

# **Increasing Breast, Cervical and Colorectal Cancer Screening through Academic Detailing and Practice Facilitation**

## ***Project Summary Report*** **AUGUST 2018**

---

**Prepared for the New York State Department of Health by:**

**Laura Brady, PhD**

**Adrian Hamouda, MPH**

**Laurene Tumiel Berhalter, PhD**

**SUNY University at Buffalo, Department of Family Medicine**

**Laura Schad**

**Christopher P. Morley, PhD, MA**

**SUNY Upstate Medical University, Department of Family Medicine**

**SUNY Upstate Medical University, Department of Public Health & Preventive Medicine**

This is a modified version of the report submitted in August 2018 to the New York State Department of Health in partial fulfillment of the project's deliverable requirements.

The material within this report has been edited to protect the anonymity of the practices who participated in this Project. While some identifying details have been redacted, the overall content remains largely the same.

The original report was drafted by Laura Brady, PhD, and the final submission authored by Ms. Brady, Adrian Hamouda, MPH and Laurene Tumiel Berhalter, PhD from SUNY University at Buffalo, and Christopher P. Morley, PhD, and Laura A. Schad, BS, from SUNY Upstate Medical University, for submission to the New York State Department of Health. The report was re-edited, with identifying information redacted, for public distribution, by Laura A. Schad MPH, in August, 2020.

# Executive Summary

---

## Introduction

In June 2017, the Research Foundation of SUNY – Upstate Medical University entered a contract with Health Research, Inc. and the New York State Department of Health (NYSDOH) to complete the project *Increasing Cancer Screening through Academic Detailing and Practice Facilitation* (June 30, 2017 - June 29, 2018). This current project is an extension of the previously funded project *Increasing Cancer Screening through Academic Detailing and Practice Facilitation*, the contract for which concluded June 29, 2017. As this is the fifth iteration of the project, the current project year will subsequently be referred to as Year 5.

The primary goals of the Year 5 project were to implement interventions using a combination of academic detailing and practice facilitation to increase breast, cervical and colorectal cancer screening within primary care practices, and to assess the outcomes and barriers to intervention success. Activities under this project were administered to 13 primary care practices across Western and Central New York by three practice-based research networks (PBRNs) administered from SUNY Upstate Medical University, SUNY University at Buffalo, and University of Rochester Medical Center. An in-person 1-hour academic detailing session or an online webinar on breast, cervical and colorectal cancer screening guidelines and strategies to increase screening rates among eligible patient populations were available to all participating practices. The practices received practice facilitation services from trained professionals for a minimum 6-month period to develop and implement practice-specific strategies with the goal of increasing cancer screening among their eligible patients.

## Practice Recruitment and Practice Characteristics

The following PBRNs played an integral role in practice recruitment activities:

- Studying-Acting-Learning & Teaching Network (SALT-Net; Syracuse region)
- Upstate New York Practice Based Research Network (UNYNET; Buffalo region)
- Greater Rochester Practice-Based Research Network (GR-PBRN; Rochester region)

Thirteen practices that participated in Year 4 re-enrolled to continue participation in Year 5 and completed all project components. Of the enrolled practices, four were part of a larger medical group or health care system, four were federally qualified health centers (FQHCs), three were affiliated with university hospitals, one was a physician-owned practice, and one was a non-profit clinic. All practices were clinical sites that provide care to underserved patients, more specifically, patients who are low-income, uninsured, or under-insured.

## Academic Detailing and Practice Facilitation

Practice facilitators worked primarily with one person or a small team of people within the practice to provide guidance and motivation for quality improvement projects. This included evaluating each practice's readiness for change, shortfalls, and strengths using the TRANSLATE model scoring rubric. Practice facilitators built rapport and buy-in for the project among practice staff at their assigned practices. The practice facilitators dedicated a total of 390.55 hours across all participating practices during the Year 5 project period. This translates to an average of 30.04 practice facilitation hours of service per practice over a 6-month period. Across all regions and practices served, the practice facilitators dedicated an approximately even distribution of service hours to quality improvement support and general administrative activities. Although data validity was an ongoing concern, the

time practice facilitators spent on those issues decreased in Year 5. Practices primarily focused on utilizing the practice facilitators' skills to implement the following:

- Evidence-based patient outreach and education
- Creating connections with organizations like the American Cancer Society and Western New York Breast Health (Mammography Coach).
- Assessing gaps in patient knowledge regarding cancer screening.
- Practice workflow assessments to increase efficiencies in and standardization of cancer tracking processes.

Overall, most practices experienced consistent support and engagement from practice administration. However, support and engagement from clinician champions and site coordinators decreased considerably from pre- to post-practice facilitation for some practices, due largely to lack of time and competing demands among these personnel. After working with the practice facilitators, the practices cumulatively experienced improvements in their ability to develop clear and measureable targets related to increasing breast, cervical, and/or colorectal cancer screening. Validity and reliability issues for data stored in electronic health record (EHR) systems continue to present barriers to implementing quality improvement for most practices. One practice worked specifically on efforts to improve their EHR data system and to establish workflows around EHR-based provider reminders, which sometimes took precedence over implementing other available evidence-based interventions.

## **Practice Challenges**

Several participating practices experienced significant system-level challenges during Year 4 including EHR system transitions, EHR shutdown, and ownership transitions. The impacts of these issues continued to present challenges during Year 5. Specifically, challenges exist to generate accurate cancer screening rates given that providers and staff are still adjusting to running reports in the new system. There was a decrease in engagement levels observed among practice clinician champions and site coordinators due to competing demands and increased workloads that have presented due to the Year 4 systems-level changes.

## **Notable Project Findings and Outcomes**

Breast, cervical, and colorectal cancer screening rates were collected from practices prior to practice facilitation and again at the end of the practice facilitation period. The average breast cancer screening rates decreased overall during Year 5, while the average colorectal and cervical cancer screening rates increased. The decline in breast cancer screening rates can likely be attributed, in part, to the transition of practices to using different breast cancer screening guidelines and then increase of new patients seen by the practices due to systems level changes that occurred in Year 4. It remains unclear whether observed changes are due to actual changes in number or percentages of patients screened, or whether the observed changes are due to administrative issues related to guideline changes, EHR transitions, or provider turnover. Longitudinal analysis among practices that have participated in the project for the past several years indicates an overall upward trend in breast, cervical, and colorectal cancer screening rates. We believe the longitudinal changes present a more robust picture of screening rate trends, than within-year/within-practice changes.

The most commonly implemented evidence-based interventions across all practices included provider reminder systems, patient reminder systems, and reducing structural barriers. Strategies utilized to remind providers to

discuss cancer screening with their patients included EHR alert systems and pre-visit planning. Patient reminder approaches included phone calls, calendar reminders, and postal letters. Structural barriers were addressed by increasing the use of fecal immunochemical testing (FIT), especially among patients that are more likely to experience challenges with transportation, cost, and time associated with colonoscopies. Other strategies included coordination of dedicated screening days for breast or cervical cancer, utilization of mobile mammography, and patient navigation services.

Practices continue to experience a range of issues at the patient, staff, and system levels. Transportation, fear of screening procedures and/or results, and health literacy were some of the top patient barriers reported. Lack of staff time and dedication to quality improvement activities were cited as common challenges, likely due to competing demands among practice staff. Practices were more likely to successfully implement workflow adjustments among practice staff if these changes were adopted in the form of office policies and if the workflows were adaptable to multiple areas of health maintenance, including those outside of cancer screening. The success of primary care practices in closing the loop on patient screening (i.e., securing screening completion reports for patients) is also an issue and is partially contingent on the office operations and policies of area specialists in sharing screening completion reports, areas in which primary care practices have limited influence.

Alignment of quality improvement activities with existing practice priorities, such as Patient Centered Medical Home (PCMH) or Delivery System Reform Incentive Payment (DSRIP), was viewed as an efficient utilization of personnel time and practice resources. Team-based participation was also viewed as an important factor in sustaining quality improvement efforts.

Year 5 numbers:

**Breast:** The average pre- and post-screening rates across the 13 practices were 51.35% and 42.67% respectively, with a decrease of 8.68 percentage points.

**Cervical:** The average pre- and post-screening rates across the 11 practices were 32.17% and 34.29% , respectively, with an overall screening rate increase of 2.12%.

**Colorectal:** The average pre- and post-screening rate across the 13 practices were 43.57% and 46.76%, respectively, with an increase in screening rates of 3.19 percentage points.

# Table of Contents

---

Executive Summary	ii
Introduction	ii
Practice Recruitment and Practice Characteristics	ii
Academic Detailing and Practice Facilitation	ii
Practice Challenges	iii
Notable Project Findings and Outcomes	iii
Table of Contents	v
Acknowledgements	vii
Introduction	8
I.    Project Development	9
Academic Detailing Curriculum	9
Practice Facilitation Planning	9
Data Collection	10
II.   Summary of Practices and Populations	11
III.  Summary of Academic Detailing Activities	15
IV.   Summary of Practice Facilitation Activities	15
Review of Practice Facilitation Working Items	15
V.    Project Findings and Outcomes	17
TRANSLATE Model Practice Evaluations	17
Quantitative Scores	17
Qualitative Summaries	18
Patient-Oriented Evidence-Based Interventions	21
Quantitative Scores	21
Qualitative Summaries	22
<i>Client Reminders</i>	22
<i>Small Media</i>	22
<i>One-on-One Education</i>	23
<i>Reducing Structural Barriers</i>	23
Priority Evidence-Based Interventions and Supportive Activities	24
Cancer Screening Rates	25
Breast Cancer Screening	26
Cervical Cancer Screening	27
Colorectal Cancer Screening	28
Comparisons of Practices by Project Period	29
Year 1 to Year 5 Participants	30
Cancer Screening Rate Correlation Analyses	31

TRANSLATE Rating Correlations	31
Pre-Practice Facilitation	31
Post-Practice Facilitation	32
Evidence-Based Patient Intervention Correlations	33
Pre-Practice Facilitation	33
Post-Practice Facilitation	33
Practice Personnel Perceptions and Attitudes	34
Cancer Screening Barriers	35
EHR-Based Registry	36
Quality Improvement	38
Change in Provider Perceptions	39
Focus Group and Interview Findings	39
VI. Lessons Learned & Implications	46
Practice Recruitment, Enrollment, and Engagement	47
Quality Improvement to Track Patient Screening	48
Barriers to Cancer Screening	49
VII. Recommendations	51
Assessment of Influential Factors on Screening Rate Data	51
Longitudinal Data Reporting	52
Creating Cancer Screening QI Teams	52
Implementation of Priority Evidence-Based Interventions	53
VIII. Summary of Increasing Colorectal Cancer Screening in New York State Conference	54
Overview	54
Attendance	54
Evaluation	55
Appendix A: Project Logic Model	58
Appendix B: Data Collection Materials	59
I. Practice Characteristics Survey	60
II. Pre-Post Practice Facilitation Survey	62
III. Focus Group/Interview Script and Structured Guide	65
IV. TRANSLATE and Evidence-Based Intervention Evaluation Rubrics	66
Appendix C: Pre-Post TRANSLATE Data	69
Appendix D: Durable Materials	10

# Acknowledgements

---

A number of individuals were pivotal in the successful completion of this project and/or to the composition of this final report through comments offered on the final draft. These include Gary J. Noronha, MD, Carlos M. Swanger, MD, and Karen Vitale, MEd (*University of Rochester Medical Center*), and Amanda L. Norton, MSW (*A. Mandatory, Inc., consulting for SUNY Upstate Medical University*).

In addition to practice facilitation conducted by Ms. Norton in the Syracuse region, two practice facilitators from the University at Buffalo, Laura Brady, PhD and Adrian Hamouda, MPH, contributed to the project in the Buffalo and Rochester regions. Leslie Kohman, MD (*Upstate Cancer Center, SUNY Upstate Medical University*) consulted with the core project team during the creation of the academic detailing material during Years 1-3 of the project.

The project was conducted within a large multi-organizational framework, led by the Studying-Acting-Learning-Teaching Network (SALT-Net, SUNY Upstate Medical University) in partnership with the Upstate New York Network (UNYNET - University at Buffalo) and the Greater Rochester PBRN (GR-PBRN - University of Rochester Medical Center), under the auspices of the Upstate New York Translational Research Network (UNYTE). CNYAHEC was also a contributor to the planning of an online continuing education module derived from the academic detailing presentation materials created for this project.

We would also like to acknowledge the 13 participating practices for their dedication to this project and their commitment to improving the health and lives of their patients.



# Introduction

---

In June 2017, the Research Foundation of SUNY – Upstate Medical University entered a contract with Health Research, Inc. and the New York State Department of Health (NYSDOH) to complete the project *Increasing Cancer Screening through Academic Detailing and Practice Facilitation* (June 30, 2017 - June 29, 2018). This contract was supported by Cooperative Agreement Numbers DP003879 and DP006102 between the Centers for Disease Control and Prevention (CDC) and the New York State Department of Health (NYSDOH).

The current project is an extension of the previously funded project, *Increasing Cancer Screening through Academic Detailing and Practice Facilitation*, supported by the same Cooperative Agreement Numbers DP003879 and DP006102 between the Centers for Disease Control and Prevention (CDC) and the NYSDOH, the contract for which concluded June 29, 2017; as well as the project entitled *Increasing Colorectal Cancer Screening through Academic Detailing and Practice Facilitation*, which concluded on June 30, 2014, and was supported by the Cooperative Agreement No. 5U58DP002029 between the Centers for Disease Control and Prevention (CDC) and the NYSDOH. As this is the fifth iteration of the project, the current project year will subsequently be referred to as Year 5.

The primary goals of the current project were to implement interventions using a combination of academic detailing and practice facilitation to increase breast, cervical and colorectal cancer screening within primary care practices, and to assess the outcomes and barriers to intervention success. Academic detailing is an activity wherein a trained professional (academic detailer) visits health care professionals in their own setting to provide tailored education on specific health topics and to provide guidance on best practices.<sup>1</sup> Practice facilitation involves the work of trained health care professionals (practice facilitators) who assist primary care practices in research and quality improvement activities.<sup>2</sup> This assistance includes data collection, feedback on provider and practice performance, and the facilitation of system-level changes to improve practice processes. Combined, academic detailing and practice facilitation help primary care practices align their work with evidence-based best practices to improve patient care and outcomes.

Under this project, three practice-based research networks (PBRNs) administered from SUNY Upstate Medical University, SUNY University at Buffalo, and University of Rochester Medical Center partnered to provide academic detailing and practice facilitation services on breast, cervical and colorectal cancer screening to 13 primary care practices across Western and Central New York. Practices enrolled in the project were able to receive either an in-person 1-hour academic detailing session, or participate in an online webinar on breast, cervical and colorectal cancer screening guidelines and strategies to increase screening rates among eligible patient populations. The practices received practice facilitation services from trained professionals for a minimum 6-month period to develop and implement practice-specific strategies with the goal of increasing cancer screening among their eligible patients.

This report provides a summary of the major activities and outcomes of this project.

---

<sup>1</sup> Module 10. Academic Detailing as a Quality Improvement Tool. May 2013. Agency for Healthcare Research and Quality, Rockville, MD. <http://www.ahrq.gov/professionals/prevention-chronic-care/improve/system/pfhandbook/mod10.html>

<sup>2</sup> Practice Facilitation as a Resource for Practice Improvement. May 2013. Agency for Healthcare Research and Quality, Rockville, MD. <http://www.ahrq.gov/professionals/prevention-chronic-care/improve/system/pfhandbook/mod1.html>

# I. Project Development

---

The activities conducted under the *Increasing Cancer Screening through Academic Detailing and Practice Facilitation* project were guided by the logic model contained in [Appendix A](#). Core project staff at SUNY Upstate Medical University provided the primary administrative services for the project in collaboration with Amanda Norton who took on the role of Project Manager, in addition to her practice facilitator role, due to her insight and long-standing participation in the project. Partner site investigators and coordinators in the Buffalo, NY, and Rochester, NY, project regions worked in alignment with the administrative processes developed at SUNY Upstate Medical University.

## Academic Detailing Curriculum

The academic detailing curriculum developed during Year 3 was updated to reflect recent guideline changes made by both the United States Preventive Services Task Force (USPSTF) and American Cancer Society (ACS). Upon finalization, the academic detailing curriculum was submitted to the American Academy of Family Physicians (AAFP) for Continuing Medical Education (CME) credit as a live activity. The curriculum was granted 1 Prescribed Credit under the AAFP, which can be accepted by the American Medical Association (AMA) as a Category 1 Credit, and by the American Osteopathic Association as a Category 1-A Credit.

The curriculum was also converted into an electronic web-based course to be hosted on Health Workforce Apps (HWApps; hwapps.org), a system hosted by the Central New York Area Health Education Center (CNYAHEC). The webinar launched on December 1, 2016, and was also granted 1 Prescribed Credit from the AAFP. This course was hosted as open-access on HWApps, and was thus available to individuals outside of our project participant group.

## Practice Facilitation Planning

An unusually challenging staff turnover occurred at the end of Year 4. The two Buffalo facilitators resigned at the end of year 4. Two new facilitators were hired and received an orientation at the beginning of Year 5, which included instructions on how to complete the Practice Facilitator Log and other data collection activities under the project. The new facilitators received ongoing support through bi-weekly meetings.

Practice facilitation activities represented the bulk of the work completed with the practices under this project. The Practice Facilitator Log was used to record information about each encounter the practice facilitator had with a practice and collect information on the following items for each encounter:

- Method of contact with the practice (e.g., telephone, in-person, e-mail)
- Service/activity provided to the practice
- Person providing service/activity to the practice
- Time devoted to completing the service/activity
- Travel time
- Preparation time for the service/activity
- Notes/next steps from the encounter

## Data Collection

Several measures of effectiveness were developed to evaluate the impact of project activities on the cancer screening processes and outcomes in participating practices, as outlined in the Logic Model. These measures are further detailed in Table 1.

Table 1. Data Collection Materials Designed to Evaluate Project Impact

Project Component	Measure	Measurement Tool
Practice Recruitment	Practices serve project priority populations	<ul style="list-style-type: none"> <li>Practice characteristics survey</li> </ul>
Academic Detailing Session	Attendance of primary care providers to academic detailing session	<ul style="list-style-type: none"> <li>CME sign-in sheets</li> <li>HWApps registrations</li> </ul>
	Usefulness of academic detailing session	<ul style="list-style-type: none"> <li>CME evaluation survey</li> <li>HWApps post-webinar quiz</li> <li>Focus groups/interviews</li> </ul>
Practice Facilitation	Change in perceived barriers to breast, cervical and colorectal cancer screening	<ul style="list-style-type: none"> <li>Pre- and post-practice facilitation surveys</li> <li>Focus groups/interviews</li> </ul>
	Change in perceived barriers to use of breast, cervical and colorectal cancer screening registry	<ul style="list-style-type: none"> <li>Pre- and post-practice facilitation surveys</li> <li>Focus groups/interviews</li> </ul>
	Change in patient screening rates for breast, cervical and colorectal cancer	<ul style="list-style-type: none"> <li>Pre- and post-practice facilitation screening rates for each cancer type</li> </ul>
	Implementation of evidence-based interventions to increase breast, cervical and colorectal cancer screening	<ul style="list-style-type: none"> <li>Pre- and post-TRANSLATE evaluation rubric</li> </ul>
	Practice readiness and planning for practice improvement	<ul style="list-style-type: none"> <li>Pre- and post-TRANSLATE evaluation rubric</li> </ul>
	Practice adoption or realignment of practice workflows and policies	<ul style="list-style-type: none"> <li>Pre- and post-TRANSLATE evaluation rubric</li> <li>Focus groups/interviews</li> </ul>

The practice characteristics form was delivered to the practices at the start of the project period. Most practices required extended time to complete the practice characteristics survey and often returned the surveys four to six weeks after they were administered. The pre-post facilitation practice surveys were collected at the beginning and end of the project period using a paper-based form. The collection of the survey data was managed by the practice facilitators and practice champions.

The practice facilitators evaluated their assigned practices on nine elements of a practice improvement model, as represented in the TRANSLATE evaluation rubric, in a pre-post format. The TRANSLATE rubric was also used to capture the implementation of evidence-based interventions, workflows, and policies within the practices, as identified through the CDC's Community Guide to Preventive Services.<sup>3</sup> Pre-post TRANSLATE rubrics were completed for the 13 continuing practices. The practice facilitators collaborated with the appropriate personnel at their assigned practices to collect screening data for breast, cervical, and colorectal cancer.

Each practice reported the number of patients meeting recommended screening criteria (numerator) as well as the number of patients eligible for screening (denominator) for each cancer type. The evaluation team at SUNY Upstate Medical University subsequently calculated practice screening rates from these data.

<sup>3</sup> <http://www.thecommunityguide.org/cancer/index.html>

Focus groups and interviews were conducted by either Amanda Norton or Laura Brady. Both are trained in qualitative data collection and analysis. Since both are also practice facilitators, special attention was given to ensure that facilitators did not conduct interviews/focus groups in their assigned practices. The focus groups and interviews were conducted through either in-person meetings or phone-based conference calls, based on timing, availability, and convenience for participants. The participants targeted for inclusion in the focus groups and interviews were those individuals most directly involved in the implementation of the project, including practice medical directors, office managers, and other quality improvement personnel. Laura Brady, PhD in anthropology, conducted the analysis of the qualitative data.

Copies of the practice characteristics survey, pre- and post-practice facilitation provider surveys, and TRANSLATE evaluation rubrics listed in Table 1 can be found in [Appendix B](#).

## **II. Summary of Practices and Populations**

---

### **Practice Recruitment and Enrollment**

Practice recruitment activities were completed between July and December 2017. The following PBRNs played an integral role in practice recruitment activities:

- Upstate New York Practice Based Research Network (UNYNET; Buffalo region)
- Greater Rochester Practice-Based Research Network (GR-PBRN; Rochester region)
- Studying-Acting-Learning & Teaching Network (SALT-Net; Syracuse region)

The directors of each PBRN, along with study site coordinators, contacted practices within their regions that had participated during the Year 4 project period. Of these, all 13 enrolled for continued participation in the project. One practice did not enroll until halfway through the project year due to staff changes.

The NYSDOH specifically requested that practices enrolled in the project have the capacity to affect a high percentage of patients who fell within their priority populations. These populations include racial/ethnic minorities, low socioeconomic status, uninsured, refugee, geographically isolated/rural, and Medicaid-eligible populations. Thus, all practices recruited for enrollment in the project were assessed for their ability to meet these criteria.

A one-page enrollment form detailing the purpose of the project, as well as project expectations, benefits, and deliverables, was provided to and completed by each enrolled practice. The enrollment form asked each practice to provide the name and contact information of a designated individual who would be the primary contact for the practice facilitator and act as a practice champion for the project.

### **Participating Practices and Populations**

The practice characteristics survey collected information on practice personnel and patient populations. The following information reflects the practice characteristics of the 13 practices that participated in the Year 5 project period.

## Practice Information

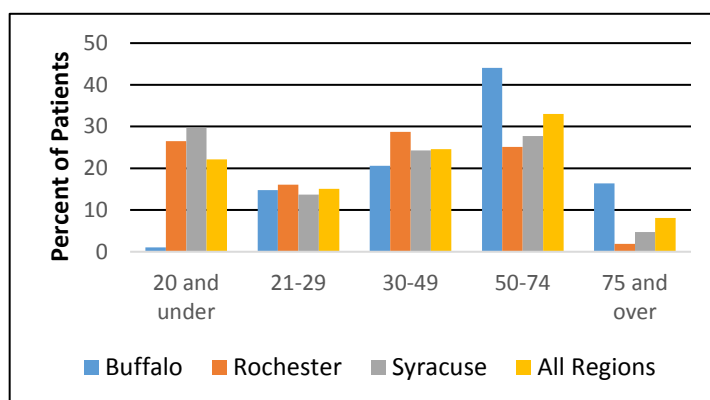
Among the practices participating in this project year, four were classified as large medical groups or healthcare systems, three were classified as university hospitals/clinics, four were federally qualified health centers (FQHCs), one a physician owned practice, and the last, a non-profit clinic. Eight practices participating in Year 5 identified as single specialty while the rest (5) as multi-specialty. One of the multi-specialty practices included pediatrics and adolescent medicine, while another offered dental, optometry, and podiatry. Twelve of the practices were Patient-Centered Medical Homes, and 11 practices followed Meaningful Use recommendations. Table 2 displays a summary of selected practice characteristics, including staff composition and patient volume.

Table 2. Practice Staff Composition and Patient Volume

Practice ID	Physicians Employed	Residents Employed	NPs Employed	PAs Employed	Total Patient Population	Practice Categorization	EHR Vendor
1	3	0	5	3	27,000	Physician-owned practice	Medent
2	5	36	3	1	9,500	University hospital or clinic	Allscripts; Meditech
3	7	20	3	2	7,324	Large medical group/health care system	Allscripts
4	3	0	2	1	7,500	University hospital or clinic	EPIC
5	4	0	0	2	3,000	Large medical group/health care system	Allscripts
6	4	0	1	0	1,859	FQHC	Care Connect (EPIC)
7	3	0	0	0	3,896	Large medical group/health care system	EPIC
8	2	0	0	1	4,462	Large medical group/health care system	EPIC
9	35	0	19	5	44,604	FQHC	eClinicalWorks
10	4	0	4	0	7,000	University hospital or clinic	EPIC
11	2	0	1	2	6,000	Non-profit clinic	Medent
12	2	0	0	1	5,000	FQHC	EPIC
13	8	0	3	6	14,379	FQHC	GE Centricity
<b>TOTAL</b>	<b>82</b>	<b>56</b>	<b>41</b>	<b>24</b>	<b>141,524</b>		

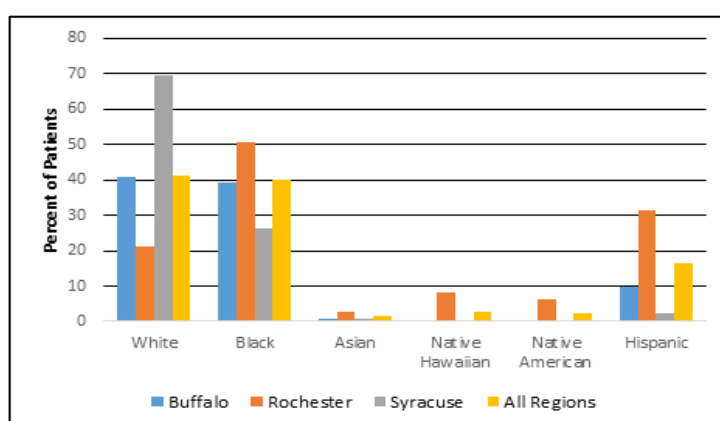
Across the 13 practices, approximately 57% of the patients served were female. The age distribution for the participating practices can be seen in Figure 1. Following the same age trends as last year, Syracuse had the largest percentage of patients in the '20 and under' age group with 29.7% of patients in this category. Buffalo had the largest percentage of patients in the two oldest age groups '50-74' and '75 and over' with 60.5% of their patients falling in these categories.

Figure 1. Patient Age Distribution, by Practice Region:



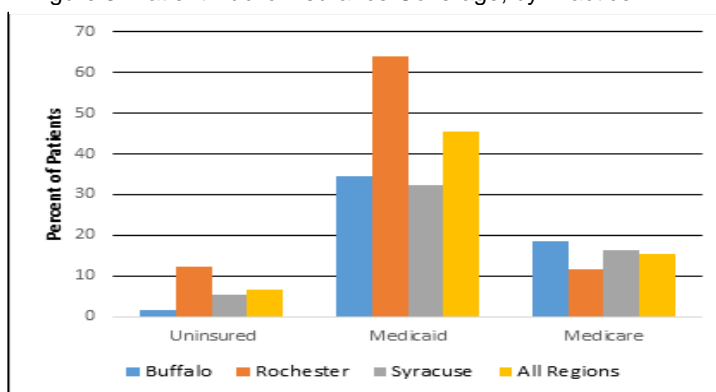
Information regarding patient race/ethnicity across all regions can be found in Figure 2. In regards to race across all regions, 41.4% of patients were White, 39.9% Black, 1.4% Asian, 2.8% Native Hawaiian, and 2.2% Native American. Across all three regions, 16.6% of patients were reported as Hispanic or Latino. Compared to other regions, Rochester had the highest percentage of Black (50.6%), Asian (2.6%), Native Hawaiian (8.2%), Native American (6.2%), and Hispanic patients (31.6%). Meanwhile, Syracuse had the largest percentage of White patients (69.7%).

Figure 2. Patient Race/Ethnicity Distribution, by Practice Region



Across all participating practices, 45.4% of patients were enrolled in Medicaid, 15.4% were insured in Medicare, and 6.6% were uninsured, as illustrated in Figure 3. Rochester had the highest percentage of uninsured and Medicaid patients at 12.3% and 63.9%, respectively. Buffalo had the highest percentage of Medicare patients, which corresponds to having a larger elderly patient population at the practices involved in this project.

Figure 3. Patient Public Insurance Coverage, by Practice



Three of the enrolled practices indicated that they provided mammography services on-site to patients, compared to 4 practices that indicated on-site mammography services last year. Eight of the practices indicated that they offered cervical cancer screening services compared to the 11 indicated offering cervical cancer screening last year. All 13 practices that participated in Year 5 offered colorectal screening options to patients using FIT or FOBT. One practice offers colonoscopy on site.

All the practices involved in this project implemented guidelines for breast and colorectal cancer screening. Eleven of the 13 practices indicated that they implemented guidelines for cervical cancer screening. The two practices who did not implement cervical cancer guidelines did not offer cervical cancer screening on-site. All 13 practices utilized registries to track patient screening for colorectal and breast cancer screening. Twelve of the 13 practice utilized a registry to track cervical cancer screening. The practice that did not utilize a cervical cancer screening registry did not provide cervical screening.

Twelve of the 13 practices expressed confidence that the numbers reported through their registries accurately reflect the number of patients who were up to date with breast, cervical, and colorectal cancer screening. The one practice that was not confident in their registries had inconsistent rates over time and expressed challenges of being unable to capture items from a patient's chart to populate a registry.

Tables 3 and 4 indicate the use of reminder systems among the participating practices for both providers and patients. All 13 practices indicated having one or more types of provider reminder systems in place. The two most common mechanisms were a flag in patient charts, and practice team prompts, both used by 7 practices. Twelve practices reported having at least one mechanism in place for patient reminders, and one practice reported having no reminder systems for patients. The most commonly reported reminder system was a verbal prompt to patients when they visit the practice as reported by 10 practices. The next most commonly reported reminder systems were phone calls to patients, and letters sent through the mail as reported by seven and six practices respectively.

