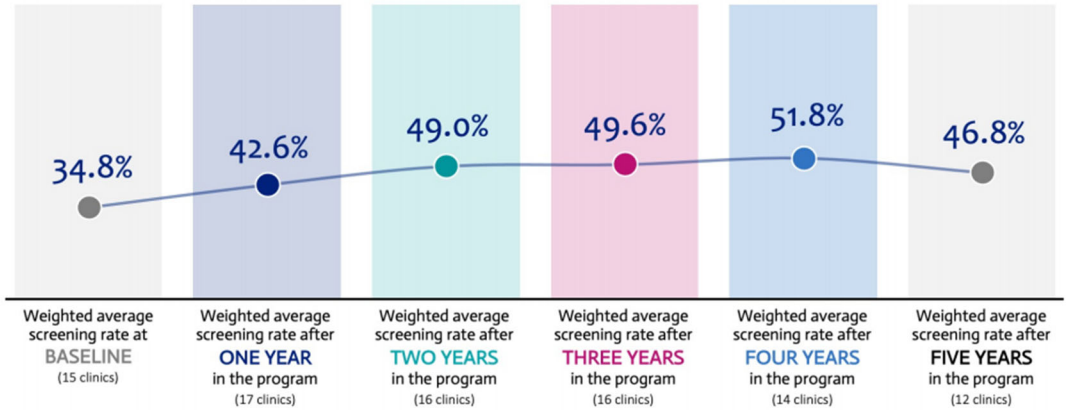
Introduction

In July 2015, the University of Wisconsin Carbone Cancer Center was awarded a $2.5 million-dollar Centers for Disease Control and Prevention award to implement the Colorectal Cancer Control Program (CRCCP). The CRCCP was designed to implement evidence-based interventions at the intersection of public health and clinical health care to utilize a quality improvement framework to improve colorectal cancer screening rates. Locally, this program came to be known as **Wisconsin's Colorectal Cancer Control Program**. In partnership with the University of Wisconsin (UW) School of Medicine and Public Health and the Center for Urban Population Health, the WCRCCP team brought nearly 50 years of public health experience including program and evaluation planning and design, program management, and data quality and assurance to support nine partner health systems over the course of the project period.

Colorectal cancer is the fourth most diagnosed cancer in the state of Wisconsin behind breast, lung, and prostate cancers and causes the most deaths second only to lung cancer. However, among cancers the effect both men and women, colorectal cancer is the second most common and deadly cancer, second only to lung cancer.[1]

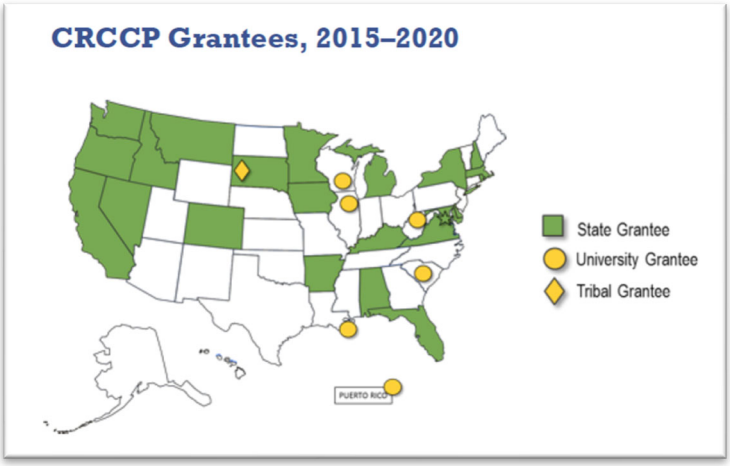
Wisconsin has one of the higher colorectal cancer screening rates in the country at 75.2% compared to the national average of 69.7%, yet significant disparities exist. When the project was funded, 74% of Wisconsin adults were considered up to date with their screening compared to only 34% of patients served by Wisconsin's federally qualified health centers.[2, 3]

The WCRCCP recruited nine partner health centers over the project period to implement evidence-based interventions and supportive strategies aimed at increasing CRC screening rates. Screening rates increased by 17 percentage points before the pandemic. Although screening rates took a small dip in the final project year due to the COVID-10 pandemic, screening rates increased by 12 percentage points after five years in the program compared to baseline rates. Over the course of the five-year project period, over 9,000 take-home stool tests were distributed, and a 60.7% completion rate was achieved.



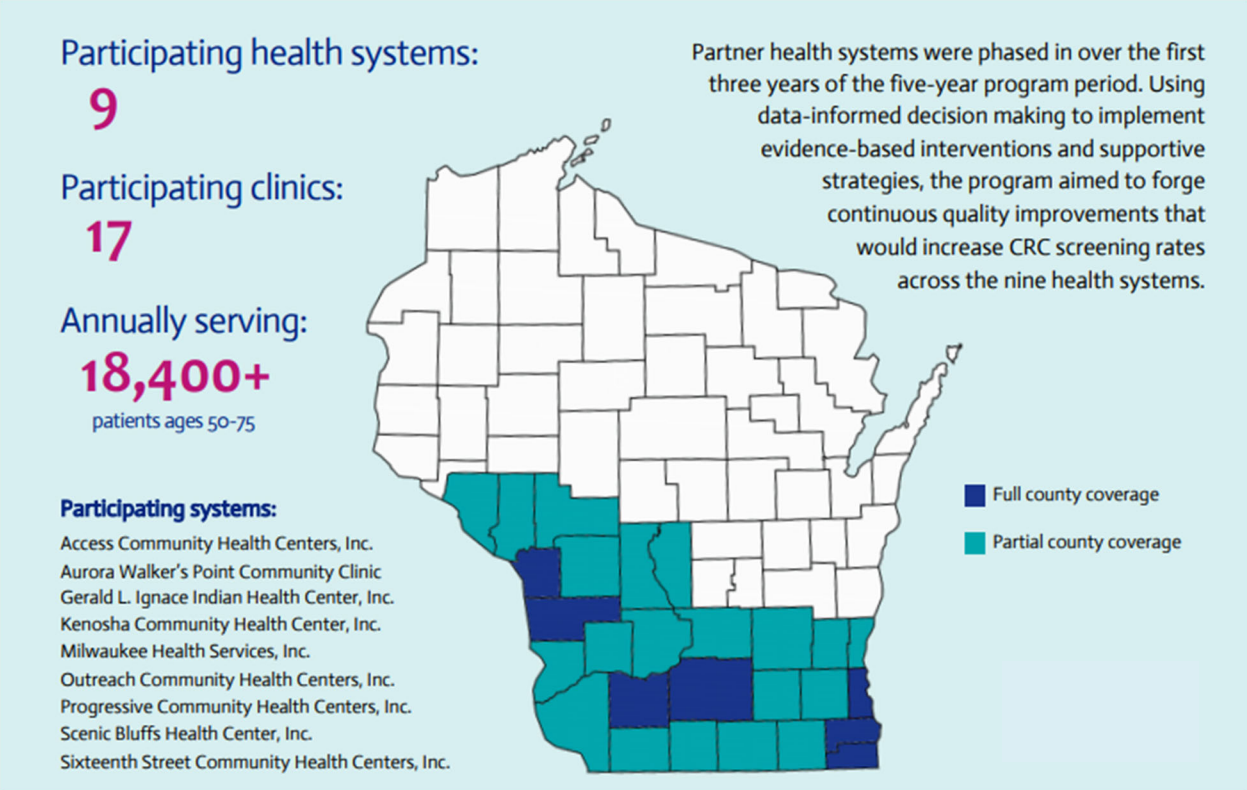
Primary care services were dramatically impacted due to the COVID-19 pandemic beginning in March 2020 (Program Year 5).

Program Description



The WCRCCP was one of 30 grantees (and one of six University grantees) funded by the CDC to implement the CRCCP. The overarching goal of the CRCCP was to increase CRC screening rates among medically underserved patient populations across the country.

The WCRCCP was established in 2015 with six health system partners. During the first three years of the program, three additional partner health systems were recruited and phased in expanding our initial patient population and scope to not only include urban health centers but also a rural health center. Community health centers were recruited to participate in the WCRCCP due to the significant opportunity to increase CRC screening rates to improve patient outcomes and address disparities in CRC screening, incidence, and mortality rates in Wisconsin.



