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

Project Summary Report

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Executive Summary

Introduction

In June 2014, 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, 2014 - June 29, 2015). This current project is an extension of the previously funded project *Increasing Colorectal Cancer Screening through Academic Detailing and Practice Facilitation*, the contract for which concluded June 29, 2014 (Y1).

The primary goals of the current project were to implement an intervention 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. Under this project, three practice-based research networks (PBRN) administered from SUNY Upstate Medical University, University at Buffalo SUNY, and University of Rochester Medical Center partnered to provide academic detailing and practice facilitation services on breast, cervical and colorectal cancer screening to 23 primary care practices across Western and Central New York. Practices enrolled in the project received a 1-hour academic detailing session on breast, cervical and colorectal cancer screening guidelines and strategies to increase screening rates among eligible patient populations. The practices then 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:

- 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)

Seven practices from the Y1 project re-enrolled for continued participation in the Y2 project period. A total of 16 new practices enrolled in the project, totaling 23 participating practices for the current project year. All 23 practices received the academic detailing session and completed all project components. Of the enrolled practices, 10 were part of a larger health system, four were physician-owned, four were part of a university or hospital clinic, four were part of Federally Qualified Health Centers, and one was a nonprofit clinic. All practices were clinical sites that provide care to underserved patients.

Academic Detailing and Practice Facilitation

For the majority of the practices (19), the academic detailing session was delivered in-person, with only four practices receiving the academic detailing session via webinar format. A total of 210 individuals attended the academic detailing sessions.

Approximately 889 services hours were delivered to the participating practices by the practice facilitators. This translates to an average of 39 hours per practice over a 6-month period. Across all regions and practices served,

the practice facilitators dedicated the most service hours to providing quality improvement support and data support. Practices primarily focused on utilizing the practice facilitators' skills to implement the following:

- Evidence-based patient outreach and education
- Practice workflow assessments to increase efficiencies in and standardization of the cancer tracking processes
- Workflows to improve data collection and maintenance among practice staff
- Consultations with IT personnel regarding patient registry parameters and data mapping
- Organization and implementation of mobile mammography services

Overall, practices struggled with engagement and support from administrators, site coordinators and clinician champions, due largely to lack of time and competing demands among these personnel. Many administrators were more willing to devote time and personnel to project activities after their practices had identified targeted quality improvement goals. After working with the practice facilitators, the majority of practices (15) had developed clear and measurable goals related to increasing breast, cervical and/or colorectal cancer screening.

Notable Project Findings and Outcomes

Several practices felt that it was not feasible to concentrate efforts on all three cancer prevention activities targeted in this project. Limited resources and the short time frame of the project forced practices to only concentrate on one or two cancers. Practices that did concentrate on all three cancer screenings tended to only show strong improvement in one or two of the cancer groups addressed.

Validity and reliability issues for data stored in EHR systems was a barrier for the majority of practices to implementing quality improvement. A few practices worked specifically on an effort to improve their EHR data system, which took precedence over other available evidence-based interventions. The success of primary care practices in closing the loop on patient screening (i.e., securing screening completion reports for patients) is also 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.

The decision to identify a project champion within administration leadership or among practice staff may be related to a more positive experience with the project and stronger outcomes related to practice goals. Engagement of practice champions and practice leadership was notably enhanced when a target or goal for quality improvement was concretely defined. Having practice facilitators working in-house at their assigned practices consistently acted to helped build rapport and project buy-in among practice staff. Additionally, the lack of staff availability caused some practices to struggle in accomplishing their quality improvement goals established at the start of the Y2 project period.

Competing priorities for Patient Centered Medical Home (PCMH) and Delivery Incentive Reform Incentive Payment (DSRIP) Program applications permitted little time for practice facilitators to meet with their project teams and/or prioritize project activities among practice staff. Practices worked to align quality improvement activities initiated under the Y2 project period with PCMH and/or Meaningful Use targets to alleviate this concern.

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Acknowledgements

Introduction

In June 2014, 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, 2014 - June 29, 2015). This contract was supported by the Cooperative Agreement Numbers DP2029 and DP3879 between the Centers for Disease Control and Prevention (CDC) and the NYSDOH. This current project is an extension of the previously funded project *Increasing Colorectal Cancer Screening through Academic Detailing and Practice Facilitation*, the contract for which concluded June 29, 2014.

The primary goals of the current project were to implement an intervention 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.[*] Practice facilitation involves the work of trained health care professionals (practice facilitators) who assist primary care practices in research and quality improvement activities.[†] 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 (PBRN) administered from SUNY Upstate Medical University, University at Buffalo SUNY, and University of Rochester Medical Center partnered to provide academic detailing and practice facilitation services on breast, cervical and colorectal cancer screening to 23 primary care practices across Western and Central New York. Practices enrolled in the project received a 1-hour academic detailing session on breast, cervical and colorectal cancer screening guidelines and strategies to increase screening rates among eligible patient populations. The practices then 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.

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[*] 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

[†] 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 Figure 1 of Appendix A. Core project staff at SUNY Upstate Medical University provided the primary administrative services for 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 Panel

The first task in project development was the convening of the Academic Detailing Panel to update the structure and content of the academic detailing and practice facilitation activities of the project by incorporating content specific to breast and cervical cancer, as well as lessons learned during the Y1 project period. Panel members included the principal investigators and site coordinators of each region, expert physicians from each region, and a quality improvement consultant. The Panel was convened in August 2014.

The Panel reached consensus on major project processes, including:

- Recruitment methods for enrolling primary care practices in the project
- Resources and tools to be included in the academic detailing curriculum
- Duties and expectations for practice facilitators
- Primary targets for data collection

Academic Detailing Curriculum

The academic detailing curriculum was developed by core project staff at SUNY Upstate Medical University. Before finalization, the curriculum was reviewed by expert physicians in the three project regions, including an advisor from the SUNY Upstate Cancer Center, as well as by the NYSDOH. The curriculum was created as a slide presentation to be presented by an expert physician in each project region. 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 toward the AMA Physician's Recognition Award.

As part of the academic detailing curriculum material development, each site coordinator created a community resource guide for primary care practices operating in the three project regions. These community resource guides provided region-specific information on breast, cervical and colorectal cancer screening resources, including: screening guidelines, evidence-based tools to increase screening, gastroenterology and women's health specialist directories, resources for uninsured and underinsured patients (Cancer Services Program of the NYSDOH), and information on medical transportation resources available to patients. The community resource guide for the Syracuse region can be found in Appendix B; this guide acted as a model upon which the guides for the Rochester and Buffalo regions were adapted.

Practice Facilitation Planning

Practice facilitation activities represented the bulk of the work completed with the practices under this project. The data collection tools developed during the Y1 project period to document practice facilitator activities, including the Practice Facilitator Log and Notes Log, were utilized again during the current contract year. 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)
- Question or action item addressed with the practice
- 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

Practice facilitators also used a Notes Log to record detailed information on interactions and overall project progress with their practices. The Practice Facilitator Logs, Notes Logs, and all other project materials to be used by the practice facilitators were stored electronically in the cloud software program Dropbox[‡].

All facilitators received an orientation prior to initiating services at the participating practices (August 2014). This orientation included instructions on how to complete the Practice Facilitator Log, Notes Log, and data collection activities under the project.

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 detailed in Table 1.

Academic Detailing

The CME sign-in sheets and CME evaluation surveys were administered and collected at the time of the academic detailing session. The utility of the academic detailing session was assessed further through focus group and interview discussions conducted at the end of the practice facilitation period in June 2015. Some practices received the academic detailing session via webinar in order to overcome scheduling barriers for both the practices and Academic Detailers. An additional evaluation form was developed to solicit feedback on the utility of the webinar format by these attendees.

Practice Facilitation

The practice characteristics form was delivered to the practices for completion either prior to or directly following completion of the academic detailing session. Most practices required extended time to complete the practice characteristics survey and often returned the surveys four to six weeks after they were administered.

[‡] https://www.dropbox.com/

The pre- and post-practice facilitation surveys were administered via two modalities: an online SurveyMonkey™ questionnaire and a paper-based hardcopy questionnaire. The SurveyMonkey™ online tool requires the use of email addresses from individuals working at the enrolled practices; these emails were used to send individualized survey links to targeted persons in the practice (e.g., physicians, nurses, care coordinators, etc.). The SurveyMonkey™ online tool allows for survey responses to be de-linked from respondent email addresses, thus preserving the anonymity of respondent answer choices; this feature was activated for this project. The only individuals in the project team with access to the full list of collected emails were the project principal investigator and project coordinator. However, several practices did not feel comfortable sharing staff email addresses with the project team. Those practices were given hard copy versions of the provider survey with a cover sheet asking five generic questions (e.g., first car, favorite candy bar), which were used to link the pre-survey to the post-survey. Those surveys administered via SurveyMonkey™ were collected by the project coordinator, and the paper-based surveys were administered and collected by practice facilitators; the pre-facilitation surveys were collected immediately following practice enrollment (October 2014 to December 2015), and the post-practice facilitation surveys were collected during the last month of the practice facilitation period (June 2015).

The practice facilitators evaluated their assigned practices on nine elements of a practice improvement plan, as represented in the TRANSLATE evaluation rubric, in a pre-post format. The TRANSLATE evaluation rubric can be found in Appendix C. The initial assessment was conducted at the start of practice facilitation activities (November 2014 to January 2015) and the post-assessment was conducted at the end of the practice facilitation period (June 2015). The TRANSLATE model is an assessment tool that measures readiness and planning for practice improvement, and has been used by members of the project team in the Buffalo region during a practice facilitation project on the chronic care model for chronic kidney disease in primary care[§]. We initiated the use of the TRANSLATE evaluation rubric to evaluate each practice's readiness for change, shortfalls, and strengths.

The practice facilitators collaborated with the appropriate personnel at their assigned practices to collect screening data for breast, cervical and colorectal cancer in a pre-post format. The pre-facilitation screening data were collected either prior to or directly following completion of the academic detailing session, and the post-practice facilitation screening data were collected at the end of the practice facilitation period (June 2015). 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.

The practice facilitators completed an Evidence-Based Intervention worksheet for each enrolled practice at the end of the practice facilitation period (June 2015). The worksheet reflects the extent to which evidence-based interventions to increase breast, cervical and colorectal cancer screening (as specified by the CDC's Community Guide to Preventive Services[**]) were implemented within each practice.

The focus groups and interviews for each practice were conducted by the project coordinator and quality improvement consultant, both of whom have specific training in qualitative data collection and analysis. The focus

[§] Fox CH, Vest BM, Kahn LS, Dickinson LM, Fang H, Pace W, et al. Improving evidence-based primary care for chronic kidney disease: study protocol for a cluster randomized control trial for translating evidence into practice (TRANSLATE CKD). *Implement Sci.* 2013;8:88. doi: 10.1186/1748-5908-8-88

[**] http://www.thecommunityguide.org/cancer/index.html

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 and office managers. Practice facilitators assisted in the scheduling of the focus groups and interviews, but were otherwise not involved in the qualitative data collection process.

All measurement tools listed in Table 1 can be found in Appendix C.

Table 1. Data Collection Materials Designed to Evaluate Project Impact

Project Component	Activity	Measurement Tool
Practice Recruitment	Practices serve project priority populations	• Practice characteristics survey
Academic Detailing Session	Attendance of primary care providers to academic detailing session	• CME sign-in sheets
	Usefulness of academic detailing session	• CME evaluation survey • Webinar evaluation survey • Focus groups/interviews
Practice Facilitation	Change in perceived barriers to breast, cervical and colorectal cancer screening	• Pre- and post-practice facilitation surveys • Focus groups/interviews
	Change in perceived barriers to use of breast, cervical and colorectal cancer screening registry	• Pre- and post-practice facilitation surveys • Focus groups/interviews
	Change in patient screening rates for breast, cervical and colorectal cancer	• Pre- and post-practice facilitation screening rates for each cancer type
	Implementation of evidence-based interventions to increase breast, cervical and colorectal cancer screening	• Evidence-Based Intervention Worksheet
	Practice readiness and planning for practice improvement	• Pre- and post-TRANSLATE evaluation rubric

II. Summary of Practices and Populations

Practice Recruitment and Enrollment

Practice recruitment activities were completed between October and December 2014. 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 PRBN, along with study site coordinators, contacted nine practices within their regions that had participated during the Y1 project period. Of these, seven enrolled for continued participation in the project.

The additional practices approached for recruitment in the Buffalo, Rochester and Syracuse regions had established prior relationships with the regional PBRNs through previous professional interactions. 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, 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 total of 16 new practices enrolled in the project, totaling 23 participating practices for the current project year.

The Y1 project period of this project witnessed the withdrawal of several practices after enrollment. These withdrawals were largely due to lack of communication and engagement in the project by practice staff. Feedback from the practice facilitators indicated that the lack of an official practice contact or liaison to champion the project likely contributed to these issues. At the initiation of the Y2 project period, the project team developed a one-page enrollment form for the project to address these communication and engagement issues. This enrollment form details the purpose of the project, as well as project expectations, benefits, and deliverables. 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. This enrollment form proved to be a useful tool for practice engagement, as no practices dropped out of the project during the Y2 project period, and the practice facilitators were able to maintain a higher degree of communication and contact with their respective practices.

Participating Practices and Populations

The practice characteristics survey collected several items of information on the participating practices, including information on practice personnel and patient mix. The following information reflects the practice characteristics of the 23 practices that participated in the Y2 project period.

Practice Information

Of the 23 practices that participated, eight practices were from the Rochester region, 11 from the Buffalo region, and four from the Syracuse region. All 23 participating practices used a full electronic medical record (EMR) system. The participating practices followed a variety of structures, which are detailed in Figure 1.

Single-specialty practices made up 61% of the 23 enrolled practices; the remaining nine practices were multispecialty practices and employed specialists in addition to primary care physicians. Roughly half of the practices (13) employed between two and five physicians; of the remaining practices, six employed between 6-15 physicians, three employed only one physician, and one practice employed over 16 physicians. The majority of practices (20) employed nurse

Figure 1. Practice Structure of Project Participants

practitioners and/or physician assistants; of these, most (13) employed two or more nurse practitioners and/or physician assistants. The majority of practices (19) saw over 100 patients per week; of the remaining practices, two served less than 25 patients per week, one served 26-50 patients per week, and one served 51-75 patients per week.
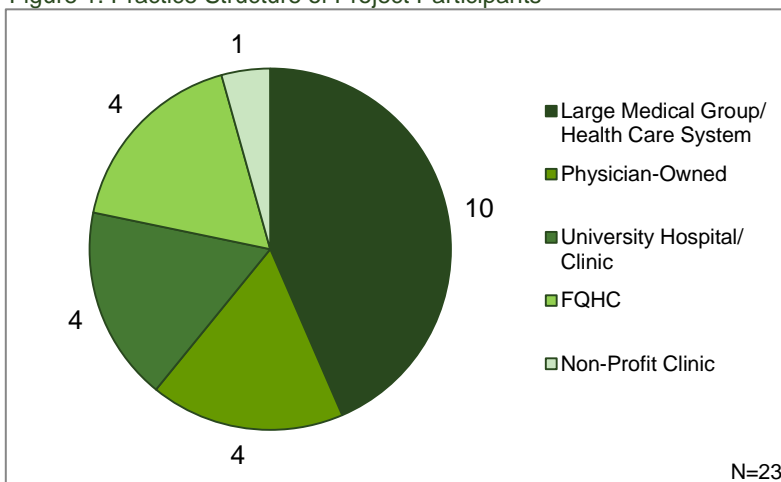
Mammography services were offered in five of the participating practices, and cervical cancer screening services were offered in 16 practices. All but one of the participating practices implemented some form of cancer screening guidelines, with 22 implementing guidelines for breast cancer, 17 for cervical cancer, and 22 for colorectal cancer screenings at the time of Y2 project initiation.

Patient reminders for cancer screening were offered by 21 of the 23 practices at the time of Y2 project initiation. The most common methods for delivering patient reminders included telephone calls (11), electronic patient portals (4), and a practice policy for verbally prompting the patient during the visit (8). Twenty-one practices were also implementing care team reminders for cancer screening at the time of Y2 project initiation, including computer prompt/flow sheets (8), notations/chart flags (4), and EHR-based reports (10).

Patient Insurance Coverage

All participating practices accepted patients who were insured by Medicaid or Medicare, as well as those who were uninsured. On average, 40% of the patient population served by the 23 participating practices was covered by Medicaid, 16% by Medicare, and 5% was uninsured. A distribution of insurance coverage rates across the participating practices can be seen in Figure 2.

Figure 2. Patient Public Insurance Coverage at Participating Practices
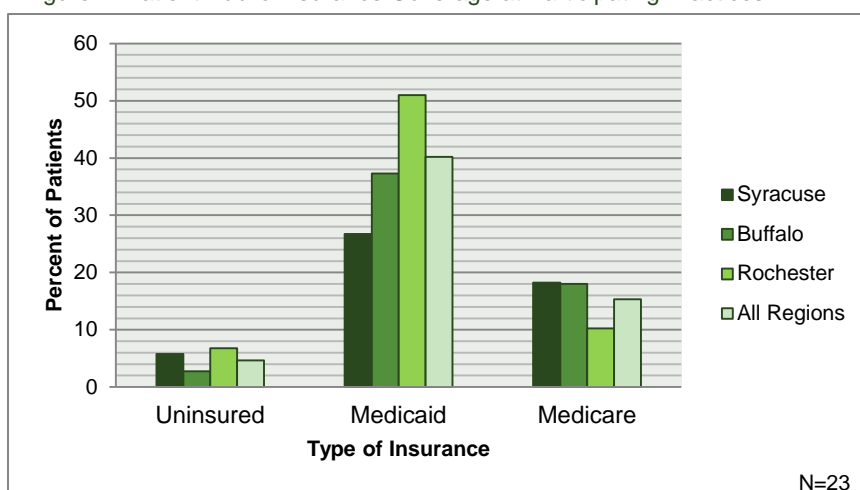
Patient Demographics

Patient mix information was collected from each practice for the demographics of age, gender, and race/ethnicity; a summary of this demographic data can be found in Figures 3-4. The largest age group served, on average, by the participating practices was individuals age 50-74 (34%), followed by individuals age 30-49 (27%), age under 19 (15%), age 22-29 (13%), age 18-21 (6%) and over age 75 (5%). The participating practices also served, on average, a slightly larger female population (average 55% female population).

Figure 3.Patient Age Distribution at Participating Practices

N=23
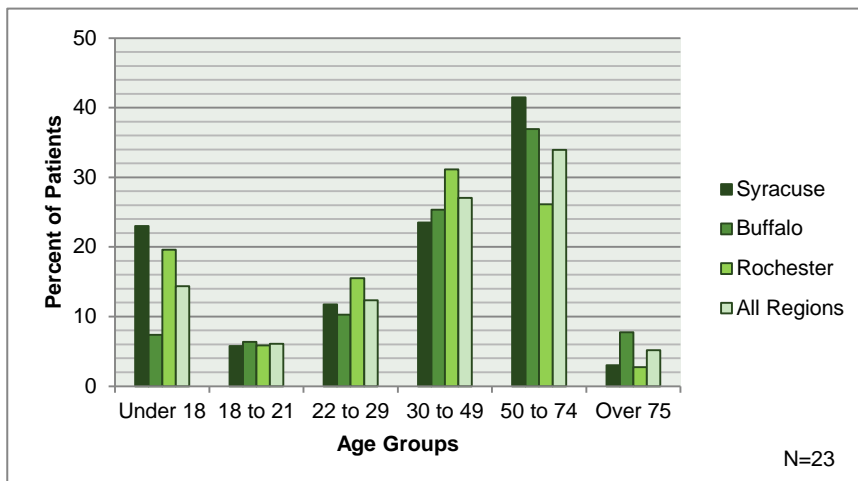
Information on patient demographics, such as race and ethnicity, was not always considered reliable by the participating practices.

The practices placed a disclaimer on the race/ethnicity data they reported, stating that it only represents a portion of their patient population, as many patients do not choose to report this information to the practice. Furthermore, some practices mentioned that practice staff does not routinely ask patients for race/ethnicity information; it is also possible that some practice staff enter assumed race/ethnicity information in the patient record without confirming their determination with the patient. One practice did not report any race/ethnicity data to the project team due to these concerns.

An average of 52% of the patient population served by the 22 practices reporting race/ethnicity data was white, followed by 31% African American, 2% Asian, 1% Native Hawaiian/Pacific Islander, and 0.5% Native American/Alaska Native. Approximately 9% of the average patient population served by the participating practices was Hispanic/Latino.

Figure 4. Patient Race and Ethnicity Distribution at Participating Practices

N=22
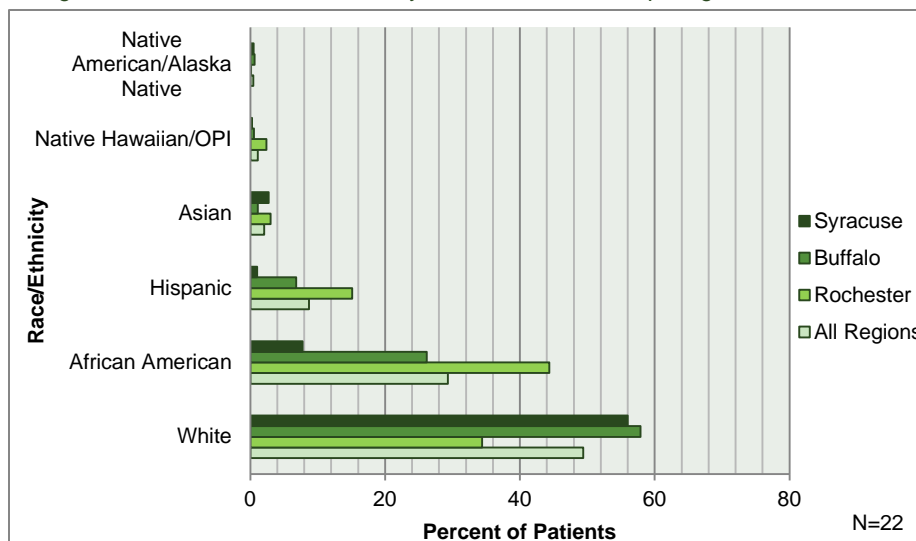
III. Summary of Academic Detailing Activities

Attendance

All 23 enrolled practices received the academic detailing session. For the majority of the practices (19), the academic detailing session was delivered in-person, with only four practices receiving the academic detailing session via webinar format. Webinars were utilized with these four practices due to issues regarding scheduling and availability among both practice staff and Academic Detailers in the three regions. Table 2 and Figure 5 present a summary of the academic detailing session attendance. A total of 25 (12%) out of the 210 attendees received the academic detailing session via webinar.