Table 3. Cancer Screening Reminders for the Care Team in Use Pre-Facilitation

Reminder Mechanism	Number of Practices
Special notation or flag in patient chart	7
Computer prompt or computer-generated flow sheet	7
Practice policy to review cancer screening in patient medical records at time of visit	6
Other- Pre-visit Planning	4
None	0

Table 4. Cancer Screening Reminders for Patients in Use Pre-Practice Facilitation

Reminder Mechanism	Number of Practices
Reminder by US mail	6
Reminder by telephone call	7
Reminder by e-mail	2
Personalized web page or patient portal	1
Practice Policy to provide a verbal prompt from a member of the care team during an office visit	10
Other	0
None	1

### III. Summary of Academic Detailing Activities

---

In person academic detailing (AD) and a webinar curriculum are available to all practices. All practices participated in academic detailing in either Year 3 or Year 4. Therefore, none of the practices participated in academic detailing in Year 5.

### IV. Summary of Practice Facilitation Activities

---

#### Review of Practice Facilitation Working Items

One practice facilitator operated in the Buffalo region, one in the Rochester region, and one in the Syracuse region. The following is a brief summary of the primary working items conducted by the practice facilitators, based on the information recorded in the Practice Facilitator Logs. The data presented below should be interpreted with the understanding that variations in reporting may exist across the individual practice facilitators. Table 6 displays a detailed breakdown of the primary activities performed by the practice facilitators during the Year 5 project period. The practice facilitators dedicated a total of 390.55 hours across all participating practices during the Year 5 project period. This translates to an average of 30.04 practice facilitation hours of service per practice over a 6-month period. The true distribution may show a greater number of hours spent with each practice because one clinic joined much later in the project period.

Table 6. Summary of Primary Activities Performed by Practice Facilitators

Service	Activity Summary	Service Time (hours)
Quality Improvement Support	<ul style="list-style-type: none"><li>Assistance with patient education and outreach interventions</li><li>Quality Improvement training and planning</li></ul>	<b>103.48</b>
Cancer Screening Support	<ul style="list-style-type: none"><li>Review of screening methods</li><li>Training and informational sessions</li></ul>	<b>45.46</b>
Data Support	<ul style="list-style-type: none"><li>Collection of practice-related data for project purposes</li><li>EHR-related IT support</li></ul>	<b>31.00</b>
Administrative Support	<ul style="list-style-type: none"><li>General administrative tasks</li><li>Scheduling</li></ul>	<b>98.00</b>
Travel	<ul style="list-style-type: none"><li>Time spent traveling to practice sites</li></ul>	<b>57.70</b>
Preparation	<ul style="list-style-type: none"><li>Time devoted to preparation for project activity</li></ul>	<b>54.91</b>
<b>Overall Services</b>	<b>Total time devoted to practice facilitation activities</b>	<b>390.55</b>



As shown in Figure 5, the practice facilitators dedicated the most service hours to quality improvement support, which accounted for over one-quarter of all service hours. Another large proportion of facilitator time was dedicated to administrative tasks such as planning meetings and conference calls. Approximately 14% of time was dedicated to preparation of project activities, 11% to cancer screening support, 14% to travel, and 8% to data support. There was a large reduction in time spent on data support when compared to Year 4. This was due to a change in focus by the practice. Only one practice focused on cleaning up their EHR.

Figure 5. Distribution of Time Spent on Practice Facilitation Services

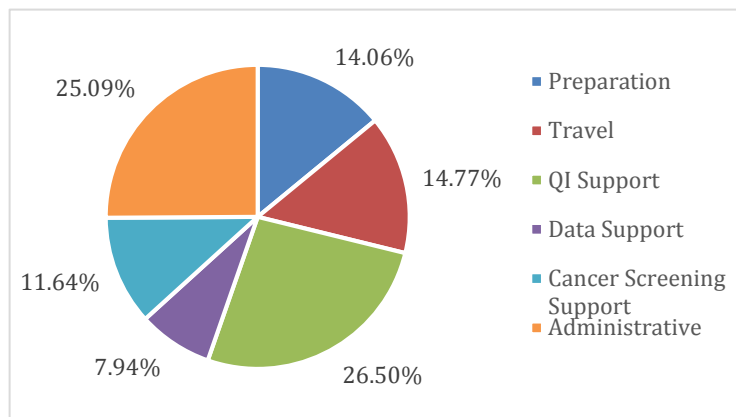


Table 7 displays a breakdown of time spent in the various service delivery modalities. The greatest number of encounters was dedicated to email interactions, while the most time was dedicated to remote activities (see Table 7).

Practices primarily focused on utilizing the practice facilitators' skills to implement the following:

- Evidence-based patient outreach and education
- Creating connections with organizations like the American Cancer Society and Western New York Breast Health (Mammography Coach).
- Assessing gaps in patient knowledge regarding cancer screening.
- Practice workflow assessments to increase efficiencies in and standardization of cancer tracking processes.

Some of the practice facilitators faced barriers related to scheduling the kickoff meetings and general site visits with their assigned practices due to time constraints at the participating offices. Additionally, the practice facilitators dedicated a significant amount of time to travel (57.70 hours). Many of the hours dedicated for travel were due to the practice facilitator working with the Rochester practices driving from Buffalo.

Service Modality	Number of Encounters	Service Time	Travel Time	Service Prep Time	TOTAL Time
Email	336	63.83	0.30	22.07	86.20
Site Visit	41	46.58	48.40	14.26	109.24
Phone Call	39	22.01	0.00	2.50	24.51
Remote/Other	114	145.52	9.00	16.08	170.60
<b>TOTAL</b>	<b>530</b>	<b>277.94</b>	<b>57.70</b>	<b>54.91</b>	<b>390.55</b>

## V. Project Findings and Outcomes

### TRANSLATE Model Practice Evaluations

The TRANSLATE model was used to evaluate each practice's readiness for change, shortfalls, and strengths. This evaluation occurred in a pre-post format at the beginning of the practice facilitation period and at its conclusion. The TRANSLATE evaluation was completed by each practice facilitator, and was used as a guide for the work completed with each practice and as a measurement tool for system-level change within each practice at the conclusion of the project. The TRANSLATE model follows a scoring rubric wherein each practice is evaluated on nine elements involved in practice improvement (see Table 8). Each element is scored on a range from 1-4, with one being the lowest score and 4 being the highest. For more detail on the scoring criteria, please view the example TRANSLATE model evaluation rubric found in [Appendix B](#). Practice facilitators were also required to provide qualitative commentary on each of the nine elements on the TRANSLATE model evaluation rubric.

Table 8. Nine Elements of Practice Improvement in the TRANSLATE Model	
Element	Description
Target	Goal setting
Reminders	Actionable information at the point of care (e.g., point of care reports, pop-ups in EHR)
Administrative Buy-In	Commitment of resources by owner/management (e.g., money, time, personnel)
Network Information Systems	Population health management in EHR, paper list, or other program (i.e., registries)
Site Coordinator	Single point of contact for practice facilitator; local accountability. Arranges team meetings, education of staff, and data collection.
Local Clinician Champion	For clinician buy-in. Leader/educator for other providers in practice. Supports quality improvement team.
Audit and Feedback	Practice-, provider-, and patient-level outcome reports generated to show progress over time and/or progress compared to other practices (benchmarking)
Team Approach	Interdisciplinary team meets regularly to review progress, recommend and test workflow changes. Also refers to decision-making structure. Allowing staff to work at top of licensure.
Education	All forms of training; does not need to be formal. Includes CME, academic detailing, collaborative learning groups, and staff training

### Quantitative Scores

The scores for each of the nine elements were averaged across all 13 practices for each measurement period, and paired t-tests were conducted to determine statistical differences between pre- and post-measurement scores. Table 9 displays the changes in the scores across the two measurement periods.

On average, the practices improved on the four elements of target measures, reminders, site coordinator, and team approach. There was no change in average score for the elements of administrative buy-in and audit and feedback. The remaining three elements, network information systems, local clinician champion, and education decreased during this project year. The cumulative average TRANSLATE score increased by 1.31 (p-value not significant.) There were also no significant p-values from t-tests analyzing increases or decreases for the individual elements measured.

During the pre-practice facilitation measurement period, the practices had the highest average scores for Reminders and Network Information Systems. The lowest average scores for this pre-facilitation measurement

period was for Team Approach and Local Clinician Champion. During the post-practice facilitation measurement period, the practices had the highest average scores for Target Measures and Network Information Systems. The lowest post-practice facilitation scores were seen for Local Clinician Champion and Team Approach. The fact that Local Clinician Champion was the lowest pre-facilitation score and decreased even more shows that many practices did not have a clinician champion, or had one that was not very active. This is also reflected in the low post-facilitation team approach score.

Site-specific data for both the pre- and post-practice facilitation TRANSLATE data are provided in [Appendix C](#).

Table 9. Pre-post Facilitation TRANSLATE Element Scores for 13 Practices

TRANSLATE Element	Average Pre-Score*	Median Pre-Score*	Range Pre-Score*	Average Post-Score*	Median Post-Score*	Range Post-Score*
Target	2.692	3	1-4	3.231	4	1-4
Reminders	2.846	3	1-4	2.923	3	2-4
Administrative Buy-In	2.769	3	1-4	2.769	3	1-4
Network Information Systems	3.077	3	2-4	3.000	3	2-4
Site Coordinator	2.615	3	1-4	2.769	3	2-4
Local Clinician Champion	2.154	2	1-4	1.769	1	1-4
Audit and Feedback	2.538	2	1-4	2.538	2	1-4
Team Approach	1.769	1	1-3	2.000	2	1-3
Education	2.231	2	1-4	2.154	2	1-4
CUMULATIVE**	22.691	22	10-35	23.153	23	12-35
*Out of score of 4						
** Out of total score of 36						

## Qualitative Summaries

The content of the qualitative commentary from the TRANSLATE evaluations can be found in Table 10.

### Target Measures

All but one practice entered the Year 5 project with established targets for quality improvement in cancer screening (12 total). Of these practices, five had general ideas of how they wanted to achieve these screening numbers. After working with practice facilitators 12 practices still had plans to reach target measures. Three practices had loosely defined plans for cancer screening improvement, which needed increased refinement. One practice had concerns about the validity of their data, which caused some uncertainty about the work that was done throughout the year.

### Reminders

Nine of the 13 practices had EHR-based point-of-care clinical decision support capabilities for cancer screening at the start of the project. Seven of these practices had established workflows regarding clinical decision support, but this was monitored consistently in only two of the practices. One practices worked on setting up a clinical decision system in Year 4, but it had fallen into disarray between Year 4 and Year 5. After working with practice facilitators, 10 of the practices involved in Year 5 of the project stated that they had clinical decision support capabilities for cancer screening. Of these practices, 5 reported that the support systems were being used consistently, which was also an improvement from the beginning of the project year.

### Administrative Buy-In

At the start of Year 5, practice staff and site managers were viewed as supportive of quality improvement projects in 12 of the practices. However, seven of these practices stated that they had many competing demands that would limit their time available for this project. After working with practice facilitators, the effects of competing demands were especially apparent with the clinicians and providers since many practices did not have a dedicated clinical champion (as seen by decreased Clinician Champion TRANSLATE scores). Practice administration became less supportive and more difficult to communicate with due to competing demands.

### Network Information Systems

At the start of Year 5, ten practices had the capability to run patient registry reports for cancer screenings. Site coordinators were not always clear about which cancers they run registries for when meeting with practice facilitators. Additionally, five sites mentioned that these registries were not utilized frequently or only covered one cancer screening. After working with practice facilitators, twelve practices had the capability to run patient registry reports for cancer screening. Practice managers did not always discuss which cancer screenings they had the ability to run registries. Four of the practices mentioned that they still were not using these registries frequently.

### Site Coordinator

At the start of Year 5, twelve practices had clearly defined site coordinators, while one practice was experiencing staff transitions resulting in the loss of last year's coordinator. Practice facilitators predicted time constraints with site coordinators at seven of the twelve practices in this project year. At the end of the practice facilitation period facilitators reported time constraints with seven of the site contacts. Additionally, during the project period, three new site coordinators were added, two being replacements for staff that left their practices, and one who was part of the practice that joined mid-year. This contributed to time constraints that facilitators experienced. Two of the site coordinators participating in the project each were responsible for two participating practices, which also significantly reduced their ability to be engaged with facilitators.

### Local Clinician Champion

At the start of Year 5, practice facilitators had identified six clinician champions across the 13 practices. Facilitators noted that the clinicians had many competing demands that would limit their ability to work on this project. By the end of the project year another clinician champion was described as not involved in the project, and of the remaining five, three were described as having heavy time constraints.

### Audit and Feedback

Eight practices conducted audit and feedback activities at the practice-level and five of them stated that this information was disseminated to all practice staff. The remaining three practices did not share this information with all levels of staff. In Year 5 project period, audit and feedback activities decreased, facilitators noted that only seven practices were regularly auditing their cancer screening rates. One of the practices that was believed to audit their screening rates at the beginning of the year actually used their system to maximize reimbursements instead. The low number of practices using these systems may still be due to the EHR changes that happened in previous project years.

### Team Approach

At the start of Year 5, four practices had established interdisciplinary teams for quality improvement decision making as part of their PCMH process. Two practices had dedicated QI staff. Many of the other practices involved did not have interdisciplinary or QI teams, and a few had no teams dedicated to the project, only select staff. No new teams were established during the project period and facilitators found it difficult to stay connected with practice staff beyond their dedicated site coordinator.

### Education

At the beginning of Year 5, six practices offered educational opportunities to staff outside what is currently offered in this project. For one of these six practices, this educational opportunity was limited to providers at the practice. At the end of the practice facilitation period, educational opportunities decreased, and were only offered at four of the practices. A possible explanation for this was that facilitators had a better understanding of the opportunities available and discovered they did not qualify for the purposes of this evaluation.

Table 10. Summary of Pre- and Post-Facilitation Qualitative Commentary from TRANSLATE Evaluations

TRANSLATE Element	No. of Practices Pre-Facilitation	No. of Practices Post-Facilitation
TARGET		
Established targets	12	12
Loosely defined targets	5	3
No targets	1	1
REMINDERS		
EHR-based point-of-care reminders available	9	10
Reminder workflow developed	7	7
Reminder workflow implementation NOT monitored	7	5
Data reliability issues with EHR-based reminders	0	0
ADMINISTRATIVE BUY-IN		
Administration supportive and engaged	12	12
Administration supportive but little resource allocation	7	9
Administration/staff not supportive of project	0	0
NETWORK INFORMATION SYSTEMS		
Cancer screening reports available	10	12
Patient registries regularly utilized	6	8
Formal registry workflow developed	8	7
SITE COORDINATOR		
Site coordinator regularly engaged	12	7
Site coordinator faces time constraints	10	9
No site coordinator identified	1	0
LOCAL CLINICIAN CHAMPION		
Local clinician champion regularly engaged	5	2
Local clinician champion faces time constraints	4	1
Local clinician champion not identified or not engaged	7	11

Table 10. Summary of Pre- and Post-Facilitation Qualitative Commentary from TRANSLATE Evaluations, Continued

TRANSLATE Element	No. of Practices Pre-Facilitation	No. of Practices Post-Facilitation
<b>LOCAL CLINICIAN CHAMPION</b>		
Local clinician champion regularly engaged	5	2
Local clinician champion faces time constraints	4	1
Local clinician champion not identified or not engaged	7	11
<b>AUDIT AND FEEDBACK</b>		
Audit and feedback at practice level	8	7
Audit and feedback at provider level	1	1
Audit and feedback results disseminated across practice or QI team	4	4
No audit and feedback activities completed	3	6
<b>TEAM APPROACH</b>		
Interdisciplinary QI team	4	4
Practice has dedicated QI staff	2	2
No regular QI team	8	8
<b>EDUCATION</b>		
No education routinely offered outside current project	7	9
Limited, informal education for targeted staff members	6	4

## Patient-Oriented Evidence-Based Interventions

Following the TRANSLATE model scoring system, four evidence-based interventions (EBIs) were also evaluated by the practice facilitators to determine the level of implementation at each practice at the beginning of the practice facilitation period and at its conclusion. The four EBIs are further described in Table 11. Like the TRANSLATE rubric system, each intervention was scored on a range from 1-4 (with 1 being the lowest score and 4 being the highest score), and practice facilitators were required to provide qualitative commentary on each of the four interventions.

Table 11. Four Evidence-Based Interventions

Evidence-Based Intervention	Description
Client Reminders	Messages advising patients they are due for screening (e.g. written, email, patient portal or telephone messages)
Small Media	Resources to inform and motivate patients to be screened (e.g. videos, brochures, posters)
One-on-One Education	Delivery of information to patients about indications for, benefits of, and ways to overcome barriers to cancer screening
Reducing Structural Barriers	Reduction of non-economic barriers that make it difficult for patients to access screening (e.g. transportation, language, patient navigation)

## Quantitative Scores

Mean scores and paired t-tests were conducted to assess pre- and post-practice facilitation differences in the implementation of EBIs among all participating practices. Table 12 displays the changes in the scores across the two measurement periods for each of the EBIs targeted within this project. On average, the practices improved on each of the four EBIs after working with practice facilitators: Client Reminders, Small Media, One-on-One Education, and Reducing Structural Barriers. The biggest improvement noted was for One-on-One Education.

None of the changes in average scores were found to be statistically significant. The cumulative average EBI score increased by 0.847 points (p-value not significant).

During both the pre-practice facilitation measurement period and the post-practice facilitation period, the practices had the highest average score for Client Reminders. The practices had the lowest average score for One-on-One Education during the pre-practice facilitation measurement period, while during the post-practice facilitation period the lowest average score among the practices was for Small Media.

Site-specific data for both the pre- and post-practice facilitation evidence-based intervention scores is provided in [Appendix C](#).

Table 12. Pre-Post Practice Facilitation Evidence-Based Patient Intervention Scores for 13 Practices

Evidence-Based Intervention	Average Pre-Score*	Median Pre-Score*	Range Pre-Score*	Average Post-Score*	Median Post-Score*	Range Post-Score*
Client Reminders	2.615	3	1-4	2.846	3	1-4
Small Media	2.077	2	1-3	2.231	2	1-4
One-on-One Education	2	2	1-4	2.308	2	2-4
Reducing Structural Barriers	2.538	2	1-4	2.692	2	1-4
<b>CUMULATIVE**</b>	<b>9.23</b>	<b>9</b>	<b>4-15</b>	<b>10.077</b>	<b>9</b>	<b>5-16</b>
*Out of score of 4; ** Out of total score of 16						

### Qualitative Summaries

The content of the qualitative commentary from the evidence-based intervention evaluations, as recorded in the TRANSLATE rubrics can be found in Table 13.

#### Client Reminders

At the start of Year 5, seven practices utilized telephone-based reminder systems for patients; this included both automated reminders and personal calls. Four of the practices used posted mail reminders, and followed up with patients on patient screening reminders during office clinical visits, while a fifth practice had used mailings in the past but did not have the staff to do so this year. Patient portal messages were utilized to remind patients about cancer screening among three participating practices, while two practices relied on verbal reminders during a patient's visit. Two practices did not implement any client reminder system at the start of Year 5.

By the end of the project period, two additional practices were using telephone-based reminder systems for patients. One additional practice was implementing posted mail reminders. However, two practices remained without any form of client reminders at the end of Year 5.

#### Small Media

At the start of Year 5, four of the practices used flyers and posters to promote information on cancer screening among patients. Four practices displayed informational brochures. One practice played educational videos and used digital frames to display cancer-screening guidelines, while five practices were inconsistent in their utilization of small media within their offices. Two practices did not offer any form of small media within their offices.

After working with practice facilitators, one additional practice adopted the use of digital frames and educational videos on cancer screening guidelines. One additional practice also began to utilize educational videos in their waiting room. Three practices continued to be inconsistent in their use of small media, while two practices remained without small media. Two other practices failed to implement the small media provided to them by a practice facilitator.

#### *One-on-One Education*

At the start of Year 5, four of the practices shared the responsibility of providing patient education on cancer screening across multiple members of the care team. At two of these practices, providers and nurses led patient education efforts. At the other two, it was viewed as a staff-wide responsibility. Patient education initiatives were led by physicians at six of the practices, and one practice utilized the services of care coordinators to provide patient education. Supporting educational materials, such as anatomical models or small media, were used to supplement efforts at three of the practices. Two practices were not involved in regular one-on-one education. Education efforts improved following the practice facilitation period, with one practice implementing provider-led education initiatives while another practice widened its shared responsibility from nurses and providers to include staff. One practice remained uninvolved in patient education.

#### *Reducing Structural Barriers*

Practices addressed varied structural barrier targets at the start of Year 5. Nine of the practices had specific targets, the majority of which focused on breast or colorectal cancer screening. Five practices offered mobile mammography, while another three practices connected patients with on-site and/or walk-in mammography clinics. Three practices emphasized FIT tests and a fourth, recommended Cologuard, as an alternative to colonoscopy with fewer structural barriers. One practice offered patient navigators, while another three provided patients with scheduling assistance. One practice emphasized its use of education materials in multiple languages, while another worked with a practice facilitator to understand cultural barriers to screenings. Only one practice emphasized their on-site cervical cancer screenings. Four practices did not directly target any structural barriers to cancer screening at the start of Year 5.

At the conclusion of Year 5, three additional practices were in the process of implementing mobile mammography services, and two additional practices implemented increased utilization of FIT tests. Another practice had a GI surgeon on site weekly to meet with patients, discuss the colonoscopy procedure, and answer any questions. Overall, structural barrier initiatives increased during the project period. Three practices reported they did not address structural barriers at post-measurement.



Table 13. Summary of Pre- and Post-Facilitation Qualitative Commentary from Evidence-Based Patient Intervention Evaluations

Evidence-Based Intervention	No. of Practices Pre-Facilitation	No. of Practices Post-Facilitation
<b>CLIENT REMINDERS</b>		
Telephone reminders	7	9
Patient portal messages	3	3
In-clinic follow up reminders	2	2
Posted mail reminders	4	5
No patient reminder system	2	2
<b>SMALL MEDIA</b>		
Flyers and posters	4	4
Brochures	4	4
Educational videos	1	3
Small media inconsistently provided to patients	5	3
No small media utilized	2	4
<b>ONE-ON-ONE EDUCATION</b>		
Provided by multiple members of care team	4	4
Provided by physicians	6	7
Provided by care coordinators	1	1
Supporting educational material used to supplement education (e.g. anatomical models, brochures, videos)	3	3
Provided inconsistently	2	1
<b>REDUCING STRUCTURAL BARRIERS</b>		
Mammography buses routinely offered	5	5
On-site or walk-in mammography clinics	3	3
Patient navigation services	1	1
Scheduling assistance	3	3
FIT tests/Cologuard routinely offered	4	6
On-site cervical cancer screenings	1	1
Translation services	1	1
Structural barriers not targeted	4	3

## Priority Evidence-Based Interventions and Supportive Activities

In addition to reviewing the TRANSLATE and patient-oriented evidence-based interventions, an assessment was conducted among four priority evidence-based interventions and two supportive activities, as designated by the Centers for Disease Control and Prevention (CDC). The four priority EBIs include: 1) patient reminder system; 2) provider reminder system; 3) provider assessment and feedback; and 4) reducing structural barriers. The two supportive activities or interventions include: 1) small media and 2) provider education and training. Table 14 provides an overview of the interventions that were in place at each practice by the end of Year 5. Interventions were determined to be in place or not to be in place using information from both the quantitative scores and qualitative comments provided by the TRANSLATE and EBI evaluations.

Overall, the number of interventions in place ranged from two to six, with a median of four. The most common intervention implemented provider reminder systems (13 practices), followed by patient reminder systems (11 practices) and reducing structural barriers (10 practices). Provider education and training was the least common intervention to be in place (5 practices). For more detailed information on specific strategies utilized among participating practices, refer to the section on *Focus Group and Interview Findings*.

Table 14. Priority Evidence-Based Interventions & Supportive Activities in Place Post-Year 5 among 13 Practices

Practice	Patient Reminder System	Provider Reminder System	Provider Assessment & Feedback	Reducing Structural Barriers	Small Media	Provider Education	TOTAL # in place
P1	✓	✓	✓	✓	✓	✗	5
P2	✓	✓	✓	✓	✓	✓	6
P3	✓	✓	✗	✓	✓	✗	4
P4	✗	✓	✓	✗	✓	✗	3
P5	✓	✓	✓	✓	✓	✓	6
P6	✓	✓	✗	✓	✗	✓	4
P7	✓	✓	✗	✓	✗	✗	3
P8	✓	✓	✗	✓	✓	✗	4
P9	✓	✓	✓	✓	✓	✗	5
P10	✓	✓	✓	✗	✓	✗	4
P11	✗	✓	✗	✗	✗	✓	2
P12	✓	✓	✓	✓	✗	✓	5
P13	✓	✓	✓	✓	✓	✗	5
<b>TOTAL</b>	<b>11</b>	<b>13</b>	<b>8</b>	<b>10</b>	<b>9</b>	<b>5</b>	<b>56</b>
Key: ✓=in place; ✗=not in place							

## Cancer Screening Rates

Based on information from the practice characteristics survey, twelve of the thirteen practices were confident that the numbers reported through their registries accurately reflected the number of patients who were up to date with breast, cervical, and colorectal cancer screening at the time of data collection. The single practice that believed their registry data was inaccurate was due to differences in screening rates between pre and post assessments.

It is important to note that the definition of denominators and numerators varied from practice to practice, and even from pre- to post-measurement within the same practices. Oftentimes, practices evaluated screening

numbers based on specific metrics preferred by clinic staff or based on the capabilities of their EHR software. It is possible that practice staff overestimate the reliability of their data, although rigorous verification of the difference is beyond the scope of the current project.

Table 15 summarizes the major organizational and EHR reporting changes or issues experienced by the practices during the Year 5 project period as well as the pre- and post-rates for breast, cervical, and colorectal cancer screening. One major factor that influenced changes in screening rates from pre- to post-practice facilitation was changes in practice screening guidelines. Practices 1, 6, 7, 8, 12, and 13 all had screening guideline changes during Year 5 of the project. This explains drastic changes in screening rates exemplified by P1, which had a decrease of 47% for breast cancer screening. This practice switched from the USPSTF guidelines, which recommend that women start screening at age 50, and then every two years, to the ACS, which recommends annual mammograms beginning at age 45. This resulted in many women who were categorized as 'ineligible' for screening becoming 'due for screening' in this practice's EHR. In addition to screening guideline changes, five of the thirteen practices that participated this year had major reporting changes. Of these five practices, three also had a screening guideline change within the same year (P6, P8, P12).

Table 15. Notable Practice Changes/Issues and Pre-Post Breast, Cervical, and Colorectal Cancer Screening Rates

Practice	Breast		Cervical		Colorectal	
	Pre	Post	Pre	Post	Pre	Post
P1	57.85%	10.77%	12.29%	Not Collected	37.79%	35.10%
P2	83.07%	61.85%	Not Collected	Not Collected	29.18%	67.18%
P3	52.59%	38.21%	34.28%	29.99%	32.87%	45.95%
P4	71.53%	70.66%	24.02%	21.89%	74.20%	85.69%
P5	66.94%	67.47%	19.41%	42.03%	57.41%	57.08%
P6	12.67%	7.65%	18.32%	18.02%	8.09%	5.11%
P7	42.91%	31.68%	20.20%	19.79%	51.69%	18.23%
P8	41.20%	30.12%	16.89%	20.08%	49.92%	21.36%
P9	40.33%	46.18%	49.12%	50.35%	44.26%	52.58%
P10	57.09%	57.90%	48.49%	48.80%	62.55%	70.14%
P11	48.48%	54.93%	42.01%	46.63%	46.61%	56.53%
P12	47.61%	29.55%	54.47%	30.80%	53.74%	74.91%
P13	45.26%	47.80%	45.87%	48.82%	18.21%	17.98%

### Breast Cancer Screening

All 13 participating practices were able to generate breast cancer screening rates from EHR-based registries. Table 16 displays the pre- and post-practice facilitation screening rates for breast cancer. Three of these practices generated these reports based on the American Cancer Society breast cancer screening recommendation of annual mammography for women ages 45 and older, while nine additional practices used the USPSTF guideline for a mammogram to be performed once every two years for women ages 50-74. The remaining practice utilized a combined guideline of the ACS and USPSTF. The average pre- and post-screening rates across the 13 practices were 51.35% and 42.67% respectively, with a decrease of 8.68% percentage points.

Nine of the 13 practices witnessed decreases in their breast cancer screening rates, four of which were flagged as outliers through descriptive analysis (P1, P7, P8, P12). Feedback from the practice facilitator for P1 indicated that this practice experienced a sizeable decrease due to a large population change since this practice recently opened and has a large number of new patients. P7, P8, and P12 were both absorbed by a large health system, which has led to the adoption of a number of new screening guidelines and new patients. P12 also had a change in the EHR used in addition to a change in screening guidelines, which can explain its larger decrease. Practice 12 also promoted one of their staff to a data focused position that allowed them to clean their EHR and update records.

Table 16. Pre- and Post-Project Completed Breast Cancer Screening Rates at 13 Participating Practices

Practice	Pre-Breast Rate	Data Period	Post-Breast Rate	Data Period	Raw Change in % Points	Guideline
P1*	57.85%	1 year	10.77%	1 year	-47.08%	ACS
P2	83.07%	1 year	61.85%	1 year	-21.22%	ACS
P3	52.59%	1 year	38.21%	1 year	-14.38%	ACS
P4	71.53%	1 year	70.66%	1 year	-0.87%	USPSTF
P5	66.94%	1 year	67.47%	1 year	0.54%	USPSTF
P6*†	12.67%	1 year	7.65%	1 year	-5.02%	USPSTF
P7†	42.91%	1 year	31.68%	1 year	-11.23%	USPSTF
P8*†	41.20%	1 year	30.12%	1 year	-11.08%	USPSTF
P9*	40.33%	1 year	46.18%	1 year	5.85%	USPSTF
P10	57.09%	1 year	57.90%	1 year	0.81%	USPSTF
P11†	48.48%	1 year	54.93%	1 year	6.46%	USPSTF
P12*†	47.61%	1 year	29.55%	1 year	-18.06%	USPSTF
P13*	45.26%	1 year	47.80%	1 year	2.54%	USPSTF/ACS
Average	51.35%		42.67%		-8.68%	(3) ACS (9) USPSTF (1) USPSTF/ACS
†Practices with major reporting changes (EHR transition, calculation method, etc.)						
*Practice changed guidelines from Pre-Post						

### Cervical Cancer Screening

Eleven of the 13 participating practices were able to generate cervical cancer screening rates from EHR-based registries. Two practices did not collect patient data on cervical cancer screening. These practices do not conduct cervical cancer screening services, but rather, make referrals for their patients to local OB/GYN offices. Eight of the practices follow the American Cancer Society and USPSTF joint recommendation of screening women age 21-65 every three years with a PAP test, or screening women age 30-64 every five years with the HPV-PAP co-testing option. The other three practices do not include the co-testing option in their data pulls. Table 17 displays the pre- and post-practice facilitation screening rates for cervical cancer screening.