Program Reach									
Health System	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**
# of clinics participating	3 clinics	2 clinics	1 clinic	3 clinics	3 clinics	1 clinic	1 clinic	2 clinics	1 clinic
Geographic Region	Urban	Urban	Urban	Urban	Urban	Urban	Urban	Urban	Rural
# of patients 50-75	1,087	5,242	1824	5,633	2,070	911	529	2,012	782
# of PCPs	19	26	9	101	15	9	7	21	4
Racial/ethnic populations served[4]	40.3% Hispanic	3.98% Hispanic	6.91% Hispanic	88.04% Hispanic	3.06% Hispanic	87.9% Hispanic	32% Hispanic	30.25% Hispanic	14.63% Hispanic
	37.53% Non-Hispanic White	5.25% Non-Hispanic White	21.35% Non-Hispanic White	6.39% Non-Hispanic White	6.81% Non-Hispanic White	4.2% Non-Hispanic White	17.9% Non-Hispanic White	43.34% Non-Hispanic White	81.05% Non-Hispanic White
	22.77% Black/AA	90.31% Black/AA	71.99 Black/AA	4.49% Black/AA	86.01% Black/AA	3.1% Black/AA	15.52% Black/AA	24.34% Black/AA	2.05% Black/AA
	2% Asian	--	--	1.50% Asian	4.80% Asian	3.8% Asian	--	6.56% Asian	1.21% Asian
	1% AI/AN	--	--	--	--	--	49% AI/AN	4.40% AI/AN	--

Upon completion of a thorough clinical and environmental assessment, each health system partner selected the EBIs and SSs to be implemented within their system. Findings of this initial assessment along with baseline screening rate data helped to inform the selection process of appropriate and necessary EBIs to achieve the goals set by the health system. Once EBIs and SSs were selected, WCRCCP staff provided regular (monthly, transitioning to quarterly) support and technical assistance to support EBI implementation, ongoing implementation data monitoring and reporting, and program evaluation. Annual workplans were developed to outline annual objectives and action steps to track progress towards each partner's screening goals. WCRCCP staff provided significant programmatic and evaluation technical assistance and support to guide partners through this five-year project. Ongoing implementation data tracking and monitoring strategies were utilized to create opportunities for data-informed decision making as the project evolved. The nine partner health centers also participated in a peer learning collaborative that fostered collaboration and sharing among partners.

Evaluation Background & Methods

The purpose of the evaluation was to:

- Guide program implementation and support ongoing program development.
- Document the level of success in accomplishing program objectives including the implementation of EBIs and supportive strategies.
- Assess the impact of the various EBIs and supportive strategies.
- Measure changes in CRC screening rates and disparities in CRC screening rates.
- Provide recommendations for best practices in community health center settings.

The evaluation assessed both process and outcomes focusing on three key areas:

- Health System Partner Support and Training
- Evidence-Based Strategy Implementation
- Program Impact

WCRCCP reviewed and/or collected a wide range of primary and secondary quantitative and qualitative data to monitor and evaluate the implementation and short-term impact of EBIs/SS and the impact of program activities. Key data included:

Data	Process/Outcome(s) of Interest
Quarterly Implementation Log (April 2016-June 2020)	EBI/SS-specific indicators (e.g., # of patients reminded, EHR data confidence), colonoscopy referrals and at-home kit distribution, screening modality completion, screening rates
Annual Provider/Staff Survey (2016, 2017, 2018, 2019, 2020)	Provider screening guideline knowledge and adherence, screening recommendations, barriers to CRC screening
Annual Patient Survey (2017, 2018, 2019, 2020)	CRC screening awareness, intention to get screened, barriers to screening
Peer Collaborative Participant Surveys; Mid-Project and Project-End Partner Interviews and Surveys (2017-2020)	Usefulness and effectiveness of health system partner support and training activities, EBI/SS implementation challenges, barriers, solutions, and best practices
Clinic Environmental Assessment, Clinic Implementation & Annual Work Plans, Partner meeting notes, Partners' Peer Collaborative PowerPoint presentations (2015-2020)	EBI/SS implementation objectives, challenges, barriers, solutions, and best practices
CDC Annual Clinic Data (2015, 2016, 2017, 2018, 2019, 2020)	Screening rates
UDS National Grantee Data (2017, 2018, 2019)	National FQHC screening rate comparison

WCRCCP analyzed primary data gathered through program-developed tools (e.g., Quarterly Implementation Log) on a regular basis to inform development and refinement of program activities. These data also guided discussions with health system partners during monthly/quarterly scheduled meetings. Written project, system, and clinic-level data summary reports (e.g., from Annual Provider/Staff and Annual Patient surveys) were shared with health system partners following each survey administration. Data presentations around specific EBI/SS (e.g., patient reminders) were given during Peer Learning Collaborative sessions. To further facilitate heath system engagement and data-driven decision making, WCRCCP held twice yearly Strategic Data Debrief Sessions with each health system partner during which visualized longitudinal Quarterly Implementation Log data were shared and discussed.

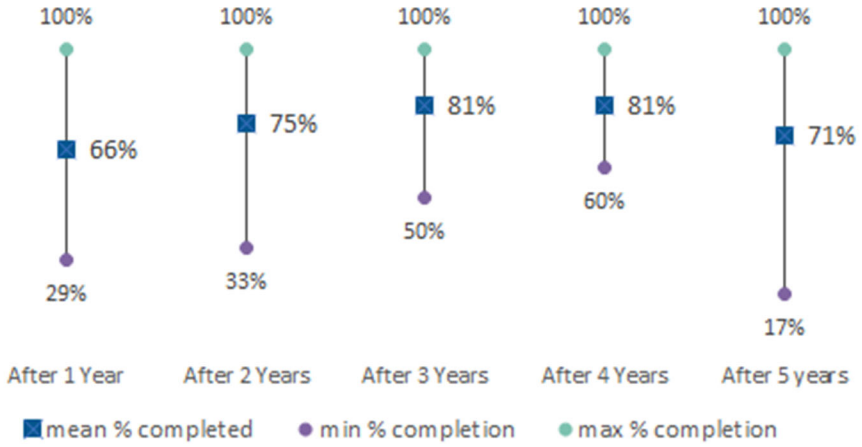
Results

Evaluation Focus Area: Health System Partner Support and Training

WCRCCP supported its health system partners in a variety of ways during the five years, developing an infrastructure, facilitating activities, and creating resources to increase knowledge, skills, and group efficacy to engage in quality improvement, implement EBI/SS, and fully participate in the project.

Over the first four years of the project, completion of clinic implementation and annual work plan objectives increased. As well, the minimum percent of objectives met per year increased during this time. These substantial increases indicate in part that attempts to draft SMARTer objectives were successful, as well as, that some challenges experienced by partners had been addressed and/or overcome. Not surprisingly, there was a decrease in objectives met with the disruption caused by COVID-19.

Figure 1. *% of Annual Clinic Workplan Objectives Met*



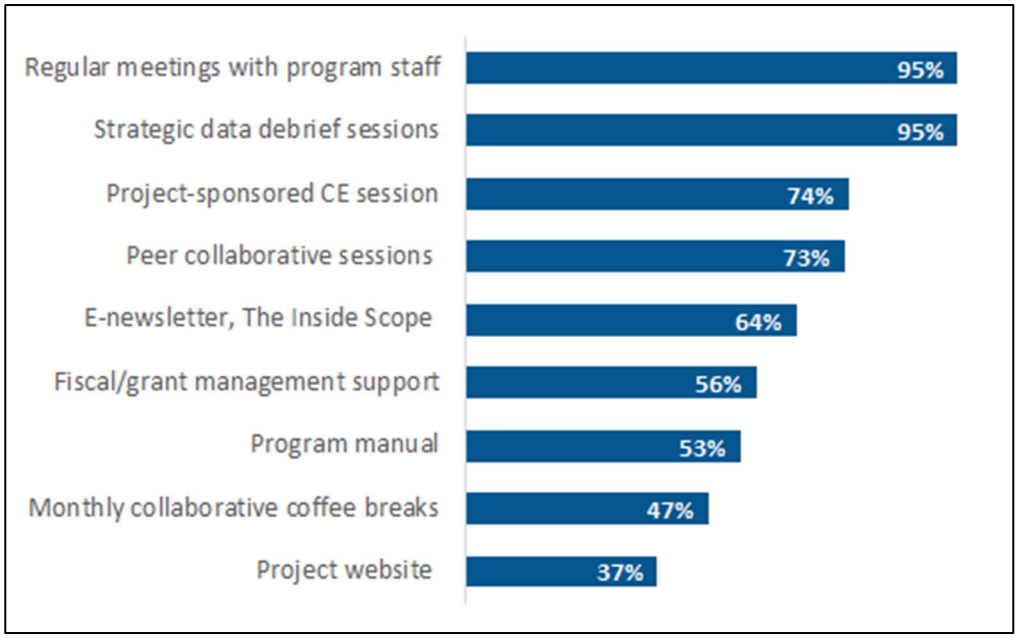
There were many challenges to meeting clinic implementation and annual work plan objectives. These challenges were shared across clinics to varying extents. Challenges included:

- staff turnover and leaves of absences,
- inconsistent clinic CRC team participation
- competing priorities
- Limited buy-in and ownership by staff and leadership
- the siloed nature of clinic functions and roles
- limited communication between clinic functions and roles
- EHR issues
- QI capacity
- difficulty in collecting, tracking, and/or reporting data
- Follow up of abnormal stool tests
- Limited communication between clinic and GI specialists/hospitals for colonoscopy results
- Limited focus on repeat, annual testing
- COVID-19

To address these challenges, the program employed a variety of strategies including:

- Encouraging partners to use project funds to make EHR upgrades including the addition of forms and reports that allow for CRC data tracking
- Coaching and supporting partners to establish mini tracking programs to drill deeper into understanding the effectiveness of EBI implementation (I.e., patient reminders, patient navigation)
- Encouraging partners to establish CRC screening policies/protocols to outline clear screening guidelines and how screening is accomplished within the health system
- Using the twice-yearly Peer Learning Collaborative sessions to focus on:
    - team development, leadership style, and member roles
    - onboarding new CRC team members
    - framing the CRC project and communicating successes to garner buy-in from staff and leadership.
    - Introducing sustainability as a strategy before the project ended

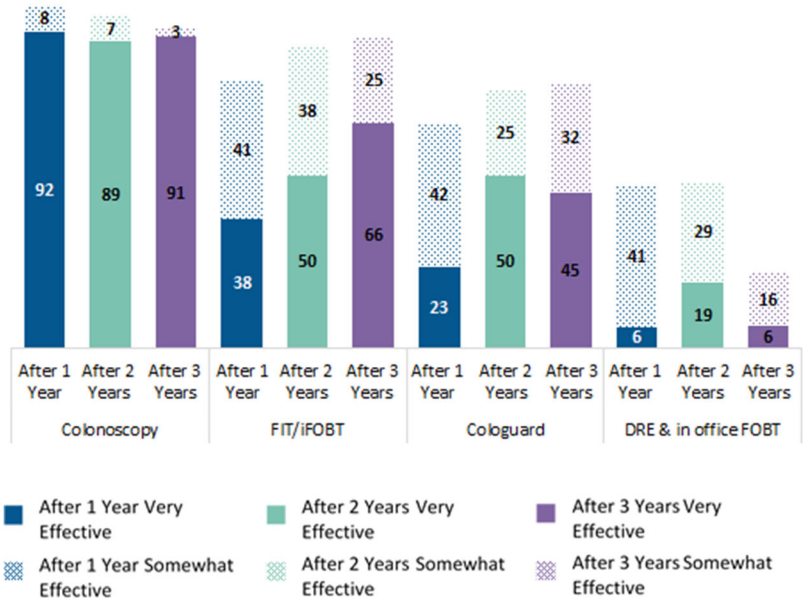
Partners rated the usefulness/helpfulness of various support and training activities and resources provided on a scale from "very" to "not at all" useful/helpful. Consistent and ongoing meetings with program staff and twice annual strategic data debrief sessions were rated most useful/helpful. Activities and resources rated "very" or "somewhat".



CRC Continuing Education

To foster provider and medical staff knowledge and awareness of CRC, screening options, and national guidelines, WCRCCP staff provided a continuing education session to all nine partner health centers. This continuing education session provided 1.0 AMA PRA Category 1 Credits™, 1.0 ANCC Contact Hours, and 1.0 CEUs which were coordinated through the University of Wisconsin-Madison Interprofessional Continuing Education Partnership (ICEP). Eleven one-hour lunch and learn sessions were held between April and December of 2017 (Project Year 2 and 3) with 220 participants attending. 42 CME credits, 47 ANCC credits, and 62 CEUs were distributed across the eleven sessions.

Figure 2. *Provider rating of effectiveness of various screening modalities.*



In the annual Provider/Staff survey, providers were asked to rate the effectiveness of various screening modalities in reducing CRC mortality in average risk patients aged 50-75 (Figure 2). A steady increase was seen in the percentage of providers rating FIT/iFOBTs as "very effective," while there was a decrease in those rating DRE/in-office FOBT as "very effective." An even larger decrease was seen in the percentage of providers rating DRE/in-office FOBT as "somewhat effective."

Peer Learning Collaborative

Eight Peer Learning Collaborative sessions were held during the program period with an average attendance of 17 participants each. Four sessions were developed and led by program staff; four sessions were developed and led by outside content experts. The peer learning collaborative created a consistent opportunity for program-level information to be shared across all partners and to introduce external content experts to share professional development opportunities. Participants were able to crowd-source ideas and strategies for common challenges, and showcase achievements made in their efforts to increase CRC screening rates. Consistent components of the peer learning collaborative included: CRC success showcase, exemplary failures, using data effectively, and team building. External content experts and topics included sustainability planning, quality improvement coaching, addressing cancer screening disparities, being influential without authority, and LEAN for healthcare.

3.6 out of **4**

Average Participant Overall Rating

of program-led sessions

" The peer learning opportunities were good and positive, and it wasn't always about CRC. It was about program sustainability or PDSAs or communication with your patients. And all of those are good pieces to the program."

4.5 out of **5**

Average Participant Level of Agreement with statement

"I have learned from others' successes and challenges in implementing EBIs."

(5 = Strongly Agree)

"I think that the trainings that we've gotten are helpful and useful...it's like your meeting other partners that share their information and whatever is not helpful for us might be helpful for them, or whatever is not working for us, might help them. And just meeting new people, because if I have questions, I can feel free to call someone from [another FQHC]."

Health System Partner CRC Screening Policies

During the five-year program period, all health system partners either drafted new or revised existing clinic CRC screening policies. Correspondingly, there was an increase in awareness of the existence of these policies among providers and staff. There continued however to be a sizeable proportion of providers and staff that were uncertain whether these policies existed. In addition, there was fluctuation in the numbers of providers and staff that reported uncertainty as to whether their clinic followed specific national guidelines, regardless of the presence or absence of a formal, written policy to that effect (Figures 3 and 4). Almost one-third of respondents from clinics with five years in the project were uncertain. It should be noted that all partnering health systems experienced varying levels of provider and staff turnover during the project which may have impacted awareness.