Table 2. Summary of Academic Detailing Session Delivery

Practice	Date of AD Session	Format	Number of Attendees
Buffalo Region			
P1, University hospital/clinic	Jan 2015	In-person	23
P2, University hospital/clinic	Jan 2015	In-person	9
P3, University hospital/clinic	Oct 2014	In-person	6
P4, Physician-owned	Feb 2015	In-person	4
P5, University hospital/clinic	Jan 2015	Webinar	6
P6, Large medical group/health care system	Nov 2014	In-person	9
P7, Large medical group/health care system	Feb 2015	In-person	5
P8, Large medical group/health care system	Jan 2015	In-person	5
P9, Large medical group/health care system	Jan 2015	In-person	6
P10, Large medical group/health care system	Feb 2015	Webinar	2
P11, Physician-owned	Jan 2015	Webinar	5
Rochester Region			
P12, Large medical group/health care system	Nov 2014	In-person	17
P13, Large medical group/health care system	Dec 2014	In-person	20
P14, Large medical group/health care system	Dec 2014	In-person	8
P15, Large medical group/health care system	Nov 2014	In-person	12
P16, Large medical group/health care system	Oct 2014	In-person	9
P17, FQHC	Dec 2014	In-person	7
P18, FQHC	Dec 2014	In-person	9
P19, FQHC	Dec 2014	In-person	10
Syracuse Region			
P20, Non-profit clinic	Nov 2014	In-person	6
P21, Physician-owned	Jan 2015	Webinar	12
P22, FQHC	Nov 2014	In-person	12
P23, Physician-owned	Nov 2014	In-person	8
Total # AD Session Attendees: 210			

Figure 5. Attendee Reported Professional Title, Academic Detailing Session

Legend:
- Physician (MD or DO)
- Nurse (RN or LPN)
- Nurse Practitioner (FNP)
- Administration/ IT
- Physician Assistant (RPA-C)
- Student
- Medical Assistant (MOA)
- Dietician (RD/CDE)
- Unknown/Not recorded

Data labels: 78, 37%; 26, 12%; 1, 1%; 5, 2%; 11, 5%; 15, 7%; 18, 9%; 24, 12%; 32, 15%

N=210
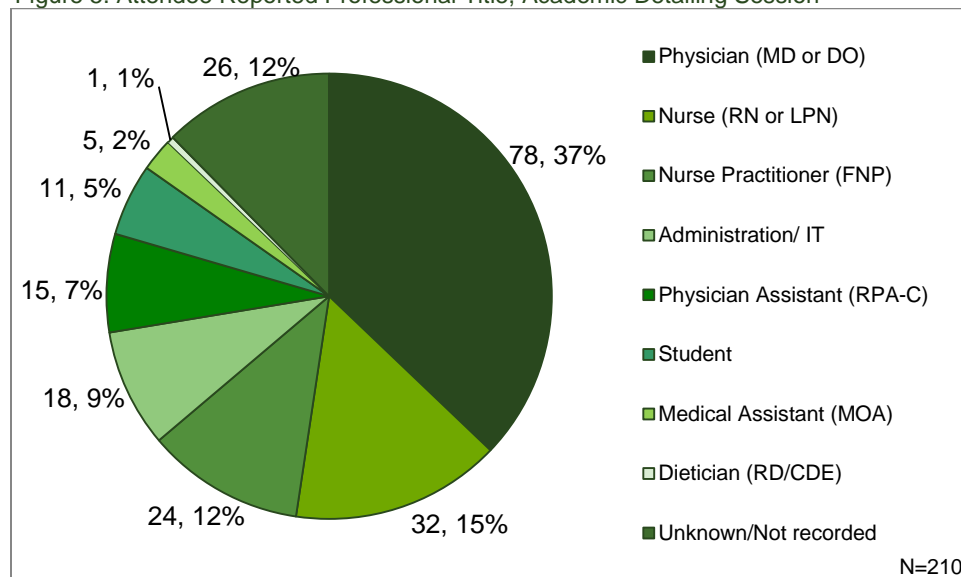
Evaluation

The CME evaluation forms were completed by attendees to determine the suitability and efficacy of the academic detailing sessions. A total of 210 individuals attended the academic detailing sessions hosted across the three project site locations. However, only those providers seeking AAFP CME credit for attendance were required to complete the CME evaluation forms, resulting in a response rate of 52% (110 respondents). A distribution of respondent professional areas is listed in Table 3.

Table 3. CME Evaluation Respondent Reported Profession

Credentials and Job Description	Number of Respondents
Physician (MD or DO)	57
Nurse Practitioner (FNP)	23
Physician Assistant (RPA-C)	11
Nurse (RN or LPN)	10
Administration/ Reception/ IT	3
Psychosocial Rehabilitation Specialist	3
Medical Student	2
Unknown/Not recorded	1
Total	**110**

The CME evaluation respondents were asked several questions assessing the value and appropriateness of the academic detailing session content. All respondents felt the academic detailing session was scientifically sound and free of commercial bias. All, except one respondent, felt the topic of the session was appropriate to their professional needs and that the session had a practical clinical value. All survey respondents also reported that the session met the following stated objectives:

- Physicians will be able to broaden and enhance their clinical knowledge of colorectal cancer screening guidelines
- Physicians will be able to describe specific strategies to identify and track patients who meet eligibility criteria for colorectal cancer screening

- Physicians will be able to describe specific concepts that will increase compliance with screening recommendations and improve patient outcomes

The CME evaluation respondents were also asked to describe how the academic detailing session would impact their knowledge, competence, performance and patient outcomes. The majority of respondents indicated that the session had a positive impact in these four areas. Additionally, some respondents added written responses to these questions.

These comments centered on the need for increased resources, increased office-wide understanding of screening information, and the need for additional time to detect a significant change in these targeted areas.

Additionally, several respondents noted that their practices were actively working on current initiatives to increase cancer screening rates. The response distribution of these question items are summarized in Figure 6.

Figure 6. Impact of Academic Detailing on Respondent Knowledge, Competence, Performance and Patient Outcomes

N=110
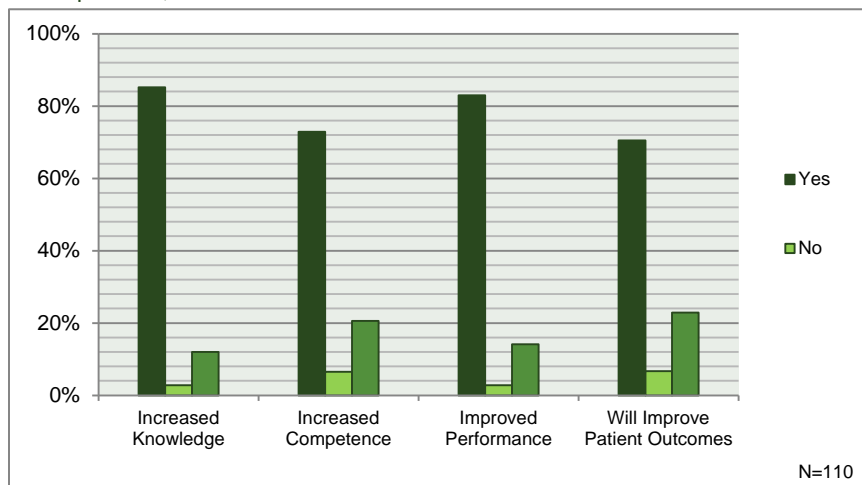
Figure 7. Change to Current Practice by Respondents After Receiving Academic Detailing Session

N=110
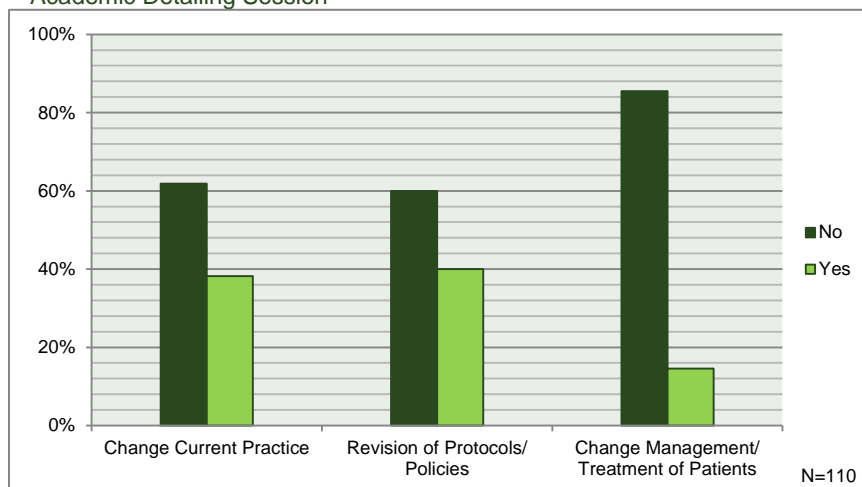
Respondents also indicated how the information they gained from the academic detailing session would influence their future practice. The majority of respondents indicated they would not change their current practice, with 40% creating or revising protocols, policies and/or procedures in their offices, and approximately 15% changing management and/or treatment of patients in their office. The response distributions to these question items are summarized in Figure 7.

The top four barriers indicated by respondents to implementing these changes were issues with patient compliance (70%), cost (24%), reimbursement or insurance issues (24%), and lack of time (24%).

Attendees to the academic detailing sessions hosted via webinar format were also asked to complete a separate survey specifically evaluating the webinar format. Of the 25 attendees to the webinar academic detailing sessions, 12 completed the webinar evaluation form, yielding a response rate of 48%.

Overall, the respondents rated the webinar highly, with all respondents indicated that they either agreed or strongly agreed with the following Likert-scale statements:

- I felt I could easily interact with the webinar presenters
- The webinar audio was clear
- The webinar technology was easy to use (one respondent disagreed)
- The webinar format was conducive to learning
- The pace of the webinar presentation was satisfactory
- Webinars are an effective way for me and my colleagues to obtain training

When asked the degree to which they would prefer the content of the academic detailing session webinar be presented in-person, some respondents (8) indicated they were either neutral or agreed/strongly agreed, indicating that while the webinar format was rated highly by the attendees, some would have preferred to receive the academic detailing session in-person. Figure 8 details the mean rating results of the Likert-scale questions (a rating of 5 corresponds to a 'Strongly Agree' response, and a rating of 1 corresponds to a 'Strongly Disagree' response).

Figure 8. Mean Responses to Likert-scale Webinar Evaluation Questions

N=12
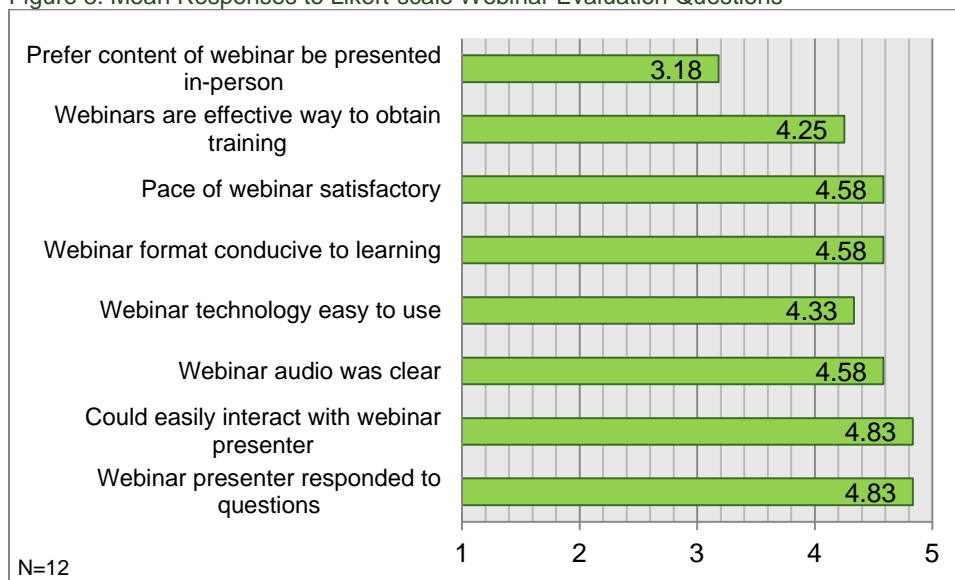
Respondents were also asked to indicate how many webinars they had attended prior to the academic detailing session. The majority of respondents had attended either one to three (5) or four to six (4) webinars prior to the academic detailing session. The remaining three respondents indicated they had previously attended seven to ten, ten or more, and 25 or more webinars.

IV. Summary of Practice Facilitation Activities

Review of Practice Facilitation Working Items

Two practice facilitators operated in the Buffalo region, one in the Rochester region, one in the Syracuse region, and one in both the Rochester and Syracuse regions. 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 and Notes Logs. The data presented below should be interpreted with the understanding that variations in reporting practices may exist across the individual practice facilitators. Table 4 displays a breakdown of the primary activities performed by the practice facilitators at their locations, and Table 5 displays a breakdown of time spent in the various service delivery modalities.

Table 4. Summary of Primary Activities Performed by Practice Facilitators, Buffalo Region

Activity	Service Time (hours)	Activity Summary	Activity Modality
Quality Improvement Support	188.26	• Quality improvement training and planning • Review of and assistance with patient education and outreach interventions • Review of practice workflows • Sample chart review collaboration	• Email • Site Visit
Cancer Screening Support	44.20	• Academic detailing • Review of screening methods	• Site Visit • Email
Scheduling	46.89	• Scheduling appointments for project	• Email
Data Support	165.36	• EHR-related IT support • Collection of practice-related data for project purposes	• Site Visit • Email • Phone Call
Routine Check-in	82.21	• Contact with practice for routinely-scheduled follow up	• Site Visit • Email • Phone
Administrative	88.56	• General administrative activities	• Email • Phone
Travel	194.48	Travel to practice sites	
Prep Time	78.93	Time devoted to preparation for project activity	
Total Time Devoted to Practice Facilitation Activities: 888.89			

Table 5. Summary of Practice Facilitation Service Modalities

Service Modality	Service Time	Travel Time	Service Prep Time	TOTAL
Email	122	0	22	144
Site Visit	328	188	52	568
Phone Call	43	0	2	45
Remote/Administrative*	119	10	3	132
TOTAL	**612**	**198**	**79**	**889**

*Refers to activities completed without direct contact with practice staff, e.g., connecting with mobile mammography servicers while not at practice office

The practice facilitators dedicated a total of 888.89 hours across all participating practices. This translates to an average of 39 practice facilitation hours of service per practice over a 6-month period. Across all regions and practices served, the practice facilitators dedicated the most services hours to providing quality improvement

support and data support. Practices primarily focused on utilizing the practice facilitators' skills to implement the following:

- Evidence-based patient outreach and education
- Practice workflow assessments to increase efficiencies in and standardization of the cancer tracking processes
- Workflows to improve data collection and maintenance among practice staff
- Consultations with IT personnel regarding patient registry parameters and data mapping
- Organization and implementation of mobile mammography services

The practice facilitators frequently worked with both practice QI teams as well as dedicated IT personnel. Since IT personnel were not always included in practice QI teams, the practice facilitators served as a communication bridge between these two groups; this is particularly true for those practices operating as part of a greater health system or university clinic.

The practice facilitators across all three regions faced barriers related to scheduling the academic detailing session meetings with their assigned practices due to time constraints at the participating offices as well as with the trained Academic Detailers. Additionally, the practice facilitators dedicated a significant amount of time to travel. Many of the practices enrolled in the Y2 project period were located in rural areas or otherwise distant locations from the practice facilitators' main office site.

Review of Evidence-Based Interventions

The practice facilitators completed a review of evidence-based interventions (identified through the Community Guide to Preventive Services) that were implemented at each of their practices. The form used for these reviews can be found in Appendix C.

Provider-Oriented Interventions

1. Provider Assessment and Feedback

Provider assessment and feedback interventions involve evaluating provider performance in the delivery of and recommendation for cancer screening services, as well as presenting providers with the results of this assessment. Feedback can refer to the performance of a group of providers or individual providers, and can be compared among peers within a practice or with a goal or standard. A primary focus of this project was to utilize EHR-based patient screening registries in participating practices to track screening completion among patients for breast, cervical and colorectal cancer. The patient screening registry is a mechanism through which providers can evaluate their performance in recommending screening to clients as well as track screening completion.

Twenty-one of the 23 enrolled practices had the capability to utilize EHR-based reports to evaluate provider performance on screening recommendation and completion. However, at the start of the Y2 project period, only seven (30%) of these practices were actively using this capability to evaluate provider and practice performance; the main reasons cited for this were lack of staff time, availability and training, as well as ineffective and unreliable EHR systems. By the end of the project period, the practice facilitators were able to work with 15 practices to initiate workflows and redefine staff responsibilities to conduct regular performance assessments using their EHR

systems. Only one practice did not initiate plans to regularly evaluate provider performance using their EHR system; this was due to overwhelming data validity and reliability concerns among practice staff.

Roughly 50% of the practices chose to evaluate performance on a practice-level and 50% on a provider-level; two practices evaluated performance on both a practice- and provider-level. The majority of practices (18) did not choose to share performance measures widely with physicians or practice staff, but rather utilized the information within quality improvement and practice management teams. One reason cited for this lack of dissemination was a concern over provider skepticism of the data reported. Some practices felt that the data reported in the EHR would be perceived as inaccurate and that the sharing of these data would negatively impact the working environment.

In fact, eight practices described their EHR-based patient registries as ineffective, and an additional four practices reported that the data were unreliable due to improper coding or storage of patient information in the EHR. Thus, information contained in registry data pulls was not regarded as accurate by all of the practices using these systems. The practice facilitators were able to work with practices on the readjustment of practice workflows and data recording procedures to address some of these validity issues. Practice facilitators met with key personnel at each practice, including medical directors, practice managers and other clinical staff, to identify current policies and procedures regarding breast, cervical and/or colorectal cancer screening. Gaps or roadblocks in the policies and procedures were identified, and using the Plan-Do-Study-Act model, practice facilitators guided the participants through the development of workflow adjustments to address these issues. Many of the adjustments developed through the workflow assessments require considerable time to complete, and an assessment of their efficacy was not feasible during this project period.

The most common issue identified through these workflow assessments involved "closing the loop" in cancer screening among patient populations. Several practices experienced difficulty in tracking the completion of patient referrals for cancer screening procedures conducted outside of their health system. The obstacles to tracking patient screening included not receiving reports from completed procedures from specialist offices, and the inability to track patients who either cancel or no-show to scheduled procedures. Several practices were able to identify workflow solutions to address these barriers, such as running monthly reports on open referral orders and assigning care management responsibilities to staff members for patient follow up. However, these solutions require both considerable personnel time to complete and the ability to use the EHR to run open referral order reports; several practices were unable to surmount these barriers during the project period.

A summary of provider assessment and feedback activities can be found in Table 6.

2. Provider Reminders

All of the practices involved in the project utilize an EHR system to manage patient information, but only nine practices were actively using interruptive (i.e., "pop-up") notification tools to remind providers of patient screening needs at the point of care. These reminders were often viewed as inaccurate and therefore ignored by practice providers; only one practice (P22) had full confidence in the accuracy of their interruptive notification system. To address this limitation, nine practices utilized pre-visit planning and patient interview workflow adjustments to create ticklers in patient files. Eleven practices did not have a systematic method for conducting provider reminders at the point of care at the end of the project period, but rather relied on the provider to search the

patient file at the time of the visit to identify screening needs. A common concern about this method voiced by practice managers is that providers may not have sufficient time to review the patient chart to identify screening needs and make a recommendation. Practice facilitators were able to initiate workflow discussions with these practices to adjust staff responsibilities regarding the creation of tickler files or chart notes, but were hindered due to practice staff and resource limitations. A summary of provider reminder systems can be found in Table 6.

Table 6. Summary of Provider-Oriented Interventions

Practice	Pre-Facilitation Feedback/Assessment	Pre-Facilitation Reminders	Post-Facilitation Feedback/Assessment	Post-Facilitation Reminders
P4	Not routinely conducted	Pop-up notification	Not routinely conducted	Pop-up notification Chart ticklers
P6	Not routinely conducted	Provider search	Practice-level audits	Provider search
P7	Not routinely conducted	Provider search	Practice-level audits	Provider search
P8	Not routinely conducted	Provider search	Practice-level audits	Provider search
P9	Not routinely conducted	Provider search	Practice-level audits	Provider search
P10	Not routinely conducted	Provider search	Practice-level audits	Provider search
P11	Not routinely conducted	Provider search	Practice-level audits	Provider search
P20	Not routinely conducted	Pop-up notification	Practice-level audits	Pop-up notification Chart ticklers
P1	Not routinely conducted	Provider search	Provider-level audits	Provider search
P2	Not routinely conducted	Pop-up notification	Provider-level audits	Pop-up notification
P3	Not routinely conducted	Provider search	Provider-level audits	Provider search Chart ticklers
P5	Not routinely conducted	Pop-up notification	Provider-level audits	Pop-up notification
P15	Not routinely conducted	Provider search	Provider-level audits	Provider search
P17	Not routinely conducted	Pop-up notification	Provider-level audits	Pop-up notification Chart ticklers
P18	Not routinely conducted	Pop-up notification	Provider-level audits	Pop-up notification Chart ticklers
P19	Not routinely conducted	Pop-up notification	Provider-level audits	Pop-up notification Chart ticklers
P22	Practice-level audits	Chart ticklers	Practice-level audits	Chart ticklers
P12	Provider-level audits	Provider search	Provider-level audits	Provider search
P13	Provider-level audits	Provider search	Provider-level audits	Provider search
P14	Provider-level audits Practice-level audits	Chart ticklers	Provider-level audits Practice-level audits	Chart ticklers
P16	Provider-level audits	Provider search	Provider-level audits	Provider search
P21	Provider-level audits	Pop-up notification	Provider-level audits	Pop-up notification
P23	Provider-level audits	Pop-up notification	Provider-level audits Practice-level audits	Pop-up notification Chart ticklers

Patient-Oriented Interventions

1. Patient Reminders

Patient reminders are written (letter, postcard, email) or telephone messages (including automated messages and texts) advising individuals that they are due for screening. The majority of the practices enrolled (22) were implementing some form of patient reminders at the time of Y2 project period initiation, predominantly follow-up calls targeting patients who had open referrals or missed appointments for screening. However, during the practice facilitation period, these practices realigned their messaging to match current evidence and/or initiated additional reminder methods.

At the initiation of the Y2 project period, six practices were utilizing the TalkSoft automated phone messaging system to alert patients who were overdue for cancer screening. These practices were able to adjust the

language used in these automated messages to reflect current evidence-based messaging by the end of the project period. Additionally, nine practices implemented evidence-based messaging through patient letters and emails during the project period. Eleven practices utilized personal follow-up calls to target patients who were overdue for screening, had open referrals for screening, or missed/canceled their screening appointments. Monetary support for these interventions had a large influence on the practices' decisions to pursue patient reminders through both written mailed reminders and telephone messaging.

It is important to note that the patient reminders were not always implemented for each cancer type targeted under this project. The majority of the reminders targeted breast and colorectal cancer screening, and six practices directly linked these reminders to the mobile mammography services used by practices under the project period.

2. Small Media

Small media include video and printed materials (letter, brochures, and newsletters). At the time of project initiation, only seven practices provided small media to their patient populations for cancer screening. These practices were those continuing from the Y1 project period, and their materials were predominantly colorectal cancer-focused. At project conclusion, all 23 practices were utilizing at least one form of small media to provide education on cancer screening to their patients.

All practices but one utilized brochures and educational posters to educate patients in clinic waiting areas and exam rooms; the remaining practice utilized an established set of National Institutes of Health materials generated from within the EHR for patients due for screening. The brochures and posters adopted during the Y2 project period were predominantly obtained from the CDC and American Cancer Society (ACS). One practice developed unique, practice-specific flyers and posters using the Make-It-Your-Own[††] software. Additionally, one practice serving a predominantly homeless population placed the education posters and brochures in local shelters and clinics. Two practices also obtained public service announcement videos from the CDC to display in their clinic waiting areas.

Language remains a barrier to communicating with patients for several practices. While all brochures and posters were provided in both English and Spanish, four clinics mentioned difficulty communicating with patients who speak languages other than English. Languages spoken at these practices include:

- Arabic
- Burmese
- French
- Karen
- Nepali
- Somali
- Spanish
- Swahili
- Ukrainian
- Vietnamese

It should be noted that many of the language groups mentioned by practices are spoken by refugee and immigrant populations from the African continent, South Asia, and Southeast Asia. It may be the case that additional languages or regional dialects are spoken by these populations than those listed above. For example, "Burmese" or "Somali" may refer to a number of different languages spoken by the clans and ethnic groups in

[††] http://www.miyoworks.org

Myanmar or Somalia, respectively. The list above should not be read as a complete or detailed census of languages spoken by patients within the participating practices.

3. Reducing Structural Barriers

Structural barriers are non-economic burdens or obstacles that make it difficult for people to access cancer screening services. Practices participating in this project mentioned several structural barriers their patients' experience, including limited transportation resources, the inability to schedule time away from work, and limited insurance coverage. Five practices were not able to make substantive changes to address these barriers within the Y2 project period.

Of the remaining 18 practices, 12 utilized mobile mammography screening services (four of these 12 practices were utilizing mobile mammography prior to project enrollment). These practices were located in both inner-city urban areas as well as rural areas, and felt that transportation barriers were the primary obstacles their patients experienced in receiving cancer screenings.

Only one practice addressed barriers to cervical cancer screening by implementing a cervical cancer screening clinic operated by practice staff during off-hours once a week.

Five practices developed a resource guide to distribute to patients that detailed local resources for transportation, insurance and cancer screening education. Three of these practices were among those implementing mobile mammography services as well.

It is important to note that among the three cancers targeted in this project, practices overwhelmingly felt that the largest structural barriers were experienced for colorectal cancer screening through colonoscopy. Barriers to obtaining this screening include transportation, lack of specialists in the service area, and the substantial time needed away from work to receive the screening service. One practice implemented the use of FIT as an alternative screening tool to colonoscopy to be used for patients with substantial transportation and financial barriers to obtaining colorectal cancer screening. An additional five practices within the same health system placed a practice-wide emphasis on FIT for colorectal cancer screening; this emphasis was generated within the health system during the Y1 project period.

4. One-on-One Education

One-on-one education delivers instruction to individuals about indications for, benefits of and ways to overcome barriers to cancer screening. The goal of one-on-one education is to inform, encourage and motivate patients to seek screening. Twenty of the 23 participating practices mentioned that physicians provide one-on-one education to their patients who are eligible for cancer screening during office visits. The three practices not routinely providing one-on-one education cited lack of time as the primary barrier to this intervention.