The average pre- and post-screening rates across the 11 practices were 32.17% and 34.29%, respectively, with an overall screening rate increase of 2.12%. Six practices experienced increases in cervical cancer screening rates. Practice P5 increased by over 20% over Year 5 and was most likely due to a large EHR cleanup where old

records were removed and others updated with screenings that were completed outside the practice. P3 and P12 experienced decreases in cervical cancer screening of 4.29% and 23.67%, respectively. Practice P3 expressed difficulty in tracking down patient records and updating their EHR to reflect women who have completed their screening. Moving forward, they plan to reemphasize to patients that they offer OBGYN services. Practice 12 stated that the decrease in their numbers was due to their EHR transition and significant patient turnover they experience due to their patient population.

Table 17. Pre- and Post-Project Completed Cervical Cancer Screening Rates at 13 Participating Practices

Practice	Pre-Cervical Rate	Data Period	Post-Cervical Rate	Data Period	Raw Change in % Points	Guideline
P1	12.29%	1 year	Not Collected	NA	NA	ACS/USPSTF
P2	Not Collected	NA	Not Collected	NA	NA	N/A
P3	34.28%	1 year	29.99%	1 year	-4.29%	ACS/USPSTF
P4	24.02%	1 year	21.89%	1 year	-2.13%	ACS/USPSTF
P5	19.41%	1 year	42.03%	1 year	22.62%	ACS/USPSTF
P6 <sup>†</sup>	18.32%	1 year	18.02%	1 year	-0.30%	ACS/USPSTF
P7 <sup>†</sup>	20.20%	1 year	19.79%	1 year	-0.41%	ACS/USPSTF
P8 <sup>†</sup>	16.89%	1 year	20.08%	1 year	3.19%	ACS/USPSTF
P9	49.12%	1 year	50.35%	1 year	1.23%	ACS/USPSTF (no co-testing)
P10	48.49%	1 year	48.80%	1 year	0.31%	ACS/USPSTF
P11 <sup>†</sup>	42.01%	1 year	46.63%	1 year	4.62%	ACS/USPSTF
P12 <sup>†</sup>	54.47%	1 year	30.80%	1 year	-23.67%	ACS/UDS (no co-testing)
P13*	45.87%	1 year	48.82%	1 year	2.95%	ACS
Average	32.17%		34.29%		2.12%	(9) ACS/USPSTF (1) ACS (2) Other (1) NA

<sup>†</sup>Practices with major reporting changes (EHR transition, calculation method, etc.)  
\*Practice changed guidelines from Pre-Post

## Colorectal Cancer Screening

All 13 participating practices were able to generate colorectal cancer screening rates from EHR-based registries. Nine of the 13 practices generate colorectal cancer screening reports based on the USPSTF colorectal cancer screening guidelines, which recommend screening adults ages 50 to 75. The other four practices utilized the ACS screening guidelines, which recommend screening adults starting at age 45 through to age 75. All 13 practices offer FIT/FOBT testing at their practices, while none of them stated that they offered flexible sigmoidoscopy. Table 18 displays the pre- and post-practice facilitation screening rates for colorectal cancer.

The average pre- and post-screening rate across the 13 practices were 43.57% and 46.76%, respectively, with an increase in screening rates of 3.19 percentage points. P2, P3, P4, and P12 all experienced significant increases in completed screening percentages ranging from 11%-38%. Feedback from the facilitator for P2 suggests that the large increase in screening percentage (38%) can be attributed to a focus on improving colorectal screening at the practice over the past two years. Additionally, the practice facilitator stated that this

practice has focused on building a relationship with American Cancer Services to improve their screening numbers. Based on comments from the coordinator at P3, screening percentages may have improved due to decreased wait times for patients to see specialists. The site coordinator at P12 was new to the project this year and also serves as a data manager to the practice. According to this site coordinator, a large effort was taken to improve workflow in the practice and improve record keeping. This included removing patients who were no longer part of the practice from the EHR, and increased outreach to patients who were due for screening. Over 100 patients were removed from the EHR, which decreased the denominator of patients due for screening by a significant amount.

P7 and P8 experienced significant decreases of 33.46% and 28.56%, respectively, over Year 5 in their colorectal screening rates. P7 and P8 experienced decreases in colorectal screening rates due to their incorporation into a larger health system. The influx of new patients and implementation of new screening guidelines have required changes in workflow and have impacted their screening rates.

Table 18. Pre- and Post-Project Completed Colorectal Cancer Screening Rates at 13 Participating Practices

Practice	Pre-CRC Rate	Data Period	Post-CRC Rate	Data Period	Raw Change in % Points	Guideline
P1	37.79%	1 year	35.10%	1 year	-2.69%	ACS
P2	29.18%	NA	67.18%	1 year	38.00%	ACS
P3	32.87%	1 year	45.95%	1 year	13.08%	ACS
P4	74.20%	1 year	85.69%	1 year	11.49%	USPSTF
P5	57.41%	1 year	57.08%	1 year	-0.33%	USPSTF
P6†	8.09%	1 year	5.11%	1 year	-2.98%	USPSTF
P7†	51.69%	1 year	18.23%	1 year	-33.46%	USPSTF
P8†	49.92%	1 year	21.36%	1 year	-28.56%	USPSTF
P9	44.26%	1 year	52.58%	1 year	8.32%	USPSTF
P10	62.55%	1 year	70.14%	1 year	7.59%	USPSTF
P11†	46.61%	1 year	56.53%	1 year	9.92%	USPSTF
P12†	53.74%	1 year	74.91%	1 year	21.17%	ACS
P13*	18.21%	1 year	17.98%	1 year	-0.23%	USPSTF
Average	43.57%		46.76%		3.19%	(4) ACS (9) USPSTF
†Practices with major reporting changes (EHR transition, calculation method, etc.) *Practice changed guidelines from Pre-Post P1-P12 date range for Pre CRC Rate: 6/1/16-5/31/17 P13 date range for Pre CRC Rate: 1/1/17-12/31/17						

### Comparisons of Practices by Project Period

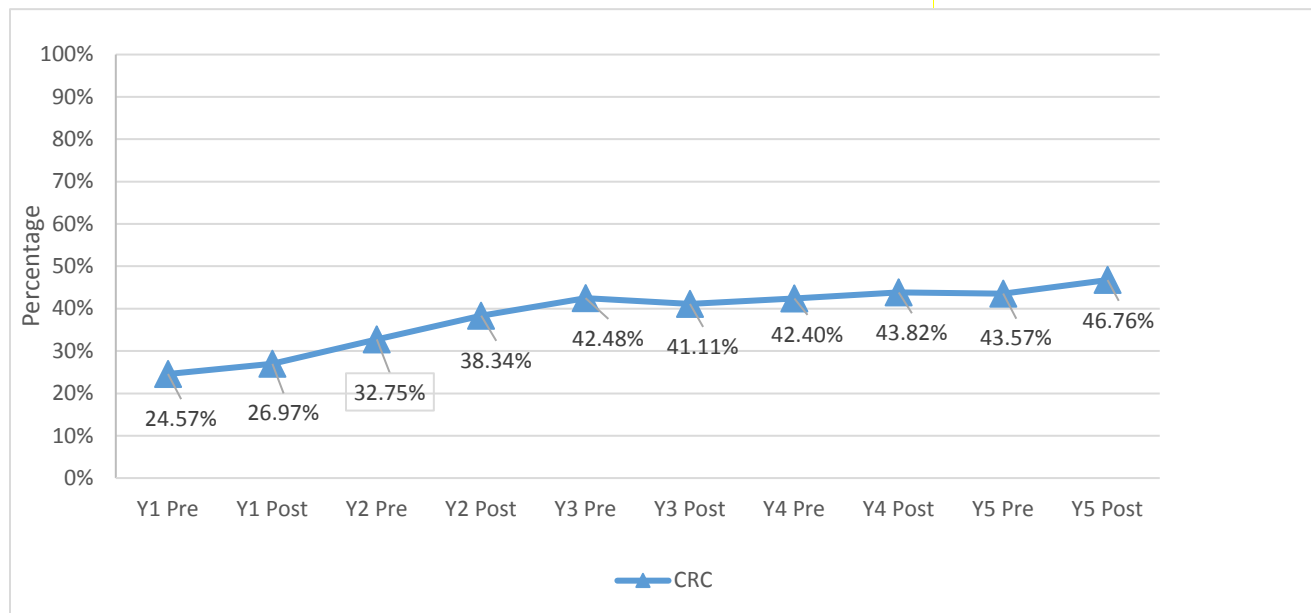
Longitudinal analyses were conducted to assess change in cancer screening rates over time among practices that have been participating in the project on a continuous basis since Year 1 (total of five practices) and Year 2 (total of eleven practices). It is important to note that screening rates were reported twice for each project year,

once before the practice facilitation period began (“pre”) and once following the practice facilitation period (“post”), during Year 1 to Year 3. During Year 4, the pre-measurement of screening rates was eliminated among continuing practices, and their post-measurements from Year 3 were considered their pre-measurements for Year 4. During Year 5, the post-measurement from Year 4 was considered the pre-measurement for Year 5.

#### Year 1 to Year 5 Participants

During the Year 1 project period, only colorectal cancer screening rates were collected and evaluated. Five practices began participation during the Year 1 project period. Figure 6 illustrates the change in average colorectal cancer screening rates across time, and show that screening rates increased with each time point. The average colorectal screening rate started at 24.57% for the Pre-Year 1 time point and ended at 46.76% for the Post-Year 5 time point, with an overall increase of 22.19%. The greatest increase in colorectal cancer screening between two consecutive time points for this group was from Post-Year 1 to Pre-Year 2, with a 5.78% increase.

Figure 6. Change in Colorectal Cancer Screening Rates from Year 1 to Year 5

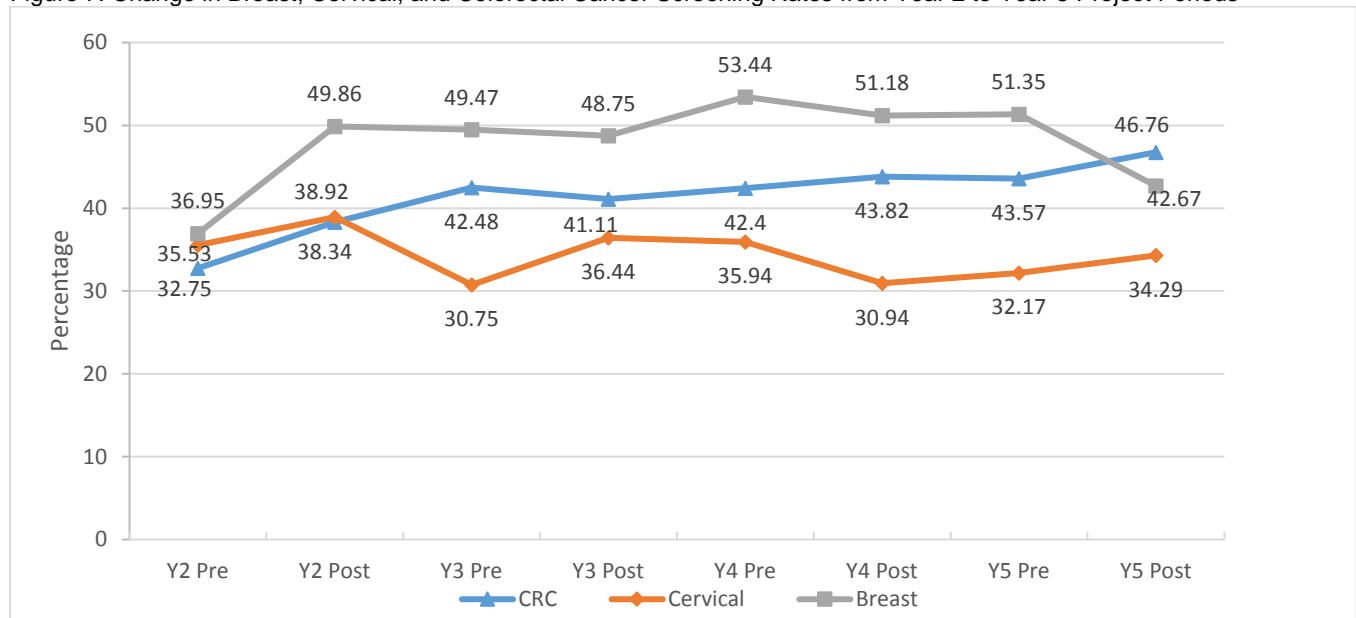


#### Year 2 to Year 4 Participants

Eleven of the 13 practices in the Year 5 project either continued or began participation in Year 2. Figure 7 displays the changes in screening rates for colorectal cancer as well as breast and cervical cancer, which were collected and evaluated starting in Year 2. Figure 7 displays the rates from the beginning of Year 2 to the most recent rates of Year 5. The colorectal cancer screening rates consistently increased with each time point, while the breast cancer screening rates increased from Pre-Year 2 to Post-Year 2, with another increase from Post-Year 3 to Pre-Year 4 and then a subsequent plateau. Overall, the average breast cancer screening rate increased by 5.72% and the average colorectal cancer screening rate increased by 9.92% from Pre-Year 2 to Post-Year 5. The average cervical cancer screening rates went up and down with each consecutive measurement point, with no consistent trend. Cervical cancer screening QI is often difficult for primary care practices to target, as many patients seek this service at outside OB-GYN facilities. Sharing information across practice sites requires dedicated effort, and it is possible that participating practices shifted focus while not engaged with the project team. Some of the practices who participated in Year 5 of the project stated that they were not comfortable with

their cervical screening rate reports because they are more difficult to update and track than the other screening types.

Figure 7. Change in Breast, Cervical, and Colorectal Cancer Screening Rates from Year 2 to Year 5 Project Periods



## Cancer Screening Rate Correlation Analyses

It is important to note that a number of relationships between TRANSLATE or Evidence-Based Intervention item scores, and observed screening rates, attained correlation coefficients that would typically be considered to be of moderate (as opposed to small) effect size. However, with only 13 practices contributing observations for each set of bivariate analyses, true inferential testing is not likely to yield statistically significant (0.05 or lower) p-values normally associated with moderate effect sizes. All coefficients above approximately  $r=0.200$  should therefore be read as simply illustrative of a possible relationship, but with the understanding that this project is not statistically powered to provide generalizable, research-quality opportunities for inferential hypothesis testing.

### TRANSLATE Rating Correlations

Correlation analysis using Spearman's Rho was conducted for the pre-practice facilitation cancer screening rates and pre-practice facilitation TRANSLATE evaluation measures, and for the post-practice facilitation cancer screening rates and post-practice facilitation TRANSLATE evaluation measures among all practices.

#### Pre-Practice Facilitation

Statistically significant associations were detected between the pre-breast cancer screening rates and the TRANSLATE element for Target Measures ( $r=-0.663$ ,  $p=0.013$ ). Statistically significant associations were also detected between the pre-cervical cancer screening rates and the TRANSLATE element for Team Approach ( $r=0.819$ ,  $p=0.001$ ). These findings are presented in Table 19.



Table 19. Correlation between Pre-Practice Facilitation Cancer Screening Rates and Pre- TRANSLATE Evaluation Scores

<b>TRANSLATE Scores</b>	<b>Pre-Breast Cancer Screening Rate</b>	<b>Pre-Cervical Cancer Screening Rate</b>	<b>Pre-Facilitation CRC Screening Rate</b>
<b>Correlation Coefficient</b>			
Target	-.663*	0.153	-0.285
Reminders	0.02	-0.272	-0.255
Administrative Buy-In	-0.17	-0.249	-0.086
Network Information Systems	-0.123	-0.528	-0.123
Site Coordinator	-0.28	0.486	0.236
Local Clinician Champion	0.277	-0.104	0.05
Audit and Feedback	-0.152	0.344	0.169
Team Approach	0.042	.819**	0.085
Education	0.245	-0.042	-0.003
<b>TOTAL TRANSLATE SCORE</b>	<b>-0.041</b>	<b>0.151</b>	<b>-0.039</b>

**Post-Practice Facilitation**

Statistically significant associations were also observed between the post-cervical cancer screening rate and the TRANSLATE elements of Site Coordinator ( $r=0.668$ ,  $p=0.025$ ) and Local Clinician Champion ( $r=0.708$ ,  $p=0.015$ ). These findings are presented in Table 20.

Strong target measures activities were significantly associated with lower Pre-Breast Cancer Screening Rates. It is possible that this association reflected practices recognizing areas for improvement within their practice and developing a strong plan at the beginning of this project year. Team approach was associated with increase pre-cervical cancer screening rates, which may reflect a more balanced practice workflow where all levels of staff are involved in improving cancer screening.

Strong staff involvement was shown to improve post-cervical cancer screening rates. This can be seen in Table 20 where the TRANSLATE elements of Site Coordinator and Local Clinician Champion are significantly associated with increased Post-Cervical Cancer Screening Rates. A majority of practices that wanted to improve cervical screening rates believed a greater emphasis on tracking patient records would be needed. Greater involvement by site coordinators directing staff workflow and reaching out to specialists would improve record accuracy for cervical screens. Additionally, having clinicians speak to patients about their responsibility to keep their primary practice updated on screenings done outside the office could also improve cervical screening rates.

Table 20. Correlation between Post-Practice Facilitation Cancer Screening Rates and Post- TRANSLATE Evaluation Scores

TRANSLATE scores Correlation Coefficient	Post-Breast Cancer Screening Rate	Post-Cervical Cancer Screening Rate	Post-CRC Screening Rate
Target	-0.274	-0.063	-0.084
Reminders	-0.274	-0.206	-0.07
Administrative Buy-In	0.205	-0.106	0.199
Network Information Systems	0.303	-0.131	0.333
Site Coordinator	0.227	.668*	-0.074
Local Clinician Champion	0.301	.708*	0.003
Audit and Feedback	0.289	0.501	0.435
Team Approach	0.321	0.577	0.514
Education	-0.142	-0.231	0.003
<b>TOTAL TRANSLATE SCORE</b>	<b>0.044</b>	<b>0.32</b>	<b>0.185</b>

\*Statistical significance determined at  $\alpha=0.05$

### Evidence-Based Patient Intervention Correlations

Correlation analysis using Spearman's Rho was conducted between the pre-practice facilitation cancer screening rates and pre-practice facilitation evidence-based patient intervention evaluation measures, and between the post-practice facilitation cancer screening rates and post-practice facilitation evidence-based patient intervention evaluation measures.

#### Pre-Practice Facilitation

As shown in Table 21, there were no significant associations found for the pre-practice facilitation and the pre-evidence-based intervention evaluation scores. A moderate positive correlation exists between one-on-one education and pre-cervical cancer screening rates but it does not reach statistical significance. A moderate negative correlation exists between client reminders and pre-breast cancer screening rates. The negative association may be due to the rate changes related to changes in guidelines implementation.

Table 21. Correlation between Pre-Practice Facilitation Cancer Screening Rates and Pre- Evidence-Based Interventions Evaluation Scores

Evidence-Based Intervention Scores	Pre-Breast Cancer Screening Rate	Pre-Cervical Cancer Screening Rate	Pre-Facilitation CRC Screening Rate
Correlation Coefficient			
Client Reminders	-0.487	-0.044	-0.378
Small Media	0.224	-0.376	-0.297
One-On-One Education	-0.086	0.506	-0.145
Reducing Structural Barriers	0.27	0.034	0.026
<b>TOTAL EBI SCORE</b>	<b>0.006</b>	<b>0.074</b>	<b>-0.189</b>

#### Post-Practice Facilitation

Table 22 presents the post-practice facilitation associations for cancer screening rates and evidence-based intervention scores. Upon conducting the post-practice facilitation correlation analysis, there were also no significant associations between post-practice facilitation cancer screening rates and post-evidence-based intervention scores. A moderate negative correlation exists between client reminders and pre-breast cancer

screening rates. The negative association may be due to the rate changes related to changes in guidelines implementation.

Table 22. Correlation between Post-Practice Facilitation Cancer Screening Rates and Post- Evidence-Based Interventions Evaluation Scores

Evidence-Based Intervention Scores	Post-Breast Cancer Screening Rate	Post-Cervical Cancer Screening Rate	Post-Facilitation CRC Screening Rate
Correlation Coefficient			
Client Reminders	-0.506	0.061	-0.377
Small Media	0.424	0.317	0.393
One-On-One Education	-0.285	-0.075	0.228
Reducing Structural Barriers	-0.129	0.07	0.097
<b>TOTAL EBI SCORE</b>	<b>-0.147</b>	<b>0.171</b>	<b>0.100</b>

## Practice Personnel Perceptions and Attitudes

Providers and staff working at the participating practices were surveyed both before and after the practice facilitation services were completed to measure their attitudes and experiences with breast, cervical and colorectal cancer screening, EHR-based registries, and quality improvement. The language and question items in this survey were adapted from previously validated and published surveys available from Houser et al.,<sup>4</sup> the National Cancer Institute,<sup>5,6</sup> and the Michigan Department of Community Health.<sup>7</sup> Surveys were collected through paper hardcopy. Practice facilitators administered the surveys.

In Year 5, a total of 136 surveys were completed; 82 before the intervention and 54 after the intervention. Table 23 provides a total description of demographics among survey respondents' demographics among all respondents. 103 females and 27 males responded to the survey. The greatest number of respondents were physicians (49), followed by NP/PA (26) and practice nurses (19). The fewest respondents were case managers (2). The remaining respondents were fairly evenly represented by other clinical positions.

Table 23. Demographic Data for 135 Pre- and Post-Practice Facilitation Survey Respondents

Sex	Job Title								TOTAL
	Physician	NP/PA	Practice Nurse	Medical Assistant	Practice Manager	Case Manager	Clerical	Other/No Response	
Female	23	23	19	12	5	2	9	10	103
Male	22	3	0	0	2	0	0	0	27
Prefer not to answer	2	0	0	0	1	0	0	1	4
No response	2	0	0	0	0	0	0	0	2
<b>TOTAL</b>	<b>49</b>	<b>26</b>	<b>19</b>	<b>12</b>	<b>8</b>	<b>2</b>	<b>9</b>	<b>11</b>	<b>136</b>

<sup>4</sup> Houser SH, Colquitt S, Clements K, Hart-Hester S. The impact of electronic health record usage on cancer registry systems in Alabama. *Perspect Heal Inf Manag.* 2012;9(1f).

<sup>5</sup> [http://appliedresearch.cancer.gov/screening\\_rp/](http://appliedresearch.cancer.gov/screening_rp/)

<sup>6</sup> [http://healthcaredelivery.cancer.gov/crc\\_surveys/](http://healthcaredelivery.cancer.gov/crc_surveys/)

<sup>7</sup> <http://www.astho.org/Quality-Improvement/Toolkit/Michigan-Department-of-Community-Health-Quality-Improvement-and-Performance-Management-Survey/>

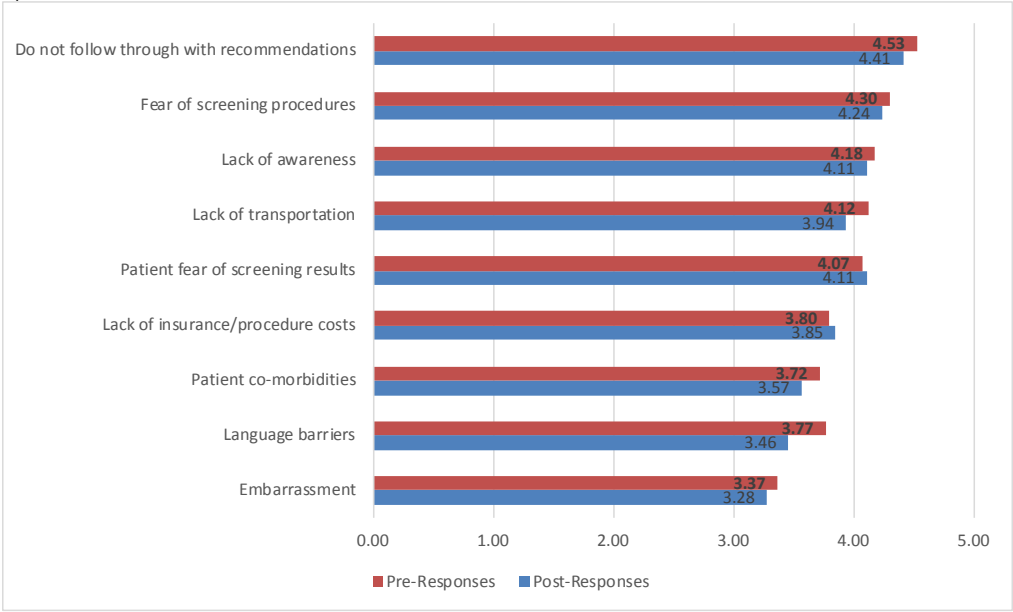
In past years, pre-post surveys were matched by person. Due to staff turnover and inconsistency of individuals completing surveys, pre post surveys were compared as a group rather than as paired samples. The following findings of the pre- and post-practice facilitation surveys represent the results across all respondents.

**Cancer Screening Barriers**

Survey respondents were asked a series of Likert-scale questions assessing the importance of specific patient-related and system-related barriers to increasing cancer screening rates in their practices (see [Appendix B](#) for survey text). The Likert scale ranged from a low value of 1 (not important) to a high value of 5 (very important). Mean scores for each question were obtained to estimate the overall relative importance respondents ascribed to the listed barriers in their practice: mean scores of less than 3.0 indicate low importance, and mean scores above 3.0 indicate high importance. Figure 8a-b displays the distribution of pre- and post-practice facilitation mean scores for the questions addressing barriers to increasing cancer screening.

Among the participants surveyed, the top two most important patient-related barriers to increasing cancer screening as perceived by practice teams both before and after practice facilitation were: 1) lack of following through on provider recommendations; and 2) fear of screening procedures. Before practice facilitation, the third most important patient-related barrier was 3) lack of awareness. After practice facilitation, two patient-related barriers tied for third place: lack of awareness and fear of screening results. However, all of the barriers had an average rate above 3.0 for both pre- and post-scores, indicating that all barriers were considered of high importance among survey respondents. Average rating of all but two patient-related barriers either did not change or decreased from pre- to post-measurement. Fear of screening results and lack of insurance/procedure costs increased slightly from pre- to post-measurement. No patient-related barriers had statistically significant changes in average rating.

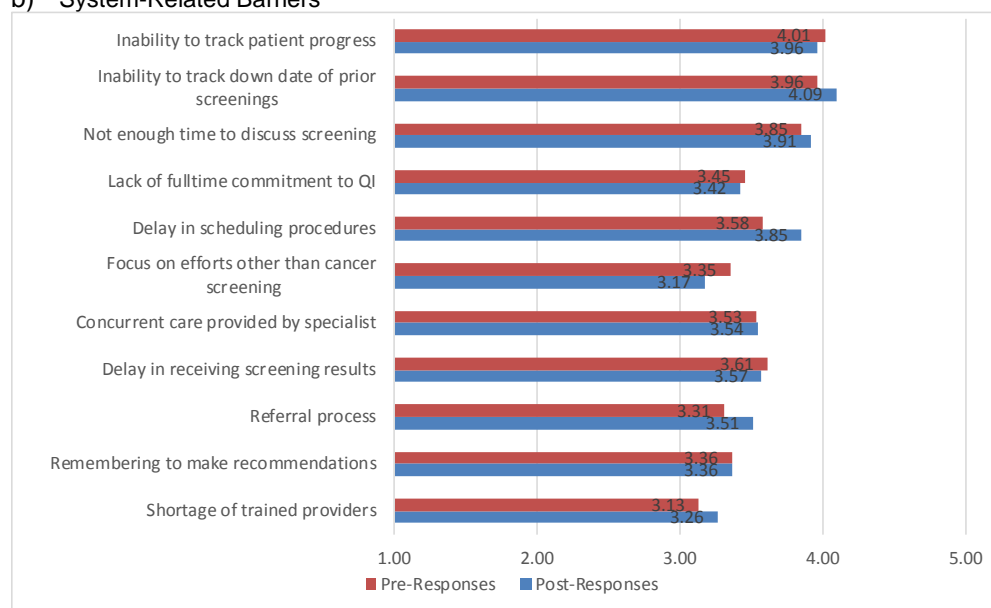
Figure 8. Mean Scores for Questions on Barriers to Increasing Cancer Screening  
a) Patient-Related Barriers



The top three most important system-related barriers to increasing cancer screening prior to practice facilitation were: 1) inability to track patient progress in completing screening tests; 2) inability to track down the date of a

prior screening; and 3) not enough time to discuss screening with patients. After practice facilitation, the same system-related barriers remained in the top three but the most important switched positions: 1) inability to track down the date of a prior screening; 2) inability to track patient progress in completing screening tests; and 3) not enough time to discuss screening with patients. As with the patient-related barriers, all of the system-related barriers had an average rate above 3.0 for both pre- and post-scores, indicating that survey respondents considered all barriers to be of high importance. Average rating increased for about half of the system-related barriers, including the inability to track down the date of a prior screening, delay in scheduling screening procedures, and the referral process. These changes were determined to not be statistically significant.

Figure 8. Mean Scores for Questions on Barriers to Increasing Cancer Screening  
b) System-Related Barriers



Respondents were asked to write in any additional barriers to increasing cancer screening not listed in the Likert-scale response options. The following list summarizes the written responses:

- Overall lack of patient compliance and adherence
- Religious and cultural barriers
- Lack of patient trust in medicine
- Practice is not notified of changes in patient contact information
- Scheduling and cost issues associated with colonoscopy
- Patient lacks escort to accompany them to colonoscopy
- Lack of time and staff to conduct cancer screening education and outreach, as well as track cancer screening orders and results
- Inaccurate data and unreliable EHR provider and patient reminders

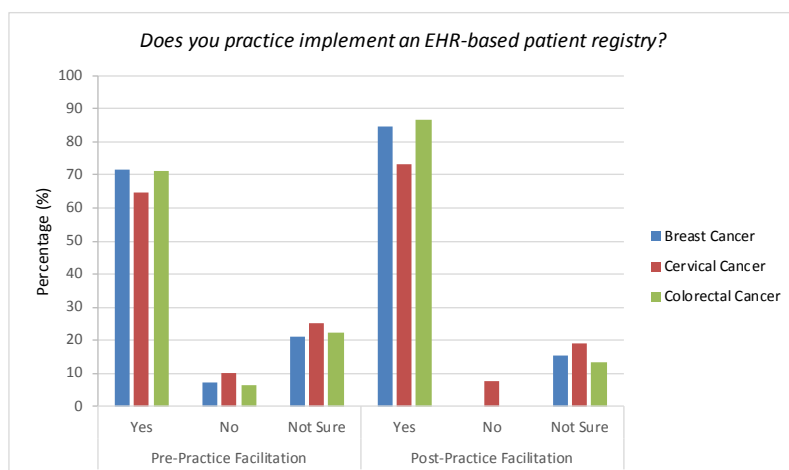
### EHR-Based Registry

The majority of respondents indicated that their practice did implement an EHR-based patient registry to identify and track patients eligible for breast, cervical and colorectal cancer screening during both the pre- and post-practice facilitation measurement periods. The number of respondents reporting that their practice did implement an EHR-based patient registry increased between the two measurement periods for all three cancer screenings,

while the number of respondents who were “not sure” decreased, indicating an overall increase in awareness of this capability among respondents. A distribution of survey responses can be found in Figure 9.