***Figure 3**. Provider and Staff Awareness of Written Clinic CRC Screening Policies*

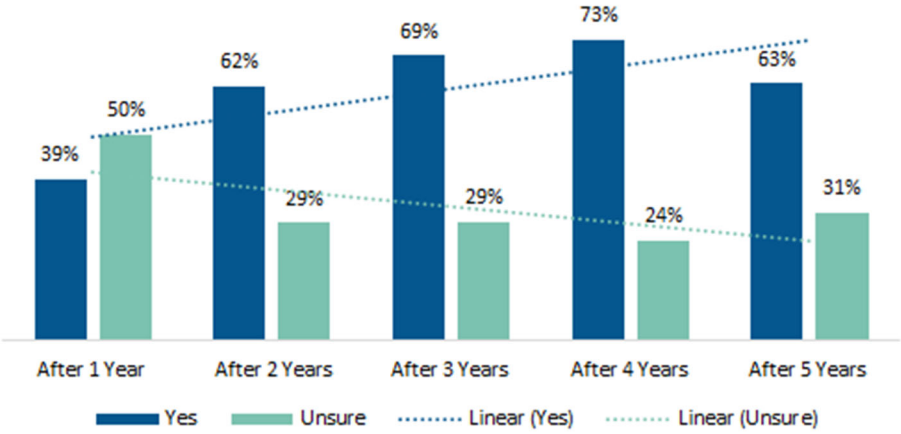
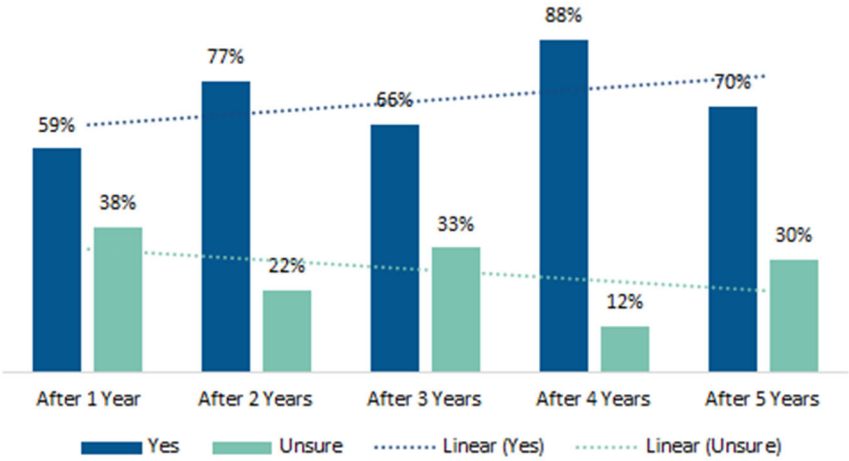
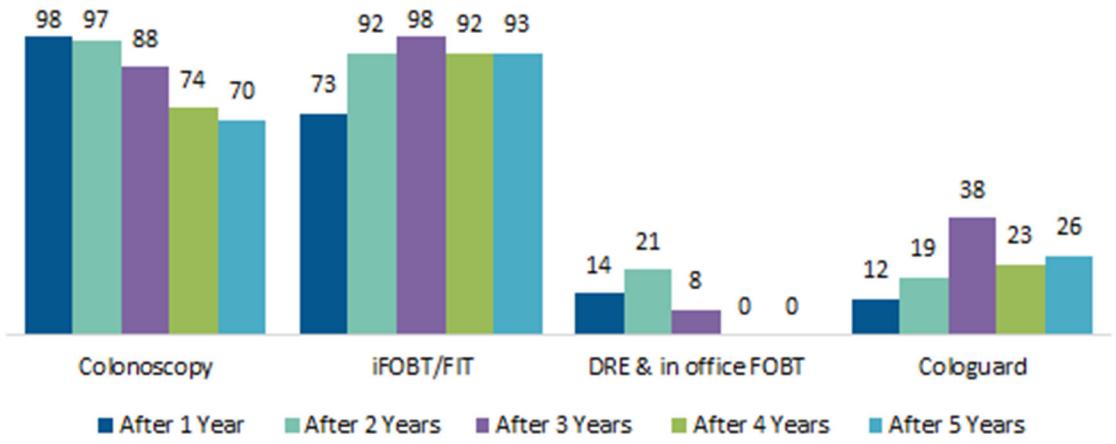


***Figure 4.** Provider and Staff Awareness of Clinic Adherence to National Guidelines*



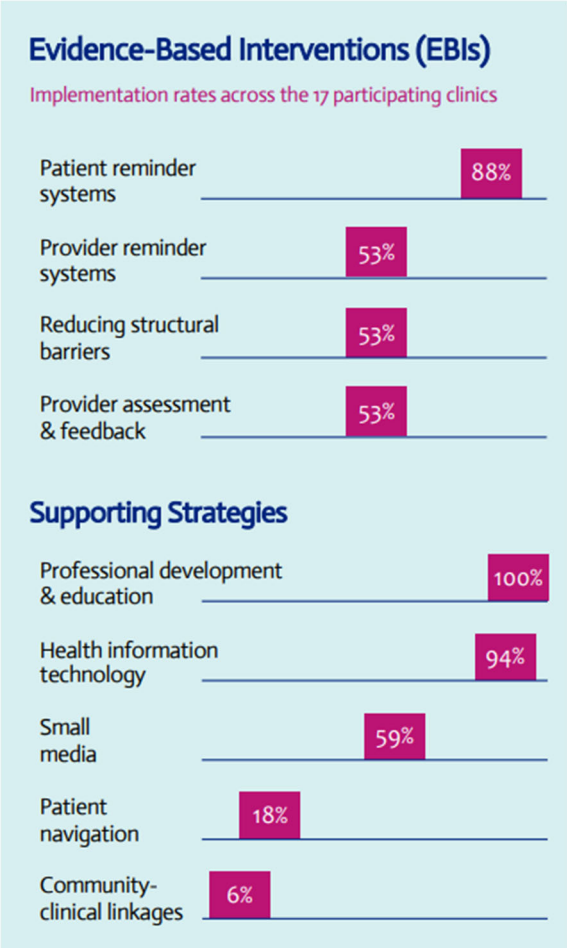
Providers were asked which screening modalities they recommend for average risk patients aged 50-75 (Figure 5). A steady and sustained increase was seen in the percentage of providers recommending iFOBT/FIT with more years participating in the project. This was accompanied by a decrease of providers recommending DRE and in office FOBT. A decrease was also seen in those recommending a colonoscopy for average risk patients. This shift follows the CME sessions, and the widespread selection by clinics of a FIT/iFOBT or switch to another FIT/iFOBT, during the first 1-3 years of the project.

Figure 5*. Provider Recommended CRC Screening Modalities*



Evaluation Focus Area: Evidenced-Based Intervention and Supportive Strategy Implementation

Upon completion of a thorough clinical and environmental assessment, each health system partner selected the EBIs and SSs to be implemented within their clinic(s). Findings of this initial assessment along with baseline screening rate data helped to inform the selection process of appropriate and necessary EBIs to achieve the goals set by the health system. Each partner was able to select, implement, adapt the interventions to best fit their clinic environment. Standardized metrics were established to evaluate EBI implementation and WCRCCP staff coached each partner to establish additional metrics that were unique to their situation.



EBI/SS Definitions and WCRCCP examples:

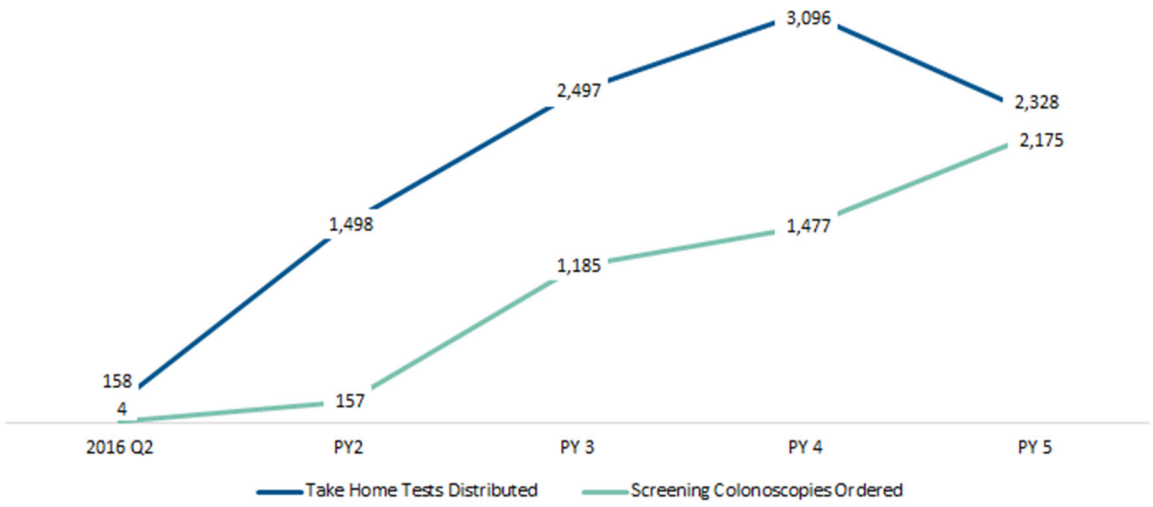
EBI/SS	Definition	WCRCCP Partner Examples:
Provider Assessment & Feedback	Evaluation of provider performance in delivering or offering screening to clients (assessment) and presentation to providers information about their performance (feedback).	The CRC team determined that in order to achieve their screening goals, all providers below the organizational average would improve their individual rates by 10% in a 12-month period and all provider below the organizational average would improve their rates by 5% in a 12-month period. This staggered approach considered that the lower performing providers were often new providers with patient panels who may have been unassigned to a PCP for some time. Individual provider screening rates and reports were discussed monthly with each provider, QI Director, and Chief Medical Officer. [Partner A] Provider level data were unblinded to all providers to improve transparency around necessary improvements to increase CRC screening and to