Four practices implemented a formal system to deliver one-on-one education to patients outside the clinical encounter; this education was provided by the office care managers via telephone follow-up calls to patients overdue for screening. Four practices also purchased anatomical models that could be used for patient education during clinical encounters.

Review of TRANSLATE Model Practice Evaluations

A notable outcome from the Y1 project period of the project was that practices with a higher degree of staff engagement in the project were able to achieve more objectives under the project. During Y2 of the contract period, 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 7). Each element can be scored on a range of 1-4. For more detail on the scoring criteria, please view the example TRANSLATE model evaluation rubric found in Appendix C. Practice facilitators were also afforded space on the TRANSLATE model evaluation rubric to provide qualitative commentary on each of the nine elements.

Table 7. 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

The scores for each of the nine elements were averaged across all 23 practices for each measurement period. Figure 9 displays the changes in the scores across the two measurement periods. The practices, on average, improved in each of the nine elements measured under the TRANSLATE model. However, it is important to note that individually, some practices did not make measurable improvements across the two measurement periods, and that none of the changes in average score observed were statistically significant. During the pre-practice facilitation measurement period, the practices had the highest average score for the use of network information systems and reminders, while the lowest average score during the pre-practice facilitation measurement period was for audit and feedback activities. There were no statistically significant differences in practice performance between those practices continuing from the Y1 project period and those practices joining under the Y2 project period.

While some practices entered the project with established, concrete targets for quality improvement, most had only vague ideas regarding quality improvement goals. After working with the practice facilitators, the majority of

practices (15) had developed clear and measurable goals, though half of those practices did not consider their goals currently feasible.
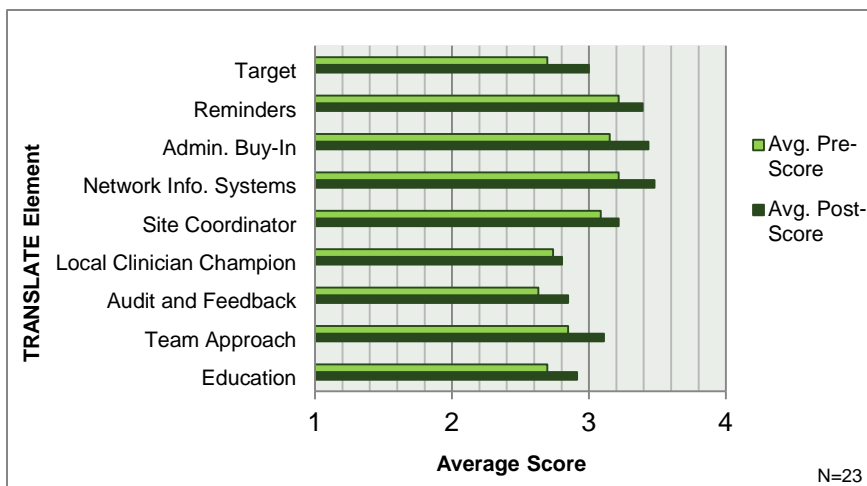
Only seven practices were routinely using reminder systems during the pre-practice facilitation measurement period. The majority of the remaining practices infrequently or inconsistently used EHR interruptive reminders; only one practice did not have EHR interruptive reminder capability during this measurement period. By the end of the project period, all practices were using EHR interruptive reminders at the point of care, though the consistency in use remained variable. The majority (17) of the practices did not consistently conduct or disseminate performance reports at the provider- or practice-level during the pre-practice facilitation measurement period; only five practices disseminated individual performance data at this measurement period. While several practices (4) began conducting performance reports more regularly by the end of the project period, the majority still only conducted practice-level audit and feedback activities, most of which were not widely disseminated.

Overall, practices struggled with engagement and support from administrators, site coordinators, and clinician champions due largely to lack of time and competing demands among these personnel. Many practices were unable to secure resources from administration due to general practice constraints as well as lack of buy-in from administrators for project activities. However, the qualitative commentary provided by the practice facilitators indicates that many administrators were more willing to devote time and personnel to project activities after the practice had identified targeted quality improvement goals, such as organizing a mobile mammography visit to the clinic or conducting data mapping activities through chart audits. Additionally, several practices experienced significant staff turnover during the project period, and the practice facilitators noted that this dramatically impacted their ability to work with site coordinators and practice champions.

Figure 9. Pre-Post Change in TRANSLATE Model Evaluation Scores across Nine Elements of Practice Improvement

The majority of the practices did not enter the project with interdisciplinary teams. By the end of the project period, only five practices were able to establish broad, interdisciplinary quality improvement teams for this project, and several continued to operate in a hierarchical, top-down approach. Across both measurement periods, only four practices offered frequent education opportunities to staff. The remaining practices offered educational opportunities only rarely or occasionally, with a slight shift in frequency noticed by the end of the project period. The qualitative commentary provided by the practice facilitators indicates that educational opportunities were being pursued by practices under Patient Centered Medical Home recertification, and that some practices were targeting educational opportunities to midlevel staff.

V. Notable Project Findings and Outcomes

Cancer Screening Rates

Due to the data mapping issues described above, 100% of the participating practices felt that the EHR-based reports measuring patient screening rates did not represent accurate data. Rather, practice staff felt these rates reflect only those screening tests that were recorded as structured data within each practice's EHR and likely underreported the true number of patients receiving appropriate cancer screening for all three cancer groups. A majority of the practices (57%) felt that the screening rates for breast, cervical and colorectal cancer generated through EHR reports were not useful for quality improvement planning due to their inaccuracy. However, the remaining 43% (10) of practices felt that while their EHR-based reports may be underreporting the true number of patients screened, these numbers were still useful for informing quality improvement planning and gauging practice performance.

Of note, the definition each practice used for its denominators and numerators was somewhat variable. The practice facilitators advised practices on the use of Healthcare Effectiveness Data and Information Set (HEDIS) measures for breast, cervical and colorectal cancer screening, as well as the current US Preventive Services Task Force (USPSTF) cancer screening guidelines, to define the eligible screening populations, screening intervals and codes for these measurements. However, some practices chose to evaluate screening based on specific metrics preferred by clinic staff or based on the capabilities of their EHR software. These variations are listed in each section below.

Breast Cancer Screening

All 23 participating practices were able to generate breast cancer screening rates from EHR-based registries; Table 8 displays the pre- and post-practice facilitation screening rates for breast cancer. The majority (21) of the practices generated these reports based on the USPSTF breast cancer screening guideline of a mammogram performed every two years for women age 50-75; the remaining two practices used the American Cancer Society recommendation of annual mammography for women over age 40. The average pre- and post-screening rates across the 23 practices were 36.95% and 49.42%, respectively, with an overall statistically significant increase in screening rates of 12.91 percentage points (p=0.027). All but two practices witnessed increases in their breast cancer screening rates. The practice facilitator for both of these practices (P3 and P5) reported that each practice struggles with standardization of data storage, meaning that different providers enter patient screening information into various locations in the patient chart, some of which were not structured for data pulls. Thus, the screening rates reported by these practices only reflect those patients who have data stored in a traceable location, and may not fully capture their true breast cancer screening rates.

It is important to highlight that 12 of the 23 practices utilized mobile mammography services during this project period. Four of the 12 practices (P1-P4) had been utilizing mobile mammography services prior to project enrollment; these practices witnessed moderate increases in the breast cancer screening rate between the two measurement periods. The remaining eight practices (P8-P12, P14-P16) utilized mobile mammography services for the first time under this project. These practices witnessed an increase in the average breast cancer screening rate of 21.55 percentage points between the two measurement periods, indicating that the reduction of the structural barrier of transportation was highly effective for their patient populations.

Table 8. Pre- and Post-Project Completed Breast Cancer Screening Rates at 20 Participating Practices

Practice	Pre-Project Breast Screening Rate	Post-Project Breast Screening Rate	Change in Screening Rate
P10	31.06%	83.93%	+ 52.87%
P8	23.34%	65.67%	+ 42.33%
P9	25.21%	61.63%	+ 36.42%
P6	33.25%	69.02%	+ 35.77%
P7	10.34%	37.41%	+ 27.07%
P12	46.59%	69.24%	+ 22.65%
P23	49.64%	62.22%	+ 12.59%
P20	27.12%	39.59%	+ 12.47%
P21	82.20%	94.15%	+ 11.94%
P19	54.76%	64.06%	+ 9.30%
P13	45.19%	56.60%	+ 11.42%
P15	30.86%	38.69%	+ 7.83%
P22	19.00%	26.00%	+ 7.00%
P11	34.94%	41.69%	+ 6.74%
P2	45.63%	50.72%	+ 5.09%
P17	38.10%	42.52%	+ 4.42%
P16	10.74%	16.67%	+ 5.93%
P1	31.39%	35.21%	+ 3.82%
P14	64.82%	69.74%	+ 4.92%
P18	36.03%	39.10%	+ 3.07%
P4	12.99%	13.05%	+ 0.06%
P3	46.86%	37.36%	- 9.23%
P5	49.77%	32.24%	- 17.53%
Average	**36.95%**	**49.86%**	**+ 12.91%**

Cervical Cancer Screening

Only 20 of the 23 participating practices were able to generate cervical cancer screening rates from EHR-based registries. This is due to the fact that those practices do not store cervical cancer screening documentation in structured data fields in the EHR that can be accessed through a data pull. Additionally, two of the three practices chose not to collect cervical cancer screening data among their female patients due to the fact that they do not provide cervical cancer screening services in their office and their providers defer to patients' obstetrics-gynecology (Ob-Gyn) specialist providers to monitor this particular screening service. Thirteen practices generated cervical cancer screening reports for women age 21-65 receiving a Papanicolaou test (or Pap smear) every 3 years. Only seven practices incorporated the USPSTF cervical cancer screening guideline of a Pap smear every 5 years for women age 30-65 who are also co-tested for human papillomavirus (HPV). Table 9 displays the pre- and post-practice facilitation screening rates for cervical cancer across the 20 practices collecting these data. The average pre- and post-screening rates across the 20 practices were 35.53% and 38.92%, respectively, with an overall increase in screening rates of 3.39 percentage points; this increase was not statistically significant.

One practice (P23) witnessed a dramatic increase in cervical cancer screening between the two measurement periods. This is largely due to targeted efforts P23 undertook during the project to update and correct documentation errors in patient charts, as well as conduct follow-up with specialist providers with whom P23 has shared patients. Interestingly, practice P13 also witnessed a dramatic increase in cervical cancer screening; this increase was not expected, as P13 chose to devote the majority of the quality improvement activities under this project to colorectal cancer screening. The practice facilitator for P13 attributed this increase in cervical cancer screening to the fact that P13 was closely located to an Ob-Gyn specialty practice under the same health system, and the referral process between P13 and this specialty practice was streamlined during the project period. These

dramatic increases in screening rates make P13 and P23 outliers; when removed from analysis, the average pre- and post-screening rates across the remaining 18 practices change to 36.34% and 35.63%, respectively, and the overall change in screening rates drops to a small, non-significant decrease of - 0.71 percentage points. Essentially, no change was observed in cervical cancer screening rates once the outlier practices were removed.

Table 9. Pre- and Post-Project Completed Cervical Cancer Screening Rates at 20 Participating Practices

Practice	Pre-Project Cervical Screening Rate	Post-Project Cervical Screening Rate	Change in Screening Rate
P23	28.53%	82.25%	+ 56.72%
P13	28.01%	51.81%	+ 23.80%
P1	16.87%	31.02%	+ 14.15%
P22	29.00%	32.00%	+ 3.00%
P12	44.90%	47.29%	+ 2.39%
P17	53.85%	55.45%	+ 1.59%
P15	28.62%	29.86%	+ 1.24%
P18	50.71%	51.21%	+ 0.50%
P4	5.86%	5.78%	- 0.08%
P7	13.50%	13.29%	- 0.20%
P20	5.43%	4.94%	- 0.49%
P11	15.64%	14.57%	- 1.06%
P8	27.36%	25.99%	- 1.63%
P6	45.89%	43.08%	- 2.82%
P10	43.51%	39.45%	- 4.06%
P21	60.88%	56.80%	- 4.08%
P16	43.47%	39.02%	- 4.45%
P14	70.11%	65.27%	- 4.83%
P9	38.67%	33.20%	- 5.47%
P19	59.62%	53.12%	- 6.50%
Average	**35.53%**	**38.92%**	**+ 3.39%**

The lack of significant change in the cervical cancer screening rates can be attributed to several factors. First, some practices chose to alter the formula by which they obtained rates on cervical cancer screening to more accurately reflect current screening guidelines. These practices witnessed a mixture of slight decreases and moderate increases in screening rates for cervical cancer after implementing this change. Also, one practice (P21) adopted a new office policy on recording patient screening information. Historically, providers at P21 would rely on patient verbal confirmation that a cervical cancer screening test had been performed. After the practice facilitation period, this practice adopted a new policy to only mark screening completion in the patient chart after official documentation had been received and recorded. Due to this policy change, P21's cervical cancer screening rate fell between the two measurement periods. Another factor impacting the cervical cancer screening rates observed is that the majority of practices chose not to concentrate specifically on cervical cancer screening quality improvement under this project. The primary reasons for this were that providers and practices felt patients' Ob-Gyn specialist providers were adequately monitoring cervical cancer screening for their shared patients, and some practices chose to prioritize breast or colorectal cancer screening due to a lower observed performance in these cancer screenings among their patients.

Colorectal Cancer Screening

All 23 participating practices were able to generate colorectal cancer screening rates from EHR-based registries; Table 10 displays the pre- and post-practice facilitation screening rates for colorectal cancer. The majority of practices (17) generated colorectal cancer screening reports based on the USPSTF colorectal cancer screening

guidelines of a colonoscopy every ten years, flexible sigmoidoscopy every 5 years or FOBT/FIT every year for men and women age 50-75. The remaining six practices only generated reports on individuals age 50-75 who had a colonoscopy within the previous 10 years. On average, the enrolled practices had the lowest screening rate for colorectal cancer. The average pre- and post-screening rates across the 23 practices were 32.75% and 38.34%, respectively, with an overall increase in screening rates of 5.59 percentage points; this increase was not statistically significant.

Six of the 23 practices witness moderate decreases in the colorectal cancer screening rate across the two measurement periods. Additionally, one practice experienced only a 0.07 point increase during the project period. Many of these practices are among those with the lowest colorectal cancer screening rates out of the 23 participating practices, with four out of the seven practices reporting less than 20% patient compliance. Three of the seven practices reported significant issues regarding data validity and reliability within the EHR system, and felt that the data pulled from the EHR-based registries was not accurate. Additionally, all seven of the practices reporting little to no growth in the colorectal cancer screening rate mentioned that compliance with colorectal cancer specifically was an issue among their patients. In fact, three of the seven practices directly mentioned that local shortages in gastroenterology (GI) specialists in their area resulted in long waiting lists for their patients to be screened, which negatively affected patient compliance.

Table 10. Pre- and Post-Project Completed Colorectal Cancer Screening Rates at 20 Participating Practices

Practice	Pre-Project CRC Screening Rate	Post-Project CRC Screening Rate	Change in Screening Rate
P21	62.00%	88.86%	+ 26.86%
P12	46.24%	59.24%	+ 13.00%
P23	41.62%	53.57%	+ 11.95%
P13	44.40%	55.36%	+ 10.96%
P15	35.93%	45.67%	+ 9.75%
P14	50.47%	59.34%	+ 8.87%
P17	24.24%	32.47%	+ 8.22%
P10	52.44%	60.40%	+ 7.96%
P11	43.12%	51.04%	+ 7.92%
P16	10.59%	17.81%	+ 7.22%
P22	39.00%	46.00%	+ 7.00%
P7	9.83%	16.66%	+ 6.82%
P9	30.75%	33.49%	+ 2.74%
P5	26.93%	29.33%	+ 2.40%
P8	57.93%	60.05%	+ 2.11%
P3	23.77%	25.78%	+ 2.02%
P20	10.56%	10.63%	+ 0.07%
P2	16.54%	16.44%	- 0.10%
P18	28.89%	27.93%	- 0.96%
P19	34.20%	32.99%	- 1.21%
P6	43.20%	41.98%	- 1.22%
P4	11.43%	10.01%	- 1.42%
P1	9.14%	6.81%	- 2.33%
Average	**32.75%**	**38.34%**	**+ 5.59%**

It is also important to recognize that changes in colorectal cancer screening as a result of activities undertaken during the project period may not be fully realized until a future date due to the extended time line of colorectal cancer screening through colonoscopy, i.e., longer waiting lists and preparation time for patients to receive screening from a GI specialist provider, as well as time for the report from the GI specialist to be returned to the primary care office.

Figure 10. Pre-Post Colorectal Cancer Screening Rates by Project Contract Period
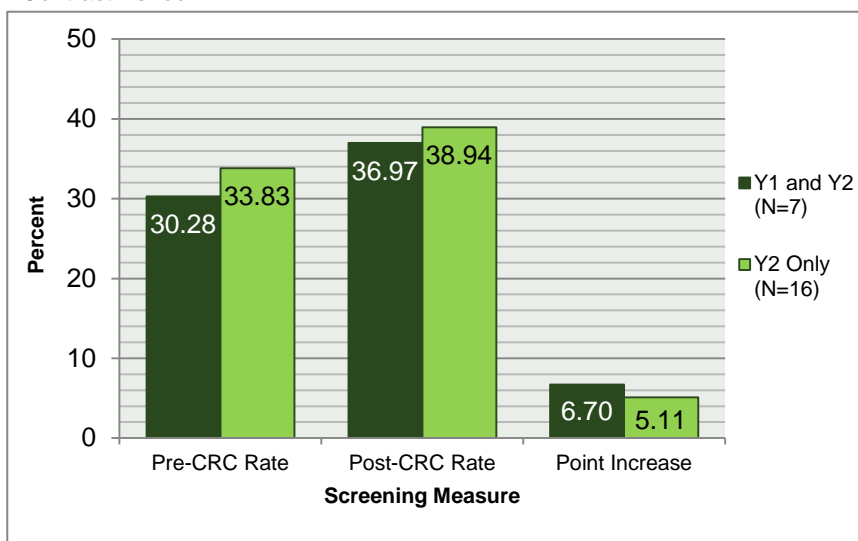
Comparisons of Practices by Project Period

Seven of the practices originally participating in the Y1 project period continued participation into the Y2 project period (P3, P14-P16, P20, P22, P23). Figure 10 displays the average colorectal cancer screening rate for the practices in each of these groups. On average, the practices participating in both the Y1 and Y2 project periods had lower pre- and post-practice facilitation screening rates compared to those practices only participating in the Y2 project period. However, the Y2-only practices had a smaller increase in the average colorectal cancer screening rate compared to those practices participating in both project contract periods. The differences observed between the two practice cohort groups were not statistically significant.

Use of Colonoscopy, FOBT, and FIT Screening Methods

The majority of the practices reported using colonoscopy as the primary recommended screening method. All practices also mentioned using stool tests for patients who refused colonoscopies; however, only six practices directly referenced the use of FIT (as opposed to FOBT) as an alternative screening tool to colonoscopy. Many practices stated that while they were aware of and interested in utilizing FIT, their partnering laboratories did not offer FIT processing services. Additionally, 11 practices directly mentioned learning about and utilizing the Cancer Services Program (CSP) under this project, which utilizes FIT as the first-line test for colorectal cancer.

Of note, five practices using FIT are part of the same health system. Three of these practices participated in the Y1 project period, and during that period initiated a health system-wide initiative to bring FIT processing to their partner laboratory. Thus, it appears that FIT is now being used across the health system and impacting practices both within and outside this project.

Cancer Screening Rate Correlation Analysis

Correlation analysis using Spearman's Rho was conducted for the cancer screening rates, both pre- and post-practice facilitation, as well as the practice TRANSLATE model measures. Practices with a higher pre-practice facilitation screening rate for breast cancer were positively correlated with higher cervical cancer and colorectal cancer screening rates during the same measurement period (see Table 11). However, the pre-practice

facilitation cervical cancer and colorectal cancer screening rates were only correlated at a marginally significant level. The post-practice facilitation rates for breast, cervical and colorectal cancer were all statistically significantly and positively correlated with one another. These positive correlations could mean that practices that perform highly in one cancer screening target area are able to perform highly across all three cancer screening target areas. However, it could also be a reflection of accurate data capture, wherein practices that are better able to capture screening rates through EHR-based patient registries are able to do so for all three cancer screening targets.

Table 11. Correlation Between Pre- and Post-Practice Facilitation Cancer Screening Rates

Correlation Coefficient (p-value)	Pre-Project Breast	Pre-Project Cervical	Pre-Project CRC	Post-Project Breast	Post-Project Cervical	Post-Project CRC
Pre-Project Breast Screening Rate	1.0	0.649 (0.002)	0.415 (0.049)	0.515 (0.012)	0.808 (<0.001)	0.379 (0.074)
Pre-Project Cervical Screening Rate	0.649 (0.002)	1.0	0.426 (0.061)	0.597 (0.005)	0.818 (<0.001)	0.415 (0.069)
Pre-Project CRC Screening Rate	0.415 (0.049)	0.426 (0.061)	1.0	0.783 (<0.001)	0.425 (0.062)	0.974 (<0.001)
Post-Project Breast Screening Rate	0.515 (0.012)	0.597 (0.005)	0.783 (<0.001)	1.0	0.556 (0.011)	0.749 (<0.001)
Post-Project Cervical Screening Rate	0.808 (<0.001)	0.818 (<0.001)	0.425 (0.062)	0.556 (0.011)	1.0	0.455 (0.044)
Post-Project CRC Screening Rate	0.379 (0.074)	0.415 (0.069)	0.974 (<0.001)	0.749 (<0.001)	0.455 (0.044)	1.0

An assessment of the post-practice facilitation screening rates and TRANSLATE model element scores indicates that higher cumulative TRANSLATE scores are correlated with higher post-practice facilitation cervical cancer screening rates (see Table 12); however, this association was not replicated for breast or colorectal cancer screening. When assessing the individual elements of the TRANSLATE model, it appears that a **higher degree of educational opportunities and higher engagement by site coordinators at practices is associated with higher screening rates during the post-practice facilitation measurement period**.

Table 12. Correlation Between Post-Practice Facilitation Cancer Screening Rates and TRANSLATE Elements

Correlation Coefficient (p-value)	Post-TRANSLATE Cumulative Score	Post-TRANSLATE Education Score	Post-TRANSLATE Sire Coordinator Score
Post-Project Breast Screening Rate	0.282 (0.193)	0.416 (0.048)	0.473 (0.023)
Post-Project Cervical Screening Rate	0.485 (0.030)	0.539 (0.014)	0.718 (<0.001)
Post-Project CRC Screening Rate	0.337 (0.116)	0.478 (0.021)	0.366 (0.086)

However, it is important to note that the TRANSLATE tool is a subjective measure employed by the practice facilitators to inform their work with assigned practices, and does not capture the granularity of these relationships. We also did not employ procedures to ensure validity or reliability of the assessment in this context, beyond using the previously-validated TRANSLATE model, and training the practice facilitators in its use. Despite these shortcomings, we believe the outcomes presented in Table 12 are intriguing and worthy of additional follow-up.

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 (see Appendix C). The language and question items in this survey were adapted from previously validated and published surveys available from the Agency for Healthcare Research and Quality[‡‡] and the National Cancer Institute[§§]. Surveys were tracked by individual and collected online via SurveyMonkey™ as well as through paper hardcopy. Practice facilitators administered the paper hardcopy surveys, while the project coordinator in Syracuse, NY, administered the online survey.

Thirteen practices chose to complete the survey using paper hardcopy, while the remaining ten completed the survey online. The primary reason cited for completing the survey on paper hardcopy was the increased response rate expected through this method, as several practices reported that providers would not answer the online version when sent via electronic mail. A total of 144 individuals responded to the surveys. While the project team attempted to collect every individual survey in a pre-post format, some individuals responded during only one of the two measurement periods. A total of 71 individual surveys have only pre-practice facilitation data, 17 have only post-practice facilitation data, and 56 (39% of those who completed any survey) have both pre- and post-practice facilitation data. One factor that greatly contributed to the discrepancy between pre- and post-survey completion is staff turnover and absence at several of the participating practices. Four practices in particular were unable to fully participate in all post-facilitation data collection activities due to staff absence due to turnover and medical leave, and the limited availability of remaining staff at the practice. Table 13 provides a full description of survey respondent demographics for all respondents.

Table 13. Demographic Data for 123 Pre- and Post-Practice Facilitation Survey Respondents

Sex	Job Title							
	Physician	NP or PA	Practice Nurse	Medical Assistant	Practice/Clinic Manager	Care/case Manager/ Coordinator	Clerical	Other
Female	24	19	15	7	9	1	7	3
Male	21	4	4	3	1	0	0	1
Prefer not to Answer	1	0	0	1	1	1	0	0
TOTAL	46	23	19	11	11	2	7	4

The following findings of the pre- and post-practice facilitation surveys represent the results for only the subset of 56 linked pre-post surveys.