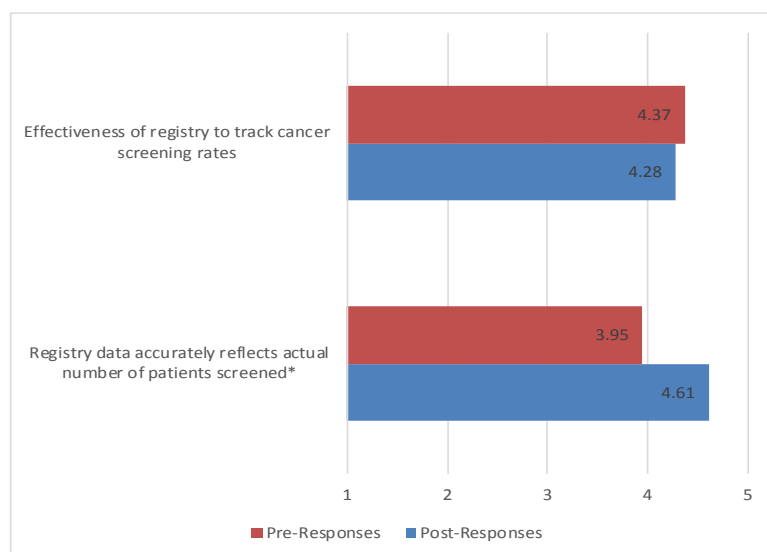
Following the information reported in the practice characteristics form from the pre-practice facilitation period, all 13 practices reported that their practice utilized patient registries to track patient cancer screening. Only one practice did not have a registry for cervical cancer screening; the remaining practices reported having registries for all three cancer screening tests. Additionally, the TRANSLATE evaluations conducted by practice facilitators indicated that all 13 practices had the capability to run EHR-based reports, but that this capability was underutilized by about half of the practices. Thus, it appears that gaps remain in knowledge, trust in accuracy, and utilization among staff at the participating practices on this EHR feature.

Figure 9. Summary of Respondent Knowledge of EHR-Based Patient Registries



Respondents were also asked to rate 1) the effectiveness of the registry to track cancer screening rates, and 2) whether the registry data accurately reflects the actual number of patients screened on a five-point Likert scale that ranged from a low value of 1 (not effective/accurate) to a high value of 5 (very effective/accurate). Figure 10 presents the average pre- and post-measurement ratings for these survey items, which shows a slight overall decrease in perceived effectiveness of the registry's ability to track cancer screening rates. This change was not statistically significant. However, the overall increase in perceived accuracy of registry data in reflecting the actual number of patients screened was statistically significant ( $p = 0.005$ ).

Figure 10. Perceived Effectiveness and Accuracy of Patient Registries



Survey respondents were also asked a series of Likert-scale questions assessing the importance of selected barriers to utilizing EHR-based registries to track patient cancer screening (see [Appendix B](#) for survey text). The Likert scale ranged from a low value of 1 (not important) to a high value of 5 (very important). Mean scores for each question were obtained to estimate the overall degree to which respondents assessed the barriers to EHR-based registries as important in their practice: mean scores of less than 3.0 indicate low importance, and mean scores above 3.0 indicate high importance. Figure 11 displays the distribution of pre- and post-practice facilitation mean scores for the questions addressing barriers to EHR-based registry use.

Respondents identified the following as the top three most important barriers to utilizing EHR-based registries prior to receiving practice facilitation: 1) lack of personnel support to maintain registries; 2) lack of personnel support to utilize registries; and 3) lack of staff training or knowledge about registries. Following practice facilitation, the top barrier was 1) lack of personnel support to utilize registries. The next two most important barriers tied for second place: lack of personnel support to maintain registries and inability to accurately record screening completion. These were closely followed by the barrier 4) reliability of information stored in the EHR. The average ratings decreased for both ongoing financial costs associated with maintaining registries and start-up financial costs associated with creating registries but neither were statistically significant.

### Quality Improvement

Survey respondents were asked a series of Likert-scale questions assessing the level to which selected quality improvement strategies were perceived as beneficial to improving cancer screening rates (see [Appendix B](#) for survey text). The Likert scale ranged from a low value of 1 (not beneficial) to 5 (very beneficial); a response option was also available if the respondent was not familiar with the selected quality improvement strategy. Mean scores for each question were obtained to estimate the overall degree to which respondents believed the quality improvement strategies would benefit their practices: mean scores of less than 3.0 indicate low benefit, and mean scores above 3.0 indicate high benefit. Figure 12 displays the distribution of pre- and post-practice facilitation mean scores for the questions addressing quality improvement strategies.

Figure 11. Mean Scores for Questions on EHR-Based Patient Registry Barriers

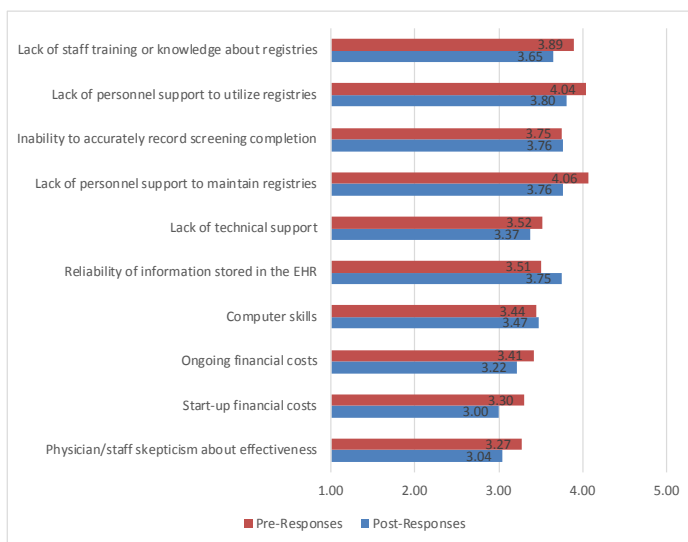
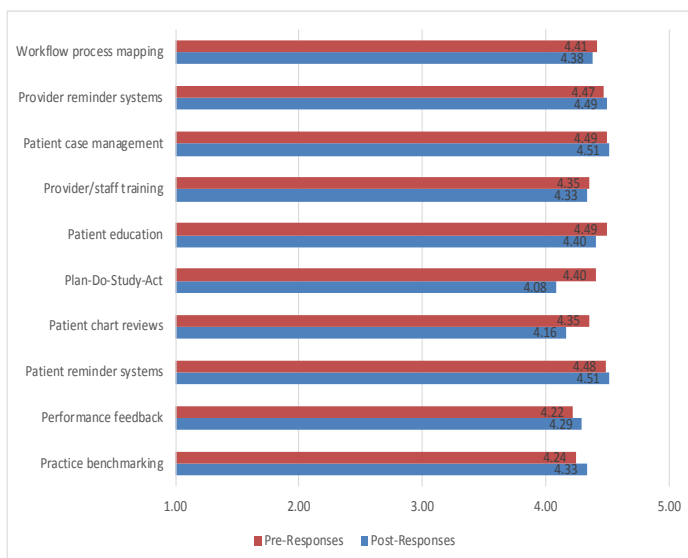


Figure 12. Mean Scores for Questions on Benefit of QI Strategies to Increasing Cancer Screening



All quality improvement strategies received a mean score above 4.0, indicating that respondents collectively assessed all listed strategies as highly beneficial. The top two quality improvement strategies that respondents indicated, on average, would most benefit their practices' ability to increase cancer screening before practice facilitation tied for number one. These were patient case management and patient education. These were closely followed by patient reminder systems and provider reminder systems. After practice facilitation, there was again a tie between the top two rated quality improvement strategies, this time with patient case management and patient reminder systems. These strategies were closely followed by provider reminder systems, with patient education

and workflow process mapping ranked below them. Several strategies received a higher post-practice facilitation rating compared to pre-practice facilitation rating, including patient case management, both patient and provider reminder systems, and practice benchmarking. There were no statistically significant changes.

### **Change in Provider Perceptions**

The results of the pre- and post-practice facilitation surveys illustrate that overall, the survey respondents perceived both the patient-related barriers to increasing cancer screening and the system-related barriers as important (based on average rates above 3.0). However, while the average ratings of all but two patient barriers decreased over the Year 5 project period, the average ratings of half of the systems barriers increased over the same period. These results indicate that the perceived importance of patient-related barriers has diminished among staff and providers, potentially indicating that they have become more accustomed to dealing with these barriers or that they have implemented interventions in practice to reduce the impact of these barriers. At the same time, the perceived importance of system-related barriers has grown among staff and providers. This could indicate that systems barriers are more challenging for low-resource practices to overcome, or that the implemented interventions raised awareness among staff and providers as to the impact of such barriers on their screening rates. This growing emphasis on systems-related barriers may help to explain why the average rate of effectiveness for patient registries decreased in Year 5, but the average rate for their accuracy significantly increased.

The top barriers to utilizing EHR-based patient registries touch on inadequate personnel resources and inadequate technical capabilities. Thus, it appears that while participants recognize the potential of EHR-based patient registries to help track and increase patient cancer screening, their current system and staffing constraints reduce the function of these tools.

Lastly, the perceived utility of system-level quality improvement strategies, such as patient and provider reminder systems and patient case management, is evident from the consistently high scores (over 4.0) for all. While there were no significant changes across the project period, half of the QI strategies received a higher post-practice facilitation rating compared to pre-practice facilitation rating. These results could be related to the achievement of desired or expected outcomes through the use of these strategies. It could also be the case that outcomes were not achieved, but that the practice facilitation period increased awareness among staff and providers of the need for such strategies.

## **Focus Group and Interview Findings**

Focus groups were conducted with five out of the 13 practices. Key informant interviews were conducted with 6 individuals representing the remaining eight practices due to challenges with scheduling. Two key informants represented more than one practice enrolled in the project and spoke about both practices during their interviews. The goal of the focus groups and interviews was to obtain in-depth information about the unique experiences of each practice within the project, feedback on project processes, and insight on how to make efforts to increase cancer screening rates more sustainable.

### **Methods**

The project principal investigator, project coordinator, and quality improvement consultant jointly developed the script for the focus groups/interviews (see [Appendix B](#)). The project coordinator worked with practice facilitators to identify participants and schedule the focus groups and interviews. As the project coordinator also worked as a



facilitator for four practices this year, coordination and facilitation of the focus groups and interviews were split between the project coordinator and a qualified practice facilitator. Practice facilitators, including the project coordinator, were excluded from any focus group/interview activities pertaining to their assigned practices in order to reduce bias in participant responses. All focus groups and interviews were conducted via conference call. All focus groups/interviews were audio recorded and transcribed verbatim for analysis; no names or otherwise personally identifiable information was recorded in the transcripts. One member of the project team at SUNY University at Buffalo conducted a content analysis on the transcripts. This team member reviewed and coded the transcripts to identify generalized concepts. These codes were then organized according to topic areas discussed during the focus groups; summaries of each topic area were reviewed by the larger project team.

## **Participants**

The participants targeted for inclusion in the focus groups/interviews were those individuals most directly involved in the implementation of the project. Six individuals participated in the key informant interviews, and 14 individuals participated in the focus groups. The majority of participants were practice medical directors, practice managers, quality improvement specialists, and clinic staff (e.g., practice nurse, care coordinator, data coordinator).

## **Summary of Findings**

The following summary briefly describes the main findings of the focus group analysis, grouped by topic area. While topic areas like cancer screening barriers appear to be reaching saturation, each year's findings reveal new details and increase our understanding of how primary care practices can sustainably increase cancer screening rates among their underserved patients.

### **Practice Facilitator Relationship**

When asked to discuss the working relationship with their assigned practice facilitator, the majority of participants expressed positive remarks about their experience. Most participants reported that they worked well with their practice facilitator and appreciated the collaboration, emphasizing the facilitators' ability to connect them to new resources and information. One participant noted that their practice facilitator "is always available to answer my questions", while another remarked how their facilitator "knows how to get administrators and providers to be more interested and active." Participants from three practices provided neutral remarks about working with their practice facilitator, describing the relationship as useful in "reminding" them to continue their efforts to raise screening rates, and the facilitators as "efficient." Another participant pointed out that, "if anything we could've done a better job on our end making use of" the facilitator. Common feedback from participants included comments that the practice facilitator contributed insights on addressing screening barriers and that it was helpful to have a practice facilitator assess their current workflow and detail potential interventions.

Five practices in the Rochester region and four in the Buffalo region went through a transition from one practice facilitator to another when their initial practice facilitators left the project before the start of the year. All nine of these practices remarked that their new facilitator was helpful, and several described interventions they want to collaborate with the facilitators on in the next project year.

Most participants stated that their practice facilitator worked primarily with one or a few main contacts throughout the project period. Practice facilitators worked mainly with medical directors at three of the practices and practice managers at six of the practices. Some practice facilitators also worked closely with quality improvement staff and

data managers/coordinators, and one practice facilitator worked with a Master of Public Health student who helped to support project activities at two practices in the Syracuse region. Though not considered to be the primary contacts, nursing staff were also in contact with practice facilitators at two practices. While all practices had at least some face-to-face interaction with their practice facilitators, participants from two practices indicated that they had several in-person meetings during the project period. Participants from six practices indicated that they had regularly scheduled meetings or check-ins with their practice facilitator. Twelve practices also noted having regular communication with their practice facilitators by phone or email.

Participants also discussed the various contributions made by their practice facilitators throughout the project year. All practices received assistance with planning and implementing cancer screening interventions. Five participants indicated that their practice facilitator provided some form of quality improvement support, such as reviewing quality improvement methods, helping to develop PDSAs, or drafting workflow plans. Another two participants reported that their practice facilitators assisted with data support by helping to clean up and optimize registries, run reports, and address other general EHR issues. Practice facilitators coordinated in-service trainings among staff at two of the practices, incorporating speakers from partnering organization the American Cancer Society. Topics covered at these training sessions included guidelines and risk factors for colorectal cancer, and the use of FIT kits as a screening test. Participants from five practices indicated that overall, their practice facilitator was a motivational force to keep their project efforts focused and in motion.

A few practices experienced challenges in maintaining continuous contact or involvement with their practice facilitators due to organizational barriers. One participant described the challenges of transitioning from private practice to affiliation with a university hospital, while another two participants expressed that time constraints were an obstacle to regular engagement with their facilitator.

#### *Project-Related Activities and Interventions*

Seven practices addressed all three cancer screening types (breast, cervical, and colorectal) during Year 5, though four practices identified colorectal cancer as their top priority. Three practices focused only on colorectal cancer screening. One practice focused on cervical cancer screening efforts. One practice focused on breast cancer screening efforts. One practice focused on data cleaning to improve the accuracy of their breast and cervical cancer screening registries. When asked about their approach to colorectal cancer screening, participants from ten practices indicated increased use of FIT in their office, four of which commented that FIT is the preferred colorectal cancer screening method when considering their patient populations. Participants from eight practices noted that colonoscopy is the preferred method of screening, and that FIT is offered as an alternative when there are structural barriers to colonoscopy or patients are averse to the procedure. Three practices noted that postage cost was a barrier to their patients returning the completed FIT test. Two of these practices implemented an intervention to encourage patients to drop off the tests at their clinics, while the third practice, which serves a majority homeless population, implemented an intervention in which staff picked up completed FIT tests from local shelters during regular visits. Cologuard tests were available in a small number of practices, with two recommending Cologuard tests over FIT. One practice expressed interest in Cologuard as a future intervention.

Participants from 10 practices reported implementation of individual-level interventions among patients at their practices, mainly focusing on education, outreach, and reminders. Five practices aimed to improve efforts on

patient education. All five practices utilized small media resources such as videos, brochures, and patient instruction sheets to increase awareness and knowledge of breast, cervical, and colorectal cancer screening among their patient populations. Two of these practices worked with their facilitator to display patient education material in their offices via digital screens (i.e. e-frames, tablets); another two specified that their facilitators had connected them with materials in multiple languages for their specific patient populations. Nine practices utilized strategies to remind patients that they are due for cancer screening or to follow up on screening test orders. Participants from five practices discussed contacting patients by phone to follow up on screening and participants from five practices mentioned mailing reminder letters. Additionally, seven practices implemented an intervention to mail FIT kits to patients, with an eighth providing the kits to homeless shelters. Three practices implemented patient incentives, offering gift cards or tokens to markets with fresh produce.

Even though facilitators spent less time on improving data, participating practices still sought opportunities to improve EHR accuracy. Participants from seven of these practices described at least some effort to collect cancer screening reports and data from outside providers and/or regional health information organizations (RHIOs). Six practices undertook small initiatives to improve the functionality of their registries and streamline data entry processes. Four practices further developed approaches to identify patients due for screening using registries and reports. One practice prioritized data clean up during the project year to increase the accuracy of patient records. Participants spoke of these improvements to their EHRs as integral to the use of point of care reminders, with five practices utilizing EHR alert systems or pre-visit planning to remind providers to address cancer screening with their patients during appointments.

Participants also shared their efforts to address structural barriers. Most practices utilized approaches to improve access to screening services, which include the following: dedicated screening days for breast and/or cervical cancer (four practices), mobile mammography (five practices), and walk-in appointments (two practices). Another three practices have agreements with a new mobile mammography service that will begin screenings in fall 2018, while two additional practices are interested in connecting with that service. One practice has implemented an intervention in which they have a dedicated day, once a week, in which a GI specialist is available on-site to talk patients through the prep process and answer any questions. Three practices implemented patient navigation and outreach strategies. Several participants explained that FIT testing was the preferred method for colorectal cancer screening in order to avoid the various barriers associated with colonoscopy.

When asked about staff involvement in project efforts, participants from eight practices indicated that their office demonstrated a multi-disciplinary team approach towards cancer screening interventions. Several of these participants commented on the engagement of providers, nurses, care teams, and front desk staff. Participants from two of the practices implemented staff incentive strategies to keep team members motivated towards cancer screening goals, while three practices utilized dashboards to monitor screening rates and encourage staff involvement.

### *Cancer Screening Barriers and Facilitators*

Patient-related barriers were mentioned by participants from all 13 practices during key informant interviews and focus groups. Participants from the 13 practices cited patient compliance issues such as not showing up for scheduled appointments, not returning completed FIT kits, and refusal. Participants attributed non-compliance to factors such as lack of transportation (four practices), aversion or fear of screening procedures and results (four

practices), health literacy issues (two practices), and financial or insurance barriers (five practices). Refugee, homeless, and psychiatric patients were cited to present unique and additional challenges to cancer screening compliance.

Lack of staff time and manpower to carry out quality improvement and cancer screening activities were frequent barriers expressed by participants. Five participants explained that these initiatives are mixed among competing demands and are often viewed among providers and staff as another thing to do. Participants from five practices noted different levels of engagement among providers and staff. Turnover among clinic staff was another common barrier; five practices referred to the issue during the focus groups and key informant interviews. Other common issues included lack of provider awareness of cancer screening initiatives and difficulties around changing screening guidelines.

Challenges at the organizational and system levels were also emphasized by participants. Communication issues between the participating practices and outside specialists (i.e., gastroenterologists, gynecologists) were cited by participants from seven practices as barriers to receiving screening reports and therefore accurately tracking screening rates. Participants from five of these seven practice remarked that cervical screening results were the most difficult to track, due to communication issues with the specialists and to the number of gynecological clinics used by their patients. Two of these practices implemented EHR improvement interventions to address this barrier, tracking down missing results and updating cervical screening registries. Scheduling patients to see specialists was also a barrier, with three practices reporting long waits for colonoscopy appointments.

During the discussion of cancer screening barriers, many participants were able to identify needs that, if fulfilled, would help to address some of these issues. Needs included access to patient education materials that can be understood by patients with low health literacy and that are culturally and linguistically competent. Transportation services were also identified as important services, while participants from four practices expressed their need for staff roles in data management. Several participants also highlighted factors that they viewed as catalysts to increase cancer screening. Three participants noted the usefulness of health information systems like RHIO and HEALTHeLINK in locating a patient's missing documentation, while another three remarked on their relationship building with specific specialist clinics to ensure more reliable communication. Finally, external funding for quality improvement activities, from grants to incentives from insurance companies, was key to the cancer screening efforts of three practices.

The barriers to breast, cervical, and colorectal cancer screening observed in the Year 5 project period were very similar to the screening barriers observed during Year 4. A summary of these concepts can be found in Table 24.

Table 24. Common Barriers to Increasing Cancer Screening Expressed During Focus Groups/Interviews

Barriers to Increased Screening	Catalysts of Increased Screening
<i>Patient-Level</i>	
Transportation Insurance/financial constraints Cultural and linguistic barriers Comprehension/health literacy Refusal/Non-compliance	Education and outreach Case management and follow up Lifestyle-amenable screening methods Reduction of structural barriers
<i>Staff-Level</i>	
Lack of time EHR data and documentation errors Lack of investment in quality improvement interventions Staff turnover	Shared responsibility to discuss and document screening with patients Standardized data entry and/or EHR technical assistance Performance assessment and feedback Point-of-care reminders
<i>Practice-Level</i>	
Lack of personnel Workflow inefficiencies EHR data errors and reporting limitations Two-way communication with specialists	Team-based care Quality improvement coaching Workflow assessment and adjustment EHR “workarounds” and technical assistance Access to health information systems PCMH certification requirements

**Sustainability**

Many participants expressed that quality improvement has become engrained in their office operations. Three participants noted that they had adapted interventions into practice-wide workflows, while five participants indicated that the quality improvement activities implemented at their practices through this project aligned with requirements for PCMH, CPC+, and DSRIP. Participants from seven practices cited team-based participation as a facilitator to achieving their quality improvement goals. The utility of implementing PDSA cycles was discussed by two of the participants.

Overall, participants reported that the monetary incentive was valuable for launching and sustaining cancer screening interventions. Five practices reported that the funds were used to purchase materials for patient education or reminders such as digital frame displays, brochures, and pocket calendars. One of these practices also referenced the use of patient incentives, such as bus passes and tokens for the local grocery store. Four other practices applied the monetary incentive towards improving their EHR accuracy by either paying staff overtime hours or hiring an MPH student to track down missing documents, update patient records, and increase consistency in data entry. These four practices reported varied amounts of time dedicated to improving their EHRs, from one practice noting the lack of availability of their MPH student as a barrier to another practice reporting that staff called specialist offices twice a year to track down missing documents. However, only one of the practices actively focused on improving their EHR accuracy during the project period. Two practices used the funds to support their FIT kit initiatives, with one applying the money to postage and the other using it to purchase more kits from the laboratory. The final two practices considered the stipend important but remarked that they

would be implementing the same activities without the monetary support. Moreover, two practices received additional grants during the Year 4 period that continued into the Year 5 period. These grants supplemented the work of the current project; one was a grant from the American Cancer Society to increase colorectal cancer screening specifically (P2) and the other was a grant to support patient navigation services (P9).

Participants from eight of the practices discussed establishing policies at their practices that are anticipated to improve cancer screening rates among their patients. Participants from all 13 practices reported offering FIT or FOBT, while 10 practices reported increased efforts to support fecal testing. Some examples of increased support were: automatically sending FIT kits to patients who completed one the previous year, creating alternative workflows to overcome the barrier of return postage on patients, promoting FIT as the primary screening test for colorectal cancer, and increasing patient education on FIT testing. In comparison, the first year of the project only one practice offered FIT kits while two offered FOBT kits.

Examples of other policy changes included specifying data entry workflows, standardizing a protocol for cancer screening reports from specialists, and integrating dashboard metrics into monitoring and feedback on cancer screening rates. Participants at nine practices reported that new workflows were designed and implemented during the Year 5 project period. Seven practices made improvements in processes for making referrals and following up on screening orders, and of these, six practices improved workflows around entering data and running queries within their EHR. Participants from five practices discussed the value of pre-visit planning efforts, with two noting the need to improve consistency at their practices. Participants from eight practices emphasized the involvement of multiple providers and staff members to reinforce the importance of cancer screening with patients.

Four participants commented on the importance of training needs and opportunities within their practices in relation to sustaining quality improvement efforts. Two participants described informational sessions that were coordinated by their practice facilitator on the topics of colorectal cancer and FIT testing. Five participants indicated that staff training took place at their practices independent of the cancer screening project, with two practices participating in office-directed staff training on how to counsel patients about the benefits of a colonoscopy.

Plans to continue initiatives to increase breast, cervical, and colorectal cancer screening were reported from all practices. Participants from three practices have agreements to expand their patient outreach through a new mobile mammography service, while another two indicated that they are interested in connecting their patients with such a service. This will increase the number of participating practices who utilize a mobile mammography service from five to eight, and when practices with on-site or walking distance imaging clinics are included, increasing the number of practices who have overcome transportation as a barrier to breast cancer screening to 11. If the final two practices act on their interest, then all 13 will have implemented interventions that address transportation as a barrier for breast cancer screening.

Four practices would like to improve their patient education efforts; some examples displaying videos that are well-suited for the waiting room and obtaining materials that are culturally sensitive, appropriate for refugee populations, and available in multiple languages. Participants from five practices reported that patient incentives, such as gift cards or bus passes for completing screenings, would increase motivation to adhere to

recommendations. Participants at three practices discussed building upon their current quality improvement efforts.

#### Recommendations for Project Administration

Overall, the participating practices were very pleased with their experiences working on the project and looked forward to project continuation. Most participants shared positive feedback on administration, remarking that the project is a good reminder to focus on increasing breast, cervical, and colorectal cancer screening rates. Several emphasized the importance of the annual conference, highlighting the opportunity to connect with other practices, and to compare best practices and barriers. Some participants also recommended the following:

- Increase opportunities for practices to network and collaborate beyond the annual conference
- Provide less structure on what the stipends can be used for
- More clearly communicate project expectations to practices and notify of any changes from year to year
- Embed the practice facilitators so that they are on-site and available for hands on data management

## VI. Lessons Learned & Implications

Practice Recruitment, Enrollment and Engagement	
Organizational Disruption	<ul style="list-style-type: none"> <li>• Organizational and system-level changes, such as transitions in EHR or practice ownership, impede the ability of practices to sustain focus on cancer screening efforts</li> <li>• Leadership and staff turnover often delay progress towards screening goals, and staff often feel overwhelmed with competing demands and priorities</li> </ul>
Project and Practice Staff Relationship	<ul style="list-style-type: none"> <li>• Practice facilitators work primarily with one person or a small team within the practice to provide guidance and motivation for QI projects</li> <li>• Practice facilitators mainly contribute by providing guidance and services around cancer screening interventions, quality improvement, and data support</li> <li>• Practices strongly prefer working with the same individual across time</li> </ul>
Staff Participation and Buy-In	<ul style="list-style-type: none"> <li>• Practices increase efficiencies and engagement when QI activities align with existing priorities (e.g., PCMH, DSRIP)</li> <li>• Project champions are an important source of encouragement for practice-wide investment in QI projects</li> <li>• Multi-disciplinary team approach improves accountability towards cancer screening efforts</li> </ul>
Quality Improvement to Track Patient Screening	
Data validity and reliability concerns	<ul style="list-style-type: none"> <li>• Improvement in EHR data reliability and validity will require extended time, documentation fidelity, and consistent staff engagement</li> <li>• Lack of valid and reliable data can be a significant barrier to implementing QI initiatives</li> <li>• Inconsistency in report metrics impacts ability to assess practice progress</li> </ul>
Closing the loop	<ul style="list-style-type: none"> <li>• All practices experience issues in obtaining screening completion reports across all cancer screening targets, but particularly for cervical cancer screening</li> <li>• Success in closing the loop partially contingent on office operations and policies of specialist providers</li> </ul>
Implementation of new office policies	<ul style="list-style-type: none"> <li>• Promotion of strategies that reduce structural barriers are commonly pursued to ease the burden of cancer screening completion</li> </ul>



	<ul style="list-style-type: none"> <li>• Workflow adjustments to data entry, referral processes, and follow-up streamline efforts to track screening</li> <li>• Staff training and incentives are needed to encourage implementation of practice-level workflow and policy changes</li> </ul>
<b>Barriers to Screening Completion</b>	
Factors of patient non-compliance	<ul style="list-style-type: none"> <li>• Transportation is a significant structural barrier for patients needing breast and colorectal cancer screening. However, increasing use of mobile mammography buses is helping to address the barrier for breast cancer screening.</li> <li>• Lack of referral follow-through, fear of screening procedures, lack of knowledge/awareness, and inadequate insurance contribute to patient non-compliance</li> <li>• Special populations that face unique barriers include homeless, low-income, and refugee patients, as well as those with psychological disorders</li> </ul>
Specialist provider supply and communication	<ul style="list-style-type: none"> <li>• Lack of local specialists (particularly GI) to accept referred patients is a structural barrier primary care practices cannot address</li> <li>• Lack of clinical integration between primary care and specialist offices inhibits timely follow up, and much of the burden is placed on primary care offices</li> </ul>

## Practice Recruitment, Enrollment, and Engagement

### Organizational disruption

Practices continue to face organizational changes that disrupted their progress on cancer screening initiatives. This began in Year 4, when four practices in one region were absorbed by a larger Regional Health System and one was incorporated into a University Health System. Challenges with transition continue, causing difficulties requesting the data reports that are required for this project due to changes in how such requests are processed. The larger health organizations also have other screening/health benchmarks that these practices must now achieve. This has put stress on some of the site coordinators because they have to meet competing demands. A Buffalo site closed and reopened under new leadership requiring the provider and staff teams to be completely rebuilt, adaption to a new EHR, and creating new workflows that coordinate with a sister practice (also located in an underserved community) that has extensive infrastructure.

### Staff Turnover and added responsibility

Staff changes, including turnover of two site coordinators, made communication and progress difficult. One practice in Rochester was assigned a new site coordinator while the previous coordinator was out on medical leave. This completely halted progress on the project for a few weeks while communication was established and the new coordinator became more familiar with the project. There was also staff turn around within the practices, which preoccupied the site coordinators. Staff turnover in two sites (1 in Buffalo and 1 in Rochester) resulted in office managers, who served as site project coordinators, to be responsible for two practices. This increase in workload made focus on this project very difficult. In focus group interviews, some practice coordinators said they were constantly worried about staff turnover and indicated they were in “fight or flight mode” to manage the issues that follow.