		identify best/promising practices that can be spread to other providers. [Partner B]
Provider Reminder and Recall System	Informing providers that it is time for a client's cancer screening test (reminder) or that the client is overdue for screening (recall).	The Community Health Worker consistently reviews each day's schedule in advance to make notes for the medical team about needed services, including CRC. The CHW is also closely intertwined with the medical team so open communication occurs throughout the day's appointment schedule. [Partner C] The Azara data dashboard is utilized to provide medical assistants with a pre-visit planning report to identify which patient's need which preventative services during their visit (CRC included). [Partner D]
Patient Reminder System	Written (letter, postcard, email) or telephone messages (including automated messages) advising patients that they are due or overdue for screening; and to encourage patients to complete their screening once given a colonoscopy referral or FIT kit.	A CHW is utilized to call patients within two weeks of receiving a take home a FIT screening test to offer reminders to complete and return, address questions, and make a personal connection with each patient to support the completion and return of a FIT kit. [Partner E]
Reducing Structural Barriers	Structural barriers are non-economic burdens or obstacles that make it difficult for people to access cancer screening. Interventions designed to reduce these barriers may facilitate access to cancer screening services by modifying hours of service, offering services in alternative settings, and eliminating or simplifying administrative procedures.	FIT kits were moved out of the lab and into the exam rooms so patients could eliminate making one additional stop while in the clinic for their exam. Now, FIT education is offered by medical assistants in the privacy of the exam room rather than at the lab counter by a lab technician. [Partner F] Utilize urgent care visits to identify patients who are frequent acute health care utilizers but who have not had an annual wellness visit. FIT kits can be easily distributed during these appointments to improve overall clinic screening rates. [Partner G] FluFIT Utilizing flu shot appointments, clinic staff can do pre-visit planning to identify patients who are due/overdue for CRC screening and offer a FIT kit. These patients then get transferred to the clinic's patient reminder system to ensure the appropriate reminders and support are in place to complete and return the kit. [Multiple partners]

Small Media	Small media materials can be used to inform and motivate people to be screened for cancer. They can provide information tailored to specific individuals or targeted to general audiences.	Small media marketing materials were shared in multiple ways: social media, flyers in waiting rooms/exam rooms, handouts inserted in FIT kit directions, etc. [multiple partners]
Health Information Technology (HIT)	The optimization of EMR and other IT tools so data may be entered and retrieved accurately.	Regular 'chart scrubbing' was utilized to ensure data tracking and monitoring mechanisms were working properly and to identify any potential issues as quickly as possible. [Partner E] Based on findings from initial assessments that revealed data reporting issues associated with accurately tracking FIT kits, new EMR forms were purchases through the vendor. These forms created the opportunity to collect discrete data to improve FIT tracking and monitoring. [Partner A]
Community Clinical Linkages	Linking community programs to clinical services to ensure that people with or at high risk of chronic diseases have access to community resources and support to prevent, delay or manage chronic conditions.	An existing partnership with Organic Valley was utilized to offer CRC presentations to employees during breaks/lunches. These presentations were intended to educate employees about CRC, CRC screening options, and assist employees with scheduling an appointment at the clinic if needed. [Partner H]
Patient Navigation (PN)	A patient-centered approach to identify and reduce barriers to access and use of cancer screening services.	A Community Health Worker (CHW) was utilized to provide additional support to patients who were part of their patient reminder system. The CHW would offer regular reminders to all patients and then additional support and navigation to those patients who needed additional assistance. The CHW would identify and document barriers and then offer targeted assistance to overcome the barriers. [Partner E]

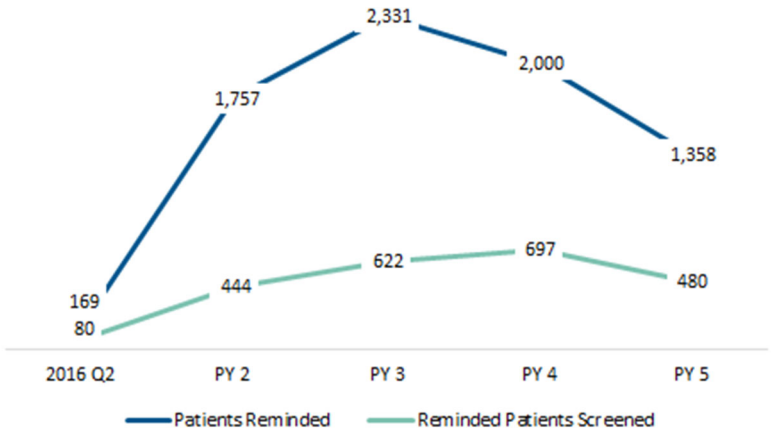
Key to increasing screening rates is increasing the number of patients that receive an appropriate test and increasing the number of patients that complete that test. By January 2018, all health system partners were able to report on the number of take-home kits distributed and colonoscopies ordered. Data showed a steady increase in the numbers of FIT/iFOBTs distributed through Year 4 and an overall increase in the numbers of screening colonoscopies ordered through Year 5 (Figure 6).

Figure 6. *Take Home Tests Distributed and Screening Colonoscopies Ordered*



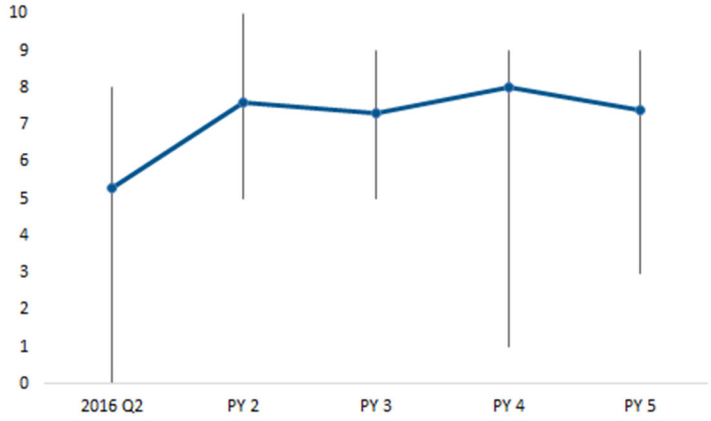
The most implemented EBI, patient reminder systems, were used in eight of the nine partnering health systems. Reminders were more often made to patients once they had received a take home test (typically 1-2 weeks after) or a colonoscopy referral with most of those made to the former. The number of reminders increased through Year 3 followed by a decrease in the remaining years. While fewer reminders were made, the percentage of reminded patients who completed screening increased. In Years 4 and 5, 35% of reminded patients completed screening (Figure 7).

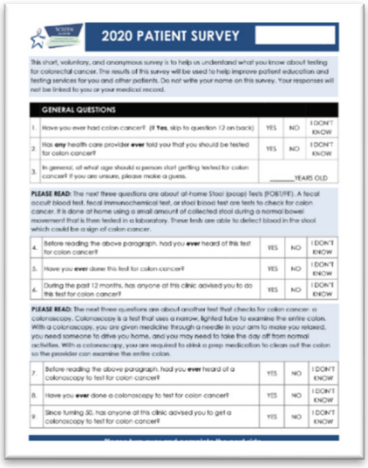
Figure 7*. Number of Patients Reminded and Screened*



Access to complete and accurate data is necessary for the successful implementation of EBIs and other supportive strategies. Almost all health system partners took measures to optimize their EMRs and/or standardize data entry into them. Confidence in EMR data generally increased during the five years of the project. Confidence levels within partners fluctuated over time and the range of confidence ratings widened measurable in the final two years as new issues were discovered (Figure 8).

***Figure 8**. Average Confidence in EMR Data (1 = no confidence -10 = complete confidence)*





2020 PATIENT SURVEY

This short, voluntary, and anonymous survey is to help us understand what you know about testing for colorectal cancer. The results of this survey will be used to help improve patient education and testing services for you and other patients. Do not write your name on this survey. Your responses will not be linked to you or your medical record.