Cancer Screening

Survey respondents were asked to estimate their practices' current performance in cancer screening for each cancer type targeted under this project; a summary of average estimates across all practices can be found in Figure 11, and practice-level data can be found in Appendix D (note that these graphs only show data for those practices with full data for both EHR-based screening rates and pre-post survey responses). During both


[‡‡] http://healthit.ahrq.gov/health-it-tools-and-resources/health-it-survey-compendium
[§§] http://appliedresearch.cancer.gov/screening_rp/

measurement periods, it appears that many respondents estimated a higher level of screening performance for breast, cervical and colorectal cancer screening than what was shown in the EHR-based screening rates for their practices.

The only statistically significant change in survey respondents' average estimated cancer screening occurred for cervical cancer screening: post-practice facilitation estimates were statistically significantly lower than the pre-practice facilitation estimates (p=0.036).

Figure 11. Comparison of Average Survey Respondents' Cancer Screening Estimates to EHR-Based Cancer Screening Rates
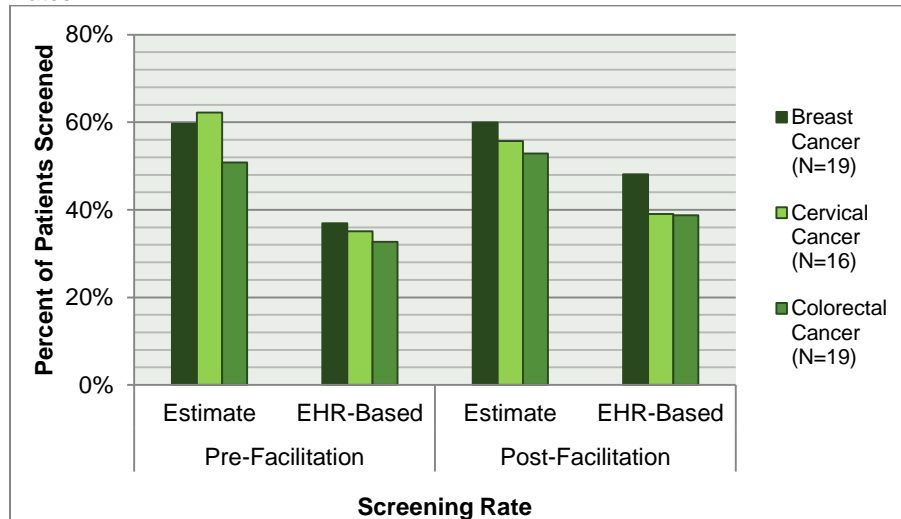
Survey respondents were asked a series of Likert-scale questions assessing the importance of specific patient-related and system-related barriers to increasing cancer screening rates in their practices (see Appendix C for survey text). The Likert scale ranged from a low value of 1 (not important) to 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 12a-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 three most important patient-related barriers to increasing cancer screening as perceived by practice staff both before and after practice facilitation were: fear of the screening procedure, lack of follow through on provider recommendation, and lack of insurance or procedure costs. The only barrier with an average rate below 3.0 was patient language barriers, indicating that respondents did not consider this barrier as important as the others listed. Only two patient-related barriers had a statistically significant change in average rating: patient fear of screening procedures and patient lack of awareness, which both decreased in mean value (p=0.036 and p=0.034, respectively).

Figure 12. Mean Scores for Questions on Barriers to Increasing Cancer Screening
a)   Patient-Related Barriers
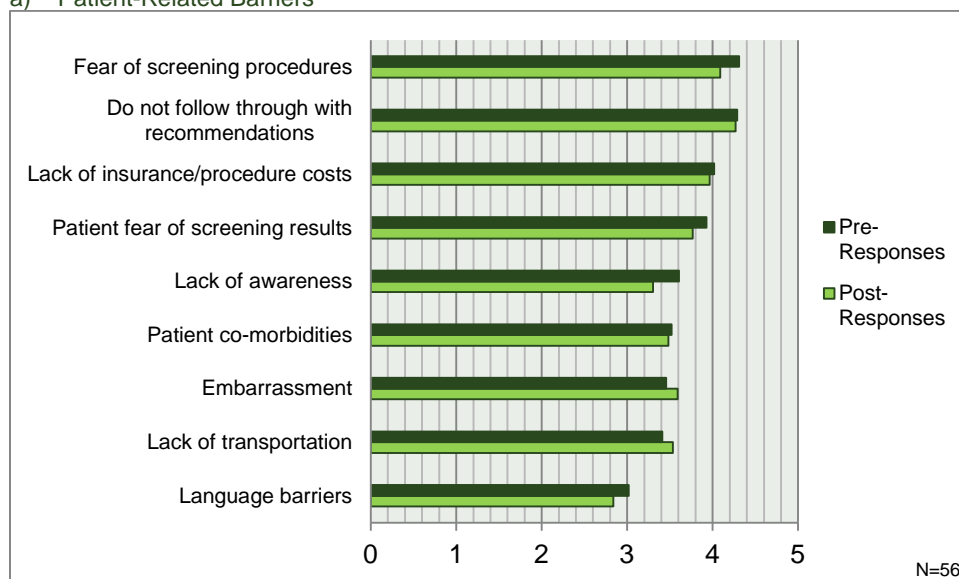
b)   System-Related Barriers
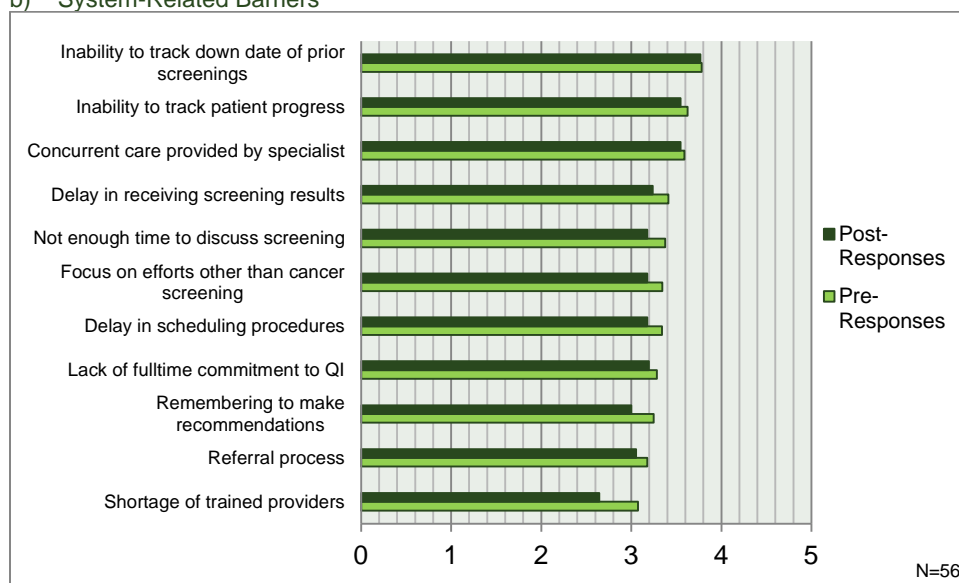
The top three most important system-related barriers to increasing cancer screening both before and after practice facilitation were: the inability to track down the date of a prior screening, inability to track patient progress in completing screening, and concurrent care being provided by a specialist (e.g., Ob-Gyn, GI). While having a shortage of trained providers to conduct screening had an average rate above 3.0 during the pre-practice facilitation period, respondent opinion appear to have shifted during the two measurement periods, as this barrier decreased in importance at the end of the project period. In fact, this was the only system-related barrier with a statistically significant change between the two measurement periods (p=0.010).

Respondents were also 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:

- Patients receiving colonoscopy must have someone accompany them to and from the procedure, as well as take time off work
- Patient fear of costs and hidden fees
- Failure to systematically support FOBT screening as an option, as FOBT and FIT kits are not readily accessible
- Compliance with colonoscopy prep by patients; prep materials are expensive for patients
- Lack of team-based care and issues with staff other than providers "buy in" to helping the screening process, i.e., the "not my job" mentality
- Lack of widespread diffusion of IT knowledge among staff
- Having to prioritize other patient needs (housing, mental health, uncontrolled chronic diseases) before cancer screening
- Inability of EHR to provide reports with accurate data
- Inability to identify who needs cervical cancer screening and who does not
- Patient refusal; patients do not feel at risk

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 measurement periods. Additionally, 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. Only one practice enrolled in this project did not have an operational EHR-based registry for any cancer type, and three did not have an EHR-based registry for cervical cancer screening. Thus, it appears that while the majority of respondents were aware of their practices' EHR-based registry capabilities by the end of the project period, there remains a small gap in knowledge and awareness among staff at the participating practices on this EHR feature. A distribution of responses can be found in Figure 13.

Figure 13. Summary of Respondent Knowledge of EHR-Based Patient Registries

Does your practice implement an EHR-based patient registry?   N=56
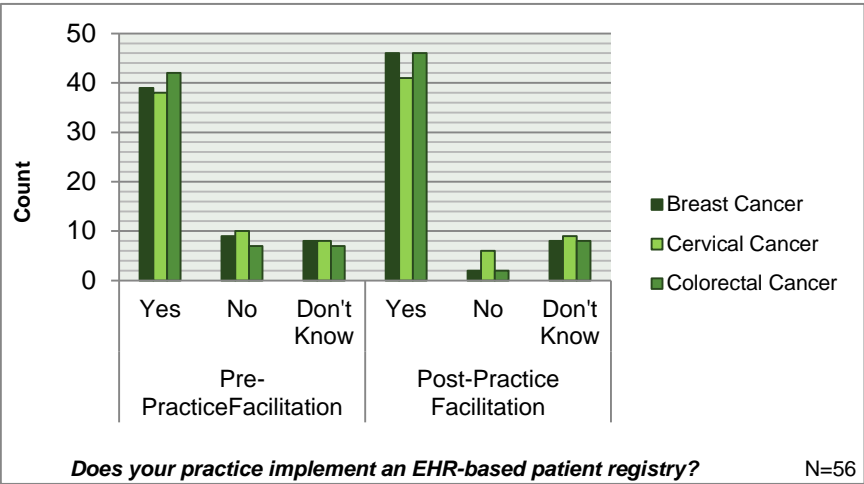
Survey respondents were also asked a series of Likert-scale questions assessing the importance of selected barriers to utilizing EHR-based registries to track patient cancer screening (see Appendix C for survey text). The Likert scale ranged from a low value of 1 (not important) to a high value of 5 (very important). Mean scores for each question were obtained to estimate the overall degree to which respondents felt the barriers

Figure 14. Mean Scores for Questions on EHR-Based Patient Registry Barriers
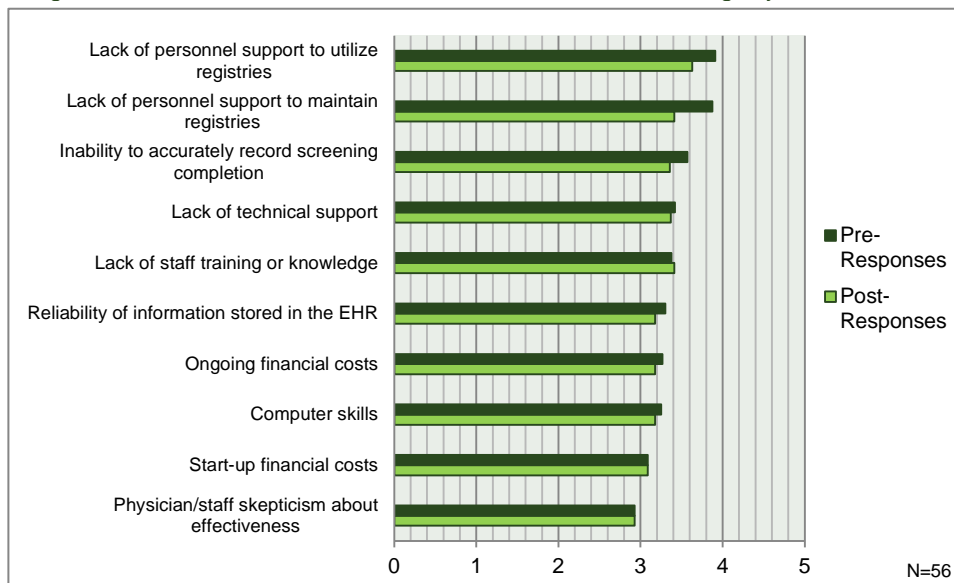
to EHR-based were important in their practice: mean scores of less than 3.0 indicate low importance, and mean scores above 3.0 indicate high importance. Figure 14 displays the distribution of pre- and post-practice facilitation mean scores for the questions addressing barriers to EHR-based registry use.

Respondents identified the lack of personnel support to both maintain and utilize registries as among the top three most important barriers to utilizing EHR-based patient both before and after receiving practice facilitation. While lack of personnel support to maintain registries fell significantly (p=0.006) between the two measurement periods, it still ranked as one of the top three barriers to utilizing EHR-based patient registries by the end of the project period; the decrease in the importance of lack of personnel support to utilize registries was marginally significant (p=0.066). During the pre-practice facilitation period, the inability to accurately record screening completion in the EHR was among the top three barriers; however, by the end of the project period, the lack of staff training or knowledge about patient registries rose above this barrier in importance. Physician and staff skepticism regarding the effectiveness of registries to improve patient care, and start-up financial costs were not considered important barriers by respondents at either measurement period.

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 C 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 felt 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 15 displays the distribution of pre- and post-practice facilitation mean scores for the questions addressing quality improvement strategies.

The top three quality improvement strategies that respondents felt, on average, would most benefit their practices' ability to increase cancer screening both before and after practice facilitation were: provider reminder systems, patient education and patient reminders. Respondents rated the benefit of the quality improvement strategies of practice benchmarking, Plan-Do-Study-Act (PDSA) interventions and workflow process mapping lower after receiving practice facilitation services. The only two strategies with a

Figure 15. Mean Scores for Questions on Benefit of Quality Improvement Strategies to Increasing Cancer Screening

statistically significant change in respondent opinion were Plan-Do-Study-Act and practice benchmarking, which both decreased in their level of perceived benefit to improving cancer screening (p=0.026 and p=0.007, respectively). Provider reminder systems and provider/staff training were the only strategies to increase in perceived benefit across the two measurement periods, though these changes were not statistically significant.

Additionally, among respondents indicating they were unfamiliar with the quality improvement strategies listed in the survey question items, the three most commonly listed strategies were workflow process mapping, PDSA interventions, and practice benchmarking. The number of respondents listing lack of familiarity with these strategies did not fluctuate across measurement periods.

Respondents were also asked to indicate the degree to which they thought the use of an EHR-based patient registry would be effective for tracking cancer screening rates using a Likert scale, with a low value of 1 (not effective) to a high value of 5 (very effective). The mean score for EHR-based patient registry effective prior to receiving practice facilitation was 4.05, indicating respondents felt the use of these registries would be an effective tool to track cancer screening. This score was reduced to 3.73 post-practice facilitation; however, this change was not statistically significant.

Change in Provider Perceptions

The results of the pre- and post-practice facilitation surveys illustrate first that the survey respondents perceive the patient-related barriers to increasing cancer screening as more important than the system-related barriers. These patient-related barriers are both behavioral and structural. Similarly, the quality improvement strategies perceived as most beneficial to increasing cancer screening are targeted toward patient and point-of-care interventions.
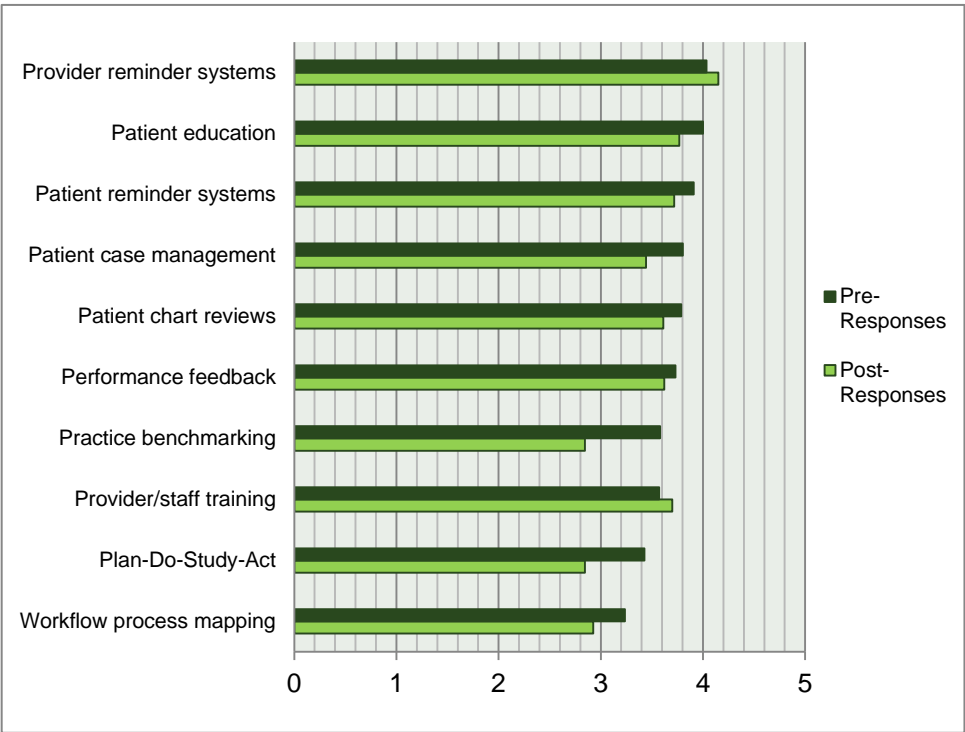
Second, these results indicate that respondent perceptions toward EHR-based patient registry/report utilization shifted after receiving practice facilitation services, with a decrease in perceived benefit. The top barriers to utilizing EHR-based patient registries touch on inadequate personnel resources 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 utility of this tool.

Lastly, the perceived utility of system-level quality improvement strategies, such as workflow process mapping and Plan-Do-Study-Act interventions, decreased across the project period. While this result could be related to a lack of knowledge or training regarding these specific strategies among survey respondents, it may also be the case that respondents did not achieve desired or expected outcomes through the use of these strategies. Respondents listed the inability to track patient screening information as an important system-level barrier both before and after receiving practice facilitation services. While the survey did not specifically identify the extent to which respondents utilized each quality improvement strategy, it is possible that those individuals using workflow mapping or PDSA interventions were not able to achieve their desired outcomes by the end of the project period, or had difficulty implementing these strategies in the given time frame.

Focus Group and Interview Findings

Focus groups were conducted with three out of the 23 practices; due to scheduling conflicts, the project coordinator held key informant interviews for the remainder of the practices. 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.

Participants
Sixteen individuals participated in the key informant interviews, and 13 individuals participated in the focus groups. The majority of individuals participating in the key informant interviews and focus groups were practice medical directors, practice managers, quality improvement specialists, and care coordinators. The credentials of the participants included MD/DO, FNP, RN, LPN, and MSW.

Summary of Findings
A detailed discussion of the focus group methodology and topic area summaries can be found in Appendix E. The following summary briefly describes the main findings of the focus group analysis, grouped by topic area.

Academic Detailing Session
The majority of participants remarked that the academic detailing session was helpful and informative, and acted as a good segue into the project for staff. The academic detailing session was a useful means by which all providers and staff at the practice could be given an overview of the project and education on cancer screening. One participant explained that having an outside source reiterate information to practice staff was important.

Practice Facilitator Relationship
Most of the practices were very happy with the assistance given by their practice facilitator. Practices in their second year of the project felt that having a trusted relationship and someone familiar with their system gave their

practice a head start on tackling the problems at hand. Two participants thought their practice needed to utilize more of the practice facilitator's time to develop better results. Each participating practice had a different staff relationship with their practice facilitator, though in most the practice facilitators worked directly with one or two key staff members. Small quality improvement teams were also utilized to establish strategies for improvement. One practice used friendly competition with a monetary reimbursement to encourage staff involvement in the project.

Most of the practices expressed interest in using quality improvement methods among staff. A few participants felt their practices already had a satisfactory training program in quality improvement and did not have interest in additional assistance in this area. One practice stated that they needed more help with resources than with quality improvement training. However, the majority of practices, whether they had prior quality improvement education or not, felt additional training would be useful. Participants from 21 of the practices discussed the advantage of utilizing the practice facilitator's knowledge base on educational materials, policies, and activities that have worked in other practices. They were able to determine what had worked in other practices and integrate this into their own processes. Improving patient care, staff work flow, and patient outreach are areas that participants felt needed additional quality improvement in their practices.

Project-Related Activities and Policies

Patient outreach was a focus for all participating practices. New policies and activities were noted in all but two practices. The two practices that did not have any new policies or activities said they focused on existing activities and workflow. Almost all of the practices focused on increasing reminder letters, follow up calls, or automated reminder calls with patients who were due or overdue for screening tests. Several practices utilized mobile mammography services. Those practices that had not already worked on setting up or streamlining a registry chose to implement and/or improve their EHR registry system. Most of the practices used monthly reports generated from these EHR-based patient registries to form patient lists and evaluate their progress. A few practices targeted uninsured/underinsured patients in their phone campaigns and connected their patients with the Cancer Services Program. One participant also mentioned using reminder sheets attached to patient charts throughout the visit to prompt screening reminders and education opportunities. All of the practices worked on patient education through one-on-one interaction with the provider, handouts, models, posters, or mailings.

The majority (16) of practices focused on increasing cancer screening for all three cancers. The decision to focus on increasing a single type of cancer screening for the remaining seven practices was made based on staff availability or information from the patient cancer screening lists.   For example, one practice chose to focus on breast cancer screening and colorectal cancer screening due to an existing high rate of cervical cancer screening within their patient population.

Cancer Screening Barriers

Patient noncompliance was frequently mentioned as a barrier to receiving colorectal cancer screening among the practices. Patient noncompliance for all three cancer screenings is thought to stem from fear of the results, lack of transportation, insurance costs, lack of follow up, and forgetting the appointment. Transportation was an issue for colorectal screening in all practices and for breast and cervical cancer screening in rural practices. Several participants also cited education as a barrier for many patients, as they did not understand the guidelines for screening or the need for continuous cancer screening. All of the participants mentioned issues of cost as a large

barrier to improving screening rates. Costs to the practices ranged from increasing their staff to handle the additional time requirements to the cost of patient education and reminders. Staffing issues, such as a high turnover rate or understaffing, were also an issue for seven practices.

Communication between the participating practices and specialists for the screening procedures was mentioned by many of the participants as a barrier to tracking the need for patient services. The time required for follow up on patient referrals, as well as patient reminders, was a common issue among the practices. Many of the practices had already worked on or are currently working towards more efficient EHR systems and patient registries to address this issue. However, three participants reported issues with their IT support staff that hindered progress in this area.

The barriers to breast cancer, cervical cancer and colorectal cancer screening observed in the Y2 project period were similar to the colorectal cancer screening barriers observed during Y1. Many of the factors contributing to increased screening in all three areas reflect the same factors found to increase colorectal cancer screenings in the previous year. These concepts can be seen in Table 14.

Sustainability

All but one of the participating practices found that this project aligned with the requirements for health system reform (Accountable Care Organization, PCMH, Meaningful Use). Only one practice was unsatisfied, stating that they would like the topic to align more closely with these requirements. Many used the reports for PCMH to assist in determining their cancer screening rates, and will continue to use the processes they learned under this project for PCMH. Practices also noted the project activities and processes overlapped into their day-to-day management of other patient issues, such as hypertension and hemoglobin A1C testing.

Overall, practices found that the monetary incentive did influence them to participate in the study; only one participant felt that the incentive did not influence his practice's participation. Participants found the monetary amount to be, "fair", "adequate", "appropriate", or "sufficient". Three participants felt the incentive should be high enough to cover additional labor and personnel, approximately $5,000-7,000. All of the participants used the $1,000 incentive to cover the cost of outreach and educational materials used during the project. Many of the participants plan to use the participation stipend towards, variously, staff reimbursement, staff training, additional educational materials, and upgrading their automated phone messaging system.

Plans to continue initiatives to increase colorectal cancer, cervical cancer, and breast cancer screening were reported from every practice. Continuing to improve staff workflow and staff education was mentioned by many participants. Several of the practices plan to continue using mobile mammography services at least once a year. Ten practices plan to conduct patient portal, phone or mailing campaigns to increase follow up and patient education. Including FIT testing in the office as an alternate to colonoscopy was mentioned as the next step for two practices.