### Project and Practice Staff Relationship

Following the trends from previous years of the project, practice facilitators worked with one or two members from each practice and these were often practice managers or providers. Feedback from practice facilitators indicated



that it was difficult to involve other staff members due to the competing demands of a busy office. Focus group interviews reinforced this, with one site coordinator stating, “The person that we used to work with has since said that they’re not interested because they have too much other stuff to do.” Competing demands impeded efforts on both the facilitator and practice side. The practice facilitators’ role was predominantly focused on providing guidance and services towards cancer screening interventions, quality improvement, and data support. Practice facilitators also acted as a catalyst for cancer screening QI efforts within their assigned practices.

Issues due to competing demands were reflected in some of the discussion that was conducted through the focus group interviews. In more than one of the focus groups, interviewees stated that they did not meet or utilize their practice facilitator as much as they would have liked.

Feedback from project participants during the focus groups/interviews revealed that they interfaced with their practice facilitators in a variety of ways; some practices preferred to hold regular in-person meetings, while others chose to communicate primarily via email or phone.

Many project participants expressed having an established connection with their practice facilitators, and expressed a strong desire to continue working with the same individuals in future iterations of the project.

### **Staff Buy-In and Participation**

As in previous project years, participants aligned their quality improvement activities with existing practice priorities, including PCMH and DSRIP. This was viewed as an efficient utilization of personnel time and practice resources, and enhanced buy-in among practice staff.

Feedback obtained from both the participant focus groups/interviews and TRANSLATE evaluations illustrated the **importance of having invested project champions**. Project champions were individuals within a practice who took a lead role in QI activities and provided encouragement across other staff members to work toward shared goals. While these individuals were not universally in positions of authority, most project champions were physicians or lead nurses. Levels of engagement decreased among several project champions during Year 5 due to competing priorities, which impacted practice momentum on project initiatives.

Project participants also indicated that a multi-disciplinary team-based approach helped to maintain accountability towards cancer screening efforts. Practices that included a combination of front desk staff, nurses, providers, and others in their project initiatives reported a sense of overall increased engagement.

## **Quality Improvement to Track Patient Screening**

### **Data Validity and Reliability Concerns**

As in previous project years, all of the practices enrolled in the Year 5 project period held concerns with the validity and reliability of the data stored in their EHR systems. All of the participating practices recognized the value of making continual improvements to EHR system functionality. One practice dedicated specific time to improve the accuracy of their records. Many practices experienced issues around inconsistent reporting methods and metrics (i.e. EHR transition, screening guideline changes, varying numerator and denominator definitions), which impacts their ability to accurately assess practice progress towards cancer screening targets. Reporting and data management require ongoing efforts to train and support practice personnel.

Data clean up and validation was a focus for one of the practices participating in Year 5 of this project. During one key informant interview, the participant stated that the practice spent a majority of the project stipend to pay staff for extra time, utilized in cleaning up and updating records. Another practice focused their time twice a year on cleaning their EHRs for accuracy. The staff then call patients who have not been at the practice in order to update their records and track down any results that need to be entered.

### **Closing the Loop**

As in previous project periods, **the issue of closing the loop on patient screening (i.e., securing screening completion reports for patients) was ubiquitous across the practices enrolled in the Year 4 project period.** Practices reported issues securing colonoscopy reports, mammography reports, and cervical cancer screening pathology reports from specialist providers outside of their health system or care network. Several practices noted that cervical cancer screenings are the most difficult to track. One practice that did not offer cervical cancer screening services in-house has chosen not to use a registry to track patient screening completion for cervical cancer due to the inability to obtain screening documentation from outside specialist providers.

To address this issue, some practices assigned staff to call specialist providers and obtain reports for individual patients. However, this approach requires significant personnel time and is difficult to implement on a long-term basis. Furthermore, practices without dedicated care coordinators do not have the resources necessary to maintain a consistent focus on reaching out to specialist providers. One practice used the stipend to pay staff overtime to track down patient results. They utilized insurance company databases and their regional health information organization (RHIO) to collect information on screening tests performed outside of the primary care office.

### **Implementation of New Office Policies and Strategies**

Practices are increasingly aware of the structural barriers that prevent their patients from adhering to cancer screening recommendations, and in response, they are promoting the implementation of strategies that aim to reduce these barriers to ease the burden of cancer screening. One of the most prevalent changes being made across practices has been the uptake of FIT testing as either the primary option for colorectal cancer screening or an alternative to colonoscopy. Project participants reported that FIT testing is especially beneficial for refugee and homeless populations, as well as those who generally have difficulty securing transportation for a colonoscopy. This project year, the most prevalent change to address structural barriers is the utilization of mobile mammography.

## **Barriers to Cancer Screening**

### **Factors of Patient Noncompliance**

Practices participating in the Year 5 period emphasized both patient-related barriers and system-related barriers as primary concerns for increasing cancer screening. The primary patient-related barriers identified include:

- Failure to follow through with screening referral
- Fear of screening procedures and/or results
- Lack of health literacy, knowledge, and awareness
- Lack of transportation support
- Inadequate insurance coverage

The primary systems-related barriers identified include:

- Inability to track down the date of a prior screening
- Inability to track patient progress in completing screening tests
- Not enough time to discuss screening with patients
- Delay in scheduling procedures
- Delay in receiving screening results

Every practice instituted some form of patient outreach and/or education to address these patient-related barriers during the project period. Some participants in the focus groups/interviews directly commented that many patients do not follow through with screening, and while education, testing options, and resource support do help some patients access services, others continue to present compliance issues. Patient non-compliance is consistently noted by practice staff as a significant issue for practices as they work to increase cancer screening among their patients. Whether this reflects patient unwillingness to comply, patient inability to adhere due to practice, system, or societal barriers, or whether this is a reflection of practice staff frustration, remains an open question.

One barrier that continued to receive particular emphasis during Year 5 was lack of transportation. Many of the practices focused their efforts on decreasing patient barriers, in particular for breast and colorectal screenings. One method of decreasing barriers to screening that was heavily emphasized this year was the use of the local mammography coaches. Many of the practices involved in this project have begun to coordinate with the coaches in both Rochester and Buffalo. The mammography coach in Buffalo was already established in the area and have existing relationships with participating practices. Rochester practices were linked with a newly funded mammography coach in Rochester through connecting contacts.

As in previous years of the project, there has been continued focus on providing FIT kits to patients at the practices. FIT kits are now available to patients at all the practices involved in this project so the goal has shifted to increased utilization. Some practices are attempting to increase the use of FIT kits by continually training staff on their use so they can inform patients. Many other practices have directly mailed out FIT kits to patients due for CRC screening, rather than waiting until they come in for an appointment. During focus groups, coordinators said this was useful for patients who are due for a rescreen since they are more likely to complete the FIT test after already doing it once.

Patients with limited transportation have difficulty arranging plans to travel to and from colonoscopy services. Patients who routinely rely on public transportation cannot use mass transit after a colonoscopy due to the effects of anesthetic medication used during the procedure. Additionally, many patients do not have the economic resources or social network of relatives or friends who can assist them with travel to and from colonoscopy and mammogram service locations. FIT testing was commonly utilized by practices as an alternative to colonoscopy for colorectal cancer screening, especially among patients that are more likely to face transportation barriers. Additionally, the Buffalo practices with access to mobile mammography units have ongoing efforts to coordinate breast cancer screening services for their patients, which also eases the burden of traveling to outside clinics. Despite these efforts, transportation remains a significant structural barrier to cancer screening for many patients.

One practice participating in the Year 5 project period serves a predominantly homeless population, and this practice struggled to address cancer screening since, for many of their patients, concerns over housing, substance abuse, and chronic disease care take precedence during an office visit. Additionally, due to the transitory history of their patients, the practice is not always able to obtain records of prior screenings, which creates issues for documentation and insurance coverage. Another practice serves exclusively refugee populations; this presents a range of unique issues such as health literacy as well as cultural and linguistic barriers. Some refugee patients are more likely to be averse to certain cancer screening procedures due to their cultural beliefs or traumatic events. In general, low-income populations are especially affected by transportation and financial barriers. Feedback from focus group/interview participants indicated that any cost related to accessing health care services had to be weighed against their patients' daily needs, and that patient incentives could be a possible solution to this issue.

### **Specialist Provider Supply and Communication**

As in previous project years, practices continued to view the lack of available GI specialists in their area as a significant barrier to colorectal cancer screening for their patients. Patients from these practices routinely waited several months for colonoscopy appointments. This not only negatively impacted patient compliance with screening recommendations, but also impeded the ability of the primary care practices to track screening completion among their referred patients. While this is a structural barrier that primary care practices are unable to address, many practices are turning to FIT as an alternative colorectal cancer screening option. The lack of clinical integration between primary care and specialist offices was mentioned by several focus group/interview participants as a significant barrier to closing the loop on patient screening. Cervical cancer, in particular, was an issue for all practices, as even practices that offer PAP smears find that many of their patients prefer to visit an OB/GYN for the service. The lack of bi-directional communication places a heavy burden on primary care offices to proactively contact specialists for patient information, therefore increasing the chance that a patient may not receive appropriate care in the form of screening.

During focus group interviews, practice managers highlighted the difficulty of coordinating and communicating with specialists who provide screenings to patients. One practice mentioned that they have an OBGYN inside of their building, but still have difficulty getting the results from PAPs back into their EHR. Another practice with a large refugee population stated that they had trouble scheduling patients at the GI's office due to a stigma that refugees would be difficult to work with. Lastly, practices noted the long wait times once a patient has agreed to a colonoscopy, which can lead to the patient not complying. These challenges make it difficult to get patients screened, and to keep accurate records of their completed screenings.

## **VII. Recommendations**

---

### **Assessment of Influential Factors on Screening Rate Data**

A particularly notable outcome from the 2017-2018 project year was the number of observed decreases in screening rates at many individual practices, for breast cancer screening. The important consideration is the transition to guidelines that include broader eligibility criteria. Many aberrant screening rate changes could be plausibly linked to major changes in practice management, ownership, EHR systems, or calculation methods. A further issue is the continuing problem of varied workflows for data entry in patient EHRs, which decreases the

accuracy of registries. While many practices have created workflows to increase accuracy, including methods for obtaining reports from outside specialists, the varied engagement among staff, providers, and specialists remains a barrier.

An important quality assurance step that may be pursued is the calculation of an estimate of the size of discrepancies between observed and true screening rates. We recommend that a protocol to retrospectively re-collect information from practices, using a variety of screening rate calculation methods and data queries, is appropriate, to determine the amount of variance that is contributed by calculation and query choice. Additionally, systems change (EHR, ownership, etc.) may have contributed, and the effects of system changes on observed screening rates should be estimated as well through the retrospective re-collection of screening rates and several past time points.

These steps should be taken in the context of a separately-developed protocol. It is also likely that participating practices will need to be compensated for this step explicitly, in addition to typical quality stipends for the regular quality improvement work the team does with each practice each year.

A more proximate step that can be taken is to stringently define the parameters of data pulls for this project. Providing practices with more explicit definitions of which patients to count in their denominator and numerator, as well as providing specific syntax, may decrease the variability of practice reports.

## **Longitudinal Data Reporting**

A major component of this project is tracking screening rates for the 3 cancers that are the focus of this project. During this project year, many of the practices had difficulty pulling correct numbers and required further explanation of what screening rates were required. Improving this process would reduce the delays caused by troubleshooting these difficulties especially for the Rochester practices that have recently changed EHR systems.

A guide for reporting screening rates is strongly recommended. It is important to provide specific guidelines for each rate because practices have differing definitions of their “eligible” screening population. Since there is often a gap in time between speaking with site contacts and their processing the data request, verbal instructions can be forgotten. Further complicating data reporting is the recent transition of some practices to the larger Regional system, as many of these requests are filled by an IT team. This places the busy site coordinators in the middle between practice facilitators and their IT department, forcing them to relay questions and answers on data specifications for their IT department. An instructional guide would be an efficient solution to this situation.

## **Creating Cancer Screening QI Teams**

The majority of the practices in Rochester and Buffalo had limited involvement from practice staff besides a primary site contact who worked with the practice facilitators. This placed a large burden on a single staff member that was involved in the project. This was especially apparent during deadlines when the site contact had to balance providing data reports with managing the interventions at their practice. Creating workflows that involve multiple team members will alleviate burden on a single person and enhance sustainability of interventions that are put in place. Having greater involvement from other staff members at the practice could relieve some of this burden on the primary site contact. It would also benefit the project to have insight from other staff members on the practice.

## Implementation of Priority Evidence-Based Interventions

For the next project year, we recommend the development of a guide, or “change package,” that provides a discrete list of priority evidence-based interventions that practices can choose from to work on during future years of the project. The change package would contain specific examples of priority EBIs in each category (provider reminders, patient reminders, provider assessment & feedback, and reducing structural barriers), selected by reviewing data from the history of this project, the medical and health services research literature, and input from the NYS Department of Health. In past years, practices have been essentially free to seek approval for any evidence-based intervention that has been observed in the literature to improve screening rates. In future years, we believe it is time to proceed to a more standardized set of best practices, while still allowing individual sites to select interventions that fit their circumstances.

## Academic Detailing

In the next project year, a stronger emphasis should be placed on academic detailing, particularly among the staff who are participating in the workflows to increase screening rates. The majority of practices are not conducting staff and provider trainings on a regular basis. Further, academic detailing could encourage increased engagement in quality improvement activities. The focus should shift

- **away** from prior academic activities, which focused primarily upon having clinicians visit practices to share updates on screening guidelines; and
- **toward** detailing in the form of educational and demonstration based visits, focused upon addressing the barriers we have identified. Such work may best be carried out by the practice facilitators, who would then go on to help facilitate the activities they explain during early annual kick-off meetings, which would incorporate detailing.

## VIII. Summary of Increasing Colorectal Cancer Screening in New York State Conference

---

### Overview

The *Increasing Cancer Screening in New York State Conference* was a one-day event hosted by the project team in June 2018, and held in Canandaigua, NY. The primary objective of the conference was to share innovations and strategies for increasing cancer screening rates in primary care practices and health systems that provide care to underserved populations, specifically Medicaid Managed Care patients.

Announcements were sent electronically to physicians, other providers, and clinical staff serving Medicaid Managed Care populations in the Western New York, Central New York and Adirondack regions of New York State as well as partner organizations, which included the American Cancer Society, the Upstate Cancer Center, and Cancer Services. An announcement was sent to practices that currently or previously have participated in the project. Along with attendees, staff from the project team (including all investigators, practice facilitators, coordinators, and consultants) and staff from the NYSDOH were also in attendance, with most serving as presenters, workshop leaders, and conference organizers.

The conference included presentations from four keynote speakers. Chris Morley, PhD from SUNY Upstate Medical University addressed the use of evidence-based interventions to improve cancer screening rates. Laurene Tumiel-Berhalter, PhD from SUNY University at Buffalo discussed best practices in fecal immunochemical testing (FIT). Amanda Norton, MSW (project coordinator and practice facilitator) gave a presentation on how to make cancer screening improvement a priority to leadership. A presentation on strategies for utilizing screening data to improve outcomes was given by quality improvement specialist Andre Bliss, MBA, from Anthony L. Jordan Health Corporation in Rochester, NY. Other features of the conference included remarks from Heather Dacus, DO, MPH, Director of the Bureaus of Cancer Prevention and Control, on New York State Department of Health's priorities, and breakout small-group sessions in which conference attendees were able to discuss the presentations and relate them to their practices. The final breakout session included an activity in which attendees brainstormed innovative FIT implementation strategies, and then pitched them to each other. Each of the breakout sessions, included the final activity, was moderated by two project team members or project affiliates.

### Attendance

A total of 56 individuals were registered for the conference, of which, 48 (85.7%) attended the event. Among the 48 attendees, 9 (18.7%) individuals were involved as speakers or conference organizers, some of which were also considered to be part of the target audience. The general conference audience consisted of the remaining 39 individuals.



Attendee information on job title/academic credentials and professional specialty was collected from conference registration forms. The conference audience was comprised of a variety of health professionals, as shown in Figure 13. Approximately 13% of attendees indicated that they were physicians (MD or DO), while close to 16% were mid-level providers (13.2% NP and 2.6% PA), and another 10.5% were nurses (RN or LPN). About 23.7% of attendees indicated holding another type of doctoral or master's degree (e.g. PhD, MBA, MPH). The conference audience was also comprised of other types of clinical and outreach staff; 7.9% were data coordinators or quality improvement specialists and 13.2% were care coordinators or patient navigators. The remaining 15.8% of attendees reported some other type of professional title or they did not specify this information on their registration form.

Figure 13. Conference Attendee Reported Title or Academic Credentials

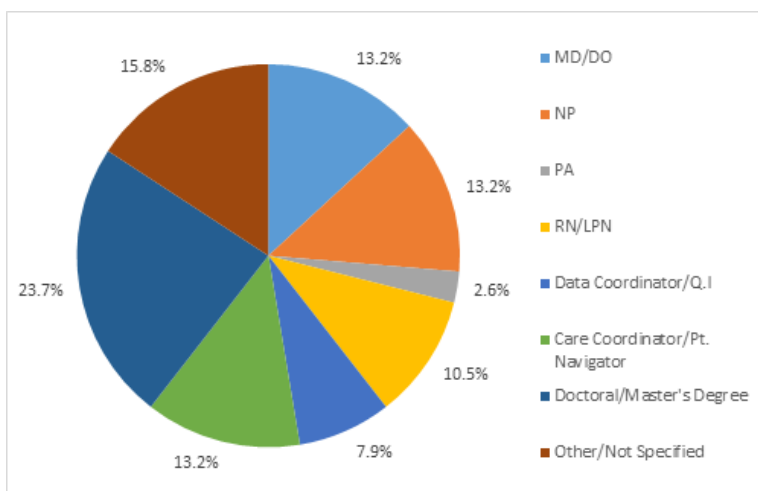
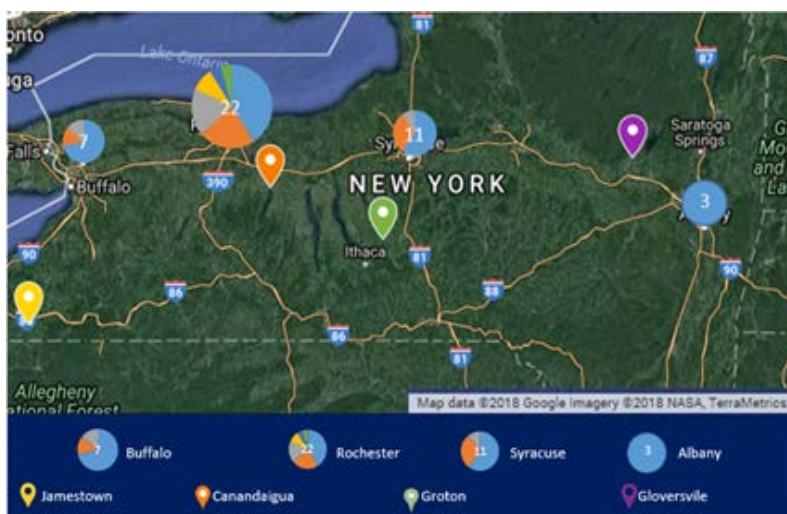


Figure 14 displays a map that represents the geographic distribution of attendee office locations. BatchGeo, an online mapping tool, was used to create this map based on addresses provided on attendee registration forms. Locations were clustered by city region, and markers were color coded by organization as shown in the key at the bottom of the map. The greatest number of attendees represented the Rochester region (22). Within the Rochester area, several attendees were affiliated with each of the following organizations: University of Rochester, Jordan Health, Rochester Regional Health, and Accountable Health Partners. Eleven attendees traveled from the Syracuse region, several of which were affiliated with Upstate Medical University or Christian Health. Seven attendees represented the Buffalo area, mostly from the University at Buffalo. The remaining attendees were spread across New York State, including the Western New York/Southern Tier, Finger Lakes, and Albany regions.

Figure 14. Conference Attendee Geographic Distribution



## Evaluation

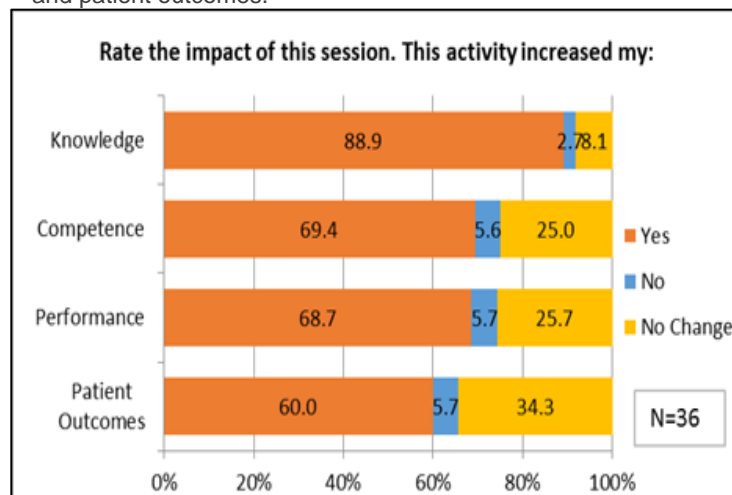
Evaluation forms were provided to all conference attendees, and the conference organizers requested that all attendees complete the form. Thirty-eight forms were returned, for a response rate of about 79.1% among all attendees. Provided below is a summary of the evaluation data collected from the sample of 38 conference attendees. Some individuals skipped certain questions on the form, and therefore the summaries of each question provided are among those who did respond.



## Activity Assessment

Respondents were asked to rate the projected impact of the conference on their knowledge, competence, performance, and patient outcomes. This information is presented in Figure 15. The conference appears to have had the greatest impact on attendee knowledge, where 88.9% of respondents indicated that their knowledge increased as a result of this activity. About 68.7% of respondents indicated that this activity increased their performance, 69.4% reported increased competence, and 60% reported increased patient outcomes.

Figure 15. Impact on knowledge, competence, performance, and patient outcomes.



## Intended Practice Changes and Perceived Barriers

When asked how they will change their practice as a result of attending this conference, the greatest percentage of respondents indicated that they will create or revise protocols, policies, and/or procedures (36.1%), whereas 16.7% reported that they will change the management and/or treatment of their patients. More than one quarter (30.6%) of respondents indicated that the conference content validated their current practices, but they do not anticipate making any changes. Four (13.3%) respondents reported that they would make changes other than those listed on the form. Figure 16 presents a visual summary of results from this question.

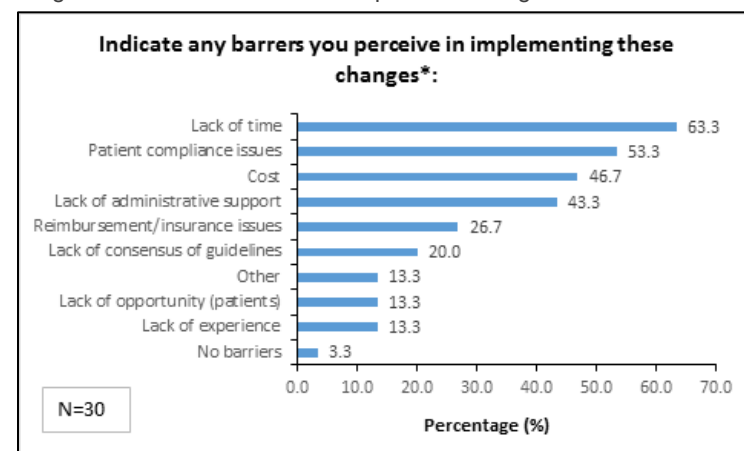
Figure 16. Intended practice change.



\*Respondents permitted to select all that apply

Respondents were then asked to select which barriers they perceive in implementing the changes they intend to make. The most frequently reported barrier was lack of time (63.3%), followed by patient compliance issues (53.3%). The barriers of cost (46.7%), lack of administrative support (43.3%), and reimbursement/insurance issues (26.7%) were also common. Refer to Figure 17 for a list of additional perceived barriers acknowledged.

Figure 17. Perceived barriers to practice change.



\*Respondents permitted to select all that apply

### ***Speaker Assessments***

The evaluation forms also provided space for respondents to give open-ended comments on individual presenters, presentations, and the overall conference experience. However, very few responses were received.

## Appendix A: Project Logic Model

Mission: Increase breast, cervical and colorectal cancer screening in New York through evidence-based interventions in targeted primary care practices				
Core Component	Activities	Measurement Tool	Proximal Outcomes	Distal Outcomes
Administration	<ul style="list-style-type: none"><li>▪ Manage &amp; coordinate core activities and programs</li><li>▪ Recruit primary care practices serving low-income, diverse populations</li></ul>	<ul style="list-style-type: none"><li>▪ Management &amp; administrative structures and databases in place</li></ul>	<ul style="list-style-type: none"><li>▪ Number practices enrolled</li><li>▪ Number of practices completed</li></ul>	<ul style="list-style-type: none"><li>▪ Increase use of evidence-based interventions targeting breast, cervical and colorectal cancer screening in primary care practices</li><li>▪ Increase guideline-recommended cancer screening among patient populations in New York</li><li>▪ Increase utilization of screening resources in New York for under/uninsured patients</li><li>▪ Reduce incidence of preventable new cases of breast, cervical and colorectal cancer</li><li>▪ Reduce disparities in cancer screening among New York residents</li><li>▪ Observe trends in cancer screening using MMIS or NPI numbers (by NYS-DOH)</li></ul>
Academic Detailing	<ul style="list-style-type: none"><li>▪ AD session designed by Detailing Panel and designated as live activity with CME credit under AAFP</li><li>▪ AD session adapted to enduring electronic material with CME credit under AAFP</li><li>▪ Screening guidelines, tools and explanatory materials uploaded to EducareCE online learning system under CNY-AHEC</li><li>▪ AD session and durable goods delivered to participant primary care practices</li></ul>	<ul style="list-style-type: none"><li>▪ CME attendance sign-in sheets</li><li>▪ CME certificates distributed</li><li>▪ Post-CME evaluation forms</li><li>▪ Volume of durable goods distributed (administrative databases)</li></ul>	<ul style="list-style-type: none"><li>▪ Number of PCPs receiving AD session</li><li>▪ Increase in knowledge of current CRC screening guidelines among PCPs participating in AD sessions</li><li>▪ Increase in knowledge of CRC screening resources available in New York for under/uninsured patients among PCPs participating in AD sessions</li></ul>	
Practice Facilitation	<ul style="list-style-type: none"><li>▪ Distribute and collect survey materials</li><li>▪ Assist practice in use of EHR to track cancer screening</li><li>▪ Implement practice facilitation methodologies to coach practices on cancer screening quality improvement</li><li>▪ Track all practice facilitation activities</li><li>▪ Facilitate focus groups</li></ul>	<ul style="list-style-type: none"><li>▪ PF Logs</li><li>▪ PF Notes</li><li>▪ Survey forms</li><li>▪ Focus group transcripts</li><li>▪ TRANSLATE rubrics</li><li>▪ EBI worksheets</li><li>▪ Baseline breast, cervical and CRC screening rate per practice (administrative databases)</li><li>▪ Volume of small media distributed (administrative databases)</li></ul>	<ul style="list-style-type: none"><li>▪ MMIS or physician NPI numbers of participating practices</li><li>▪ Pre-post intervention difference in patients screened per participating practice</li><li>▪ Number and description of new practice workflows developed for cancer screening quality improvement</li><li>▪ Number and description of new practice policies developed for cancer screening quality improvement</li><li>▪ Number, type and approximate cost of investment for practice facilitation activities</li><li>▪ Existing EHR report/registry function capabilities and barriers in practices</li><li>▪ Existing practice-level, physician-level and patient-level barriers to cancer screening as experienced by participating practices</li><li>▪ Existing barriers to tracking patient cancer screening as experienced by participating practices</li></ul>	
Inputs		Immediate Outputs	Proximal and Distal Outcomes	

## **Appendix B: Data Collection Materials**

---

- I. Practice Characteristics Survey**
- II. Pre-Post Practice Facilitation Survey**
- III. Focus Group/Interview Script and Structured Guide**
- IV. TRANSLATE and Evidence-Based Intervention Evaluation Rubrics**

## PRACTICE INFORMATION

1. Practice Name: \_\_\_\_\_
2. Please list the provider Medicaid Management Information System (MMIS) ID(s) of this practice. If you cannot provide the MMIS number, please provide the individual NPI number for each primary care provider at this practice. (If you need more room, please write in the space by question 11)  
  
MMIS ID: \_\_\_\_\_
3. Which of the following categories best describes this practice?
  - ☐ Physician-owned practice
  - ☐ Large medical group or health care system
  - ☐ University hospital or clinic
  - ☐ Non-profit clinic
  - ☐ Federally Qualified Health Center
  - ☐ Other (please specify): \_\_\_\_\_
4. Is this practice in a single specialty or multi-specialty setting (multi-specialty practice includes specialists other than primary care physicians)?
  - ☐ Single specialty
  - ☐ Multi-specialty
5. Which specialties are employed at your practice? (check all that apply)
  - ☐ Family Medicine
  - ☐ Internal Medicine
  - ☐ Gastroenterology
  - ☐ OB-GYN
  - ☐ Other (please specify): \_\_\_\_\_
6. How many primary care physicians work in this practice? \_\_\_\_\_
7. Approximately how many nurse practitioners work in this practice? \_\_\_\_\_
8. Approximately how many physician assistants work in this practice? \_\_\_\_\_
9. Making your best guess, about how many patients are served by your practice? \_\_\_\_\_
10. What is the name of your practice's medical record system? \_\_\_\_\_

11. Is this practice recognized/certified for any of the following? (check all that apply)

- ☐ Patient Centered Medical Home
- ☐ Patient Centered Specialty Practice
- ☐ Meaningful Use

12. IF YOU CANNOT PROVIDE AN MMIS ID FOR YOUR PRACTICE, PLEASE LIST NATIONAL PROVIDER IDENTIFIER (NPI) NUMBERS FOR ALL PRIMARY CARE PROVIDERS IN YOUR PRACTICE:

---

---

---

---

---

---

---

---

---

---

## PATIENT DEMOGRAPHICS

13. Approximately what percentage of the patients in this practice is insured by:

	% of Patients
Uninsured	%
Medicaid	%
Medicare	%

14. Approximately what percentage of the patients in this practice is female? \_\_\_\_\_%
15. Approximately what percentage of the patients in this practice is Hispanic/Latino? \_\_\_\_\_%

16. Approximately what percentage of the patients in this practice is:

	% of Patients
White	%
Black/African American	%
Asian	%
Native Hawaiian/ Pacific Islander	%
American Indian/ Alaska Native	%

17. Approximately what percentage of the patients in this practice is:

	% of Patients
Age 20 and under	%
21 – 29 years	%
30 – 49 years	%
50 – 74 years	%
75+ years	%

#### CANCER SCREENING

18. Do you provide mammography services at your practice?

- ☐ Yes  
☐ No

19. Do you provide cervical cancer screening services at your practice?

- ☐ Yes  
☐ No

20. Do you provide colorectal cancer screening services at your practice (If “Yes,” please go to Question 21. If “No,” skip to Question 22?)