GENERAL QUESTIONS

1.	Have you ever had colon cancer? (If **Yes**, skip to question 12 on back)	YES	NO	I DON'T KNOW
2.	Has **any** health care provider **ever** told you that you should be tested for colon cancer?	YES	NO	I DON'T KNOW
3.	In general, at what age should a person start getting tested for colon cancer? If you are unsure, please make a guess.	_____YEARS OLD		

PLEASE READ: The next three questions are about at-home Stool (poop) Tests (FOBT/FIT). A fecal occult blood test, fecal immunochemical test, or stool blood test are tests to check for colon cancer. It is done at home using a small amount of collected stool during a normal bowel movement that is then tested in a laboratory. These tests are able to detect blood in the stool which could be a sign of colon cancer.

4.	Before reading the above paragraph, had you **ever** heard of this test for colon cancer?	YES	NO	I DON'T KNOW
5.	Have you **ever** done this test for colon cancer?	YES	NO	I DON'T KNOW
6.	During the past 12 months, has anyone at this clinic advised you to do this test for colon cancer?	YES	NO	I DON'T KNOW

PLEASE READ: The next three questions are about another test that checks for colon cancer: a colonoscopy. Colonoscopy is a test that uses a narrow, lighted tube to examine the entire colon. With a colonoscopy, you are given medicine through a needle in your arm to make you relaxed, you need someone to drive you home, and you may need to take the day off from normal activities. With a colonoscopy, you are required to drink a prep medication to clean out the colon so the provider can examine the entire colon.

7.	Before reading the above paragraph, had you **ever** heard of a colonoscopy to test for colon cancer?	YES	NO	I DON'T KNOW
8.	Have you **ever** done a colonoscopy to test for colon cancer?	YES	NO	I DON'T KNOW
9.	Since turning 50, has anyone at this clinic advised you to get a colonoscopy to test for colon cancer?	YES	NO	I DON'T KNOW

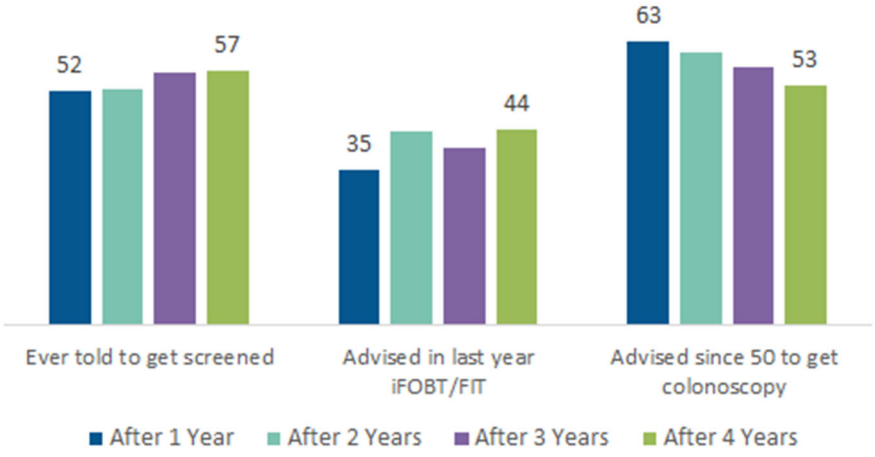
WCRCCP administered an annual patient survey from 2017 through 2020 to assess changes in awareness of CRC screening and intention to get screened among health system partners' patients. A total of 2,843 surveys were distributed over the four years ranging from 436 to 866 completed surveys per year. The survey was available in English and Spanish.

Patient Reminder Study

Tracking data indicate that reminders to patients given a FIT/iFOBT may be more effective. Of the 1,525 patients reminded between December 2018 and March 2020, 681 or 46% completed their FIT/iFOBT screening. Comparing those that completed and those that did not, those that completed were more likely to have been reminded earlier, 11.1 versus 12.9 days after kit receipt. In addition, patients that received phone calls, versus a voice mail message or letter/postcard as their first reminder were significantly more likely to have completed their FIT/iFOBT screening

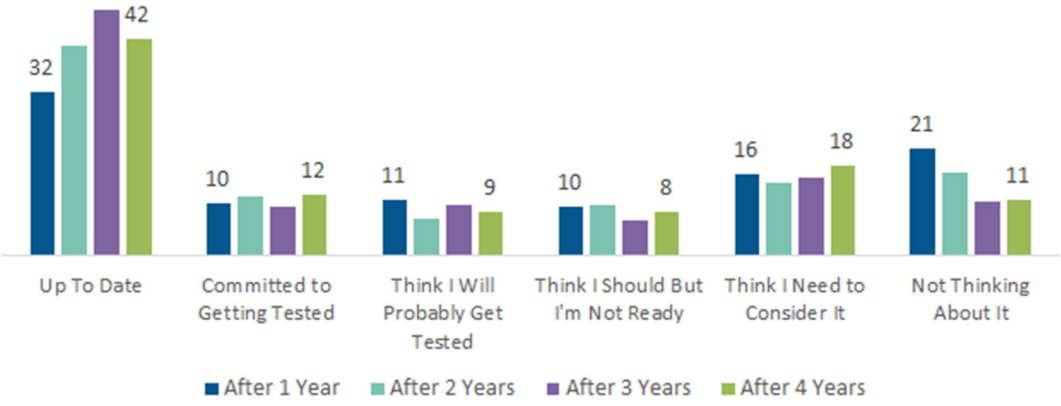
Patients were asked if their health care provider (at the clinic they presented at the day of the survey or elsewhere) had ever told them they should be screened for colorectal cancer, if their health care provider at the clinic had advised them to do an at home FOBT/FIT in the previous 12 months, and if their health care provider at the clinic had advised them to get a colonoscopy since turning age 50. A measurable increase was seen for having received a FOBT/FIT recommendation in the past year (Figure 9).

Figure 9. *% of Patients Reporting Having Received Screening Recommendations by Clinic Time in Project*



Patients were asked about their plans to get screened. A substantial increase in the percentage of patients (32% to 42%) reporting being up to date on screening was seen (Figure 10) accompanied by a marked decrease in the percentage of patients (21% to 11%) reporting not thinking about CRC screening.

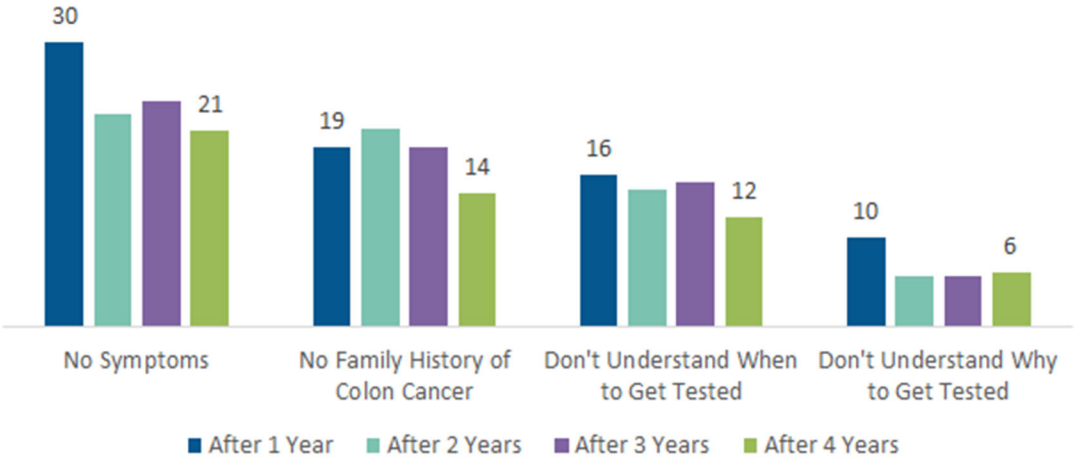
Figure 10. *% of Patients Reporting Each Screening Intention by Clinic Time in Project*



Patients were asked to indicate the reasons why they had not screened or reasons that would prevent them from getting screened. Reasons included those related to *patient awareness/knowledge* (no symptoms, no family history, uncertainty about when to get tested; uncertainty about why to get tested), *patient attitudes/beliefs* (embarrassment, anxiety, fear of finding cancer, not worried about CRC, other more important health issues, tests are not effective), and *structural factors* (lack of time, no insurance, cannot afford, no transportation). Over the project period, the most cited reasons were "no symptoms" and "no family history" while the least commonly cited reasons were "lack of time" and "tests are not effective".