Table 14. Common Barriers to Increasing Cancer Screening Expressed During Focus Groups/Interviews

Barriers to Increased Screening	Facilitators of Increased Screening
Patient-Level	
- Transportation - Insurance/financial constraints - Language/communication issues at the point of care - Comprehension - Refusal/Non-compliance	- Education and outreach - Case management and follow up - Lifestyle-amenable screening methods - Reduction of structural barriers
Staff-Level	
- Lack of time - EHR data errors - Lack of investment in quality improvement interventions	- 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
Practice-Level	
- Lack of personnel - Workflow inefficiencies - EHR data errors & reporting limitations - Two-way communication with specialists	- Quality improvement coaching - Workflow assessment and adjustment - EHR "workarounds" - PCMH certification requirements - EHR technical assistance

VI. Lessons Learned & Implications

Practice Recruitment, Enrollment and Engagement

Practice and Project Staff Relationship	• Strong relationships with practice facilitators linked to stronger practice outcomes • Face-to-face presence of practice facilitator most meaningful form of interaction • When possible, beneficial to include health IT personnel on QI teams
Project alignment with existing practice policies	• Practices increase efficiencies and engagement when QI activities align with existing priorities (e.g., PCMH, MU. DSRIP)
Impact of practice staff turnover	• Practices with high staff turnover or absences struggle to accomplish QI goals
Role of practice decision-maker/project champion	• Engagement of practice leadership enhanced when QI goals concretely defined • Practice champions can be selected from all levels of practice staff • Champions with administrative role may advance improvement
Multiple targets for improvement	• Lack of personnel, resources and time inhibited ability of many practices to address all three cancer screening targets • Standardized, replicable interventions were most successful for addressing all three cancer screening targets • Cervical cancer screening least targeted, and may need alternative approach for improvement

Quality Improvement to Track Patient Screening

Data validity and reliability concerns	• Improvement in EHR date reliability and validity will require extended time, documentation fidelity and consistent staff engagement • Lack of valid and reliable data can be a significant barrier to implementing QI initiatives
Closing the loop	• All practices experience issues in obtaining screening completion reports across all cancer screening targets • Success in closing the loop partially contingent on office operations and policies of specialist providers
Barriers to implementing new office policies	• Practices operating within larger health systems face administrative barriers to policy change • Inadequate staff training and resistance to change barriers to practice-level workflow and policy changes
Practice resource constraints	• Lack of financial resources and lack of skill-based resources are barriers to implementing QI initiatives

Barriers to Screening Completion

Factors of non-compliance	• Transportation significant structural barrier for patients needing breast and colorectal cancer screening • Inadequate insurance, patient refusal, lack of knowledge/awareness, and lack of referral follow-through contribute to patient non-compliance
Specialist provider supply	• Lack of local specialists (particularly GI) to accept referred patients is a structural barrier primary care practices cannot address • Long wait times for colonoscopy, even when GI is available
Special populations	• Homeless patients and patients with mental disorders face unique barriers to obtaining cancer screening services

Practice Recruitment, Enrollment and Engagement

1. Practice and Project Staff Relationship

Feedback provided during the focus groups/interviews, as well as observations made by the project team and practice facilitators, indicates that **those practices that were able to maintain a stronger relationship with the practice facilitators had a more positive experience with the project and stronger outcomes related to their goals**. Particularly, the seven practices who participated in the Y1 project period had established a relationship with their practice facilitator and felt better prepared to initiate new activities as a team during the Y2 project period. These practices reported that they were more aware of what services the practice facilitator could provide and how they could best capitalize those services.

Additionally, five practices participating in the Y2 project period had established a working relationship with their practice facilitator outside of this project. These practices reported that they were able to work more efficiently on targeted quality improvement activities with the practice facilitator because she had already been granted access to and trained to use the practices' EHR systems. These practices also felt they were able to work with the practice facilitator in a more seamless manner because they were aware of her skill set and viewed her as a stable member of the practice quality improvement team.

Feedback from project participants and practice facilitators during the focus groups/interviews also revealed the **importance of having practice facilitators working in-house at their assigned practices consistently. Participants felt that the in-person interactions with practice facilitators acted as a reminder of project objectives and activities, and helped build rapport and project buy-in among practice staff**.

Practice facilitators working at practices that were part of a larger health system or university clinic often served as a bridge between IT staff and practice administration. **When possible, it may benefit the quality improvement efforts of practices to include health system IT staff on the QI teams developed under this and similar projects**.

2. Project Alignment with Existing Practice Priorities

Consistent feedback was provided by both practice facilitators and participating practices throughout this project period that quality improvement activities need to align with existing priorities, e.g., Patient Centered Medical Home (PCMH), Meaningful Use (MU) and Delivery System Reform Incentive Payment (DSRIP) Program. Practices engaged in this project felt overwhelmed during the November 2014 – February 2015 period due to competing priorities for PCMH and DSRIP applications. Practice facilitators reported that during this period they were granted little time to meet with their project teams and/or project activities were not prioritized among practice staff.

To address this barrier, both participating practices and practice facilitators worked to align the quality improvement activities initiated under the Y2 project period with PCMH and/or MU targets. This was viewed as an efficient utilization of personnel time and practice resources. Reframing the quality improvement activities initiated under this project to align with PCMH and MU targets also fostered increased buy-in among practice staff. For example, one practice facilitator reported that when the project initially began, practice nursing staff at several of

her sites felt that she was "only there to create more work" for them, rather than to help the practice improve its performance. After having discussions across the practices to align activities with established priorities, she was able to generate a stronger level of engagement among nursing staff and the practices as a whole.

3. Impact of Practice Staff Turnover

Seven of the practices enrolled in the Y2 project period experienced significant changes to personnel that impacted their ability to fully engage in the project. Four of these practices were rurally located and three were located in urban areas. Staff within these practices, including physicians, nursing staff and administrative staff, either left the practice or went on maternity/sick leave during the project period. **Due to the resulting shortage of available personnel, these practices struggled to accomplish their quality improvement goals established at the start of the Y2 project period**. Additionally, some of the personnel on maternity/sick leave acted as the primary contacts for the practice facilitators; their absence interrupted the working relationship these practices had with the practice facilitators, and thus stalled their quality improvement work under the project until a new primary contact was established. These practices were unable to fully participate in all post-facilitation data collection activities (e.g., post-practice facilitation survey, focus groups) due to the turnover, absence and limited availability of staff.

4. Role of Practice Decision-Maker/Project Champion

The project champion identified during Y2 project period enrollment also filled a role in administrative leadership at several practices (i.e., medical director, practice manager). The practice facilitators noted that e**ngagement of practice champions – and practice leadership in general – was greatly enhanced when a target or goal for quality improvement was concretely defined**, such as utilizing mobile mammography or conducting targeted pre-visit planning activities. However, some project champions did not always fully engage practice staff on the feasibility of accomplishing new assignments in addition to regular work responsibilities, and faced some pushback from staff on labor-intensive initiatives, such as patient reminder mailings and phone calls. Some practice manager champions chose to utilize the monetary incentives offered under this project to compensate staff who adopted additional work responsibilities and work hours to achieve these labor-intensive initiatives.

A small number of practices also chose to have a project champion at other levels within the practice, including practice physicians and care coordinators. These project champions took a personal interest in the project, spearheaded several patient outreach efforts and provided sustained momentum across those involved in quality improvement activities. It appears that for these practices, project champions operating at a "grass roots" level were also able to successfully garner engagement in quality improvement activities.

It is important to note that stronger engagement of practice site coordinators (as assessed through the TRANSLATE model) was significantly, positively correlated with higher cancer screening rates across all three target areas. **It may be the case that practice champions who also fill an administrative role within the practice are able to engage more actively with practice facilitators and achieve improvement targets due to their ability to coordinate practice-wide initiatives and policies**.

5. Multiple Targets for Improvement

Focus group/interview participants from several of the practices felt that it was not feasible to concentrate efforts on all three cancer prevention activities targeted in this project. Barriers included lack of personnel, lack of resources, and lack of time. The 16 practices that were able to address screening for all three cancers did so through the use of standardized interventions that could be replicated across health maintenance topics, such as the use of patient educational materials, patient follow-up by social worker/care coordinator, and pre-visit planning. However, the remaining seven practices felt that the barriers to increasing cancer screening – and accompanying opportunities for improvement – were sufficiently disparate across the three cancers to warrant targeted, cancer-specific quality improvement activities. These practices focused on only one to two cancers during the project period, as they felt that this was the most they could accomplish in a short time period within a context of limited resources. These practices chose their foci using EHR-based patient registry reports and targeted the cancer group(s) with the lowest screening rates.

Additionally, three of the seven practices chose not to focus on cervical cancer screening due to a belief that Ob-Gyn providers were adequately managing this screening service for their shared patients. This viewpoint, coupled with the lack of significant improvement in the average cervical cancer screening rate across the participating practices, indicates that **addressing cervical cancer screening within primary care may need a different approach than those taken with breast and colorectal cancer screening**, such as targeting collaboration and communication between specialties.

Quality Improvement to Track Patient Screening

1. Data Validity and Reliability Concerns

All of the practices enrolled in this project discussed concerns with the validity and reliability of the data stored in their EHR systems. These reliability concerns stemmed from the following circumstances:

- Historical patient data has not been completely transferred into the appropriate fields in the EHR for those practices transitioning either from paper-based records to EHR or between EHR systems
- The communication pathway between stored data and registry/report/health maintenance alerts systems has not been investigated or clarified
- Patient data is recorded in multiple locations in the EHR, not all of which are structured (searchable) fields

All of the participating practices recognized the value of making continual improvements to EHR system functionality, and noted that these issues in EHR data storage will require significant personnel time to ameliorate. The majority of practices (19) dedicated specific time to work with the practice facilitators on data mapping and workflow adjustments in order to establish a foundation for sustainable improvement. However, **it will likely take an extended period of time (i.e., multiple months to years), high documentation fidelity and consistent staff engagement to achieve this improvement in EHR accuracy.**

The lack of valid data was explicitly mentioned as a significant barrier to implementing quality improvement initiatives for eight practices during the focus groups/interviews. These practices felt that it was difficult to conduct appropriate follow up for patients without the ability to confidently identify which of their patients simply needed referrals versus those who needed targeted outreach to overcome personal or structural barriers to obtain

screening. Additionally, the need to clean the EHR data system took precedence over other available evidence-based interventions for two of these practices.

2. Closing the Loop

The issue of closing the loop on patient screening (i.e., securing screening completion reports for patients) was ubiquitous across the practices enrolled in this project. Practices were at times able to refer patients to specialist providers within their health system and thereby ensure that screening results would be auto-populated into the EHR. However, this capability was only present for a small number of practices, and every practice enrolled reported issues securing colonoscopy reports, mammography reports, and cervical cancer screening pathology reports from specialist providers outside of their health system during the focus groups/interviews. In fact, three practices that did not offer cervical cancer screening services in-house chose 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. Additionally, several practices stated that they are often not alerted by the specialist providers that a patient has no-showed or canceled an appointment for a screening service, and are thus not always aware of patients needing follow-up.

The practice facilitators were able to collaborate with some specialist providers through the use of report fax back forms, wherein the specialist providers would receive a request for a report and fax it back to the primary care office. However, these interventions have had lukewarm success due to low compliance among the specialist providers. The alternative to using the fax back forms is for practices to dedicate staff to the task of calling specialist providers and obtaining reports for individual patients on an on-going basis. This method is viewed as a time-consuming, uphill battle by our enrolled practices.

It is therefore important to recognize that the success a primary care practice has in closing the loop on patient screening is partially contingent on the office operations and policies of area specialists.

3. Barriers to Implementing New Office Policies

Seven practices reported in the focus groups/interviews that they did not institute new formal policies targeting cancer screening quality improvement under this project. **Fourteen of the participating practices were part of either university hospitals/clinics or large medical groups/health care systems. These practices specifically mentioned that it was difficult to institute formal policy changes due to the necessity of having those policies reviewed by their organizations' administration.** For example, practices participating in the Y1 project period initiated a health system-wide change to bring FIT processing to their partnering laboratory; this effort took several months to achieve and impacted the entire health system. For this reason, several of these practices chose to make changes to practice workflows that would not impact how the practice interacted with the wider organization. Also, it is important to note that there is variability in how practices defined policies, as some considered workflow changes as policy changes while others did not.

An additional barrier to implementing new office policies relates to staff engagement and training. Practices choosing to address pre-visit planning activities as part of their quality improvement goals found that the uptake of the new policies was a slow-moving process, as staff needed time to be trained and adjust to new workflows. Additionally, these practices had to overcome moderate pushback from staff who had changing work

responsibilities. This pushback was addressed through increased training and efforts to contextualize the changes within the greater scope of the practices' quality improvement goals.

4. Practice Resource Constraints

Every practice enrolled in this project mentioned resource constraints as a barrier to tracking and increasing cancer screening among their patients. Resource constraints can be grouped into two overarching categories:

- Financial resources to support labor, patient education and outreach, staff training and incidental costs
- Skill-based resources in practice staff (e.g., IT training, office-wide understanding of screening information, training in EHR utilization)

Barriers to Screening Completion

1. Factors of Non-Compliance

Practices participating in this project overwhelmingly identified patient-related barriers as a primary concern for increasing cancer screening. The primary patient-related barriers identified include:

- Lack of transportation support
- Inadequate insurance coverage and high cost sharing
- Screening service refusal
- Failure to follow through with screening referral
- Lack of knowledge and awareness

Every practice instituted some form of patient outreach and education to address these patient-related barriers during the project period. **However, feedback obtained through the focus groups/interviews and the pre-post practice facilitations surveys indicates that patient non-compliance due to these barriers remains a significant issue for practices as they work to increase cancer screening among their patients**.

One barrier that received particular emphasis was lack of transportation for patient colorectal cancer and breast cancer screening completion. Patients with limited transportation have difficulty arranging plans to travel to and – more importantly – from colonoscopy services. Patients who routinely rely on public transportation cannot use mass transit after a colonoscopy due to the effects of the drugs 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. Information regarding Medicare cabs and other medical transportation services available in the Buffalo, Rochester, and Syracuse regions was shared with the participating practices under this project. However, the resources that exist do not entirely resolve the transportation issues faced by patients needing colonoscopy and mammogram services, as several still require monetary expenses. Practices in the Buffalo and Rochester areas were able to utilize mobile mammography services to overcome this barrier, but this resource was not available in the Syracuse region. **Until an alternate solution is developed, lack of transportation will remain a significant structural barrier to colorectal and breast cancer screening for many patients**.

Additionally, practices felt that the time needed to complete a colonoscopy and/or mammogram was over burdensome for many of their patients, as it would require them to take time off work or pay for childcare services.

One suggestion to overcome this barrier was to schedule bundled visits, wherein a patient could receive multiple screening services in one visit.

2. Specialist Provider Supply

Focus group/interview participants from several practices specifically mentioned a 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 6-8 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. **This is a structural barrier that primary care practices are unable to address**.

3. Special Populations

Two practices participating in this project directly referenced barriers they experience to increasing cancer screening related to the particular patient populations they serve: homeless patients and patients with psychiatric disorders.

The practice serving a predominantly homeless population struggled to address cancer screening since, for many of their patients, concerns over housing, substance abuse and chronic disease care took precedence during an office visit. Additionally, due to the transitory history of their patients, the practice was not always able to obtain records of prior screenings. This was an issue not only for documentation, but also for insurance coverage. Insurers will generally not cover tests conducted with more frequency than the standard recommended interval, and patients without records of prior screening may receive additional, duplicative services that are not covered under their insurance. Obtaining patient consent and practice access to the Regional Health Information Organization of Central New York (RHIO) is one potential avenue for addressing this barrier.

The practice serving a high number of patients with psychiatric disorders, including schizophrenia and bi-polar disorder, found that these patients had a particularly high rate of colonoscopy refusal. The practice did not have any strategies or solutions to this problem.

While these practices are unique in the volume of patients they serve from these particular populations, the issues they are experiencing are not unique and can be found at all primary care practices.

Appendix A: Project Logic Model

Figure 1. Logic Model: Increasing Cancer Screening through Academic Detailing and Practice Facilitation

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	▪ Manage & coordinate core activities and programs ▪ Recruit primary care practices serving low-income, diverse populations	▪ Management & administrative structures and databases in place	▪ Number practices enrolled ▪ Number of practices completed	▪ Increase use of evidence-based interventions targeting breast, cervical and colorectal cancer screening in primary care practices ▪ Increase guideline-recommended cancer screening among patient populations in New York ▪ Increase utilization of screening resources in New York for under/uninsured patients ▪ Reduce incidence of preventable new cases of breast, cervical and colorectal cancer ▪ Reduce disparities in cancer screening among New York residents ▪ Observe trends in cancer screening using MMIS or NPI numbers (by NYS-DOH)
Academic Detailing	▪ AD session designed by Detailing Panel and designated as live activity with CME credit under AAFP ▪ AD session adapted to enduring electronic material with CME credit under AAFP ▪ Screening guidelines, tools and explanatory materials uploaded to EducareCE online learning system under CNY-AHEC ▪ AD session and durable goods delivered to participant primary care practices	▪ CME attendance sign-in sheets ▪ CME certificates distributed ▪ Post-CME evaluation forms ▪ Volume of durable goods distributed (administrative databases)	▪ Number of PCPs receiving AD session ▪ Increase in knowledge of current CRC screening guidelines among PCPs participating in AD sessions ▪ Increase in knowledge of CRC screening resources available in New York for under/uninsured patients among PCPs participating in AD sessions	
Practice Facilitation	▪ Distribute and collect survey materials ▪ Assist practice in use of EHR to track cancer screening ▪ Implement practice facilitation methodologies to coach practices on cancer screening quality improvement ▪ Track all practice facilitation activities ▪ Facilitate focus groups	▪ PF Logs ▪ PF Notes ▪ Survey forms ▪ Focus group transcripts ▪ TRANSLATE rubrics ▪ EBI worksheets ▪ Baseline breast, cervical and CRC screening rate per practice (administrative databases) ▪ Volume of small media distributed (administrative databases)	▪ MMIS or physician NPI numbers of participating practices ▪ Pre-post intervention difference in patients screened per participating practice ▪ Number and description of new practice workflows developed for cancer screening quality improvement ▪ Number and description of new practice policies developed for cancer screening quality improvement ▪ Number, type and approximate cost of investment for practice facilitation activities ▪ Existing EHR report/registry function capabilities and barriers in practices ▪ Existing practice-level, physician-level and patient-level barriers to cancer screening as experienced by participating practices ▪ Existing barriers to tracking patient cancer screening as experienced by participating practices	
Inputs		**Immediate Outputs**	**Proximal and Distal Outcomes**	

Appendix B: Academic Detailing Materials

I.   Community Resource Guide, Syracuse Region

Breast, Cervical and Colorectal Cancer Screening
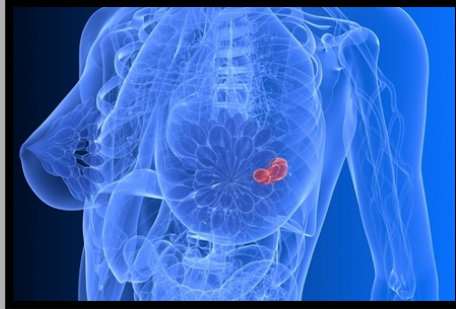
Community Resource Guide for Syracuse, NY

2014

A brief directory of breast, cervical and colorectal cancer screening resources located in the area surrounding Syracuse, NY.

The Breast, Cervical and Colorectal Cancer Screening Resource Guide for Syracuse, NY was compiled by the Department of Family Medicine at SUNY Upstate Medical University.

INTRODUCTION

This document is designed to provide a brief guide to breast, cervical and colorectal cancer screening resources in the area surrounding Syracuse, NY, including Cayuga, Cortland, Onondaga, Oswego and Tompkins counties.

Information on breast, cervical and colorectal cancer screening services provided by the New York Cancer Services Program for low-income individuals can be found in section one, as well as the appendices.

The directory information provided under *Gastroenterology Service Providers* and *Breast Health Centers* is not exhaustive and offers only a general register of providers who perform colorectal and breast cancer screening services in the area. While many of these service providers accept a wide variety of major medical insurance, Medicaid and Medicare, the coverage of screening services will vary by insurance carrier as well as insurance plan.

Please be sure to contact the business office of the service provider to discuss patient-specific insurance coverage and cost estimates.

The resources recorded in this guide are current as of August 2014.

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Section 1: Resources for Uninsured and Underinsured Patients

The state of New York provides **breast, cervical** and **colorectal** cancer screening services through the Cancer Services Program (CSP), for **NO COST to women and men who meet the following criteria**:

- Do not have health insurance OR have health insurance that does not cover the cost of screening
- Cannot pay for the screening
- Meet income eligibility requirements
- Meet age requirements
- Live in New York state

CSP can be reached 24/7 at **1-866-442-2262**, and can connect patients to the appropriate CSP location for their screening. Diagnostic services are also available through CSP to eligible women and men. Furthermore, eligible women and men may enroll in the NYS Medicaid Cancer Treatment Program to receive full Medicaid coverage for cancer treatment, should a screening detect cancer.

> The primary colorectal cancer screening service offered by CSP is the at-home FIT kit for adults aged 50 and older at average risk. Patients should contact their local CSP office to obtain the FIT kit, as well as obtain information on how to appropriately submit the test to approved laboratory servicers.

> CSP offers breast cancer screening, including mammograms and clinical breast exams, to women aged 40 and older or to women under age 40 at high risk for breast cancer.

> Cervical cancer screening is available to women **aged 40 and older**. Services provided by CSP include pap tests and pelvic exams.

Patients requiring additional follow-up services should contact their local CSP office to obtain approval for these diagnostic procedures.

The Cancer Services Program also offers educational print resources for providers to use in-office with patients. These resources cover a variety of cancer screening topics as well as provide information on the Cancer Services Program. Educational materials are available in multiple languages.

To review educational print materials and access the publication order form, visit the following website: http://www.health.ny.gov/diseases/cancer/educational_materials/

If you would like to join the CSP partnerships located within your county, contact the Cancer Services Program at the regional location listed below or review the *Cancer Services Program Provider Fact Sheet* in Appendix D.

Contact information for CSP locations in the Syracuse, NY, region can be found below:

County	Phone
Cayuga	(315)253-1455
Cortland Tompkins	(607)758-5523
Onondaga	(315)435-3635
Oswego	(315)592-0830

Additional resources on the Cancer Services Program and Medicaid Cancer Treatment Program can be found in Appendices D through F.