- ☐ Yes  
☐ No

21. Which of the following colorectal cancer screening services are provided at your practice? (check all that apply)

- ☐ Fecal testing kits (FIT or FOBT)  
☐ Colonoscopy  
☐ Flexible sigmoidoscopy

22. Does this practice utilize a patient registry to track patient screening for any of the following?

	Yes	No
Breast Cancer Screening	<input type="radio"/>	<input type="radio"/>
Cervical Cancer Screening	<input type="radio"/>	<input type="radio"/>
Colorectal Cancer Screening	<input type="radio"/>	<input type="radio"/>

23. Has this practice implemented guidelines for any of the following?

	Yes	No
Breast Cancer Screening	<input type="radio"/>	<input type="radio"/>
Cervical Cancer Screening	<input type="radio"/>	<input type="radio"/>
Colorectal Cancer Screening	<input type="radio"/>	<input type="radio"/>

24. Are the patient screening rates generated from these cancer screening registries viewed as an accurate measure of the number of patients screened within your practice?

- ☐ Yes  
☐ No, Please explain:

25. Does this practice have a mechanism to remind members of the care team that a patient is due for breast, cervical and/or colorectal cancer screening? (check all that apply)

- ☐ Yes, special notation or flag in patient chart  
☐ Yes, computer prompt or computer-generated flow sheet  
☐ Yes, practice policy to review this item in patient medical records at the time of visit  
☐ Yes, other mechanism (please specify):

☐ No

26. Does this practice have a mechanism to remind patients that they are due for breast, cervical and/or colorectal cancer screening? (check all that apply)

- ☐ Yes, reminder by US mail  
☐ Yes, reminder by telephone call  
☐ Yes, reminder by e-mail  
☐ Yes, personalized web page  
☐ Yes, practice policy to provide a verbal prompt from a member of the care team during an office visit  
☐ Yes, other mechanism (please specify):  
☐ No

### PROVIDER INFORMATION

1. Practice Name: \_\_\_\_\_
2. Please indicate your sex:
  - ☐ Male
  - ☐ Female
  - ☐ Prefer not to answer
3. Please select your credentials:
  - ☐ MD, DO, MBBS    ☐ LPN
  - ☐ NP                    ☐ MSW
  - ☐ PA                    ☐ BSW
  - ☐ MSN                ☐ CASAC
  - ☐ CNM                ☐ MOA
  - ☐ RN                   ☐ Other:
4. Please select your job title:
  - ☐ Physician
  - ☐ NP/PA
  - ☐ Practice Nurse
  - ☐ Medical Assistant
  - ☐ Practice Manager or Clinic Manager
  - ☐ Care Manager, Case Manager, or Care Coordinator
  - ☐ Clerical
  - ☐ Information Technology
  - ☐ Other:

### CANCER SCREENING

5. In your opinion, how important are each of the following as potential **barriers to increasing the cancer screening rates** in your practice?

PATIENT-RELATED BARRIERS	Not Important	Low Importance	Neutral	Moderate Importance	Very Important
Patient fear of screening procedures	x	x	x	x	x
Patient fear of screening results	x	x	x	x	x
Patient lack of awareness	x	x	x	x	x
Patient lack of insurance/procedure costs	x	x	x	x	x
Language barriers	x	x	x	x	x
Lack of transportation	x	x	x	x	x
Patient embarrassment	x	x	x	x	x
Patients do not follow through with recommendations	x	x	x	x	x
Patient co-morbidities	x	x	x	x	x
SYSTEM-RELATED BARRIERS	Not Important	Low Importance	Neutral	Moderate Importance	Very Important
Not having enough time to discuss screening with patients	x	x	x	x	x

Inability to track down date of prior screenings	x	x	x	x	x
Inability to track patient progress in completing screening	x	x	x	x	x
Long delay in scheduling screening procedures	x	x	x	x	x
The cancer screening referral process	x	x	x	x	x
Remembering to make screening recommendations	x	x	x	x	x
Concurrent care is provided by a specialist (e.g., OB-GYN, GI)	x	x	x	x	x
Delay in receiving screening results from specialists	x	x	x	x	x
Shortage of trained providers to conduct screening	x	x	x	x	x
Organizational focus on efforts other than cancer screening	x	x	x	x	x
Lack of fulltime commitment to quality improvement efforts	x	x	x	x	x

6. What other barriers to increasing cancer screening rates exist in your practice?

---



---



---

### ELECTRONIC HEALTH RECORDS AND CANCER SCREENING

7. Does your practice currently use an EHR-based patient registry to identify and track patients eligible for the following:

	Yes	No	Not Sure
Breast Cancer Screening	x	x	x
Cervical Cancer Screening	x	x	x
Colorectal Cancer Screening	x	x	x

*If yes, please answer questions 8-9. If no, skip to question 10.*

8. Please rate the degree to which the patient screening data generated from these cancer screening registries accurately reflects of the actual number of patients screened within your practice, on a scale of 0 to 4 (0 = 0% accurate, 4 = 100% accurate)?

0 (0% Accurate)	1	2	3	4 (100% accurate)	Not familiar with registry
x	x	x	x	x	x

9. In your opinion, how effective is the use of an EHR-based patient registry to track cancer screening rates in your practice?

Not Effective	Slightly Effective	Neutral	Moderately Effective	Very Effective	Not familiar with registry
x	x	x	x	x	x



10. In your opinion, how important are each of the following as potential **barriers to utilizing an EHR-based patient registry to track cancer screening rates?**

<b>EHR-RELATED BARRIERS</b>	<b>Not Important</b>	<b>Low Importance</b>	<b>Neutral</b>	<b>Moderate Importance</b>	<b>Very Important</b>
Computer skills of you and/or other physicians/staff	x	x	x	x	x
Lack of staff training or knowledge about patient registries	x	x	x	x	x
Start-up financial costs to create registries	x	x	x	x	x
Ongoing financial costs to maintain registries	x	x	x	x	x
Physician/staff skepticism about effectiveness of registries to improve patient care	x	x	x	x	x
Lack of personnel support to maintain registries	x	x	x	x	x
Lack of personnel support to utilize registries	x	x	x	x	x
Inability to accurately record in the EHR when screening has been completed	x	x	x	x	x
Reliability of the patient information stored in EHR	x	x	x	x	x
Lack of technical support	x	x	x	x	x

11. In your opinion, how beneficial would each of these quality improvement strategies be to improving cancer screening rates in your practice?

<b>QI Strategies</b>	<b>Not Beneficial</b>	<b>Slightly Beneficial</b>	<b>Neutral</b>	<b>Moderately Beneficial</b>	<b>Very Beneficial</b>	<b>I'm Not Familiar</b>
Workflow process mapping	x	x	x	x	x	x
Plan-Do-Study-Act interventions	x	x	x	x	x	x
Patient chart reviews	x	x	x	x	x	x
Practice benchmarking	x	x	x	x	x	x
Provider reminder systems	x	x	x	x	x	x
Patient education	x	x	x	x	x	x
Patient reminder systems	x	x	x	x	x	x
Provider performance feedback	x	x	x	x	x	x
Patient case management	x	x	x	x	x	x
Provider/staff training	x	x	x	x	x	x

## Focus Group/Interview Script and Structured Guide

- I. Questions regarding intervention activities and sustainability
  - a. This project targeted breast cancer, cervical cancer and colorectal cancer screening. Can you briefly describe your practice's priority focus area(s) across these three cancer types?
    - i. Probe: for example, did your practice try to implement strategies on all 3 cancers, or did you focus particularly on one cancer type, and why?
    - ii. Probe: How do your challenges with screening vary by each cancer? How did these challenges shape your strategies?
    - iii. Probe: **Did your practice implement any new policies related to cancer screening?**
  - b. What plans does your practice have to continue this work?
    - i. Probe: how important were the monetary incentives offered under this project (e.g., patient outreach, project stipend)?
    - ii. Probe: what would be your practice's biggest barrier to increasing screening for each cancer type?
  - c. How would you describe the level of involvement across the staff at your practice in this project?
    - i. Probe: was there a particular individual in the practice that championed the project, how?
- II. Questions regarding practice facilitator interactions
  - a. Overall, how useful to your practice was it to have a practice facilitator?
  - b. What types of quality improvement topics were reviewed by your practice facilitator?
    - i. Probe: How did you incorporate these quality improvement ideas into your work on cancer screening?
  - c. Were you the main contact with the practice facilitator? If not, who filled that role?
    - i. Probe: How important were these relationships in terms of achieving project goals?

## TRANSLATE MODEL EVALUATION RUBRIC

PRACTICE NAME:

EVALUATION PERIOD:

Rubric Element	Score Options				Score	Comments
	1	2	3	4		
<b>T: Target Measures</b>	No cancer screening improvement targets set	Cancer screening improvement targets set, but unrealistic or hard to measure	Cancer screening improvement targets set. Targets are clear and measurable, but implementation is unrealistic	Cancer screening improvement targets set. Targets are clear, measurable, and the implementation plan is clear and feasible.		[please write a brief description of the practice's targets and how they will be measured. Please mention if the practice is working on all three cancer screening groups or only a subset. Please mention if the improvement targets overlap with other practice initiatives, e.g. PCMH]
<b>R: Reminders</b> (clinical decision support, e.g. point of care reminders and guidance)	No clinical decision support available	Clinical decision support is available, but never used	Clinical decision support available. A workflow has been developed for the use of CDS, but is not monitored for consistent use	Clinical decision support available. Workflow has been developed and is routinely monitored for consistent use with every patient		[please write a brief description of the practice's clinical decision support capabilities and implementation. Please make note of any barriers to implementing CDS at this practice. Please note any practice policies regarding this rubric element]
<b>A: Administrative Buy-In</b> (resource allocation - money, time, personnel)	Administration is resistant to allocation of practice resources for this project	Administration agrees to limited practice resource allocation for this project	Administration agrees to resource allocation for this project, but remains disengaged from QI activities	Administration agrees to resource allocation for this project, and is engaged in QI activities and meetings		[please write a brief description of the practice administration's level of engagement, commitment to and support of the QI initiatives adopted under this project]
<b>N: Network Information Systems</b> (registries - population health management)	Practice does not have an information system in place	Practice has the ability to generate a registry. No workflow exists for the registry and it is not used by practice staff.	Practice has the ability to generate a registry. Practice has a defined workflow, but it is not followed on a regular basis.	Practice generates registries on a regular basis. Practice has a defined workflow for utilizing the registry for population health management.		[please write a brief description of the practice's information system and registry use, making note of how the registry is maintained (i.e., paper-based, excel, EHR) and if a workflow is present to utilize the registry regularly. Please note whether a registry is used for each cancer screening target. Please note any practice policies regarding this rubric element]
<b>S: Site Coordinator</b>	No site coordinator is identified for this project.	Site coordinator has been identified for this project, but does not devote much time to practice facilitator or project activities.	Site coordinator has been identified for this project. Site coordinator communicates regularly with practice facilitator, but has limited time to complete QI activities and project deliverables.	Site coordinator has been identified for this project. Site coordinator communicates regularly with practice facilitator, and has dedicated time to complete QI activities, project deliverables, and facilitate project completion within the practice.		[please write a brief description of the practice's site coordinator, describing level of engagement and involvement with the practice facilitator and QI objectives. Please note if the site coordinator is part of practice administration and/or is a clinician. Please note any barriers to engagement]
<b>L: Local Clinician Champion</b>	No local clinician champion is identified for this project.	Local clinician champion is identified for this project, but is largely uninvolved.	Local clinician champion is identified. Is able to moderately support peer-to-peer education and QI activities, but has competing priorities.	Local clinician champion is identified. Is able to enthusiastically support peer-to-peer education and QI activities.		[please write a brief description of the practice's local clinician champion, describing credentials and role in the project. Please note if the local clinician champion is part of practice administration. Please note any barriers to engagement]

TRANSLATE MODEL EVALUATION RUBRIC (CONTINUED)						
<b>A: Audit and Feedback</b> (practice-level; provider-level; patient-level outcome reports)	Practice does not perform cancer screening audit and feedback activities at any level.	Practice performs cancer screening audit and feedback regularly, but not at all levels.	Practice performs cancer screening audit and feedback regularly and on multiple levels. Practice does not widely disseminate the performance data within the practice.	Practice performs cancer screening audit and feedback regularly and on multiple levels. Practice disseminates the performance data within the practice on a regular basis.		[please write a brief description of the practice's audit and feedback activities. Please note if these activities are conducted for all three cancer screening targets. Please note at what levels the audit and feedback is conducted (i.e., practice-level, provider-level) and how it is disseminated across the practice. Please note any practice policies regarding this rubric element]
<b>T: Team Approach</b> (interdisciplinary teams for QI decision-making)	No teams are formed for QI in this project.	Practice has a QI team for this project, but it operates in a top-down approach without input from multiple levels of staff]	Practice has a QI team for this project. QI team involves multiple levels of staff, but not all staff are present at/invited to each team meeting.	Practice has a QI team for this project. QI team involves multiple levels of staff that are engaged in project activities and decision-making at each meeting.		[please write a brief description of the practice's level of team work on this project. Please note what barriers exist to interdisciplinary teams. Please note if your practice has PCMH status. Please note any practice policies regarding this rubric element]
<b>E: Education</b> (all forms of training, both formal and informal)	No opportunities for cancer screening training and education.	Cancer screening training and education available on limited and inconsistent basis.	Practice provides routine cancer screening training and education, but only for certain levels of clinicians.	Practice provides routine cancer screening training and education across all levels of clinicians and staff. This training involves population health management topics.		[please write a brief description of the practice's educational and training opportunities made available to staff on cancer screening topics. Please note the level to which this training focuses on clinical care, quality improvement and population health management. Please note any practice policies regarding this rubric element]

## EVIDENCE-BASED INTERVENTION MODEL EVALUATION RUBRIC

PRACTICE NAME:

EVALUATION PERIOD:

Item	Score Options				Score	Comments
	1	2	3	4		
<b>Client Reminders</b> (written, email, or telephone messages advising patients they are due for screening)	No current system to implement client reminders at the practice.	The practice has a reminder system available, but it is rarely used or has outdated information.	The practice uses telephone, written and/or email reminders routinely.	The practice uses telephone, written and/or email reminders routinely, and supplements with routine follow-up.		[please write a brief description of the practice's client reminder system and level of implementation]
<b>Small Media</b> (videos and printed material to inform and motivate people to be screened)	No current use of small media.	The practice has some small media available, but it is outdated and does not address all 3 cancer screening targets.	The practice has a variety of up-to-date small media available (e.g., brochures, flyers, posters, videos, etc.), but may not be comprehensive in addressing all 3 cancer screening targets.	The practice has a variety of up-to-date small media available (e.g., brochures, flyers, posters, videos, etc.) targeting all 3 cancer screening services.		[please write a brief description of the practice's small media utilization]
<b>One-on-One Education</b> (delivers info to patients about indications for, benefits of and ways to overcome barriers to cancer screening)	No current use of one-on-one education.	Only practice physicians and nurses provide one-on-one education. May or may not be accompanied by supporting materials.	Multiple individuals affiliated with the practice are trained to provide one-on-one education to patients regarding cancer screening (e.g., providers, nurses, care coordinators, referral staff, etc.).	Multiple individuals affiliated with the practice are trained to provide one-on-one education to patients regarding cancer screening (e.g., physicians, nurses, care coordinators, referral staff, etc.), and these discussions are accompanied by small media and client reminders.		[please write a brief description of practice policies and implementation regarding one-on-one patient education]
<b>Reducing Structural Barriers</b> (reduction of non-economic burdens that make it difficult for people to access screening. Can include reducing time/distance to service delivery, modifying service hours, offering services in alternative/non-clinical settings, and simplifying administrative procedures)	No current efforts to reduce structural barriers to screening.	Practice provides some assistance to patients to reduce structural barriers, but inconsistently and not for all 3 cancer screening targets.	Practice provides consistent assistance to patients to reduce structural barriers, but only for one or two of the targeted cancer screening services.	Practice provides consistent assistance to patients to reduce structural barriers for all 3 cancer screening targets.		[please write a brief description of how the practice addresses structural barriers for the 3 cancer screening targets]

# Appendix C: Pre-Post TRANSLATE Data

## TRANSLATE Scores

Table 1. Site-Specific Changes from Pre- to Post-Practice Facilitation TRANSLATE Element Scores

Practice	Target	Reminders	Administrative Buy-In	Network Information Systems	Site Coordinator	Local Clinician Champion	Audit and Feedback	Team Approach	Education	TOTAL
P1	+2	0	0	0	+1	0	-1	+1	0	+3
P2	+1	+1	+1	0	+2	-1	0	0	0	+4
P3	+2	0	0	0	0	0	0	0	0	+2
P4	+1	+1	+3	+2	+1	0	+2	+2	0	+12
P5	+2	0	0	0	+1	0	0	0	0	+3
P6	-1	0	0	-1	0	0	0	0	0	-2
P7	0	0	-1	0	-1	-2	0	0	0	-4
P8	0	0	-1	-1	0	0	-1	0	0	-3
P9	0	0	0	-1	0	0	0	0	0	-1
P10	0	-1	0	0	0	0	0	0	-1	-2
P11	0	0	0	0	0	-2	0	0	0	-2
P12	0	0	-2	0	-2	0	0	0	0	-4
P13	0	0	0	0	0	0	0	0	0	0
<b>Avg. Score</b>	+0.538	+0.077	0.000	-0.077	-0.154	-0.385	0.000	-0.231	-0.077	+6
<b>Median Score</b>	0	0	0	0	0	0	0	0	0	0

## Evidence-Based Intervention (EBI) Scores

Table 2. Site-Specific Changes from Pre- to Post-Practice Facilitation EBI Scores

Practice	Client Reminders	Small Media	One-on-One Education	Reducing Structural Barriers	TOTAL
P1	+1	-1	0	+1	+1
P2	+1	+1	0	0	+2
P3	0	+2	+2	+1	+5
P4	0	+1	+1	0	+2
P5	0	+1	0	0	+1
P6	0	-1	0	0	-1
P7	-1	-1	0	0	-2
P8	0	0	-1	0	-1
P9	0	0	0	0	0
P10	0	0	0	0	0
P11	0	0	0	0	0
P12	0	0	0	0	0
P13	0	0	0	0	0
<b>Avg. Score</b>	+0.077	+0.154	+0.154	+0.154	+0.462
<b>Median Score</b>	0	0	0	0	0

PRACTICE: P1				
RUBRIC ELEMENT	PRE-SCORE	PRE-COMMENTARY	POST-SCORE	POST-COMMENTARY
Target	2	The practice has already-established mechanisms and measurements to improve cancer screening; however the role of this project & facilitator in improving these has only been loosely defined. The practice's current target measures are related to payer incentive programs, but can be applied to the whole patient population. There is interest in doing so through this project. The practice has identified their general targets in this collaboration: 1) improving colorectal screenings since their rate is lower than for breast (no cervical screenings on site), and 2) using qualitative analysis to identify/clarify structural barriers to cancer screenings. We have not yet finalized the specific methods and measurements to do so.	4	Practice has clear and measurable targets set, with a work flow to monitor progress through the EHR dashboards and reports. Implementation is clear and feasible, with more staff dedicated to reaching the targets. Still a ways to go to meet their goals.
Reminders	4	The practice uses a dual system of reminders. On the computer, there is a color-code for each patient that indicates upcoming (yellow) or due (red) screenings that is visible to providers and staff. The front office staff respond to such reminders by highlighting the paper record as well. Thus there is support available and a routine workflow in place. However, there is the question of how effective front office staff are at this workflow with the high volume of patients at the clinic. Champion identified this as a possible area for improvement.	4	There is routine monitoring for consistent use of clinical decision support, but due to high patient volume consistency remains an issue.
Administrative Buy-In	4	From the kickoff meeting, there appears to be strong admin support for QI activities in general. There are permanent resources dedicated to it, from the role of their program associate in tracking measurements and the ACO meetings to discuss results, to the programs they use to track measurements (tableau computer program and the value-based pilot with Insurance). This could present a different kind of problem, in that there is too much data to measure. The practice has so far emphasized quantitative QI analysis, and has expressed interest in	4	Practice admin is engaged, but busy.

	using the PF for qualitative assessments. There is also support for this project, as the local champion is highly motivated in his support of it.		
<b>Network Info. Systems</b>	<p>As per the reminders, the practice has a regular workflow that uses patient registries. This includes a "standing order" with a radiologist using a patient registry that empowers the radiologist to call and schedule appointments with patients. A similar system is in place for colon and breast cancer screening? The practice is also looking into establishing a back office dedicated to population care using their record systems.</p>	4	<p>Regular workflow for patient registries-- including established relationships with specific GI surgeons, Mammography, and Pap smear providers that facilitate getting outside reports.</p>
<b>Site Coordinator</b>	<p>The preliminary site coordinator is champion, however he is an active senior clinician involved in training and establishing the new Jefferson practice. It is not clear that he himself will have dedicated time for this project's activities. However, two other possible site coordinators also attended the kickoff meeting (assistant director and program associate). Champion indicated we should cc them on all communications with him, and instructed us to send the W-9 form to the assistant director and to send the surveys to the program associate. It is likely we will be working more regularly with them than with champion, but it is not clear how much time they will have to dedicate to this project.</p>	3	<p>The program associate has proved to be the best site coordinator. Her focus is data analysis, including for QI activities, so she is best placed to facilitate project completion overall. Assistant director and champion are also important contacts-- with admin and clinical respectively-- but they have very limited time for QI.</p>
<b>Local Clinician Champion</b>	<p>Site coordinator is also the clear clinician champion at this practice, but as stated above has competing priorities. He strongly supports peer-to-peer education and QI activities, but it is apparent that he will have limited time to assist us in completing deliverables.</p>	3	<p>Site coordinator/med director is the clear clinician champion at this practice, but has competing priorities. He has very limited time to dedicate to the project.</p>
<b>Audit and Feedback</b>	<p>From the use of Tableau and the YourCare pilot, it is clear that the practice regularly performs audits. Feedback is then provided through the ACO qualitative meetings. What is unclear is how well attended these meetings are. Further, these are clinician meetings, so it does not appear that feedback occurs regularly at multiple levels.</p>	3	<p>Practice does regularly perform audits, but cancer screening is not the main focus--profit margins are. Feedback is provided through ACO meetings, so that feedback is limited to only a few levels unless those at the meeting further disseminate the info.</p>



<b>Team Approach</b>	1	There is not yet a formalized team with clear responsibilities or dedicated time for this project. Informally, the 3 people who attended the kickoff do represent an interdisciplinary, multiple-level team but it is not yet clear how active each person will be or what roles they will have. No nurses or front office staff attended the meeting, which signals a likely top-down approach. The practice does have a dedicated QI/data person that may be worth trying to reach out to.	2	No nurses or front office staff involved with this project: it is a top-down approach. Also, this is clearly a side project for this "team," however the roles of the different members have been established, at least informally (see site coordinator comments).
<b>Education</b>	2	The practice employs an on-line learning management system for training, from cancer screening guidelines to HIPAA regulations. It may be available to all staff, but that is not yet clear, nor is how often staff access it (e.g. annually to renew certifications? or regularly for CME?).	2	It is not clear how available training and education are, nor to how many levels. This does not appear to be a top priority.
<b>TOTAL TRANSLATE</b>	<b>37</b>		<b>41</b>	
<b>Client Reminders</b>	3	The practice has registries that generate pop-up reminders for staff when patients are at the office. These registries are also used to generate patient screening reminders via phone calls.	4	The practice has an established workflow for patient reminders, including calls and letters, and for those with co-morbidities, patient navigators are available to assist with scheduling and questions.
<b>Small Media</b>	3	The practice has some posters and brochures, but not for all 3 cancer screenings. They outsource all ob/gyn services so do not screen for cervical cancer on site. There is a large multilingual population, but it is not clear if they have educational material for non-English speakers. The practice also expressed interest in getting a playlist of short health education videos to play in the waiting room.	2	Limited use of small media.
<b>One-on-One Education</b>	2	One-on-one education on cancer screening is supposed to occur during patient visits with their provider based on the prompts from the patient file. However it is not clear if this ideal workflow matches the realities of a busy, high volume clinic.	2	One-on-one education on cancer screening is supposed to occur during patient visits with their provider based on the prompts from the patient file. However it is not clear if this ideal workflow matches the realities of a busy, high volume clinic.
<b>Structural Barriers</b>	3	The practice employs a team of patient navigators. They are also aware of and interested in addressing cultural/linguistic barriers that may interfere with screenings. However, as mentioned above, cervical screenings are outsourced (though they do provide HPV vaccinations). The	4	The practice employs a team of patient navigators. They have GI surgeons in their building, send patients to the OB/GYN in the building next door, and have ECMC mammo bus screening days at their practice. They have sought to decrease barriers to all 3 cancer screening targets, and are

	practice also uses the mammography bus, which reduces transportation barriers, and they have an arrangement with local imaging clinic where their van will pick patients up and take them for mammograms.	working with the PF to identify potential cultural and health belief barriers that increase patient noncompliance.
<b>TOTAL EBI</b>	<b>11</b>	<b>12</b>

PRACTICE: P2				
RUBRIC ELEMENT	PRE-SCORE	PRE-COMMENTARY	POST-SCORE	POST-COMMENTARY
Target	3	The practice is very interested in continuing the special relationship it had with Practice Facilitator last year. They repeatedly emphasized that their main target is for the PF to clean up their EHRs so that their data is more accurate. However, this emphasis is unrealistic due to the project's focus on sustainability. Cleaning up patient records is 1) against project protocol unless the PF works with a staff member, which is unlikely since the practice emphasized this as work for which their own staff do not have time, and 2) unsustainable since it is the PF taking over staff work for the duration of the project year. However, with some firm negotiation, the project has agreed to other possible implementation targets which focus on improving patient and provider education.	4	Practice again inquired about paying the PF to clean up their EHRs, but more easily accepted the "not possible as not sustainable" answer. Also seemed to actually consider the idea of paying staff for overtime or paying a student to do the cleanup. Another improvement is that practice is interested in more heavily promoting FIT tests in the next project year, as well as working on breast cancer screening rates (in tandem with a grant if they get it). Practice appears more accepting of idea that there IS room for improvement.
Reminders	3	There is an established workflow for cancer screening point of care reminders: providers review their patients' records for missing/due screenings when the patient has an appointment and remind the patient during their visit. For colorectal screenings, this includes a pocket reference card with the workflow and guidelines for each provider (through a grant). The practice emphasizes the use of FIT tests, with colonoscopies only scheduled after a positive FIT test result since there is an 8-month waiting period for a colonoscopy appointment at ECMC. However, in a busy clinic with rotating cohorts of Residents, it is unclear how well this ideal workflow is maintained and whether it is routinely monitored.	4	There is an established workflow for cancer screening point of care reminders, including CRC workflow & ACS guidelines on pocket reference cards for providers. There is regular monitoring of workflow, including not only through this project but through grants with the American Cancer Society.
Administrative Buy-In	2	There is strong administrative buy in for QI activities in general-- they emphasize workflow and improvements to the practice. However, for this project specifically the amount of practice resources available appears to be limited. They are quite firm in the fact that their cancer screening rates are high and their workflow is already efficient. As	3	There is strong administrative buy in for QI activities in general-- they emphasize workflow and improvements to the practice. There is also now a better understanding of the role of PFs in this project. Further, admin allocated resources to this project, including purchasing digital displays for each exam room to show the patient education slideshows

	stated above, they largely wanted the PF to operate as a member of staff doing records clean-up since their own staff is so busy. However, there is support for what this project can offer them in the way of patient and provider education, with time and personnel to be made available for academic detailing.		created by this PF. However, admin is very busy and cannot engage regularly.
<b>Network Info. Systems</b>	3 The practice uses AllScripts but does not have the analytical package that allows them to set up prompts and reminders. Providers have to check each patient's records to see if a screening is due. The practice is also lacking available time and personnel for population health management due to the busy, high volume nature of the clinic and to staff turnover. However there is an established workflow for population management, if/when there are available staff to do so.	3	Practice does not have the analytical package that allows them to set up prompts and reminders. Providers have to check each patient's records to see if a screening is due. Further, the records need to be cleaned up. Also, the practice is lacking available time and personnel for population health management due to the busy, high volume nature of the clinic and to staff turnover. PF experienced this turnover first hand, as the site coordinator left during the project year. The position is "open" but the practice does not know when it will be filled.
<b>Site Coordinator</b>	1 I met with the medical director. It is not clear if she will be the site coordinator, or if the practice manager will be. However, it is clear that the med director will be making the final approvals for this project's activities. It is also not clear whether either she or the practice manager will have much time for this project apart from communication with the PF.	3	Practice manager was the site coordinator for this project until May. The 3 reflects his regular communication with the PF, but his limited time to focus on this project. He left and his position at the practice has been temporarily filled by the practice manager for another enrolled practice. This other practice manager has also taken over as site coordinator for the final month of this project. She is familiar with the project and supports its activities, but also has very limited time--more so since she is now managing two practices.
<b>Local Clinician Champion</b>	3 Medical director is the clinician champion. She is dedicated to peer-to-peer education, and has offered to lead an academic detailing on cancer screenings for the practice's cohorts of residents as part of this project. However, she has many competing priorities due to her position at the practice.	2	Med director is the clinician champion, however, she has many competing priorities and has been largely uninvolved in the project this year. The PF's only communication with her was at the start and end of the project year. At the close out meeting, it was very clear that she was not familiar with the QI work done with the practice manager.
<b>Audit and Feedback</b>	2 The practice values QI activities, and regularly tracks their cancer screening rates. Med director was able to tell me from memory that mammography rates are at 80% and colorectal screenings have improved from 50% to	2	No change.