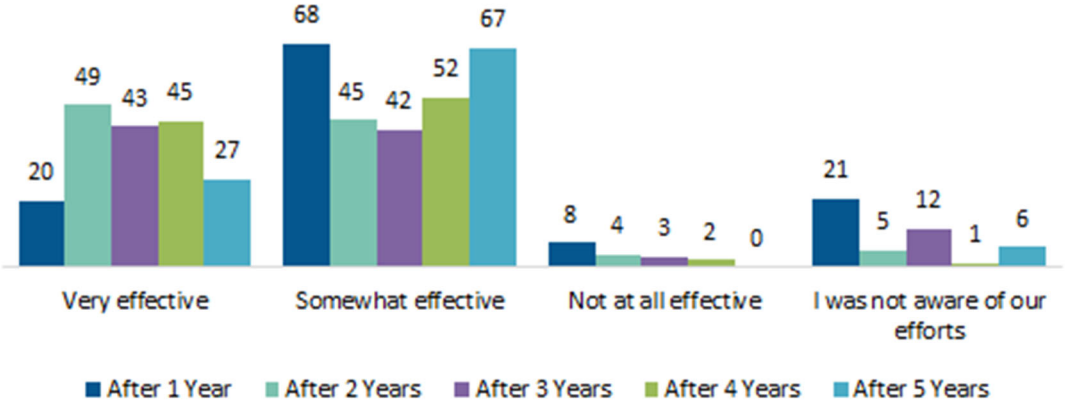
Over the project period, the largest decrease in reported actual or potential barriers to screening was seen in awareness/knowledge. (see Figure 11).

Figure 11. *% of Patients Reporting Awareness/Knowledge Barriers to Screening by Clinic Time in Project*



Health system partner provider and staff perceptions of the effectiveness of EBI/SS implemented at their clinics were assessed using the Annual Provider/Staff Survey. Perceptions of effectiveness ("very effective") increased after two years of project participation however slightly decreased after five years. Perceptions that implemented EBI/SS were "not at all effective" and lack of awareness of CRC screening efforts also decreased over time (Figure 12).

***Figure 12**. Rating of EBI/SS Effectiveness from Provider and Staff Survey Respondents*



In 2020, the Annual Provider/Staff Survey explored sustainability. Respondents were asked which of a variety of EBI/SS and other activities (Figure 13) they believed would continue to increase and/or maintain the screening rate improvements they had achieved. Patient and provider reminder systems were most frequently selected by respondents at 84% and 71%, respectively. Just over one third selected a formal CRC provider or staff champion (37%) and a CRC QI committee (34%).

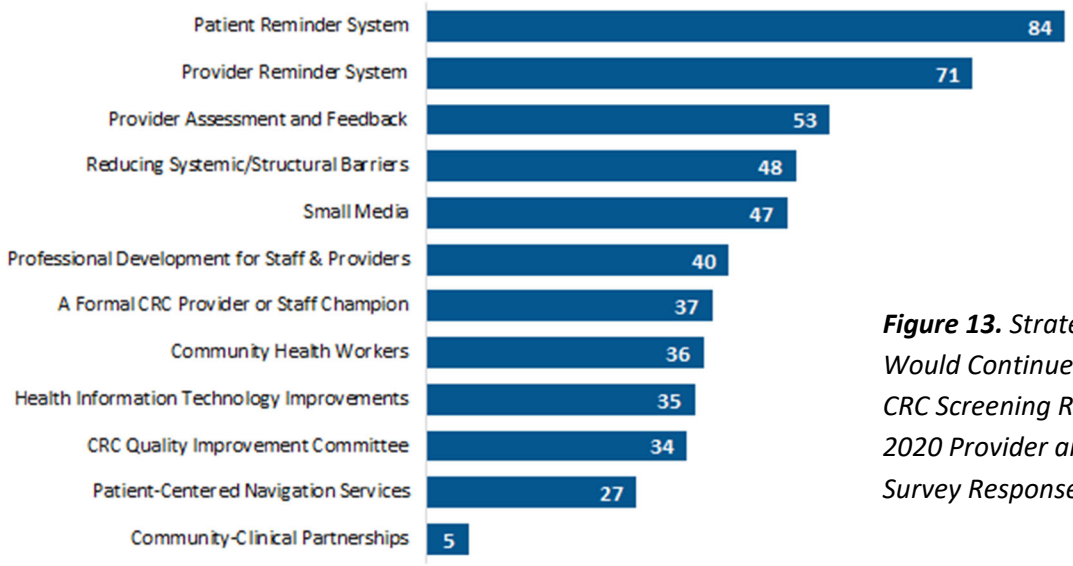
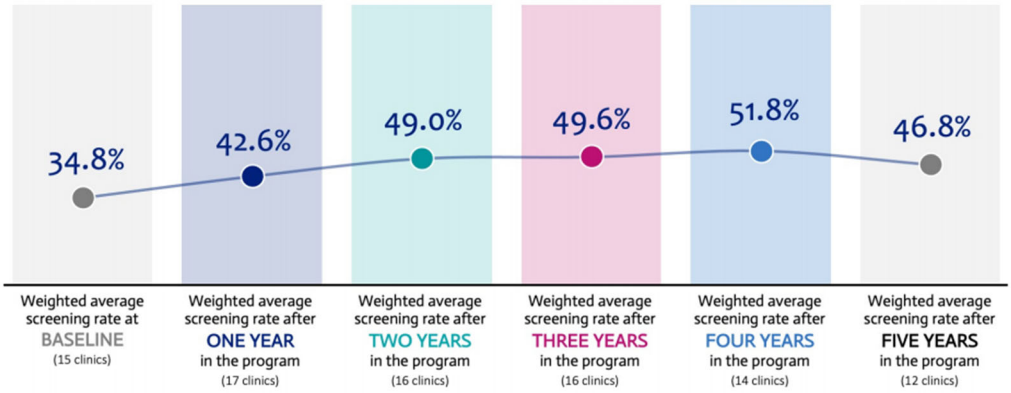
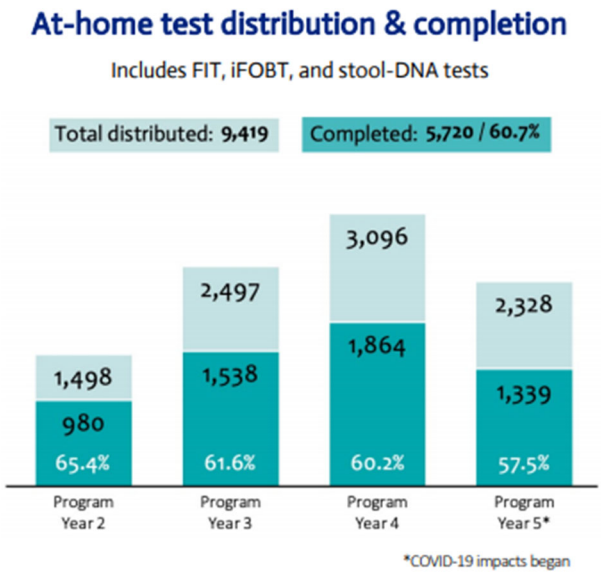


***Figure 13.** Strategies that Would Continue to Improve CRC Screening Rates, % of 2020 Provider and Staff Survey Responses "Yes"*

Evaluation Focus Area: Program Impact



Primary care services were dramatically impacted due to the COVID-19 pandemic beginning in March 2020 (Program Year 5).



Individual clinic screening rates increased by an average of 17.6% between entry into the project and 2019. Individual clinic screening rates increased during this time period 1.2%-43.3%.

Contributing to the increase in project screening rates was the widespread increase in the distribution of at-home tests.

With a program baseline (2015) CRC screening rate of 33.3%, almost 5% lower than FQHCs nationally, WCRCCP's overall weighted screening rate first surpassed the national rate in 2016. Through the efforts of WCRCCP and its health system partners, its rate remained higher through 2019 (latest UDS data available), increasing 20.1% to 53.4%.

Year	UDS National Grantee Data[5]	**WCRCCP****
2015	38.03%	**33.30%**
2016	39.90%	**40.30%**
2017	42.02%	**46.84%**
2018	44.11%	**47.95%**
2019	45.56%	**53.40%**

**From annual CDC data reporting, weighted; based on reporting year not years of program participation

Program Successes

During the five years, we succeeded in....