CONTACT INFORMATION FOR THE CANCER SERVICES PROGRAM

Cancer Services Program
Bureau of Chronic Disease Control
New York State Department of Health
Riverview Center, Ste. 350
Albany, NY 12204
(518) 474-1222
canserv@health.state.ny.us

Section 2: Gastroenterology Service Providers in Central New York

Provider	Address	Phone/Fax	Accepts Medicaid and Medicare
Associated Gastroenterologists of Central New York www.assocgastro.com	Community General Hospital Physician's Office Building 4870 Broad Rd., Ste. 3Q Syracuse, NY 13215	P: (315)492-5765 F: (315)492-5123	Medicaid: yes Medicare: yes
	4939 Brittonfield Pkwy East Syracuse, NY 13057	P: (315)218-0085 F: (315)218-0087	
	Northeast Medical Center 4309 Medical Center Dr. Fayetteville, NY 13066	P: (315)329-7300 F: (315)329-7308	
	North Medical Plaza 5112 West Taft Rd., Ste. U Liverpool, NY 13088	P: (315)452-2214 F: (315)452-2217	
Binghamton Gastroenterology Associates www.binghamtongastro.com	40 Mitchell Ave. Binghamton, NY 13903	P: (607)772-0639 F: (607)722-4610	Medicaid: yes Medicare: yes
Colon Rectal Associates of Central New York www.colonrectalhealth.com	Northwest Medical Office 5100 West Taft Rd., Ste. 4-A Liverpool, NY 13088	P: (315)458-2211 F: (315)452-9025	Medicaid: yes Medicare: yes
	Upstate at Community General Hospital POB, 4-C Broad Rd. Syracuse, NY 13215	P: (315)492-5860 F: (315)492-5135	
Community Memorial Hospital – Gastroenterology www.communitymemorial.org	150 Broad St. Hamilton, NY 13346	P: (315)234-6677	Medicaid: yes Medicare: yes
Crouse Hospital	See Syracuse Gastroenterological Associates		
Digestive Disease Center of CNY www.ddcofcny.com	North Medical Plaza 5112 W Taft Rd., Ste. E Liverpool, NY 13088	P: (315)410-7400	Medicaid: no Medicare: yes
Digestive Disease Medicine of Central New York	110 Business Park Dr. Utica, NY 13502	P: (315)624-7000	Medicaid: yes Medicare: yes
	301 Genesee St., Ste. A Oneida, NY	P: (315)363-9183	

Provider	Address	Phone/Fax	Accepts Medicaid and Medicare
Gastroenterology Associates of Ithaca www.ithacagastro.com	2435 North Triphammer Rd. Ithaca, NY 14850	P: (607)272-5011	Medicaid: yes Medicare: yes
Gastroenterology & Hepatology of Central New York www.gandhofcny.com	North Medical Plaza 5122 W Taft Rd., Ste. E Liverpool, NY 13088 Medical Center West 5700 W Genesee St., Ste. 211 Camillus, NY 13031	P: (315)452-3235 F: (315)452-5726 P: (315)488-6800 F: (315)488-3177	Medicaid: no Medicare: yes
Guthrie Clinic	1780 Hanshaw Rd. Ithaca, NY 14850	P: (607)257-5858	Medicaid: yes Medicare: yes
North Country Surgical Specialists www.ncsurgicalspecialists.com	1571 Washington St., Ste. 103 Watertown, NY 13601	P: (315)782-0325 F: (315)836-2016	Medicaid: yes Medicare: yes
Samaritan Medical Center www.samaritanhealth.com	Surgical Care Center Samaritan Medical Center 830 Washington St. Watertown, NY 13601	P: (315)785-4386	Medicaid: yes Medicare: yes
St. Joseph's Hospital Health Center	See Associated Gastroenterologists of CNY or Gastroenterology & Hepatology of CNY		
SUNY Upstate Medical University Gastroenterology www.upstate.edu/gi	University Gastroenterology (Hill Medical Building) 1000 E Genesee St., Ste. 205 Syracuse, NY 13210	P: (315)464-1600	Medicaid: yes Medicare: yes
	Clinical Research Center Institute for Human Performance 505 Irving Ave. Syracuse, NY 13210	P: (315)464-5794	
	Division of Gastroenterology, Endo Suite SUNY Upstate Medical University 75- E Adams St. Syracuse, NY 13210	P: (315)464-5728	
Syracuse Gastroenterological Associates www.syracusegastro.com	CNY Medical Center 739 Irving Ave, Ste. 400 Syracuse, NY 13210 Clay Medical Center 8100 Oswego Rd., Ste. 140 Liverpool, NY 13090	P: (315)234-6677 F: (315)883-4896 P: (315)641-1966	Medicaid: yes Medicare: yes

Section 3: Breast Health Centers in Central New York

Provider	Address	Phone/Fax	Accepts Medicaid and Medicare
Auburn Community Hospital http://www.auburnhospital.org/programs-services/diagnostic-imaging.php	Essential Diagnostics 615 North Seward Ave Auburn, NY 13021	P: (315) 252-3013 F: (315) 252-3276	Medicaid: yes Medicare: yes
Cayuga Medical Center https://www.cayugamed.org/IMGlocations.cfm	Cayuga Medical Center (Main Campus) 101 Dates Drive Ithaca, NY 14850	P: (607) 274-4376	Medicaid: yes Medicare: yes
	East Campus 10 Arrowhead Drive Ithaca, NY 14850	P: (607) 274-4376	
	Cortland Campus 1129 Commons Avenue Cortland, NY 13045	P: (607) 274-4376	
CNY Diagnostic Imaging Associates http://www.cnydiagnosticimaging.com/	Brittonfield 4939 Brittonfield Pkwy East Syracuse, NY 13057	P: (315) 634-6690 F: (315) 634-6691	Medicaid: yes Medicare: yes
	Clay Medical Center 8100 Oswego Road, Suite 120 Liverpool, NY 13090	P: (315) 652-1020 F: (315) 652-4578	
	The Hill Medical Center 1000 E. Genesee St, Suite 100 Syracuse, NY 13210	P: (315) 472-8835 F: (315) 476-3712	
	West Taft Medical Park 4820 W. Taft Road Liverpool, NY 13088	P: (315) 453-5004 F: (315) 453-2412	
Cortland Regional Medical Center http://www.cortlandregional.org/medical-services/medical-imagingradiology	134 Homer Ave Cortland, NY 13045	P: (607) 756-3794	Medicaid: yes Medicare: yes
Crouse Hospital http://www.crouse.org/services/breast-health-center/	CNY Medical Building 739 Irving Ave Syracuse, NY 13210	P: (315) 470-5880	Medicaid: yes Medicare: yes
Diagnostic Imaging Center http://www.craimaging.com/locations/diagnostic-imaging-center/	37 West Garden Street Suite 107 Auburn, NY 13021	P: (315) 255-2828	Medicaid: yes Medicare: yes

Provider	Address	Phone/Fax	Accepts Medicaid and Medicare
Jeffrey B. Chick, MD, P.C. http://www.doctorchick.com/	6221 Route 31, Suite 107 Cicero, NY 13039	P: (315) 579-2560 F: (315) 579-2561	Medicaid: no Medicare: yes
Oswego Hospital https://www.oswegohealth.org/hospital/	Central Square Medical Center 3045 East Ave (Rt 49) Central Square, NY 13036	P: (315) 668-5290 F: (315) 668-5299	Medicaid: yes Medicare: yes
	Fulton Medical Center 510 South Fourth Street Fulton, NY 13069	P: (315) 592-3555	
St. Joseph's Imaging Associates http://www.stjosephsimaging.com/locations.htm	North Medical Center 5100 W. Taft Road Liverpool, NY 13088	P: (315) 452-2555 F: (315) 452-2559	Medicaid: yes Medicare: yes
	Genesee Medical Center 1200 E. Genesee St. Syracuse, NY 13210	P: (315) 475-1669 F: (315) 475-9518	
	Northeast Medical Center 4109 Medical Center Dr. Fayetteville, NY 13066	P: (315) 329-7555 F: (315) 329-7559	
	Medical Center West 5700 West Genesee St. Camillus, NY 13031	P: (315) 631-6555 F: (315) 631-6559	
	Radisson Health Center 8280 Willett Parkway Baldwinsville, NY 13027	P: (315) 635-6814 F: (315) 635-6816	
	Fulton Health Center 810 South First St. Fulton, NY 13069	P: (315) 593-1529 F: (315) 593-1542	
SUNY Upstate Medical University http://www.upstate.edu/radiology http://www.upstate.edu/community/services/wellspring	Women's Imaging at 550 550 Harrison Center Syracuse, NY 13210	P: (315) 464-2588	Medicaid: yes Medicare: yes
	Wellspring Breast Care Center 4900 Broad Road Syracuse, NY 13215	P: (315) 492-5007	

APPENDIX A: ADDITIONAL CANCER SCREENING RESOURCES FOR PROVIDERS

CURRENT RECOMMENDATIONS AND GUIDELINES

- US Preventive Services Task Force – Screening Guidelines for Breast, Cervical and Colorectal Cancers:
  - Breast Cancer**:
    http://www.uspreventiveservicestaskforce.org/breastcancer.htm

Screening	Age of Patient	Recommendation
Mammography	50 to 74	Every 2 years
	Under 50	Screening should be individual, patient-specific decision
	75 or Older	Insufficient evidence to assess benefits and harms
Breast Self-Examination	Recommends AGAINST teaching BSE to patients	
Clinical Breast Exam	40 and Older	Insufficient evidence to assess benefits and harms beyond screening mammography
Digital Mammography	Insufficient evidence to assess additional benefits and harms of screening modalities in place of film mammography	
MRI		

  - Cervical Cancer:
    http://www.uspreventiveservicestaskforce.org/uspstf/uspscerv.htm

Female Population	Screening	Recommendation
Age 21 – 65	Cytology (Pap smear)	Every 3 years
Age 30 – 65	Cytology (Pap smear)	Every 3 years
	OR	
	Co-testing (Pap smear + HPV)	Every 5 years

  - Colorectal Cancer**:
    http://www.uspreventiveservicestaskforce.org/uspstf/uspscolo.htm

Patient Age	Recommended Screening	Screening Frequency
50 to 75	HS-FOBT/FIT[a]	Yearly
	Flexible sigmoidoscopy	Every 5 years
	Colonoscopy	Every 10 years
75 to 85	Screen if appropriate	
> 85	Recommend AGAINST screening	
Insufficient evidence to assess Fecal DNA and CT (virtual) colonography		

** Currently being updated (8/21/2014)

- ➢ <u>American Cancer Society – Screening Guidelines for Breast, Cervical and Colorectal Cancer</u>
  - − Breast Cancer:

    http://www.cancer.org/healthy/informationforhealthcareprofessionals/acsguidelines/breastcancerscreeningguidelines/index

Screening	Age of Patient	Recommendation
Mammography	40 and Older	Every year
Breast Self-Examination	20 or Older	Should receive instruction on BSE
Clinical Breast Exam	20's and 30's	Include CBE in periodic health exam, preferably every 3 years
	40 or Older	Include CBE in periodic health exam, preferably annually
Mammography + MRI	30 or older	Every year when lifetime risk is ~25% or greater

  - − Cervical Cancer:

    http://www.cancer.org/healthy/informationforhealthcareprofessionals/acsguidelines/cervicalcancerscreeningguidelines/index

Female Population	Screening	Recommendation
Age 21 – 29	Conventional or liquid-based Pap tests	Every 3 years
Age 30 – 65	Conventional or liquid-based Pap tests	Every 3 years
	OR	
	Conventional or liquid-based Pap tests AND HPV test	Every 5 years

  - − Colorectal Cancer:

    http://www.cancer.org/healthy/informationforhealthcareprofessionals/acsguidelines/colorectalcancerscreeningguidelines/index

Tests Finding Polyps and Cancer	
Test	Frequency
Flexible sigmoidoscopy	Every 5 years
Colonoscopy	Every 10 years
Double-contrast barium enema	Every 5 years
CT (virtual) colonography	Every 5 years
Tests Finding Primarily Cancer	
HS-FOBT	Yearly
FIT	Yearly
Fecal DNA	Unknown

All patients ages 50 and older should be screened for colorectal cancer. Research indicates that the willingness of adults to utilize colorectal cancer screening tests depends on multiple factors, including individual disease risk,   personal preference, and physician recommendation.[1] Discussing the importance of colorectal cancer screening   tests with your patients is critically important to their use of these preventive services.

Most health plans, including Medicaid and Medicaid Managed Care Plans, reimburse for age- and risk-appropriate   colorectal cancer screening tests. The United States Preventive Services Task Force recommends that average-risk   men and women ages 50-75 get regular colorectal cancer screening with any of three tests: a high-sensitivity,   multi-slide fecal occult blood test (FOBT) every year using either guaiac (gFOBT) or immunochemical (iFOBT - also   known as fecal immunochemical test or FIT); a flexible sigmoidoscopy every 5 years; or a colonoscopy every 10   years.[2,3] Screening patients ages 76-85 should be performed on an individual basis, as deemed necessary. Fecal testing is not recommended for those at high-risk of developing colorectal cancer and these individuals may need   to start screening at a younger age.

The use of a single-slide, in-office fecal occult blood test (FOBT) completed after a digital rectal examination is   NOT an approved modality for colorectal cancer screening and should NOT be coded as such for reimbursement   through Medicaid.

WHAT IS FOBT?
FOBT (fecal occult blood test) is a fecal-based colorectal cancer screening option that allows patients to procure samples in the comfort of their own homes, at their convenience.

WHAT IS FIT?
FIT (fecal immunochemical test), sometimes identified as iFOBT (immunochemical fecal occult blood test), is an improved FOBT with higher sensitivity and specificity when compared to guaiac FOBT (or gFOBT). When used yearly, FIT has accuracy rates near those of colonoscopy.[4]

HOW DOES FIT COMPARE TO GUAIAC FOBT?
- FIT has superior sensitivity and specificity as compared to guaiac FOBT.
- FIT uses antibodies specific for human globin and are specific for colorectal bleeding and are <u>not affected</u>   by diet or medications, unlike the guaiac test.
- Automated development is available for some FITs which aids in the management of large numbers of tests and improves quality assurance.
- There is evidence that FIT use improves patient participation in screening by giving patients another choice for colorectal cancer screening.
- FIT has a variety of improved stool collection methods such as a brush or probe.
- New technology for FITs allows them to quantify fecal hemoglobin so that sensitivity, specificity, and positivity rates can be adjusted in screening for colorectal neoplasia.[4]

HOW CAN FIT HELP ME?

FIT can help increase colorectal cancer screening rates in your practice. It is easy-to-use, non-invasive, effective, low-risk and inexpensive. Use of FIT for colorectal cancer screening can help patients overcome many of these common barriers to screening with colonoscopy:

- Time constraints
- Child or elder care issues
- Lack of transportation/inaccessibility to specialists and/or facilities
- Unwillingness or inability to complete bowel prep for colonoscopy [4]

HOW DO I CODE FIT, GUAIAC FOBT AND IN-OFFICE TESTS FOR REIMBURSEMENT THROUGH MEDICAID?

- The CPT code for testing for occult blood by fecal hemoglobin determination by immunoassay (FIT or iFOBT), qualitative is **82274**
- The CPT code for multi-slide take-home FOBT by peroxidase activity (e.g., guaiac) for colorectal neoplasm   screening **82270**
- The CPT code for an in-office test performed after a digital rectal exam to confirm the presence or absence of blood on examination by peroxidase activity (e.g., guaiac) is **82272**. *Remember, this is NOT a   modality for colorectal cancer screening.*

References

1. Subramanian S, Klosterman M, Amonkar MM, Hunt TL. *Adherence with colorectal cancer screening guidelines: a review*. Preventive Medicine. 2004;38:536-50.
2. Whitlock EP, Lin JS, Liles E, Beil TL, Fu R. *Screening for colorectal cancer: a targeted, updated systematic review   for the U.S. Preventive Services Task Force*. Ann Intern Med 2008;149:638-58.
3. United States Preventive Services Task Force. *Screening for colorectal cancer: U.S. Preventive Services Task   Force recommendation statement*. Ann Intern Med 2008;149:627-37.
4. Adapted from Florida Department of Health *Get the FIT Facts* website http://www.getthefitfacts.com accessed   2/6/2012.

TOOLS AND RESOURCES FOR INCREASING CANCER SCREENING RATES

➢ *How to Increase Colorectal Cancer Screening Rates in Practice: A Primary Care Clinician's Evidence-Based Toolbox and Guide* of the American Cancer Society, National Colorectal Cancer Roundtable, Thomas Jefferson University
  – http://nccrt.org/about/provider-education/crc-clinician-guide/
  – Outlines efficient ways for practices to get every eligible patient the colorectal cancer screening tests s/he needs
  – Contains evidence-based tools, sample templates, strategies
  – Downloadable as .pdf or PowerPoint
  – Website also has links to "Options for Increasing Colorectal Cancer Screening Rates in Community Health Centers"

➢ *How to Increase Preventive Screening Rates in Practice: An Action Plan*
  – http://www.cancer.org/healthy/informationforhealthcareprofessionals/colonmdclinicansinformationsource/cancerscreeningactionplan/index
  – This is a shorter version of the *Colorectal Cancer Screening Clinician's Toolbox and Guide*

➢ Cancer.org, For Your Clinical Practice
  – http://www.cancer.org/healthy/informationforhealthcareprofessionals/colonmdclinicansinformationsource/foryourclinicalpractice/index
  – How to Increase Preventive Screening Rates in Practice: An Action Plan
  – How to Increase Colorectal Cancer Screening Rates in Practice toolbox
  – Sample Reminders for Your Practice
  – Clinician's Reference: FOBT
  – Welcome to Medicare Benefit
  – Colorectal Cancer Facts and Figures
  – CA: A Cancer Journal for Clinicians

➢ *National Breast and Cervical Cancer Early Detection Program* (NBCCEDP), Centers for Disease Control and Prevention
  – http://www.cdc.gov/cancer/nbccedp/
  – Provides access to breast and cervical cancer screening services for underserved women across the United States
  – Partnership Development Toolkit
  – NBCCEDP Fact Sheet

➢ *The Community Guide: A Resource to Improve Health and Prevent Cancer in your Area*
  – https://researchtoreality.cancer.gov/node/284
  – Free cyber-seminar detailing the history of the Community Guide; how the Community Guide can be used at the local level to improve health and prevent cancer; and challenges and facilitators to utilizing the Community Guide at the local level
  – One hour in duration

➢ Research-Tested Intervention Programs (RTIPs) of the National Cancer Institute
  – http://rtips.cancer.gov/rtips/index.do
  – RTIPs is a searchable database of cancer control interventions and program materials

APPENDIX B: PATIENT EDUCATION RESOURCES

➢ Cancer.org, Educate Your Patients – free patient education materials
  – http://www.cancer.org/healthy/informationforhealthcareprofessionals/colonmdclinicansinformationsource/educateyourpatients/index
  – Video: Get Tested for Colon Cancer
  – Cancer Early Detection Guidelines Wall Chart
  – Consumer Brochure on Colorectal Cancer Screening
  – QuickFACTS Colorectal Cancer

➢ Cancer.org – Breast Density Flyer
  – http://www.cancer.org/acs/groups/content/@editorial/documents/document/acspc-039989.pdf
  – Information to help patients understand breast density and how it can affect their breast cancer risk and mammogram findings

➢ Foundation for Women's Cancer
  – http://www.foundationforwomenscancer.org/educational-materials/cervical-cancer-edmaterials/
  – Educational brochures, presentations and videos for cervical cancer

➢ Make it Your Own (MIYO), National Cancer Institute, Center for Disease Control and Prevention
  – https://researchtoreality.cancer.gov/cyber-seminars/make-it-your-own-miyo-creating-customized-health-materials-your-community
  – Cyber seminar on MIYO, a web-based system that gives community partners tools to create customized health materials to their target audience
  – One hour in duration

➢ *Screen for Life*: National Colorectal Cancer Action Campaign, Center for Disease Control and Prevention
  – http://www.cdc.gov/cancer/colorectal/sfl/
  – Public Service Announcements
  – *Screen for Life* Resources– educational materials for patients and health professionals in English and Spanish
  – Partnerships– health departments and the CDC's *Colorectal Cancer Control Program* (CRCCP)

➢ Ethno Med– Patient Education Materials
  – Website contains information on integrating cultural information into clinical practice, including relevant information for refugee populations
  – Breast Cancer: https://ethnomed.org/patient-education/cancer/breast-cancer
  – Cervical Cancer: https://ethnomed.org/patient-education/cancer/cervical-cancer
  – Colorectal Cancer: https://ethnomed.org/patient-education/cancer/colorectal-cancer

APPENDIX C: MEDICAL TRANSPORTATION RESOURCES

MEDICAID AND MEDICARE TRANSPORTATION SERVICES

Medicaid transportation services are managed by Medical Answering Services, LLC, and can be ordered by phone, fax or website (www.medanswering.com).

County	Contact
Cayuga	1-866-961-7670
Cortland	1-855-733-9397
Onondaga	1-855-852-3287
Oswego	1-855-733-9395
Tompkins	1-866-753-4543

Please note:

- All non-emergency transportation <u>must be authorized prior to payment</u>
- Transportation is only allowed to Medicaid billable services.
- Medical Transportation is not an entitlement.
- The application consists of medical forms completed and signed by a physician and a social services form completed and signed by the recipient.
- Medicaid recipients may be eligible for 3 courtesy rides each calendar year before having to submit the proper paperwork. If a courtesy ride is necessary, reservations must be called in 2 business days in advance. (Transportation approvals encompass mileage reimbursement, public transportation, public not-for-profit transportation, taxi, wheelchair, straight stretcher, and ground ambulance.)
- Recipients are expected to visit doctors in their Common Medical Marketing Area. Sometimes Medicaid can authorize transportation out of the CMMA for medical services not available closer.

Medicare will **not** pay for most non-emergency transportation services.

ADDITIONAL TRANSPORTATION RESOURCES, BY COUNTY

Cayuga County

Agency	Phone	Fee/Insurance Coverage
Auburn Medical Transport Company	(315) 237-2814	Call for fee
Cayuga County Veterans Service Office	(315) 253-1281	No fee
Cayuga Medical Van Service Transportation to Syracuse for medical appointments	(315) 253-0996	Under 60 - $35 Over 60 - $25
CENTRO Bus	(315) 253-5765	City, $1 per trip Auburn to Syracuse, $4 per trip
Helping Hands Transportation	(315) 497-3443	Call for fee
St. Camillus Transportation	(315) 703-0752	Call for fee
TLC Medical Transportation	(315) 252-1106	Will help patient with insurance

Cortland and Tompkins Counties

Agency	Phone	Fee
Cortland Transit *Rte. 2,3 service Cortland Regional Medical Center* *Rte. 3 service Euclid Ave Medical & Cortland Health Center* *Rte. 2 service Cortland Family medical Office, Family Medicine Center, The Commons*	(607) 758-3383	Fixed route $1; seniors $.50 Monthly pass $30
Gadabout *For people over 60*	(607) 273-1878	Within Ithaca $1.50, one way Outside Ithaca $2.00, one way
Friends in Service Helping (FISH) *Volunteer-provided rides for medical and health related services within Tompkins Co.*	(877) 227-2345 Or call 2-1-1	No fee
TLC Medical Transportation	(607) 756-8389	Will help patient with insurance
Trailways Buses *Regional service Ithaca to Syracuse*	(607) 776-7548	Round trip $28.50

Onondaga County

Agency	Phone	Fee/Insurance Coverage
ABLE Medical Transportation	(315) 472-3393	Call for fee
Catholic Charities Salina ANTS *Rides in Clay, Cicero, North Syracuse, Salina*	(315) 455-7096	$2, each way (donation)
CENTRO bus	(315) 442-3400	$2-3, adult $1-1.50, seniors
East Syracuse Friends in Service Helping (FISH)	(315) 437-0102	No fee
Fayetteville/Manlius Friends in Service Helping (FISH)	(315) 637-8158	No fee
Lafayette/Tully Friends in Service Here (FISH)	(315) 696-8659	No fee
St. Camillus Transportation	(315) 703-0752	Call for fee
Skaneateles FISH	(315) 685-6679	No fee
TLC Medical Transportation	(315) 422-0211	Will help patient with insurance

Oswego County

Agency	Phone	Fee/Insurance Coverage
Gentle Outings *Service Oswego County*	(315) 238-5553	Will bill private insurance
CENTRO Bus *Service Oswego, Fulton, Mexico, Syracuse*	(315) 342-4400	$1, adult $.50, senior Oswego to Syracuse, $5 Fulton to Syracuse, $4 Oswego – Mexico-Fulton, $2
Oswego County Opportunities *Oswego County Public Transit*	(877) 484-3287	$1.50, adult $.75, senior
TLC Medical Transportation		

Please note, these listings are not exhaustive, and patients should contact both insurance and service provider to determine usage fees and coverage

APPENDIX D: CANCER SERVICES PROGRAM PROVIDER FACT-SHEET

New York State Department of Health

Cancer Services Program

Cancer Services Program

- The New York State Department of Health (NYSDOH) Cancer Services Program (CSP) oversees a statewide, comprehensive cancer screening program providing breast, cervical and colorectal cancer screening for eligible, uninsured and underinsured women and men
- The CSP funds community-based partnerships to coordinate screening services in every county and borough in NYS
- Each year, the partnerships screen tens of thousands of women for breast and cervical cancer and men and women for colorectal cancer.

Provider Benefits to Participating in the CSP

- Receive reimbursement for screening, diagnostic and treatment services that you currently provide to CSP eligible, uninsured or underinsured patients, but for which you are not compensated
- Assistance with patient recruitment, education and case management
- Access to CSP-sponsored professional and continuing medical education
- Free patient education materials
- Access to a network of CSP-sponsored cancer survivorship, support and legal assistance programs

Reimbursable Screening Services

The CSP reimburses participating providers for the following breast, cervical and colorectal cancer screening tests for eligible, uninsured or underinsured women and men:

- Breast Cancer Screening (Mammogram and Clinical Breast Exam)
  - Women ages 40 or older
  - Women under age 40 at high risk for breast cancer*

- Cervical Cancer Screening (Pap Test and Pelvic Exam)
  - Women ages 40 or older

- Colorectal Cancer Screening (Fecal Occult Blood Test/Fecal Immunochemical Test Kit)
  - Men and women ages 50 or older at average risk for colorectal cancer

- Colorectal Cancer Screening (Colonoscopy)
  - Men and women at high risk for colorectal cancer*

*As determined by a clinical risk assessment performed and documented by a NYS-licensed provider, per CSP protocol.

Cancer Services Program
New York State
Department of Health
Riverview Center, Suite 350
Albany, NY 12204-0678
Phone: (518) 474-1222
canserv@health.state.ny.us

Reimbursable Diagnostic Services

Reimbursement is available for many diagnostic services including imaging, facility fees, biopsies, pre- and post-operative procedures, pathology and consultations.