	70% (we have not yet established their baseline screening rates for this project). She noted the impact of their better workflow and office culture, as well as the switch to automatic EHR updates with mammography results from the pink mammo bus. However, it is unclear whether this information is shared at multiple levels.	
<b>Team Approach</b>	The practice appears to have an established decision-making QI team which will coordinate for this project, too: med director, practice manager, and a third staff member who is working on the PCP+ transition and outcomes. They are interdisciplinary, and appear to all be involved in the decision making, but the final decision is top-down from med director and all members are not always present at meetings.	No change.
3	3	
<b>Education</b>	There is an emphasis on teaching, since the majority of providers are residents at this practice. Cancer screening training is part of this, and though staff members are sometimes asked to role play as patients for training exercises, these trainings are focused on providers and do not include training for staff.	There is an emphasis on teaching, since the majority of providers are residents at this practice. This includes cancer screening guidelines, especially since the practice had a grant to work on CRC screening rates from the ACS. However, staff are largely not involved, with training focusing on clinicians only.
3	3	
<b>TOTAL TRANSLATE</b>	<b>33</b>	<b>39</b>
<b>Client Reminders</b>	The practice currently relies on each provider to do a chart check and see if a patient needs to be reminded about a screening. If yes, the patient is verbally reminded during their visit to the practice. There is also an established reminder system in which letters are sent to patients who have not been to the clinic for an extended amount of time, but this is not currently being done due to lack of personnel/time. It is also not clear how close a match the ideal verbal reminder system is to real-life in a busy, high-volume clinic.	The practice currently relies on each provider to do a chart check and see if a patient needs to be reminded about a screening. If yes, the patient is verbally reminded during their visit to the practice. Practice also uses the mammo bus, so Patient Voices do outreach reminder calls to patients due for a mammogram.
2	3	
<b>Small Media</b>	The practice has media for colorectal screenings thanks to the last year of this project, when digital display frames were ordered and loaded with screening guidelines. They also have informational brochures on colorectal screenings from their grant. The practice is interested in adding	Practice has added digital frames to each exam room, which now display patient education slideshows on all three cancers.
3	4	

	materials for mammography (they do not do pap smears), and educational videos (no drug advertising) for the waiting room. This practice also uses small media for Diabetes education, since 80% of their patients have been diagnosed, and are interested in whether this project can help them purchase more English and Spanish copies of the diabetes pamphlet due to the disease's impact on colorectal and breast cancer risks.	
<b>One-on-One Education</b>	<p>Patients receive one-on-one education largely from providers. The first year this practice was involved in this project, they purchased 3D models to help with discussing screenings with patients. Nurses also have some input on education, as they are now using an ACS risk assessment questionnaire to identify patients who may have an elevated risk for colorectal cancer. However, the nurses are instructed to ask patients if they are interested in discussing a colonoscopy with their doctor, rather than offering education on the procedure themselves. Other staff members do not appear to be involved in patient education.</p> <p>2</p>	<p>Patients receive one-on-one education largely from providers. Nurses also have some input since they do a risk assessment questionnaire with patients to identify those with an elevated risk for colorectal cancer. However, only providers are supposed to discuss colonoscopies with patients.</p> <p>2</p>
<b>Structural Barriers</b>	<p>This practice uses the pink mammography bus to reduce transportation barriers for breast cancer screenings. They also offer educational materials in both English and Spanish to reduce potential language barriers. Further, the practice's emphasis on FIT tests reduces the number of colonoscopies used in colorectal screening, thus reducing the screening burden for most patients and, at ECMC, removing the obstacle of an 8-month waiting period. However, since the practice does not do pap smears they devote little attention to reducing barriers for cervical cancer screening.</p> <p>3</p>	<p>This practice uses the mammography bus to reduce transportation barriers for breast cancer screenings. They also offer educational materials in both English and Spanish to reduce potential language barriers. Further, the practice's emphasis on FIT tests reduces the number of colonoscopies used in colorectal screening, thus reducing the screening burden for most patients. However, since the practice does not do pap smears they devote little attention to reducing barriers for cervical cancer screening.</p> <p>3</p>
<b>TOTAL EBI</b>	<b>10</b>	<b>12</b>

PRACTICE: P3				
RUBRIC ELEMENT	PRE-SCORE	PRE-COMMENTARY	POST-SCORE	POST-COMMENTARY
<b>Target</b>	2	The practice has identified colorectal cancer screenings as their priority for improvement this year, as their screening rates for breast and cervical cancer are higher. There is a clear understanding of the barriers involved, and specific interventions were suggested by staff: 30-40 minute educational video in the waiting room, bulletin boards in the exam rooms to post educational material on screenings. There were also more general targets identified, such as addressing the months-long waiting period for colonoscopy appointments and educating/reassuring patients about the procedures involved in a colonoscopy. We still need to formalize the implementation plan and identify how it is measurable.	4	Practice has made several improvements in CRC screening. They installed TVs in each exam room, which play a slideshow created by the PF to educate patients about the risks of the 3 cancers and what to expect from screenings, including colonoscopies and FIT tests. Wait times for colonoscopies have also been reduced (though this was outside the control of the practice, it was a big barrier). The practice has also realized that its providers need to be more motivated to suggest FIT tests to patients, and has agreed that this would be a good target if the project continues for another year.
<b>Reminders</b>	4	There is an established workflow for patient reminders. Allscripts flags the records of patients who are lacking a screening, as well as those who are due for their next screening. The front desk staff use this list to send out reminder letters to the patients. Providers also see the flag on the patient's record, and speak to them about the screening when the patient is in for an appointment. This appears to happen regularly, as the nurses reported patients asking them about the colonoscopy procedure after being told they needed one. Both the nurses and the front desk staff can schedule a screening appointment for a patient, and can remind a provider when a patient's record does not yet show an order for the screening.	4	There is an established workflow for patient reminders and all levels of staff are involved. Further, they have not expressed doubt or much difficulty with inaccurate reminders (apart from one patient who was distressed because he had been FIT tested 3 times over 3 consecutive visits!).
<b>Administrative Buy-In</b>	4	The practice coordinator is our site coordinator and is clearly invested in the project. However, the practice is very busy with a high volume of patients, so resources are limited.	4	The practice coordinator is our site coordinator and is clearly invested in the project. However, the practice is very busy with a high volume of patients, so resources are limited.
<b>Network Info. Systems</b>	3	The practice uses Allscripts, and reports few concerns over accuracy. Through the program, they run lists of patients who are lacking or due for their next screening, and are able to generate reminders from the patient records. However, records are only irregularly	3	The practice reports few concerns over accuracy. They run lists of patients who are lacking or due for their next screening, and are able to generate reminders from the patient records. The practice also provides registries to Patient Voices volunteers

		checked for missing information, such as a patient who was screened outside the clinic. There is a dedicated person for reviewing pap screenings, but not for breast screenings. Previously, there was also a dedicated person for reviewing colonoscopy records, but that staff member left the practice 3 weeks ago and the task has not yet been reassigned.		who conduct outreach ahead of the mammo bus days. Practice also has an established workflow to track down outside screenings. However, staff have limited time to check charts for missing information, and are often taking in new patients from closed clinics--which makes it even harder to find records.
Site Coordinator	3	Practice coordinator is the site coordinator for this project and clearly supports it. However, she is very busy and will likely have limited time to dedicate to this project.	3	The site coordinator for this project clearly supports it. However, she is very busy--even more so since she has temporarily taken over for another practice's manager as well.
Local Clinician Champion	1	We have not yet identified a clinician champion. The kickoff meeting was very well attended, but the majority were nurses and office staff, not providers. Further, no one at the meeting appeared enthusiastic about the project-- they understand its value and have clear ideas about the barriers to screenings, but have competing priorities.	1	There is no clinician champion. The people who attend meetings are nurses rather than doctors, which is very helpful for workflow assessments and knowledge of patient barriers but reflects the lack of provider buy-in/limited time for QI.
Audit and Feedback	2	The practice is keeping records so that an audit can be done, but there is no dedicated QI person and no apparent workflow to regularly perform audits and disseminate feedback. The FIT tests are a clear example of this-- a record is kept of each patient that receives a FIT test, and the practice has been using FIT tests for close to a year, but there has not yet been an audit of how many patients actually submit their tests to the lab. The FIT test lab results from Meditech do populate the Allscripts patient records, so an audit can be done. But here is no dedicated workflow and no dedicated staff member to do it.	2	There is no clinician champion. The people who attend meetings are nurses rather than doctors, which is very helpful for workflow assessments and knowledge of patient barriers but reflects the lack of provider buy-in/limited time for QI.
Team Approach	1	There is not a QI team for this project, and it appears that there may never have been, apart from practice coordinator and the PFs.	1	There is not a QI team for this project, and it appears that there may never have been, apart from the practice manager and the PFs.
Education	2	It is not clear how regularly training is available or to which members of the practice. We need to follow up on whether CME and academic detailing would be a welcome intervention.	2	It is not clear how regularly training is available or to which members of the practice. Practice was not interested in CME training this year, but at the close out meeting expressed interest in FIT academic detailing for the next project year.
TOTAL TRANSLATE	33		40	



<b>Client Reminders</b>	<p>Three attempts are made to contact patients to advise them that they are due for a screening. The established workflow is to send a reminder letter, and then if the patient does not respond, front staff follow up with a combination of letters and phone calls. A big barrier to such reminders is the fact that the patient population moves frequently, and often the phone number on record is disconnected. When a patient who is overdue for a screening comes to the clinic, however, staff can follow up and assist in scheduling a screening. Due to the busy nature of the practice, it is unclear how regularly staff have dedicated time for reminders.</p>	4	<p>Practice has a set workflow that is followed regularly. A big barrier to such reminders is the fact that the patients move frequently, and often the phone number on record is disconnected. When a patient who is overdue for a screening comes to the clinic, however, staff routinely follow up and assist in scheduling a screening. Further, Patient Voices are used for client reminders and scheduling assistance for mammograms at the mobile unit.</p>	4
<b>Small Media</b>	<p>The practice had a limited number of brochures in the waiting room, but no one has checked to see if they are still there. There is also an outdated flyer on colonoscopies in at least one of the exam rooms, but there is no material on other cancer screenings. The practice is interested in using the stipend to purchase small bulletin boards to hang in each exam room so that new flyers and screening information can be posted regularly.</p>	2	<p>With the help of the PF, this year the practice updated its small media. They used the project stipend to purchase TVs for each exam room, which now play slideshows to educate patients about all three cancers.</p>	4
<b>One-on-One Education</b>	<p>Both providers and nurses speak with patients one-on-one about cancer screenings, and have small media to give to patients. They also have, from previous years of this project, educational diagrams of the breast, colon, and how a pap smear is done. Further, providers and nurses remind patients when they are due for a screening. However, staff reported having difficulty with some patients, who did not want to listen or take the materials, and who told the practice to "stop harassing" them with phone call and letter reminders. There is also likely limited time for one-on-one education in the busy, high volume practice so it is not clear how much the ideal workflow matches the reality.</p>	2	<p>Both providers and nurses speak with patients one-on-one about cancer screenings, and have small media to give to patients. However, they struggle with non-compliant patients, in particular when it comes to CRC screening. At the close out meeting, the practice identified its need to push FIT tests more, in particular noting providers were reluctant to do so. This is something we can target in the next iteration of the project.</p>	4
<b>Structural Barriers</b>	<p>The practice uses the mammo bus, which has reduced transportation barriers for breast cancer screenings. They also conduct pap smears as part of the regular ob/gyn exam on-site, which simplifies screening for cervical cancer. Further, there is extensive scheduling</p>	3	<p>The practice uses the mammo bus, which has reduced transportation barriers for breast cancer screenings. They also conduct pap smears as part of the regular ob/gyn exam on-site, which simplifies screening for cervical cancer. Further, there is extensive</p>	4

	<p>assistance for screenings, both from nurses and front office staff (as well as Patient Voices for the Mammo bus). However, the practice reported transportation as a huge barrier for patients who need a colonoscopy--one they do not know how to overcome. Staff also pointed to the widespread fear and lack of understanding of how a colonoscopy actually works as a barrier to patient compliance, which they have tried to address through one-on-one education with patients. But there is limited time for such in a busy practice and they reported limited success. This is an area they would like help improving. Finally, another barrier they are struggling with is diabetes, which not only makes colonoscopy prep more difficult but also, because of the current widespread focus on it, they report that patients are more concerned about Diabetes than cancer.</p>	<p>scheduling assistance for screenings, both from nurses and front office staff (as well as Patient Voices for the Mammo bus), and a phone line for patients who need a translator. However, transportation and the need for an adult to accompany the patient is a huge barrier for patients who need a colonoscopy. The practice does offer FIT tests to overcome this barrier, but lacks provider buy-in for this alternative.</p>
<b>TOTAL EBI</b>	<b>11</b>	<b>16</b>

PRACTICE: P4				
RUBRIC ELEMENT	PRE-SCORE	PRE-COMMENTARY	POST-SCORE	POST-COMMENTARY
<b>Target</b>	1	The practice has not identified any areas they would like to target to improve cancer screening.	2	The site contact and data coordinator are aware of cancer screening numbers and where they can be improved. No specific methods of improvement have been discussed but there are targets for improvement to focus on in future project years.
<b>Reminders</b>	1	The site contact did not mention any clinical decision systems that are set up at the practice.	2	From the explanation the staff contact gave, the providers at this practice have different ways of updating records and communicating with other practice staff. Currently there is not a support system set in place that everyone working at the practice follows.
<b>Administrative Buy-In</b>	1	There are few resources dedicated to this project.	4	Practice recently hired a data manager who is responsible for cleaning and maintaining the medical records at this practice. Additionally since this practice was absorbed by a university hospital, the newly hired data coordinator attends monthly meetings where practice requirements/goals are discussed. Currently these are outside the scope of the UNYTE project, but it shows the capacity to continue quality improvement at this practice.
<b>Network Info. Systems</b>	2	The practice is able to generate patient registries but it is not clear how frequently this is used.	4	With the new data manager, the practice is quick to generate registries and has a good idea of where their numbers should generally be. There were no issues for this practice generating screening rates for this project.
<b>Site Coordinator</b>	1	No site coordinator was identified at the beginning of this project year, this role was being handed off from the previous site coordinator.	2	Site coordinator has been identified for this project. I have not had enough time to work with the site coordinator to determine their level of involvement in this project. The site coordinator was prompt and accurate in the completion of the data pull forms.
<b>Local Clinician Champion</b>	1	No clinician champion has been identified for this project.	1	No local clinician champion has been identified for this practice.
<b>Audit and Feedback</b>	1	I am not aware of cancer screening audits performed at this practice.	3	The university hospital's data coordinating department disseminates information to the practice about their cancer screening rates and areas to focus on improving.
<b>Team Approach</b>	1	No teams have been formed for quality improvement on this project.	3	The practice recently hired a data manager who is responsible for quality improvement efforts at the practice. The data manager is still getting adjusted to the practice, it isn't clear how many other staff members are involved in quality

			improvement or if more staff will be added to this team.	
<b>Education</b>	1	Not aware of any cancer screening training or education available at this practice.	1	Not aware of education opportunities that are available for clinicians or staff at this practice.
<b>TOTAL TRANSLATE</b>	<b>15</b>		<b>29</b>	
<b>Client Reminders</b>	1	The site contact did not say there is a system set up in place to use client reminders.	1	Not aware of client reminders used at this practice.
<b>Small Media</b>	1	Not aware of small media used at the practice to motivate and/or educate patients.	2	Some of the doctors hand out educational material to their patients, but they are focused in areas the provider deem important and don't cover every type of cancer screening.
<b>One-on-One Education</b>	1	Site contact did not mention whether the practice is involved in one-on-one education.	2	I am only aware of physicians at the practice educating patients on cancer screening.
<b>Structural Barriers</b>	2	Practice has used mammography bus in the past, but the bus has not returned to this practice in a while.	2	This practice has used the mammography bus in the past but I am not aware of any other efforts to reduce structural barriers.
<b>TOTAL EBI</b>	<b>5</b>		<b>7</b>	

PRACTICE: P5				
RUBRIC ELEMENT	PRE-SCORE	PRE-COMMENTARY	POST-SCORE	POST-COMMENTARY
<b>Target</b>	2	Practice has a clear idea of possible problem areas, but is waiting for the data pull to set specific targets. The problem areas identified are mammography and pap smears. The practice is actively working to increase breast cancer screening rates by starting to use Patient Voices to increase appointments for the mammo bus. For Paps, the practice wants to establish if the low screening rate is due to a data issue (lack of results received since the majority of exams are done by outside ob/gyn providers) or a compliance issue. They also want to subdivide the pap screening data into <35yo and >35yo. This practice does not see compliance problems with colorectal screening. They have made a big push for FIT tests, keeping two in every exam room, and estimate a 50% return rate (but have not yet measured this). Also noted that patients seem to overcome transportation barriers to a colonoscopy after receiving a positive result on their FIT test.	4	Practice tracks numbers closely, and has clear implementation plans to continue improving.
<b>Reminders</b>	3	Patients who are due for a screening are verbally reminded by champion each time she sees them at the practice. Front office staff are also tasked with verbally reminding patients and offering to set up a screening appointment, but it is unclear how well the real workflow fits this ideal in a busy office. There is also inconsistency in patient reminders since not all providers (including residents) necessarily make the same effort at reminding patients about screenings as champion.	3	There is a workflow, but it is not routinely monitored for consistency. Champion reminds other providers and office staff of workflow, but there is inconsistency.
<b>Administrative Buy-In</b>	4	There is strong administrative buy-in. Champion is also the site coordinator, and is very invested in this project.	4	Strong administrative buy-in. Same person is both the champion and site coordinator, and is very invested in this project. She is able to provide resources and allocate personnel to help support this project. In fact, she took the time to pursue a new intervention (paying staff to clean up EHR on off hours) despite roadblocks, working with university

				system admin and their lawyers to figure out a worker's comp issue.
<b>Network Info. Systems</b>	4	The practice regularly uses their EHRs to generate registries and has confidence in their records keeping. There is a dedicated medical records staff member whose job it is to follow up on screening results to keep the records up-to-date. The records of patients who are due for a screening are flagged red. Further, champion is also making a concerted effort to track down the specific records for patients' previous screenings, and to separate out the records of patients who do not require a particular screening (e.g. no colon, no cervix, double mastectomy). Additionally, unlike other practices the EHR has created fields for CRC, Mammo, and FIT testing, making pulling screening numbers much easier and more accurate.	4	Practice generates registries regularly and has a defined workflow, but has realized that the EHRs still need a lot of cleaning up. This year of the project, they cleaned up the cervical records and saw their rates nearly double. Still need to work on CRC. Champion estimates that nearly 10% of their listed patients are not active (haven't come to practice in over 3 years), and this is skewing their screening rates. She hopes to tackle this in the future.
<b>Site Coordinator</b>	3	Site coordinator regularly communicates with the PFs. She is strongly invested in the project and appears to make time for its activities. However, as a clinician and an administrator it is unclear how much dedicated time she will realistically have available.	4	Champion is the site coordinator and regularly communicates with the PFs. She is strongly invested and makes time for its activities.
<b>Local Clinician Champion</b>	4	Site coordinator is also the clinician champion. She is very enthusiastic in her support of peer-to-peer education and QI activities, and appears to make time for these to happen regularly. She has done several academic detailing sessions for her practice (all levels, from providers to front office staff), including one where she provided her staff with lunch while they all watched a documentary about HPV that highlighted the importance of cervical cancer screening.	4	Same person is also the clinician champion. She is very supportive of QI and education.
<b>Audit and Feedback</b>	4	Here, champion also appears to be invaluable. She makes a concerted effort to inform all levels of the practice how they are performing, and has established a tiered-incentive program to reward increased screening rates. The downside is that this emphasis on feedback is unlikely to be sustained if champion were to leave the practice.	4	Champion makes a concerted effort to inform all levels of the practice how they are performing, and has established a tiered-incentive program to reward increased screening rates. However, she still has some difficulty with providers and staff incorporating the feedback to make changes.
<b>Team Approach</b>	1	There does not appear to be a formal team for this project. The site	1	There is not a formal team for this project. Champion allocates staff who

		coordinator appears to make QI decisions from a top-down approach, but with possible input from multiple levels of staff at an informal level.		records in their own time, but it is a top-down approach.
<b>Education</b>	4	The practice values CME for all levels of staff, and is interested in CME training through this project.	4	Practice supports education and provides opportunity across all levels of staff.
<b>TOTAL TRANSLATE</b>	<b>41</b>		<b>45</b>	
<b>Client Reminders</b>	3	The practice primarily relies on verbal reminders and assistance scheduling when patients are on site. They do not regularly call, write, or email patients as they have found these to be less effective than face-to-face reminders.	3	The practice primarily relies on verbal reminders and assistance scheduling when patients are on site. They are also instituting a new policy of sending a letter to patients due for a mammogram, informing them of the mammo bus and what dates it will be at the practice.
<b>Small Media</b>	3	The mammo bus flyer and screening schedule is prominently displayed in the waiting room, but it is unclear if there are also small media for pap and colorectal screenings.	4	The mammo bus flyer and screening schedule is prominently displayed in the waiting room. The tv also airs information about health and screenings, including spots by Patient Voices members.
<b>One-on-One Education</b>	2	It appears that most patient education occurs during a visit with a provider, such as explaining the pros and cons of a FIT test vs. a colonoscopy. The practice does have models for patient education, but reports using them infrequently and then usually with teenage patients.	2	Most patient education occurs during a visit with a provider.
<b>Structural Barriers</b>	4	The practice started using the mammo bus six months ago, which has decreased transportation barriers for patients. The practice is just starting to work with Patient Voices to provide scheduling assistance for the mammo bus, too, while the practice provides food and flyers during the mammo bus day to educate/occupy family members while a patient is being screened. Further, front desk staff provide scheduling assistance for all three cancer screenings when patients are at the clinic. As for transportation, clinic experimented in the past with buying 24-hour bus passes. Patients would receive the pass for a mammo or colonoscopy appointment, as well as information about the nearest bus stop to the screening site. Afterwards, patients were to provide evidence of attending their screening. However, only 1 pass was used out of the 100 they purchased.	4	The practice uses the mammo bus , which has decreased transportation barriers for patients. They are working with Patient Voices to provide scheduling assistance for the mammo bus, and will start sending out letters announcing the bus screening dates to eligible patients. Front desk staff provide scheduling assistance for all three cancer screenings when patients are at the clinic.
<b>TOTAL EBI</b>	<b>12</b>		<b>13</b>	

PRACTICE: P6				
RUBRIC ELEMENT	PRE-SCORE	PRE-COMMENTARY	POST-SCORE	POST-COMMENTARY
Target	4	Although this practice has a patient population that is difficult to work with, they have a good idea of how to improve cancer screening at their practice. They have clear goals and interventions to achieve these goals.	3	Practice works with a unique population of transient patients. They want to focus on increasing the use of FIT kits because this patient population is difficult to refer for colonoscopies. They do not have a clear goal of how they want to improve the use and return of FIT kits at this practice.
Reminders	2	Currently there are clinical reminders for providers that are available through CareConnect (Their EHR). These are sometimes used for health maintenance reminders but are not currently used for cancer-screening. Based on the discussion at the kickoff meeting, it seems unlikely that provider reminders will be improved in the EHR. Instead they would like to manually flag patient files or practice schedules to remind providers to speak about cancer screening.	2	There are clinical reminders for providers that are available through CareConnect. They are not currently being used for cancer screening. Many of the providers at this practice feel the EHR is already cluttered and adding reminders to discuss cancer screening would only make it worse. A few of the providers I spoke to said that they will manually add reminders for themselves, but this does not seem common.
Administrative Buy-In	2	The practice team is enthusiastic about improving cancer screening at their practice. The staff at this practice is very limited in the amount of extra responsibility they can handle. The practice is hiring a new medical secretary that they believe will have time to improve registry use and staff reminders. It does not seem likely that the providers will have time beyond following new workflow to dedicate to this project.	2	Resources at this practice are limited due to the number of staff available and the time they have to dedicate to this project. Additionally, communication with our site contact has been extremely difficult, and the messages do not make it to the staff working at this practice. Progress this year has been difficult - if not impossible due to these challenges.
Network Info. Systems	3	The practice has generated registries for PAP in the past, which they found was an effective method to screen more women for cervical cancer. It did not seem as if this was routine because they only mentioned one or two examples. However, with the hiring of a new medical secretary, the providers believe this could be incorporated in practice workflow.	2	This practice rarely generates registries and does not consistently track their screening numbers. There was confusion when the practice was asked to produce screening numbers for the project, showing that this is not done frequently.
Site Coordinator	2	Practice manager has loosely been defined as the site coordinator for this project. He is very busy at the practice so he will probably not have time to commit to this project.	2	Our site coordinator has not been involved in the project this year due to other responsibilities. Much of our communication this year was surrounding the paperwork and deadlines with the project because it was so infrequent. We were not able to implement any of the interventions we discussed because we did not find time to work on them together.



<b>Local Clinician Champion</b>	1	No local clinician champion is identified for this practice.	1	No local clinician champion has been identified for this practice.
<b>Audit and Feedback</b>	2	The practice staff told me that they have run screening rates in the past to see how the practice is doing in screening for breast, CRC, and cervical cancer. The staff explained that these numbers were not run frequently so it does not seem that they are using this on a regular basis.	2	The staff told me that they do not frequently audit or monitor their cancer screening rates. Part of this is due to the fact that their patient population changes significantly from year to year since many of them are homeless.
<b>Team Approach</b>	1	The practice does not have resources for a quality improvement team. The providers and staff at this practice try to improve EHR use and workflow within the practice but it is usually limited. Additionally, any changes the providers or staff make are usually focused on their own workflow, not on a practice level scale.	1	There are no QI teams formed for this project or in any capacity at this practice. During the academic detailing session, some of the providers mentioned they try to clean up EHR reminders in their system but there is no designated workflow for this.
<b>Education</b>	2	Practice manager stated that academic detailing has been used in the past as a part of the UNYTE project to update practice staff on best cancer-screening practices. However, this has not been done in a few years and there have been no other attempts for educating staff. Practice manager and his team said they would be interested in another academic detailing session.	2	As part of this project year, a speaker from American Cancer Services spoke at the practice to discuss updated screening guidelines. Part of the presentation also covered implementation of FIT testing - a testing module this practice does not utilize effectively. This academic session was effective, but currently there are not any others scheduled through this project.
<b>TOTAL TRANSLATE</b>	<b>28</b>		<b>25</b>	
<b>Client Reminders</b>	3	This practice does not use email or mailings because they are ineffective for their patient population. They do have a "text-blast" system that patients can sign up for. This system texts patients for appointment reminders, however, this is only for their patients with activated cell-phones.	3	Patients who have working cell phones and sign up for the system will receive text messages regarding their appointments and results from this practice. The staff at this practice wanted to emphasize this system and get more patients to sign up but I have not heard any updates on whether that has happened.
<b>Small Media</b>	2	I did not get to see in the exam rooms of the practice but I did not see much educational material in the waiting room. Educational material may not be as effective for this population since there are varying levels of literacy. Providers also said that patients often throw away paperwork since they don't have a place to keep it.	1	Currently there is no use of small media at this practice. ACS speaker and I are working on implementing a small handout card for providers to give to patients that has information on FIT kits. The staff at the practice finds that educational material is usually left behind by patients.
<b>One-on-One Education</b>	2	Beyond the practice staff there is nobody working at the practice who is hired to educate patients. The providers told me that they have some patient navigators who visit shelters but it was not clear if it was for educational purposes. One of the interventions the practice staff would like to try is having	2	Beyond practice staff there are no patient educators or navigators working at this practice. The practice had planned to have practice staff use navigation within the practice waiting room to help patients understand results, but at our last meeting, I did not receive updates on this.

	a patient navigator walk around the practice to speak to patients (signing up for text blast system).	
<b>Structural Barriers</b>	<p>2</p> <p>Currently, the only reduction in structural barriers for cancer screening at this practice is the use of FIT kits. The practice would like to further reduce structural barriers with help from the UNYTE project. One way they would like to do this is with the mammography coach. Additionally, the practice has a hired driver that they would like to have pick up FIT kits from shelters. The practice staff believes that giving patients a deadline to complete the FIT test, and removing the task of mailing the kit, will increase screening rates.</p>	<p>2</p> <p>There have been no changes in reduction of structural barriers at this practice since the beginning of the project year. The practice is still trying to increase their use of FIT kits because this patient population is difficult to schedule for colonoscopies. During the academic session, which was focused on FIT implementation, it sounded like most of the providers were still struggling with getting patients to complete FIT kits.</p>
<b>TOTAL EBI</b>	<b>9</b>	<b>8</b>