- sustaining partnership with FQHCs
- supporting the adoption or revision of written clinic-level CRC screening policies/protocols
- supporting the adoption of high-sensitivity stool-based screening tests (I.e., FIT/iFOBT)
- increasing provider perceived effectiveness and recommendation of FIT/iFOBT
- decreasing provider perceived effectiveness and use of DRE and in-office gFOBT
- achieving over 70% of clinic workplan objectives
- distributing over 9,400 take home screening tests
- increasing partner screening rates by an average of 17.6% prior to COVID-19
- supporting the application of lessons learned, quality improvement strategies, and data-informed decision making to other cancer screening funding opportunities secured by partner health centers
- Introducing sustainability planning mid-project using a tested, evidence-based tool
- Presenting lessons learned and promising practices at a variety of national conferences to other share with other cancer prevention and control professionals.
- Connecting local, community health centers to Wisconsin's Comprehensive Cancer Control Program to represent their vulnerable patient populations on the state-level

Conclusions

The WCRCCP was successful at achieving stated outcomes and goals and supporting partner health systems who also achieved their stated outcomes and goals. Screening rates increased 17 percentage points prior to the COVID-19 pandemic, and ultimately, 12 percentage points over the five-year project period. The onset of the COVID-19 pandemic in the final year of the project dramatically impacted our health system partners as they quickly pivoted to respond to the unfolding public health crisis. However, partner health systems were confident that systems were put into place throughout the five-year period that will support the strong return to CRC screening as we continue to manage the ongoing pandemic.

Recommendations

In the final year of the project, key informant interviews were conducted with each health system partner to solicit feedback and gather recommendations that could be applied to this program moving forward. Some of these partner recommendations are summarized below along with WCRCCP recommendations. These recommendations include lessons learned and promising practices to build on the success of this work and apply to other cancer screening initiatives.

Organizational Buy-In
Partner Recommendation: Help partners weight the benefits and burdens of the time and type of commitment the project demands.

WCRCCP Recommendation: Due to consistent staff turnover at all levels of the partner organizations, ensuring organizational buy-in remains high is a critical need. Additionally, reviewing annual commitments to the project, including signing annual deliverables helped to ensure any new leadership were aware of the project and knew what to expect from their partnership.

HIT & Data
Partner Recommendation: Set aside time and money to upgrade/optimize EMR and create reports needed to track metrics related to the project

WCRCCP Recommendation: More time should be carved out to fully understand the existing infrastructure related to HIT and data availability and accessibility. Data is at the heart of a quality improvement project. When data needs or issues remain unresolved, achieving objectives and making real progress is difficult.

Helpful Resources
Partner Recommendation: Provide peer learning opportunities. Resources like provider education, LEAN training, sustainability planning, and sample policies were used and should be offered to future partners. Regular check-ins with partners' CRC teams were perceived as an accountability tool. Some thought too frequent (monthly) but some attributed the meetings on their calendar as

Partner Quotes

"I think we had good buy-in. We're always working on several projects, and so it might be kind of hard to disentangle one from the other. But from leadership, they were supportive for sure."—on **organizational buy-in**

"Our EHR has always been the biggest barrier with everything we've done along the way. [J]ust being able to get the true accurate data into having consistent reminders, it just looks very funny in our system. It just takes up a lot of time."—on **HIT & Data**

"…just your resources were extremely helpful. The whole UW team was very helpful. I used the Lean training. I used a little bit of that with developing a workflow, so that was helpful. They did give us a sample policy that we used."—on **Helpful Resources**

"Those peer learning opportunities were great. The Lean training that she conducted or facilitated through UWM was very useful. So overall, I enjoyed working with your team."—on **Helpful Resources**

the impetus for them to keep pushing forward with their CRC QI work.

WCRCCP Recommendation: We prioritized offering a wide variety of resources to partners to supplement the technical assistance and support our team was able to provide. These opportunities were valued by our partners and should be a consideration for future work.

Project Staffing

Partner Recommendation: Work with partners teams to strategize how funds could be leveraged to support additional hires. Teams that had dedicated staff, particularly for patient reminders and data reporting, seemed to report that being a strength of their program.

WCRCCP Recommendation: Constant staff turnover within partner organizations made forward progress difficult at times. To better prepare for this inevitable human resource challenge, recruiting a broad CRC team and empowering each member to play an active role is important. As a funder, it should be considered how funders can work together to create opportunities for shared partners to leverage funds to do similar work. For example, establishing shared objectives, metrics, or scope across the WCRCCP and WISEWOMAN.

External Partners or Stakeholders to Engage

Partner Recommendation: There need to be stronger links between the CHCs and GI providers. Strategic partnerships with GI providers, hospitals, and insurance companies (including Centers for Medicare and Medicaid) to extract colonoscopy-related screening information.

WCRCCP Recommovendation: As this project evolved, potential external stakeholders to engage became clear. A community health center can only do so much to ensure a patient is screened for CRC and will have to rely on partnerships with hospitals or GI providers if/when a colonoscopy is required. Additionally, partnerships with insurance companies or HMOs could be important partners to engage to help support the work of the health system to ensure shared patients are up to date and screened for CRC. As this project unfolded, it was clear that some of the deep structural issues associated with CRC screening would involve higher level policy work and would require partnerships at both the state and national levels.

Partner Quotes

"In the beginning, we needed to check in every month because if we weren't checking in every month, it wasn't going to happen. So, I think that forced accountability, and that technical assistance especially in the beginning really helped us get our act together to the point where then we could become more self-sufficient and feel good about just kind of keeping the train moving. So, I personally think that that was invaluable because it forces you to grow, and it forces you to figure it out." – on **Helpful Resources**

"But bottom line, we need a dedicated staff person to work on this as well as other projects. You can send that one up to CMS [centers for Medicaid and Medicare Services]." –on **Project Staffing**

"It's just everybody wants us to do things, and if you don't have the staff to do it, you're not going to get it done." –on **Project Staffing**

"I think it would have been cool to partner with one of our critical access hospitals to be able to have a stronger referral link for patients that need a colonoscopy. "– on **Stakeholders to Engage**

Staff Training & Onboarding
Partner Recommendation: Having a formal policy that can be referenced, with guidelines and a standing order for providers and clinical staff has proved useful. Help partners develop a way to embed the CRC-specific training into the onboarding process.

WCRCCP Recommendation: Consistent and ongoing staff training, and onboarding is paramount to ensure that any new staff to the partner organization are on board and understand their role when they join the CRC project team.

Selection of EBIs/Implementation Planning
Partner Recommendation: Continue to encourage teams to work on one to two EBIs at a time. Continue to provide examples of what the intervention could look like and which data they need to be able to track and report.

WCRCCP Recommendation: Allowing partners to decide which EBIs and SSs were most relevant to their needs was important. This provided the opportunity for partners to feel engaged in work that was going to directly improve their clinical environment. Future work should consider that successful EBI implementation must be built on a strong foundation of HIT and data. If this foundation is not secure, EBI planning, and implementation will be difficult to achieve.

Length of Project
Partner Recommendation: Five years is too long.

WRCCP Recommendation: While a five-year, sustained partnership created opportunities for deep engagement and in-depth data collection, it became clear that a universal, five-year partnership was not needed for each partner. Rather, a tiered approach to developing a partnership should be explored. Each partnership tier can be structured to provide the right level of technical assistance and support to each partner knowing the stage of readiness and ability to do the required work will vary.

Partner Quotes

"There's a lot of people that can be champions. I think our MAs are great champions just because they live in the community. A lot of their friends and family come here. So, when they're on board, they talk to their families, and they'll bring them in. I think they're the best community champions, really." –on **Stakeholders to Engage**

"Educating and training staff was really paramount because staff really had no idea about this. What the measure entailed, how they were supposed to implement it. So initially, there was a lot of pushback. But now over the years with our continuous education and training, we have better buy-in. It's still a work in progress, but we have come a long way." – on **Staff Training**

"They provided us with good examples of interventions and how we could apply them to our health center. We had a lot to choose from, and some of them turned out to be successful for us." – on **Selecting EBIs**

"I think it's been too long of a grant. You can survive some uncomfortableness for a while. Five years has gotten to be like I want to be able to see the end." – on **Length of Project**

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