(over)

Provider Fact Sheet updated 4/11

Cancer Services Program

NYS Medicaid Cancer Treatment Program (MCTP)

Women and men who are in need of treatment for breast, cervical, colorectal or prostate** cancer may be eligible for full Medicaid coverage through the NYS MCTP. Coverage lasts for the entire treatment period and includes medications.

- Clients must meet certain other eligibility criteria such as age, income, U.S. citizenship, New York State residency, and must not be covered under any creditable insurance at the time of application
- All eligible individuals must be seen by a Medicaid approved provider for treatment

** The CSP does not currently support routine population-based screening for prostate cancer. The CSP does not currently provide reimbursement for prostate cancer screening and diagnostic services.

Public Education and Awareness

- The CSP operates a 24/7 toll-free referral phone line 1-866-442-CANCER (2262) has translators and refers callers directly to screening services, support services, legal services, and genetic counselors in their area.
- Print materials about various cancers (breast, cervical, colorectal, ovarian, prostate, and skin) are available through the NYSDOH Distribution Center. Available informational materials include posters, brochures, fact sheets and pamphlets. Publications in quantities up to 200 are available free of charge to New York State residents and organizations. Requests for materials can be mailed, faxed or emailed using the form and instructions found on the NYSDOH website at http://www.nyhealth.gov/forms/order_forms/cancer.htm

Professional Development

The CSP offers professional development opportunities and resources to clinical providers to ensure that CSP clients receive high quality screening, diagnostic and treatment services in a culturally sensitive manner. The following programs are a sample of available offerings:
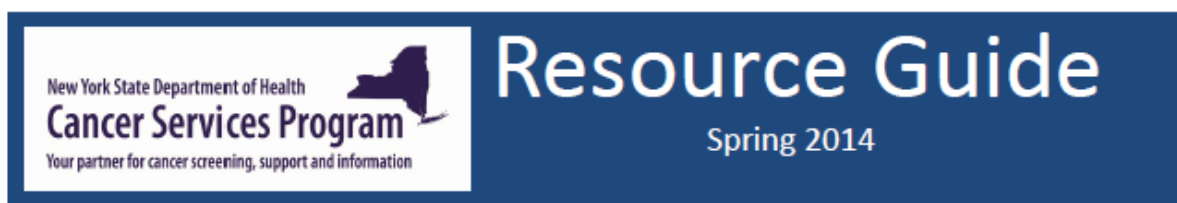
- Statewide Grand Rounds "Eliminating Deaths from Cervical Cancer"
- Clinical Breast Exam Training: Improving technique and skills for clinical providers
- Mammography Quality Improvement interactive Continuing Medical Education-based DVD
- Colorectal Cancer Professional Education
- Cultural Competency training

For additional information about the CSP, and information about how to access professional development opportunities and public education resources, please call (518) 474-1222. To find a CSP screening program near you call 1-866-442-CANCER (2262) or visit the NYSDOH website at http://www.health.ny.gov/nysdoh/cancer/center/partnerships

Cancer Screening Quick Facts

- More than 30% of New Yorkers are not up-to-date with their colorectal cancer screening.

- 1 in 5 New York women are not up-to-date with their mammography screening.

- The Pap test has reduced cervical cancer rates dramatically since it was first introduced in the United States 65 years ago.

- At least 6 of every 10 deaths from colon cancer could be prevented if every adult 50 years and older got tested regularly.

- Adults 18-64 years old with *no health insurance* at all in the past 12 months were 7 times more likely to skip medical care for cost reasons, compared with those continuously insured.

Resource Guide
Spring 2014

New York State Department of Health
Cancer Services Program
Your partner for cancer screening, support and information

A number of resources are available through the New York State Department of Health (NYS DOH) Cancer Services Program to promote awareness about the importance of colorectal, cervical and breast cancer screening and to improve the quality of cancer screening related care received by New Yorkers. The Cancer Services Program (CSP) provides breast, cervical and colorectal cancer screenings at NO COST to women and men who live in New York State, are uninsured or underinsured, and meet age and income eligibility requirements.

New York State Programs and Information

The **Cancer Services Program (CSP) Web page** is a user-friendly, consumer-focused resource for uninsured NY residents in need of free cancer screening. The CSP page can be accessed from the NYS DOH Web site at www.health.ny.gov/cancerservicesprogram.

The **CSP toll-free referral line**, 1-866-442-CANCER (2242), is a statewide, toll-free number operated 24 hours a day, seven days a week. The referral line directly connects callers to CSP contractors for breast, cervical and colorectal cancer screening services, legal support services, community-based breast cancer support and wellness services or sliding-fee schedule genetic counseling services.

The **CSP promotional materials (tri-fold brochure, rack card, and referral business card)** provide general CSP information summarizing the services provided by the CSP and its contractors. These materials promote CSP cancer screening services and are used to recruit eligible clients into the program. The brochure is available in English and in Spanish in print and online. The rack card is available in English in print and in English and Spanish online. The business card (palm card) is available in English and Russian in print and online. www.health.ny.gov/diseases/cancer/educational_materials/

For print orders, use the Cancer Publications Order Form: www.health.ny.gov/forms/order_forms/cancer.pdf
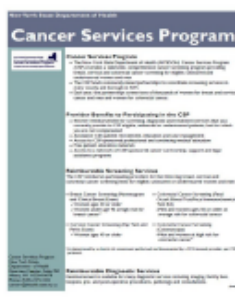
The **CSP fact sheet** and **NYS Medicaid Cancer Treatment Program fact sheet** provide information about eligibility for each of these programs. For a copy of either of these fact sheets, email canserv@health.state.ny.us.

1

New York State Programs and Information (cont'd)

The NYS DOH supports statewide programming for breast cancer survivors (survivorship spans the period from the moment of diagnosis to the end of life). Department-supported breast cancer survivorship programs offer support groups, education, counseling and wellness activities which help reduce stress experienced by breast cancer survivors, improve their ability to cope with the uncertainties, challenges and life complications that accompany the disease and enable them to make more effective use of health services. The NYS DOH also supports organizations that provide direct, free or reduced fee legal assistance to cancer survivors and their families. Services provided by these survivorship organizations can include:

- Assistance with free or low-cost cancer-related legal and financial issues for those who cannot afford private representation;
- Support groups, individual therapy, telephone support services, supportive educational web-based services;
- Community outreach; and
- Workshops and educational events.

For questions about these programs, contact Mary Catherine Daniels, Coordinator, Cancer Survivorship Initiatives, at marycatherine.daniels@health.ny.gov.

Professional Development Resources

"How to Increase Colorectal Cancer Screening Rates in Practice: A Primary Care Clinician's Evidenced-Based Toolbox and Guide" was developed by the American Cancer Society, the National Colorectal Cancer Roundtable and Thomas Jefferson University as a practical guide for primary care clinicians. The *Guide* outlines efficient ways for practices to get every eligible patient the colorectal cancer screening tests he or she needs. The *Guide* contains evidenced-based tools, sample templates and strategies that can help practices improve their screening performance. The *Guide* is also available in an **interactive, online** version. These and other colorectal cancer screening tools can be accessed at: http://nccrt.org/about/provider-education/crc-clinician-guide/.

"Promoting Cancer Screening: Office Systems for Success" (1/20/11)*, is a video broadcast exploring how implementing office systems can increase adherence to cancer screening guidelines for breast, cervical, and colorectal cancer. These systems include simple, proven, non-electronic methods and the use of electronic medical records. The CME-granting archived broadcast can be accessed online at www.albany.edu/sph/cphce/phl_0111.shtml.

"Appropriate Colorectal Cancer Screening: How Are You Doing?" (3/17/11)* is a video broadcast that provides information about colorectal cancer screening guidelines, the pros and cons of available screening options, and the evidence against the use of single slide, in-office fecal testing for cancer screening. Patient barriers and health disparities are also discussed. The CME-granting archived broadcast can be accessed online at www.albany.edu/sph/cphce/phl_031711.shtml .

- *Statistics in these presentations may not be up to date. Current data can be found at: www.health.ny.gov/statistics/diseases/cancer/. In addition, these presentations predate the implementation of the Patient Protection and Affordable Care Act, which includes breast, cervical and colorectal cancer screening as essential health benefits.*

2

Public Education Material

The NYS DOH offers various materials about colorectal, cervical, and breast cancer to educate patients and clients about prevention, screening, diagnosis and treatment. All public education materials can be ordered, free of charge, using the NYS DOH Cancer Publications Order Form unless otherwise specified. Additional educational information on prostate, ovarian and skin cancers is also available for order or download.

Cancer Publications Order Form: www.health.ny.gov/forms/order_forms/cancer.pdf

Colorectal Cancer Resources

The NYS DOH Cancer Services Program provides informational brochures and posters on both the fecal immunochemical test (FIT) and the fecal occult blood test (FOBT) for colorectal cancer screening.

The Get FIT! fecal immunochemical test (FIT) brochure and poster describes the benefits of an inexpensive and easy to use at-home colorectal cancer screening test that does not require dietary or medication restrictions, is easy to complete in the privacy of one's home, and does not require time off from work. The brochure is available in English, Spanish, Russian and Chinese online and in print; the poster is available in English and Spanish online and in print. www.health.ny.gov/diseases/cancer/educational_materials/.

The Get the KIT brochure explains the benefits of a fecal occult blood test (FOBT). This brochure is available in print in English and Spanish.

My Health Counts! Understanding Colorectal Cancer DVD is a 30-minute educational video to educate patients about the risks of colorectal cancer and encourage them to work with their doctors to understand and make informed choices about screening. The program provides viewers with answers to the following question: What do I need to know, do and act upon in partnership with my doctor to ensure I receive the highest quality preventive care? This DVD can be requested via email canserv@health.state.ny.us.

The Centers for Disease Control and Prevention (CDC) has developed many resources in conjunction with their Screen for Life: National Colorectal Cancer Action Campaign. This material can be found at: www.cdc.gov/cancer/colorectal/sfl/. Screen for Life material that is available through the NYS DOH is listed below.

The November 2013 issue of CDC's Vital Signs on colorectal cancer has useful information for ways health care providers can increase screening and the "Choose the Right Test" section can also be used as decision making tool with patients. www.cdc.gov/vitalsigns/pdf/2013-11-vitalsigns.pdf
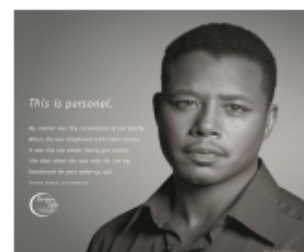
The CDC's Screen for Life: Colorectal Cancer Screening Saves Lives tri-fold brochure includes information about colorectal cancer such as screening options, symptoms, risk factors and prevention. This brochure is available in English and Spanish in print.

3

The CDC **Busy People** poster (11 x 17) depicts men and women who have taken time out of their days to get screened for colorectal cancer. The tagline reads "What do these busy people have in common? They all got screened for colorectal cancer. If they have time, so do you." This poster is available in English in print.

The CDC **This is Personal poster** (11 x 17) **and brochure** tell actor Terrence Howard's story about his mother's early death from colorectal cancer. The tagline reads "my mother died when she was only 56. Let my heartbreak be your wake-up call." This poster is available in English in print. The tri-fold brochure is available in Spanish.

The CDC's **No Excuses/No Hay Excusas** (11 x 17) **poster** depicts men and women who provide excuses to NOT get screened. The excuses are discounted with factual information about why colorectal cancer screening is recommended and important. This poster is available in English and Spanish in print.
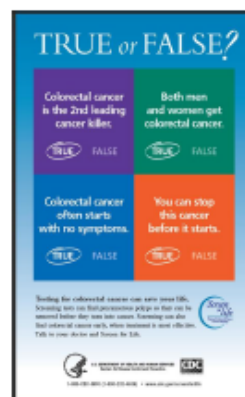
The CDC **True or False poster** (8.5 x 11 and 11 x 17) asks four true or false questions to impart important facts about colorectal cancer and the benefits of early detection. This poster is available in English and Spanish in print.

The CSP can also facilitate access to CDC **Screen for Life** radio, TV and print public service announcements. Contact canserv@health.state.ny.us.

Make it Your Own (MIYO) is an online tool used to create customized health information for specific populations using evidence-based strategies recommended by the CDC. MIYO delivers industry-standard, production-ready files for print, web and interactive applications. Products include flyers, inserts, posters, postcards, question cards, Web banner ads, and more. To create an account go to: www.miyoworks.org and look for the "Sign Up" link.

4

Cervical Cancer Resources

A 30-second **Cervical Cancer radio public service announcement** that educates women who have either never been screened for cervical cancer, or, who have not been screened in the last five years; available as an mp3. For more information or to request the use of this public service announcement, email canserv@health.state.ny.us.

The CDC *Cervical Cancer Screening with the HPV Test and the Pap test in Women Ages 30 and Older* brochure explains the relationship between HPV and cervical cancer and when and how often to get screened. Brochures are available at www.cdc.gov/cancer/hpv/pdf/HPV_Testing_2012_English.pdf

The United States Preventive Services Task Force (USPSTF) *Understanding Task Force Recommendations: Screening for Cervical Cancer* consumer fact sheet explains cervical cancer screening guidelines in an easy-to-understand way. The fact sheet explains how the USPSTF reviews evidence and arrives at guidelines, and also explains what the guidelines mean, what tests are available and how often women should be screened.
Visit www.uspreventiveservicestaskforce.org/uspstf11/cervcancer/cervcancerfact.pdf for the fact sheet.

Breast Cancer Resources

The *Breast Cancer Treatment – What You Need to Know* booklet includes information about treatment options such as targeted therapies, information about insurance coverage, how to access treatment, and information for cancer survivors about staying healthy after treatment. This booklet is legislatively mandated by Section 2404 of the New York State Public Health Law and also complies with the New York State Breast Reconstruction Law that went into effect in January 2011. The booklet is available in print in English and Spanish and available in English, Spanish, Russian and Chinese online at www.health.ny.gov/diseases/cancer/educational_materials/. A referral card with the web address for the online version of the booklet is also available in English, Spanish, Russian and Chinese.
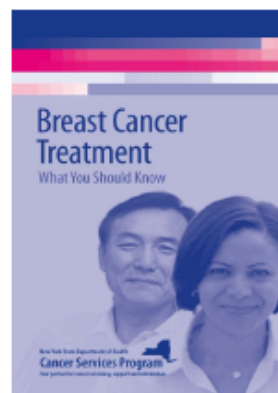
Breast Cancer Survivors Come in All Colors poster (28 x 11) depicts ten breast cancer survivors stating that, "A mammogram made the difference for us." This poster is available in English in print.

Survivorship Resources

Have You Had Cancer Treatment?

If you have ever had radiation or surgery for cancer, LYMPHEDEMA is something that you need to know about.

The **Have You Had Cancer Treatment?** brochure describes lymphedema, symptoms, treatments, preventive techniques, and where to find support. This brochure is available in print and online in English.

You, Cancer and the Flu is a printable fact sheet for people living with cancer that explains the importance of getting a flu shot for people who have, or have ever had, a diagnosis of cancer. This fact sheet is available for download in English at https://www.health.ny.gov/publications/2463.pdf

Genetic Resources

The **Concerned about your personal or family history of cancer?** poster points individuals to the CSP toll-free referral line to locate a genetic counselor in their area. This poster is available in English and Spanish.

Information regarding indications for **genetic counseling, genetic counseling resources, and local genetic counselors** can be found on the Department of Health cancer genetics web page (http://www.health.ny.gov/diseases/cancer/genetics) or 1-866-442-CANCER (2242).

Additional Resources and Websites

In addition to the public education material described in this guide, the NYSDOH also has print and/or DVD material related to ovarian, prostate and skin cancer. This material is viewable on the NYSDOH website: www.health.ny.gov/diseases/cancer/educational_materials/. It can be ordered using the Cancer Publications Order Form: www.health.ny.gov/forms/order_forms/cancer.pdf

New York State Department of Health

- NYS Cancer Registry and Cancer Statistics: www.health.ny.gov/statistics/diseases/cancer/
- NYS Cancer Consortium featuring the NYS Comprehensive Cancer Control Plan : www.nyscancerconsortium.org/
- *NYS Cancer Consortium Chronicle:* www.nyscancerconsortium.org/news/newsletter.aspx
- NYS Behavioral Risk Factor Surveillance System (BRFSS) Data and Summary Reports: www.health.ny.gov/statistics/brfss/
- New York State Smokers' Quitline 1-866-NYQUITS (1-866-697-8487): www.nysmokefree.com/
- New York State of Health: The Official Health Plan Marketplace: https://nystateofhealth.ny.gov/

Centers for Disease Control and Prevention

- *Inside Knowledge* gynecological cancers campaign materials: www.cdc.gov/cancer/knowledge/index.htm
- *What You Don't Know Can Kill You* PSA (:60) breast and cervical cancer screening: www2c.cdc.gov/podcasts/player.asp?f=2372180
- *Health-e-Cards* screening reminders: http://tools.cdc.gov/ecards/
- Behavioral Risk Factor Surveillance System (BRFSS) Annual Survey Data 1984-2010: www.cdc.gov/brfss/annual_data/annual_data.htm
- *Protecting Cancer Patients from Infections:* www.cdc.gov/cancer/preventinfections/?source=govdelivery
- *Right to Know* campaign, breast cancer educational material for women with disabilities: www.cdc.gov/ncbddd/disabilityandhealth/righttoknow/

6

New York State Department of Health Cancer Services Program

Medicaid Cancer Treatment Program

New York State Department of Health
Cancer Services Program
Your partner for cancer screening, support and information

What is the Cancer Services Program?

The New York State Department of Health Cancer Services Program (CSP) oversees the delivery of comprehensive breast, cervical and colorectal cancer screening services to underserved populations in New York State through contractual agreements with local community-based organizations known as *partnerships*.

What is the Medicaid Cancer Treatment Program?

The Medicaid Cancer Treatment Program (MCTP) is a Medicaid program for eligible persons who are found to be in need of treatment for breast, cervical, colorectal or prostate cancer (and in some cases pre-cancerous conditions of these cancers). To be enrolled in the MCTP, an individual must complete an application with a New York State Department of Health Cancer Services Program (CSP) Designated Qualified Entity (DQE). A DQE is a person designated and trained by the New York State Department of Health as a "Qualified" entity for the purpose of assisting individuals to complete the MCTP application.

Once an individual is enrolled in the MCTP, full Medicaid coverage is provided for an initial period of enrollment as determined by the type of cancer or pre-cancerous condition being treated. Recertification is required yearly, if the individual is still in need of treatment, at which time eligibility is reassessed. Enrollees must receive services from a Medicaid enrolled provider in order to have their services covered. MCTP coverage is limited to the individual enrollee and cannot be extended to family members or dependents.

Who is eligible to participate in the MCTP?

BREAST and CERVICAL CANCER TREATMENT

To be eligible for treatment coverage for breast or cervical cancer, or pre-cancerous breast or cervical conditions, individuals must be:

- Screened for and diagnosed with breast or cervical cancer, or a pre-cancerous breast or cervical condition, by a New York State-licensed health care provider, **OR**, if diagnosed with such in another state, were screened and/or diagnosed by that state's National Breast and Cervical Cancer Early Detection Program;
- Not covered under any creditable insurance at the time of MCTP application;
- In need of treatment for breast or cervical cancer or pre-cancerous breast or cervical conditions;
- A resident of New York State; and
- A United States citizen or an alien with satisfactory immigration status.

COLORECTAL CANCER TREATMENT

To be eligible for treatment coverage for colorectal cancer, or pre-cancerous colorectal conditions, individuals must be:

- Cancer Services Program eligible at the time of screening or diagnosis;
- Screened and/or diagnosed with colorectal cancer by a current CSP credentialed provider;
- Under 65 years of age;
- Income eligible (income at or below 250% Federal Poverty Guideline [FPG] at the time of MCTP application);
- Not covered under any creditable insurance at the time of MCTP application;
- In need of treatment for colorectal cancer or a pre-cancerous colorectal condition;
- A resident of New York State; and
- A United States citizen or an alien with satisfactory immigration status.

PROSTATE CANCER TREATMENT

To be eligible for treatment coverage for prostate cancer, or pre-cancerous prostate conditions, individuals must be **all** of the following:

- Screened and/or diagnosed with prostate cancer by a current CSP credentialed provider*;
- Under 65 years of age;
- Income eligible (income at or below 250% Federal Poverty Guideline [FPG] at the time of MCTP application);
- Not covered under any creditable insurance at the time of MCTP application;
- In need of treatment for prostate cancer or a pre-cancerous prostate condition;
- A resident of New York State; and
- A United States citizen or an alien with satisfactory immigration status.

*For the purposes of program implementation, screened or diagnosed with prostate cancer through a current CSP credentialed provider is interpreted as a man having received screening or diagnostic testing by a health care provider or facility currently credentialed as a provider in the CSP. Please note that this eligibility criterion reflects the fact that the CSP does not currently provide reimbursement for prostate cancer screening or diagnostic services.

If an individual who meets the above requirements appears to be eligible for Medicaid in any of the mandatory categories, the individual will be given Medicaid coverage under the MCTP for a limited time pending a Medicaid eligibility determination.

For more information about cancer screening, please call the toll-free **CSP** referral line at 1-866-442-CANCER (2262). For information about the **MCTP**, contact John DeFlumer or Terri Campbell at 518-474-1222.

Updated 5/12

Appendix C: Data Collection Materials

CANCER SCREENING ACADEMIC DETAILING AND PRACTICE FACILITATION PROJECT
PARTICIPATING PRACTICE SURVEY

PRACTICE INFORMATION	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 provider at this practice. (If you need more room, please write in the space on the other side of this form)

    MMIS ID:_____

3. Which of the following categories best describes this practice?
    ○ Physician-owned practice
    ○ Large medical group or health care system
    ○ Staff or group model HMO
    ○ University hospital or clinic
    ○ Non-profit clinic
    ○ 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
    ○ Other (please specify):

5. How many physicians work in this practice?
    ○ 1
    ○ 2 to 5
    ○ 6 to 15
    ○ 16 to 49
    ○ 50 or more

6. How many nurse practitioners and/or physician assistants are in this practice?
    ○ 0
    ○ 1
    ○ 2+

7. What type of medical record system does this practice use?
    ○ Paper charts
    ○ Partial electronic medical records (e.g. lab results available electronically, but patient history on paper)
    ○ In transition from paper to full EMR
    ○ Full electronic medical records

8. Is this practice currently undertaking any quality improvement efforts? If so, please indicate yes and explain below.
    ○ No
    ○ Yes, please explain:

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

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

PATIENT DEMOGRAPHICS	CANCER SCREENING

10. During a typical <u>week</u>, approximately how many patients are seen in this practice?
    - ❍ 25 or fewer
    - ❍ 26 to 50
    - ❍ 51 to 75
    - ❍ 76 to 100
    - ❍ Over 100

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

	% of Patients
Uninsured	%
Medicaid	%
Medicare	%

12. Approximately what percentage of the patients in this practice is male?_____%

13. 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	%

14. Approximately what percentage of the patients in this practice is Hispanic/Latino?_____%

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

	% of Patients
Less than 18 years	%
18 – 21 years	%
22 – 29 years	%
30 – 49 years	%
50 – 74 years	%
75+ years	%

16. Do you provide mammography services at your practice?
    - ❍ Yes
    - ❍ No

17. Do you provide cervical cancer screening services at your practice?
    - ❍ Yes
    - ❍ No

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

	Yes	No
Breast Cancer Screening		
Cervical Cancer Screening		
Colorectal Cancer Screening		

19. Does this practice have a mechanism to remind <u>members of the care team</u> 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

20. Does this practice have a mechanism to remind <u>patients</u> 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

INCREASING CANCER SCREENING THROUGH ACADEMIC DETAILING AND PRACTICE FACILITATION - PRE SURVEY

PROVIDER INFORMATION

1. Practice Name:_____

2. Please indicate your sex:
   - ❍ Male
   - ❍ Female
   - ❍ Prefer not to answer

3. Please select your credentials:
   - ❍ MD, DO, MBBS   ❍ MSW
   - ❍ NP or PA   ❍ BSW
   - ❍ MSN   ❍ CASAC
   - ❍ CNM   ❍ MOA
   - ❍ RN   ❍ Clinical Other:
   - ❍ LPN   ❍ Non-Clinical 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. **Making your best guess**, what proportion of patients at your practice do you estimate is up to date with cancer screening?