PRACTICE: P7				
RUBRIC ELEMENT	PRE-SCORE	PRE-COMMENTARY	POST-SCORE	POST-COMMENTARY
<b>Target</b>	4	This practice has a good idea of where it can improve its workflow to increase cancer screening thanks to the staff at the practice. Champion has been working on this project since the beginning so she has a good idea of where improvements can be made. She also supports the PDSA cycles idea and many of her ideas are easy to implement with the PDSA.	4	The staff are well aware of areas for improvement in regards to cancer screening at their practice. The biggest area the staff would like to focus on is improving screening for CRC with colonoscopy and FIT testing.
<b>Reminders</b>	3	The staff at the practice said that patients are reminded about screening every time they come to the practice if they are not on schedule. I think that these reminders come through EPIC as a flag to providers to discuss screening with patients. The providers at this practice seem to follow these reminders closely.	3	Patients are flagged on the EHR when they are behind or have missed a screening appointment. The staff at the practice said they are good about working with patients who are behind on screening appointments. The staff said they follow these reminders closely when they can but time is a large constraint for this practice and its staff.
<b>Administrative Buy-In</b>	3	Champion and site coordinator both seem excited and dedicated to the project. Most of the staff seem interested in the project but may not have time or the resources to dedicate to this project. Champion seems confident that she can work with the team to make improvements in workflow within the practice.	2	The staff contact at this practice is the only person I have spoken to who seems to have the authority to delegate tasks and responsibility to the staff. She has been extremely difficult to get in contact with, and because of that, progress has been slow. We have not been able to discuss intervention ideas that the other practice staff seemed excited about because it takes too long running things by her. There is currently no other point person to discuss the project with at this practice.
<b>Network Info. Systems</b>	3	Practice uses the EPIC EHR. It seems like the practice does a good job of utilizing the EHR to keep patient records updated. Additionally, the practice does a good job of tracking referrals when patients are sent to other locations to have imaging done. The one weak spot that I learned from the meeting is the connection between having the provider refer a PT for screening and the screening appointment actually being scheduled. This problem was due to not having enough time for the front office staff to schedule the appointments. Champion said that they just hired more staff members and this should no longer be a problem.	3	Site uses EPIC to keep patient records updated and to use registries for tracking. One way the practice would like to improve the use of their registry is to improve FIT tracking.
<b>Site Coordinator</b>	3	Site coordinator is for both this practice and another enrolled practice so her time is very limited. It may be challenging to rely on her to implement interventions in both these practices because she is difficult to connect with	2	Over the course of the project year, the site coordinator's time has become more limited due to responsibilities outside of this project. This has made progress difficult because nobody else at the practice has been willing/identified to

		due to other responsibilities. Champion will be a good contact to have because despite her responsibilities as a provider she seems dedicated to making improvements in the practice.		work on the project. Our site contact is very invested in the project but does not have enough time to dedicate to the project in a meaningful way.
<b>Local Clinician Champion</b>	3	Seems like this provider will be the local clinician champion at this practice although this was not explicitly stated. I am not sure how much time she will have to work with us on this project but she seems fully supportive of making changes at the practice to increase cancer screening.	1	No local clinician champion has been identified for this project. Some of the providers at this practice are very interested in the project but none have stepped up in a larger role. Additionally, our site contact does not want us to communicate through anyone else at the practice because she feels it will just have to come back through them, which will waste time.
<b>Audit and Feedback</b>	2	The practice tracks screening rates for FIT tests based on how many were given out and returned but when I asked about specific numbers the staff wasn't sure. The practice also monitors other screening rates but they refer all their patients so it is unclear how accurate these rates are.	2	This practice does not regularly monitor their screening numbers or set target numbers for screening. Earlier in the year they had planned on improving their FIT tracking but I have not received any updates on this.
<b>Team Approach</b>	1	There are no QI teams dedicated to this project and it does not look like this practice has a QI team in general.	1	There are no QI teams that are working on this project.
<b>Education</b>	2	Practice did not mention any academic detailing sessions or staff education practices. Site coordinator said she would be interested in hosting an academic detailing session where staff was provided lunch or dinner but unclear if this would actually happen.	2	Educational opportunities are not frequently offered for the staff working at this practice. During this project year we tried to set up an academic detailing session for the providers at this practice but it was never set up. It was too challenging to schedule the session with the providers schedules and our site contact's limited availability.
<b>TOTAL TRANSLATE</b>	<b>31</b>		<b>27</b>	
<b>Client Reminders</b>	1	The only patient reminders that I saw at the practice were verbal reminders from providers and staff. The staff and an ACS speaker brought up the point that FIT kits are required yearly and the practice is missing patients who are due to be screened again. If a reminder system could be set up in EHR to rescreen patients with FIT testing it could greatly increase screening rates and consistency.	2	The practice wanted to improve reminders to providers and staff for patients who need to be screened for cancer. There are no EHR reminders that are used consistently at this practice. The front office staff will call patients to remind them of their appointments but that is the extent of their reminder system - it is less consistent during busier times of the year.
<b>Small Media</b>	2	Practice just removed all educational material from its exam rooms because much of it was outdated. The waiting room has some educational material but none of it is related to cancer screening. Champion said she is very interested in incorporating educational material in the exam rooms because she has found it to	1	At the beginning of the project year we discussed adding new educational material to the waiting room and exam rooms at this practice. Educational materials for colorectal and breast cancer were sent over in the beginning of the year but were never added into the practice. Additionally we discussed using FIT educational material because practice

	be very effective in facilitating conversations with patients.	staff complained about low return rate on the kits.
<b>One-on-One Education</b>	<p>Champion said that she and the other providers try to educate patients on health issues in the exam rooms but it is not specific to cancer screening. She also stated that she often does not have enough time to cover the topics that are necessary for the patient so fitting in cancer screening would be difficult. One of the solutions she thought of was having educational material for the patients so they can take it home with them, and if they have a quick question after reading the brochures she can answer it vs. covering the entire topic.</p>	<p>The providers and nurses answer questions that patients have while they are at the practice for an appointment. However, many of these patients have multiple comorbidities and cancer screening is often not addressed with the other concerns that need to be discussed. We are working on implementing some reading material that patients can use to create a more targeted discussion with providers that allows more topics to be covered in the short amount of time they have in the exam room.</p>
<b>Structural Barriers</b>	<p>Currently the staff are trying to refer more of their patients for mammography screening to a clinic with walk in appointments, which is more convenient for their patients. The other way this practice wants to reduce transportation barriers is by incorporating the mammography bus into its services, which will be available this June. I put the site coordinator in contact with the coordinator for the bus so they can set up dates that will work for the practice.</p>	<p>Site still sends patients for mammograms to clinic with walk-in appointments and extended hours. Most of their cervical cancer screening is taken care of at other practices through an OB/GYN. Implementing greater use of FIT kits is a goal of this practice that would allow more patients to be screened. Work is continuing to have the mammography bus visit this practice, but it has been pushed back to August due to setbacks.</p>
<b>TOTAL EBI</b>	<b>7</b>	<b>7</b>

PRACTICE: P8				
RUBRIC ELEMENT	PRE-SCORE	PRE-COMMENTARY	POST-SCORE	POST-COMMENTARY
<b>Target</b>	3	Practice would like to focus on increasing mammography and CRC screening numbers. Cervical screening rates at this practice are low because many of their patients have an OBGYN that provides PAP screens. Practice staff seems conflicted in how they want to achieve their goal of increasing screening rates. Additionally, staff is frustrated at past efforts in this project and would like to refocus on evidence-based methods that have been proven to work in the past. They would also like a clear definition of what they can and cannot spend the stipend on for this project.	3	Practice has the same goals as when this project year began, which is increasing mammography and FIT/colonoscopy numbers. They have a plan to increase mammography numbers by utilizing the Rochester mammography coach. They would also like to have paid postage for FIT kits, which should increase the number of patients who use this screening method.
<b>Reminders</b>	4	Doctors at this clinic are up to date on patient screening requirements based on EHR reminders. From these reminders they schedule patients for screening appointments through referrals. Patients will get reminders from providers every time they attend the practice and have yet to be screened.	4	Reminders are used frequently at this practice by both providers and office staff. There are multiple points where patients are reminded to schedule appointments or follow up on results.
<b>Administrative Buy-In</b>	4	Site coordinator and team are willing to dedicate resources to this project. Front office staff has said they would be willing to stay after regular office hours or on weekends to do additional outreach. The staff at this practice are aware of the project and understands the importance of increasing cancer screening in this population. The site coordinator has made it very clear that there should be no additional burden to the staff unless the intervention is well designed and will have a high chance of increasing screening numbers due to competing demands.	3	This practice is one of many that has been absorbed by a large health system. This system has many initiatives to improve their patients' health, which also means improving cancer screening. However, there are still many new regulations/rules that practices must adjust to, which is slowing progress on the UNYTE project. New administration should improve cancer screening at all the system's practices, although that may take time to see.
<b>Network Info. Systems</b>	4	Practice has a registry that is generated on a regular basis. This registry is used to flag patients who are behind on screening so front office staff can conduct outreach calls and mailings. The EHR is also updated with results from referral screenings that take place at other locations.	3	Practice has a registry that is generated so that providers and office staff are aware of who needs screening. I have not seen the registry used to improve cancer screening. At our kickoff meeting, the site contact mentioned that a newly hired medical secretary would take more responsibility in utilizing the registry, but I have also not heard any updates on that.
<b>Site Coordinator</b>	2	The site coordinator is continuing the position from the following year. The difference this year is that the site coordinator for this practice is also now site coordinator for another enrolled practice. The demands for both clinics seems high so time available for the project may be more limited. There will	2	Site coordinator is extremely busy due to the responsibility of managing two practices. Throughout the course of this project year the site coordinator has been very difficult to get in contact with, and often is frustrated with the work that is also involved through this project. Communication is difficult because of the

		not be a new hiring for an additional coordinator at the other practice. It may be easier to coordinator efforts between the two clinics since the coordinator will be familiar with the project and my own efforts.		schedule demands from both practices, which means we can only discuss one project idea before things become too overwhelming. Paperwork has bogged down the process of implementing new practices because it takes away from the focus of our meetings/discussions.
<b>Local Clinician Champion</b>	1	No local clinician champion is identified for this project. Neither of the providers I met with today seem interested or have time to commit to this project.	1	There is no local clinician champion at this practice, additionally I have had no contact/input at this practice from any of its providers since the kickoff meeting.
<b>Audit and Feedback</b>	2	Practice performs regular checks of the registry but not clear whether or not they are reviewing increases/decreases in screening rates. Additionally, it is not clear if screening rates are being compared on a year to year basis. The site coordinator has kept the screening numbers from our project last year, but it does not seem as if they are being used to dictate practice changes.	1	I don't believe that the practice is currently performing cancer screening audits at any level. When screening rates were pulled for data collection, the wrong numbers were pulled and staff were unfamiliar with the process. Part of this issue may be that this practice was absorbed by a health system and IT departments have changed.
<b>Team Approach</b>	1	There is not a quality improvement team that is specified for this project. The practice has a person who works closely with the EHR to pull data and registries but it doesn't seem like they are responsible for improving the system.	1	There are no teams at this practice that work with QI.
<b>Education</b>	2	This practice has had academic detailing sessions before with lunch provided but it is not clear if those happen regularly or when the last session was.	2	There are no open opportunities for practice staff to receive education. The academic detailing sessions that were set up through this project did offer a session for practice staff to learn about updated screening guidelines.
<b>TOTAL TRANSLATE</b>	<b>32</b>		<b>30</b>	
<b>Client Reminders</b>	4	Practice makes a large effort at patient outreach both in practice and through calls/mailings. Patients are called by front office staff to schedule mammography and colonoscopies. Patients are also mailed reminders for appointments once the screening has been scheduled. Providers will also speak to patients while they are at the practice for appointments and speak to them about having up-to-date screening.	4	The practice makes a good effort at reaching out to patients through mailings and phone calls. They practice also has front office staff call patients prior to their scheduled screening to make sure that they are still going to their appointment.
<b>Small Media</b>	2	There are some brochures and posters around the practice and waiting room. Many of the educational materials are not related to the cancers or screening modalities we are concerned with. The practice is interested in increasing the education material available to patients while they wait to see a provider. Another idea that was brought up in the meeting was having videos play for patients while they are waiting in the	2	Site has posters located around the practice related to health education, but there are not many related to cancer screening. Additionally, there are no brochures or handouts to hand out to patients. Lastly, the TVs in the waiting room play daytime TV when they could be utilized to show educational videos.

		exam room between seeing the nurse and the provider.		
<b>One-on-One Education</b>	1	Currently the only one-on-one education is through the provider and nurses at this practice. The site coordinator and staff did not seem as if they believed additional materials would be helpful in their situation.	2	Providers and nurses provide education to patients regarding cancer screening if the patients express interest or have questions. The staff have some handouts for FIT kits that they can give to patients to help explain the screening method, but it isn't clear how often these are used.
<b>Structural Barriers</b>	2	Currently there are no consistent efforts to reduce structural barriers at this practice. A mammography bus was used at this practice in the past and they are very interested in utilizing that resource again. Discussion regarding use of bus passes or trying to connect patients with some type of transportation for screening. The front office staff/care manager helps patient schedule their appointments for screening procedures but there is no guarantee that they will attend their appointment.	2	Practice still offers minor help to patients in reducing structural barriers such as scheduling assistance. The practice is still working with the mammography bus, however unexpected delays have pushed back the planned screening days. The goal of the mammography bus is to set up monthly screening days for patients, but this process will not begin until August at the earliest.
<b>TOTAL EBI</b>	<b>9</b>		<b>10</b>	



PRACTICE: P9				
RUBRIC ELEMENT	PRE-SCORE	PRE-COMMENTARY	POST-SCORE	POST-COMMENTARY
Target	4	Their targets are clean and attainable. They have seen progress growth over the years and leadership is highly engaged in setting these targets.	4	They continue to stay focused on their targets and leadership is highly engaged in reaching these goals.
Reminders	3	Clinical decisions available but providers don't always use them. It is not monitored for consistency, but worked during this phase to improve utilization.	3	Clinical decisions available but providers don't always use them. It is not monitored for consistency, but worked during this phase to improve utilization.
Administrative Buy-In	3	QI team is well resourced and has been given time to improve screening rates, specifically CRC. Still struggle to get providers fully engaged, but leadership is highly engaged and supportive of the work.	3	QI team is well resourced and has been given time to improve screening rates, specifically CRC. Still struggle to get providers fully engaged, but leadership is highly engaged and supportive of the work.
Network Info. Systems	3	Practice registry is strong and significant resources are allocated to updated and cleaning data.	2	A decision has been made to change vendors so progress has slowed some as they find the right one. Considering CPCI among others.
Site Coordinator	3	Strong site coordinator who continues to grown into the leadership role and building a strong team. So when time is limited he is able to allocate work to other team members. Growth of the care coordination team is helping this.	3	Strong site coordinator who continues to grown into the leadership role and building a strong team. So when time is limited he is able to allocate work to other team members. Growth of the care coordination team is helping this.
Local Clinician Champion	2	Very minimal engagement with clinical leadership during this phase, only the QI team.	2	Very minimal engagement with clinical leadership during this phase, only the QI team.
Audit and Feedback	4	Information disseminated monthly and goals/targets are often updated.	4	Information disseminated monthly and goals/targets are often updated.
Team Approach	3	Strong team, but again clinical champions not often engaged just QI team, nursing increasingly engaged and now have 2 care coordinators just for screening improvement.	3	Strong team, but again clinical champions not often engaged just QI team, nursing increasingly engaged and now have 2 care coordinators just for screening improvement
Education	1	Has not occurred since the last training we did.	1	Has not occurred since the last training we did.
<b>TOTAL TRANSLATE</b>	<b>36</b>		<b>35</b>	
Client Reminders	4	Client reminder system very strong and at a point where FIT kids are automatically being mailed to those who completed last year. Telephone, email, letter, and portal communication also exists.	4	Client reminder system very strong and at a point where FIT kids are automatically being mailed to those who completed last year. Telephone, email, letter, and portal communication also exists.
Small Media	2	Used occasionally and comes from ACS.	2	Used occasionally and comes from ACS.
One-on-One Education	2	Happening by the care coordinators but not primarily by the physicians and nurses.	2	Happening by the care coordinators but not primarily by the physicians and nurses.

<b>Structural Barriers</b>	2	Losing momentum here but continue to try and connect patients with on-site mammo. Struggle to connect with Cancer Services after staff transition there.	2	Cannot currently partner with mobile mammo bus, continue to be losing momentum here but continue to try and connect patients with on-site mammo. Struggle to connect with Cancer Services after staff transition there.
<b>TOTAL EBI</b>	<b>10</b>		<b>10</b>	

PRACTICE: P10				
RUBRIC ELEMENT	PRE-SCORE	PRE-COMMENTARY	POST-SCORE	POST-COMMENTARY
Target	2	Struggles with EPIC and the way the data is pull has caused some skepticism in the data pull. Targets set but concern about if the data is accurate.	2	Struggles with EPIC and the way the data is pull has caused some skepticism in the data pull. Targets set but concern about if the data is accurate.
Reminders	3	The practice has a pop-up reminder (HM) as well as a care coordination note that appears on every patient chart. The HM is unreliable and hard to adjust for individual patient needs, but definitely improved across the project period. The care coordination note has been instituted to note when patients have/are due for breast, cervical and CRC screening, but is written by the care coordinator team and does not appear for every patient yet. Practice policy is for the care coordinator note to list if patient has been screened and when next recommended screening is due, but leave it up to provider to place new referrals. Also practice policy for all outside records to be scanned into chart to map to HM fields; this continues to be inconsistently performed.	2	Clinical reminders exist but are often ignored or shut off by providers.
Administrative Buy-In	2	Administration unable to allocate much time due to increased responsibilities and organizational and staffing changes. Some concern about ability to continue now that the once private site is now affiliated with the hospital.	2	Administration unable to allocate much time due to increased responsibilities and organizational and staffing changes. Some concern about ability to continue now that the once private site is now affiliated with the hospital.
Network Info. Systems	3	Practice has PCMH reports and uses registry often.	3	Practice has PCMH reports and uses registry often.
Site Coordinator	3	Site coordinator is committed and responsive. Also working to build a team to continue to engage in this work.	3	Site coordinator is committed and responsive. Has engaged others within the organization and a strong new team is developing.
Local Clinician Champion	2	Clinical champion less engaged at this point.	2	Clinical champion less engaged at this point.
Audit and Feedback	3	Routine audits lead to nursing follow up to get colorectal and pap results.	3	Routine audits lead to nursing follow up to get colorectal and pap results
Team Approach	3	Great team, although moved building and split to 2 floors has compromised this a bit.	3	Great team, although moved building and split to 2 floors has compromised this a bit. This has become further complicated by the breaking of the practice into two distinct practices at two different sites. Has just occurred so the impact is unknown at this point.
Education	2	Practice tries to include educational information during regularly scheduled provider meetings, but it is done inconsistently. There is no push for CME-credited education within the practice	1	No education has occurred in the last 6 or more months.

		that I am aware of. The practice does recognize that they need to provide more training for nurses and providers in order to achieve their PDSAs on data entry workflows.	
<b>TOTAL TRANSLATE</b>	<b>31</b>		<b>29</b>
<b>Client Reminders</b>	2	Reminder system available, and reminders happening through portal but this has fallen off the priority list.	2
<b>Small Media</b>	2	A small amount of small media is available but used infrequently.	2
<b>One-on-One Education</b>	2	Some providers actively engage in one on one education while others are not participating well.	2
<b>Structural Barriers</b>	2	Little being done to reduce structural barriers.	2
<b>TOTAL EBI</b>	<b>8</b>		<b>8</b>

PRACTICE: P11				
RUBRIC ELEMENT	PRE-SCORE	PRE-COMMENTARY	POST-SCORE	POST-COMMENTARY
Target	1	Team does not set targets, they are unable to review measures easily or often.	1	Team does not set targets, they are unable to review measures easily or often.
Reminders	2	Reminder system build during previous work has fallen apart and many providers now turn it off.	2	Reminder system build during previous work has fallen apart and many providers now turn it off.
Administrative Buy-In	1	Medical director is willing to participate but no other staff.	1	Medical director is willing to participate but no other staff.
Network Info. Systems	2	Registry built during the last phase, but done with the aid of a student, now that they are gone there is no on-going support.	2	Registry built during the last phase, but done with the aid of a student, now that they are gone there is no on-going support.
Site Coordinator	2	Site coordinator changed and is now the same as the leadership - this makes time difficult. Student engaged but they have limited pull in the organizations.	2	Site coordinator was even more difficult to reach than is typical.
Local Clinician Champion	3	Strong clinical champion - who is also leadership but other clinicians are less engaged.	1	The previous clinical champion could not dedicate much of any time to the work this phase and participated very sporadically.
Audit and Feedback	1	Practice never reviews data, cannot pull their own data routinely and must hire someone to do it every time they need to look at their data.	1	Practice never reviews data, cannot pull their own data routinely and must hire someone to do it every time they need to look at their data.
Team Approach	1	There is no team just clinical lead and student.	1	There is no team just clinical lead and student.
Education	2	Training provided to staff but is not incorporated routinely.	2	Training provided to staff but is not incorporated routinely.
<b>TOTAL TRANSLATE</b>	<b>20</b>		<b>18</b>	
Client Reminders	1	Previous attempts to build client reminders no longer exist.	1	Previous attempts to build client reminders no longer exist.
Small Media	1	Providers are not using any small media, and are often not (or not documenting) any conversations around screening.	1	Providers are not using any small media, and are often not (or not documenting) any conversations around screening.
One-on-One Education	2	Again conversations are not routinely documented and happen sporadically.	2	Again conversations are not routinely documented and happen sporadically.
Structural Barriers	1	No effort here.	1	No effort here.
<b>TOTAL EBI</b>	<b>5</b>		<b>5</b>	

PRACTICE: P12				
RUBRIC ELEMENT	PRE-SCORE	PRE-COMMENTARY	POST-SCORE	POST-COMMENTARY
<b>Target</b>	4	The staff at this practice are aware of where they need to make improvements. They have a clear goal of improving CRC screening rates in this population. They are also aware of the population they are working with and the difficulties in increasing cancer screening in these patients. During our meeting we discussed feasible ways to increase CRC screening at this practice. Brandi told us during our meeting that she found through the data pull that only 11% of their population is over the age of 50, which provides a unique challenge for this practice.	4	Site is aware of the challenges they face in screening a patient population that has cultural/language differences. Another challenge this practice faces is that their population is young so targeting patients for cancer screening is more difficult. The practice identified CRC screening as their highest need; they have a walk-in mammography clinic on their campus so that is not as much of a concern to them. .
<b>Reminders</b>	3	During our meeting the staff discussed their current use of EHR reminders. Currently they are used for other routine testing and occasionally for cancer screening reminders. The staff would like to improve their use of reminders for cancer screening, especially for FIT testing and plan to discuss this with the team responsible for EHR maintenance.	3	EHR reminders are used to improve screening rates at the practice. At the beginning of the project year, the staff felt that they wanted to improve reminders for providers. The last update I received from the practice was that they were working on cleaning up their EHR to improve the accuracy of reminders. .
<b>Administrative Buy-In</b>	4	This practice is enthusiastic about increasing their cancer screening rates. Although implementing these changes can be time-consuming at first they realize that it is still important. During the meeting the practice staff had good discussion regarding the division of labor and realizing the time commitments of the providers, but also agreeing to work on a plan.	2	The practice was very enthusiastic about working on the project for another year at the kick-off meeting, but was difficult to reach. The practice also had a change in the site contact, which disrupted the project for a few weeks. Materials were sent over at the beginning of the project year for patient education but no feedback was given. Staff time was very limited on this project.
<b>Network Info. Systems</b>	3	There is an established workflow between the providers and front desk staff in utilizing the EHR system to track and remind patients for screening. With the additional hire of new staff the team at this practice believes that this workflow can be improved and become more efficient. As mentioned earlier, they want to improve the reminder system. One of the providers mentioned that he would like to print the schedules for all the patients that will be seen the following day, and mark the ones who are behind on screening measures.	3	The system is set up for communication between the front office staff and the providers at this practice. The practice planned to hire new staff at the beginning of the project year, which they believed would help make this process more efficient. The practice has not given any updates on these hires, but as mentioned earlier they have taken efforts to clean up their EHR, which should help their scheduling process.
<b>Site Coordinator</b>	4	Site coordinator knows the project and its aims from working with our team from past years. She is willing to put in the time and effort to work with her team and myself to implement the changes to this practice. She also has good communication within her own	2	During the middle of this project year there was a change in staff at this practice, including the site coordinator that was identified for this project. The new site coordinator has been difficult to communicate with due to the adjustment of a new position and

	practice and has a good sense of how to delegate work to staff who can best handle the task.		familiarizing herself with the UNYTE project. The change in staff disrupted the progress on the project and interrupted implementation of the intervention. .
<b>Local Clinician Champion</b>	During our meeting we did not specify a local clinician champion, however, the providers that attended the meeting all seemed willing to put in time to this project. The providers actually are willing to look for resources to support the interventions we spoke about today. Additionally, they understand the importance of the project and are more than willing to work with me to improve cancer screening at this practice.	1	No local clinician champion was identified at the beginning of this project year and there has been no input from the providers.
<b>Audit and Feedback</b>	The practice is up to date on their screening rates and monitors them frequently by using EHR registries. The practice staff are aware of what areas need to be improved. This practice is doing well with mammography because there is a walk-in imaging center on the practice campus. They would like to improve their CRC screening rates which are lower than they would like.	4	The staff are aware of their screening numbers and areas for improvement. During the kickoff meeting, all the staff had a general idea of the percentages of patients screened for each cancer. They monitor these rates closely, which allows them to set goals for specific screenings. The new site contact at this practice was able to focus more on cleaning and updating the EHR for colorectal screening. The effort boosted their screening rate by updating the EHR to reflect PTs who had been screened, and to increase outreach to those who were due for screening. .
<b>Team Approach</b>	The practice has staff that are dedicated to working with their EHR to make it easier to track cancer screening. During our meeting, the staff discussed past efforts to increase provider reminders for cancer screening. The practice has also implemented tracking for FIT testing in EPIC, which many other practices have not started. The QI team was not present at our meeting but it seems that the staff at this practice communicates with them frequently.	3	The practice has staff that are dedicated to working with their EHR to make it easier to track cancer screening. The practice has also implemented tracking for FIT testing in EPIC, which many other practices have not started.
<b>Education</b>	The staff at this practice are educated on cancer screening and aware of the latest recommendations. During our meeting I found out that they have academic sessions to update new and current staff on the latest recommendations. Within the next few weeks they are having an education session because they just hired a few nurses.	4	Practice holds academic sessions for new staff to educate them on the latest cancer screening guidelines.
<b>TOTAL TRANSLATE</b>	<b>43</b>	<b>39</b>	
<b>Client Reminders</b>	I did not gather from the meeting what kind of client reminders this practice uses. The providers did mention that they have staff dedicated to doing outreach calls. During the meeting, we	3	The office staff at the practice does outreach calls for patients but does not seem to do any mailings for cancer screening. Providers discussed mailings

	<p>did discuss increased outreach, specifically for FIT testing. The providers would like to have the office staff calling patients to remind them of their annual FIT testing. One provider said they could have staff call ahead and shortly after send the FIT test in the mail, which would cut down on appointment times.</p>	<p>for FIT kits but there have not been any updates.</p>
<p><b>Small Media</b></p> <p>2</p>	<p>The practice has a unique population, which makes finding appropriate educational material difficult. Due to the fact that most of their patient population does not speak English, the providers told me they don't often use educational material. The practice would like to find more patient educational available in Nepalese. Many of their patients speak Nepali and the practice would like to find resources that explain cancer screening in this language.</p>	<p>2</p> <p>This practice has a large non-English speaking population, and finding appropriate educational material is difficult. Earlier in the project year the staff expressed interest in Nepali educational material which I sent over to them. The previous site contact was working on getting the material reviewed by practice staff but I never heard anything after the staff change.</p>
<p><b>One-on-One Education</b></p> <p>4</p>	<p>The practice's entire staff is involved in educating the patients about cancer screening. The providers I spoke to today explained the effort they take to encourage patients to be screened for CRC. They even recalled a few examples of patients they convinced to have colonoscopy. Overall, it seems the staff is very dedicated and would like more tools. One idea that a provider had was a video in Nepali that could summarize CRC screening quickly for patients. This would be very helpful since having a translator speak to each patient can be time consuming, this practice also sees many people a day.</p>	<p>4</p> <p>The practice's entire staff is involved in educating the patients about cancer screening. The providers take effort to encourage patients to undergo colonoscopy screening, and FIT if they don't want to have colonoscopy. The providers asked for a video explaining the screening procedures in Nepali, which was sent earlier in the year, but I did not hear back about it.</p>
<p><b>Structural Barriers</b></p> <p>4</p>	<p>Fortunately, this practice has a walk-in mammography clinic across the parking lot, which has improved their breast cancer screening rates significantly. The staff told me they want to make increased efforts to get patients over to the imaging center, even if that means walking over with them for their appointment. The practice also mails FIT kits to patients with return postage that make CRC screening more accessible to them. They want to emphasize the use of FIT testing especially for patients who need a repeat FIT test after a year has passed.</p>	<p>4</p> <p>This practice has a walk-in mammography clinic across the parking lot, which has improved their breast cancer screening rates significantly. The staff told me they want to make increased efforts to get patients over to the imaging center, even if that means walking over with them for their appointment. The practice also mails FIT kits to patients with return postage that make CRC screening more accessible to them.</p>
<p><b>TOTAL EBI</b></p> <p>13</p>	<p>13</p>	



PRACTICE: P13				
RUBRIC ELEMENT	PRE-SCORE	PRE-COMMENTARY	POST-SCORE	POST-COMMENTARY
Target	3	Implementation isn't necessarily unreasonable, but it often gets lost to completing QI projects. Target measures are set but only reviewed quarterly.	3	Implementation isn't necessarily unreasonable, but it often gets lost to completing QI projects. Target measures are set but only reviewed quarterly.
Reminders	2	This is often not used and providers have developed workarounds so they can ignore the reminders. Care Coordinators support reminders of when patients are due, but this seems to focus on colorectal more than breast/cervical.	2	This is often not used and providers have developed workarounds so they can ignore the reminders. Care Coordinators support reminders of when patients are due, but this seems to focus on colorectal more than breast/cervical.
Administrative Buy-In	2	Administration unable to allocate much time due to increased responsibilities and organizational and staffing changes.	2	Administration unable to allocate much time due to increased responsibilities and organizational and staffing changes.
Network Info. Systems	3	Practice successfully uses CPCI for registry functions. Coordinators report this system works very well and they are able to run reports routinely.	3	Practice successfully uses CPCI for registry functions. Coordinators report this system works very well and they are able to run reports routinely.
Site Coordinator	4	New site coordinator role given to one of the care coordinators as the QI leader is too busy with other work. She has been very good to work with and responsive.	4	New coordinator did great on this phase, data in on time, provider survey's etc.
Local Clinician Champion	3	Local clinical champion is engaged when you can get some of his time but struggles to make routine meetings. QI lead states he often brings up the cancer work at provider meetings and has been bringing this work to many other providers.	3	Local clinical champion is engaged when you can get some of his time but struggles to make routine meetings. QI lead states he often brings up the cancer work at provider meetings and has been bringing this work to many other providers.
Audit and Feedback	3	Routine audits are occurring but cervical tends to be left off this list. Team hopes to work more on this in coming months.	3	Routine audits are occurring but cervical tends to be left off this list. Team hopes to work more on this in coming months.
Team Approach	3	Great team that has grown by 3 care coordinators since previous engagement.	3	Great team that has grown by 3 care coordinators since previous engagement.
Education	2	Very little education is occurring and there is no interest in starting this any time soon.	2	Very little education is occurring and there is no interest in starting this any time soon.
<b>TOTAL TRANSLATE</b>	<b>35</b>		<b>35</b>	
Client Reminders	3	Reminder systems are utilized both through telephone and letters and the patient portal.	3	Reminder systems are utilized both through telephone and letters and the patient portal.
Small Media	2	A small amount of small media is available but used infrequently.	2	A small amount of small media is available but used infrequently.

<b>One-on-One Education</b>	2	Some providers actively engage in one on one education while others are not participating well.	2	There has been a slight increase in provider one on one education but still a long way to go.
<b>Structural Barriers</b>	3	A strong partnership with a hospital mammo bus has helped reduce some structural barriers. Still a struggle to address barriers with colonoscopy. Team working to utilize Cologuard but is having difficulty getting the lab to pay due to contract issues.	3	A strong partnership with a hospital mammo bus has helped reduce some structural barriers. Still a struggle to address barriers with colonoscopy. Team working to utilize Cologuard but is having difficulty getting the lab to pay due to contract issues.
<b>TOTAL EBI</b>	<b>10</b>		<b>10</b>	

## Appendix D: Durable Materials

---

As discussed with the project management team at the NYS Department of Health, the project team (PI, subaward PIs (Morley, Tumiel-Berhalter, Noronha, Swanger), and coordinators, managers & consultants (Schad, Vitale, Norton) discussed several approaches to the production of durable materials for the purpose of distribution to other contractors, partners and grantees engaged in practice change. The following concepts warrant further discussion between project and program management:

- The creation of videos (6 – 8), each describing an element of practice improvement. These would roughly follow the operational topics covered at the previous three learning collaborative conferences, although content can be addressed in these discussions.
- The videos could be hosted on a web server at one of the participating universities, a third party, or (deferring to the judgement of DOH staff) directly from the NYS DOH.
- An additional option would be to conduct “Project ECHO” style telehealth seminars in real-time, record those seminars, and host and store. This forum would be interactive with participants (e.g. case presentations, question/answer periods, etc.) in real-time at the time of the live conference, and unidirectional afterward (where as pre-produced videos would be unidirectional). Following an ECHO model would likely be substantially more costly.