% UP TO DATE

Breast Cancer Screening: Women age 50 to 75 _____

Cervical Cancer Screening: Women age 21 to 65 _____

Colorectal Cancer Screening: Men and Women age 50 to 75 _____

6. 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	☐	☐	☐	☐	☐
Patient fear of screening results	☐	☐	☐	☐	☐
Patient lack of awareness	☐	☐	☐	☐	☐
Patient lack of insurance/procedure costs	☐	☐	☐	☐	☐
Language barriers	☐	☐	☐	☐	☐
Lack of transportation	☐	☐	☐	☐	☐
Patient embarrassment	☐	☐	☐	☐	☐
Patients do not follow through with recommendations	☐	☐	☐	☐	☐
Patient co-morbidities	☐	☐	☐	☐	☐
SYSTEM-RELATED BARRIERS	Not Important	Low Importance	Neutral	Moderate Importance	Very Important
Not having enough time to discuss screening with patients	☐	☐	☐	☐	☐
Inability to track down date of prior screenings	☐	☐	☐	☐	☐
Inability to track patient progress in completing screening	☐	☐	☐	☐	☐
Long delay in scheduling screening procedures	☐	☐	☐	☐	☐
The cancer screening referral process	☐	☐	☐	☐	☐
Remembering to make screening recommendations	☐	☐	☐	☐	☐
Concurrent care is provided by a specialist (e.g., OB-GYN, GI)	☐	☐	☐	☐	☐
Delay in receiving screening results from specialists	☐	☐	☐	☐	☐
Shortage of trained providers to conduct screening	☐	☐	☐	☐	☐
Organizational focus on efforts other than cancer screening	☐	☐	☐	☐	☐
Lack of fulltime commitment to quality improvement efforts	☐	☐	☐	☐	☐

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

_____

_____

ELECTRONIC HEALTH RECORDS AND CANCER SCREENING

8. 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	☐	☐	☐
Cervical Cancer Screening	☐	☐	☐
Colorectal Cancer Screening	☐	☐	☐

9. 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**?

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

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

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

11. In your opinion, how effective would the use of an EHR-based patient registry be to tracking cancer screening rates in your practice?

_____

If you are not familiar with the use of EHR-based patient registries, please check here: ☐

Not Effective	Slightly Effective	Neutral	Moderately Effective	Very Effective
☐	☐	☐	☐	☐

AD Session – webinar evaluation

Increasing Cancer Screening: Academic Detailing Webinar Evaluation

Please respond to the following questions regarding the Academic Detailing webinar you attended for the Increasing Cancer Screening project. Your responses will help us evaluate the use of webinars to provide academic detailing informational sessions to primary care providers in the future.

1. Please rate the following aspects of the webinar:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The webinar presenter(s) responded to questions	○	○	○	○	○
I felt I could easily interact with the webinar presenters	○	○	○	○	○
The webinar audio was clear	○	○	○	○	○
The webinar technology was easy to use	○	○	○	○	○
The webinar format was conducive to learning	○	○	○	○	○
The pace of the webinar presentation was satisfactory	○	○	○	○	○

2. Please indicate your level of agreement with the following statements:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Webinars are an effective way for me and my colleagues to obtain training	○	○	○	○	○
I would prefer the content of this webinar be presented in-person	○	○	○	○	○

3. Besides this webinar, how many webinar-based training sessions have you attended or participated in?

○ 0   ○ 7 to 9

○ 1 to 3   ○ 10 or more

○ 4 to 6   ○ 25 or more

4. If you have any other feedback about the content or format of the Academic Detailing webinar presentation, please feel free to use the space below.

INTERVIEW/FOCUS GROUP GUIDE

I. Warm-up Question
    a. Please indicate if your practice participated in this project from the prior year, or if this was your first year working with us on the Cancer Screening Project?

II. 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?

III. 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?
        ii. Probe: What is your interest in learning more about quality improvement strategies for practice improvement?
    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?

Please indicate which of the following evidence-based interventions were implemented or developed for implementation at the participating practice.

Practice Name:_____

Practice Facilitator:_____

Provider-Oriented Interventions:

1. Provider Feedback and Assessment

   Provider assessment and feedback interventions both evaluate provider performance in delivering or offering screening to clients (assessment) and present providers with information about their performance in providing screening services (feedback). Feedback may describe the performance of a group of providers (e.g., mean performance for a practice) or an individual provider, and may be compared with a goal or standard.

   a. Please describe intervention activities:

   St. Mary's currently uses the registries provided by Care Opportunities and a part-time Care Manager to call to remind clients when they are due for screenings. However, with the large number of patients and the lack of dedicated staff they do not always reach as many patients as they would like. We discussed their current workflows and the need for a more streamlined process and the need to build certain responsibilities into current staff members' job descriptions.

   Discussed the introduction and availability of the FIT kits vs. the FOBT. Also discussed other issues they perceive as barriers to screening – ie: lack of knowledge or understanding on the part of the patient and transportation issues.

2. Provider Reminders

   Reminders inform health care providers it is time for a client's cancer screening test (called a "reminder") or that the client is overdue for screening (called a "recall"). The reminders can be provided in different ways, such as in client charts or by e-mail.

   a. Please describe intervention activities:

   If a doctor wants to know what screenings their patients are due for they must look at the Care Opportunities database (which is separate from their EMR). They are strongly encouraged to do this so that they can educate and remind their patients what screenings they need. Depending on how much time they have for the visit this may or may not be addressed.

<u>Patient-Oriented Interventions:</u>

1. Client Reminders

   Client reminders are written (letter, postcard, email) or telephone messages (including automated messages and texts) advising people that they are due for screening. Client reminders may be enhanced by one or more of the following:
   - Follow-up printed or telephone reminders
   - Additional text or discussion with information about indications for, benefits of and ways to overcome barriers to screening
   - Assistance in scheduling appointments

   These interventions can be untailored to address the overall target population or tailored with the intent to reach one specific person, based on characteristics unique to that person, related to the outcome of interest, and derived from an individual assessment.

   a. Please describe intervention activities:

As discussed above the office currently uses a Care Manager to make calls to the patients who are due for specific screenings.

For the purposes of this project the site chose to focus on increasing their mammography numbers. In an effort to do this they chose to utilize the mammogram bus (run via WNY Breasthealth), which prior to this point, had only been servicing Erie County. The office targeted those women who were under or uninsured and scheduled them for mammograms to be done on the bus at the day that it would be at their site. They sent reminder letters to the patients about a week before their appointments and had their social worker call them a few days before to remind them as well. The bus was very successful and St. Mary's had a 91% show-up rate for those women who were scheduled for the screening. Due to its success, St. Mary's would like to continue its relationship with WNY Breasthealth and use the bus again in the future.

2. Small Media

   Small media include videos and printed materials such as letters, brochures, and newsletters. These materials can be used to inform and motivate people to be screened for cancer. They can provide information tailored to specific individuals or targeted to general audiences.

   a. Please describe intervention activities:

I gave the clinic cancer screening brochures, in both English and Spanish, to place throughout the clinic as well as educational posters. I was happy to see at my second visit at the site that the posters were on the exam room doors and the brochures were scattered throughout the waiting room.

TRANSLATE MODEL EVALUATION RUBRIC   PRACTICE NAME: EVALUATION PERIOD:

Item	Score Options				Score	Comments
	1	2	3	4		
TARGET Goal setting	No targets set	Vague or non-measurable targets	Clear, measurable, but not feasible targets	Clear, measurable and feasible targets		
REMINDERS Actionable information at the point of care (e.g., point of care reports, pop-ups in EMR)	No reminders available	Reminders available but never used	Reminders available but used infrequently	Reminders routinely used		
ADMINISTRATIVE BUY-IN (resource allocation) Commitment of resources by owner/management (e.g., money, time, personnel)	Leaders resistant	Leaders agreeable but unwilling to commit resources (cool)	Leaders agreeable and willing to commit limited resources (lukewarm)	Leaders willing to commit all resources necessary (enthusiastic)		
NETWORK INFORMATION SYSTEMS (registries) Population health management in EMR, paper list, or other program	No information system or unable to create registries	Able to create registries but none created	Few registries created or used (i.e., fewer than 3 cancer conditions)	Registries created and used for at least 3 cancer conditions		
SITE COORDINATOR Single point of contact for PF; local accountability. Arranges team meetings, education of staff, and data collection. Usually nurse or office manager	No site coordinator identified	Site coordinator identified but has not time for QI activities	Site coordinator has limited time to do QI; many competing priorities	Site coordinator with clear mission, resources, and personnel to complete QI work; no competing priorities		
LOCAL CLINICIAN CHAMPION For clinician buy-in. Leader/educator for other providers in practice. Supports SC and QI team	Not identified	Identified but uninvolved (name only)	Lukewarm support (competing priorities get in the way)	Enthusiastic support		
AUDIT AND FEEDBACK Practice-, provider-, and patient-level outcome reports generated to show progress over time and/or progress compared to other practices (benchmarking)	Never done	Reports available but not disseminated	Reports disseminated occasionally and only at the practice level	Individual reports disseminated at least 2 times per year		
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	No teams formed	Limited teams that function from a top-down approach	Limited teams that get input from just a few individuals	Non-hierarchical broadly based teams		
EDUCATION All forms of training; does not need to be formal. Includes CME, academic detailing, collaborative learning groups, and staff training	No opportunities for education	Rare educational opportunities	Occasional educational opportunities	Frequent educational opportunities		

Appendix D: Pre-Post Practice Facilitation Survey Data

Comparison of Survey Respondent Breast Cancer Screening Estimates to EHR-Based Report Data, by Practice

	Pre-Facilitation Estimate	Pre-Facilitation EHR-Based	Post-Facilitation Estimate	Post-Facilitation EHR-Based
P2	61.00%	45.63%	67.00%	50.72%
P3	73.00%	46.86%	83.00%	37.63%
P4	50.00%	13.00%	34.00%	13.05%
P5	62.00%	49.77%	57.00%	32.24%
P6	50.00%	33.25%	60.00%	69.02%
P7	47.00%	10.34%	30.00%	37.41%
P8	40.00%	23.34%	42.00%	65.67%
P9	53.00%	25.21%	43.00%	61.63%
P11	50.00%	34.94%	35.00%	41.69%
P12	68.00%	46.59%	63.00%	64.71%
P13	45.00%	45.19%	75.00%	53.90%
P14	78.00%	64.82%	68.00%	68.34%
P16	60.00%	10.74%	75.00%	14.86%
P17	50.00%	38.10%	60.00%	42.52%
P18	75.00%	36.03%	60.00%	39.10%
P20	71.00%	27.12%	71.00%	39.59%
P21	85.00%	82.20%	80.00%	94.15%
P22	71.00%	19.00%	71.00%	26.00%
P23	45.00%	49.64%	65.00%	62.22%

Comparison of Survey Respondent Cervical Cancer Screening Estimates to EHR-Based Report Data, by Practice

	Pre-Facilitation		Post-Facilitation	
	Estimate	EHR-Based	Estimate	EHR-Based
P4	50.00%	5.86%	31.00%	5.78%
P6	50.00%	45.89%	70.00%	43.08%
P7	42.00%	13.50%	20.00%	13.29%
P8	55.00%	27.63%	50.00%	25.99%
P9	37.00%	38.67%	33.00%	33.20%
P11	70.00%	15.64%	60.00%	14.57%
P12	60.00%	44.90%	40.00%	47.29%
P13	68.00%	28.01%	75.00%	51.81%
P14	80.00%	70.11%	68.00%	65.27%
P16	80.00%	43.47%	30.00%	39.02%
P17	40.00%	53.85%	40.00%	55.45%
P18	60.00%	50.71%	55.00%	51.21%
P20	81.00%	5.43%	81.00%	4.94%
P21	60.00%	60.88%	74.00%	56.80%
P22	73.00%	29.00%	69.00%	32.00%
P23	78.00%	28.53%	60.00%	85.25%
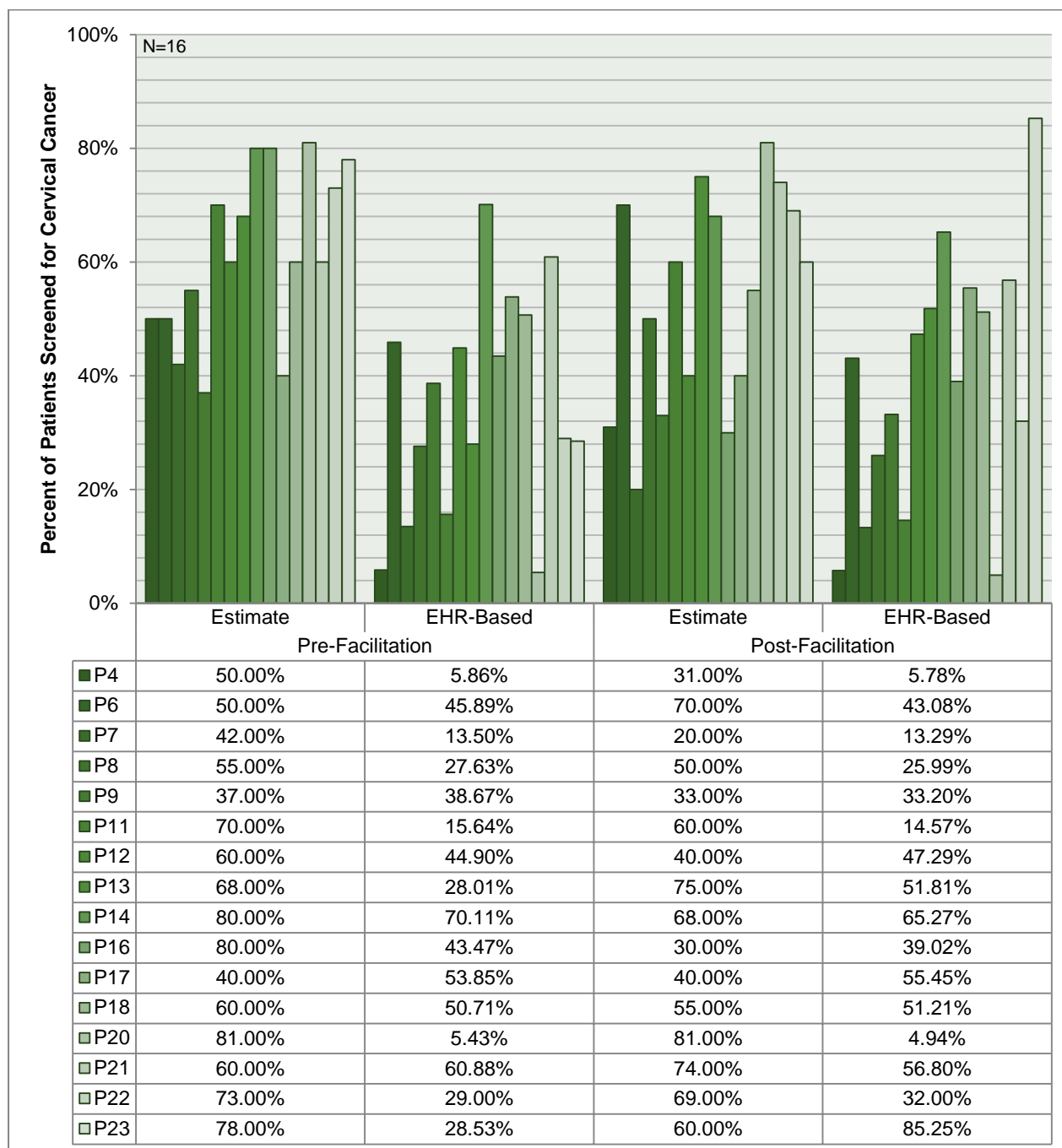
Comparison of Survey Respondent Colorectal Cancer Screening Estimates to EHR-Based Report Data, by Practice

| | Pre-Facilitation | | Post-Facilitation | |
	Estimate	EHR-Based	Estimate	EHR-Based
■ P2	70.00%	16.54%	65.00%	16.44%
■ P3	55.00%	23.77%	65.00%	25.78%
■ P4	50.00%	11.43%	32.00%	10.01%
■ P5	41.00%	26.93%	54.00%	29.33%
■ P6	50.00%	43.20%	50.00%	41.98%
■ P7	28.00%	9.83%	30.00%	16.66%
■ P8	16.00%	57.93%	18.00%	60.05%
■ P9	38.00%	30.75%	33.00%	33.49%
■ P11	20.00%	43.12%	20.00%	51.04%
■ P12	60.00%	46.24%	48.00%	59.24%
■ P13	48.00%	44.40%	75.00%	55.36%
■ P14	70.00%	50.47%	53.00%	59.34%
■ P16	60.00%	10.59%	65.00%	17.81%
■ P17	40.00%	24.24%	40.00%	32.47%
■ P18	65.00%	28.89%	63.00%	27.93%
■ P20	68.00%	10.56%	68.00%	10.63%
■ P21	60.00%	62.00%	89.00%	88.86%
■ P22	59.00%	39.00%	64.00%	46.00%
■ P23	68.00%	41.62%	73.00%	53.57%

Appendix E: Summary of Focus Group Findings

Methods

The project principal investigator, project coordinator and quality improvement consultant jointly developed the script for the focus groups/interviews (see Appendix C), and the project coordinator and quality improvement consultant facilitated the focus groups/interviews. The project coordinator worked with practice facilitators to identify participants and schedule the focus groups and interviews. Practice facilitators were excluded from any focus group/interview activities pertaining to their assigned practices in order to reduce bias in participant responses. Two of the focus groups were hosted at the practice offices at a time convenient for the attendees; participants were also offered a time-appropriate meal. The third focus group was conducted via conference call. All key informant interviews were conducted via telephone. The participants targeted for inclusion in the focus groups/interviews were those individuals most directly involved in the implementation of the project, including practice medical directors, office managers, quality improvement specialists and providers.

All focus groups/interviews were audio recorded and transcribed verbatim for analysis; no names or otherwise personally identifiable information was recorded in the transcripts. Two members of the project staff at SUNY Upstate Medical University conducted a content analysis on the transcripts. Each staff member independently 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.

Topic Area 1: Academic Detailing Session

Code	Code Description	Example Quote
AD as Kick Off	AD session acted as a useful kick off meeting to launch the project	"When we had our initial kick off with everybody, all the physicians and providers showed up and they were definitely intrigued. Definitely excited about getting the process going." "I mean, obviously that's what really got the ball rolling."
AD as Useful Refresher	AD session provided useful new information or acted as an appropriate review of information for providers	"I know that I particularly enjoyed the webinar…We were able to obtain some helpful information and guidelines…It was definitely helpful and useful and it will hopefully continue to help us all close these gaps."
Staff Receptive to Outside Expert	Academic Detailers were effective in conveying messages and information as practice outsiders	"They hear from me all the time about what they should and shouldn't do, but to have [*practice facilitator*] come in and [*Academic Detailer*] come in, that was very helpful."

Focus group/interview participants from nine of the participating practices remarked that the academic detailing session was helpful and informative, and acted as a positive segue into the project. The academic detailing session was a useful means by which all providers and staff at the practice could be given an overview of the project and education on cancer screening, and was referred to by several participants as a "kick off" meeting. One focus group participant expressed that presenting this information to practice staff by an outside source was a useful and effective method. However, individuals from one practice felt that some of the language used during

the academic detailing session did not reflect their culture of equal value across all staff members and job titles, as the Academic Detailer presented information regarding staff roles in a hierarchal manner[***]:

> *"We have always been a practice where, really, nobody is more important than the others. So, we don't look at it that way. He mentioned it a few times, of where, you know, that certain people are at certain levels, and the administrative staff are at the bottom."*

The community resource booklets were not mentioned during any focus group or interview.

Topic Area 2: Practice Facilitator Relationship

Code	Code Description	Example Quote
PF Utility	How useful it was to work with the PF	"Without her we wouldn't know a lot of things that were available for our use. The other day when she came in, there was a whole bunch of CDC tools that I didn't know that we could use to give to our patients, and it was all for free." "There are things I wouldn't have thought of without her suggestion."
PF work relationship	Description of the working relationship of the PF to practice staff	"When she comes in she basically meets with the PCMH team and…the managers. So it doesn't necessarily involve all of the physicians or the providers." "She worked closest with me because I was in charge of the project, and I would say second-closest…with the providers."
Staff Involvement	Description of staff efforts dedicated to project initiatives and interaction with practice facilitator	"The level of involvement, I would say [is] about 75-80%. My providers are always very involved, and my nursing staff likes to be involved in these types of grant projects."
QI Education	Level of QI education delivered and general need of this education in practice	"It wasn't really much we knew previous to meeting with her; it was all relatively new to us." "Well that's something that's ongoing throughout all of medicine now…and we've been kind of in the forefront of doing that the past few years."
Dissemination of ideas/resources	PF ability to share lessons learned and innovations	"It was good, especially initially just to get an idea of the work she has done with other health care providers…just quick overview of what worked, what didn't work in the past and…hypothesize of what we think would work for us in our practice."

PF Utility, Working Relationship and Staff Involvement

Most of the practices were very happy with the assistance given by their practice facilitators. Practices in their second year of the project felt that having a trusted relationship and someone familiar with their system gave their practice a head start on tackling the problems at hand. Focus group/interview participants from all but two practices reported that the practice facilitator was useful not only to bring expertise and suggestions for improvement to the practice, but also to act as a reminder on initiative due dates, processes and deliverables:

> *"She was very good with me and keeping me going because, again, there is just so much that I have to do, too."*

[***] This feedback was noted and addressed within the project team.

"Her role is very, very important to have as a support system from my end."

Additionally, several participants were appreciative of having the practice facilitator available to achieve project tasks that they otherwise did not have the personnel to complete, such as coordinating the mobile mammography service events and assisting with the composition of patient outreach letters and flyers.

Two practices felt that it would be more effective to establish a structure around the practice facilitator activities performed under the project. These practices did not feel they used the services of the practice facilitator "wisely" during the project period, and felt it would benefit them to create a time line and regularly-scheduled feedback mechanism to track their progress on practice facilitation goals. Additionally, one individual felt that the practice facilitator was not able to help them fully achieve their goals due to the limited time frame of the project:

> *"We weren't given enough time with her. She could have went [sic] to each office, and actually went through the registry and saw where the gaps were…and she could have trained staff. That kind of fixes the problem, and in the long term it is good because they know how to fix it going forward. But that's not realistic with the time that she had."*

Each practice had a different staff relationship with their practice facilitator. A few participants said the practice facilitator only worked with one or two individuals at the practice. For these practices, the individual working with the practice facilitator would lead a large group of staff that would tackle each issue in smaller teams. Feedback from the focus group/interview participants indicated that it was more effective for the small working groups to decide on an objective and strategy for improvement with the practice facilitator, and then disseminate this strategy across the practice in a structured manner:

> *"It was sort of, like, 'Let's get a plan,' and then it was up to us to implement."*

However, three practices did invite the practice facilitator to conduct brief educational seminars on cancer screening with practice nursing staff.

Participants across all practices felt that staff was highly engaged in the activities initiated under the project. The primary individuals mentioned working on project initiatives were nursing staff, providers and care coordinators, as all were heavily involved in the patient outreach and education efforts implemented within the participating practices. One practice used friendly competition with a monetary reimbursement to encourage staff involvement in the project.

Dissemination of Ideas and Resources and Quality Improvement Training

Participants from four of the participating practices felt that the practice facilitators helped them connect with existing resources of which they were previously unaware, including the Cancer Services Program. Additionally, participants from seven of the participating practices found the dissemination of lessons learned and best practices was a valuable contribution to their improvement planning:

> *"Actually, having [practice facilitator] as a resource was great, especially since I didn't want to reinvent the wheel because other practices have already started this grant last year. So I tried to reach out to one of the managers but I never heard back from her nurse. So I reached out to*

[practice facilitator] and she was very helpful in forwarding information to me about other practices and their workflows to get this project started."

Individuals from eight of the participating practices mentioned that the quality improvement methodology instruction they received from the practice facilitators (e.g., PDSA interventions, audit and feedback) were valuable new tools that assisted them during the initial planning stages of their activities under this grant. Two practices were open to future continued instruction in quality improvement methods, but felt it would need to be timed appropriately in order to avoid overburdening practice staff. Improving patient care, staff workflow, and patient outreach are areas that participants felt needed additional quality improvement.

Individuals from four of the practices felt their practices already had a satisfactory training program in quality improvement and did not have interest in additional assistance in this area.

Topic Area 3: Project-Related Activities and Policies

Code	Code Description	Example Quote
New policies/ activities	The practice chose to either initiate new activities or policies, or continue operating under existing structures	"We are actually looking into effectively changing our policy or maybe trying to document the way a patient would like to see a reminder as best for them." "We have always had clinical decision support that alerts staff to when these things are due, and those follow the correct recommendations already. So, I guess the only thing that changed was just an increase in outreach."
Patient Outreach	Practice targeted new patient outreach efforts	"The last couple of months we have had the pink mammogram bus here at our office. And probably each time it has been here we have done 40-50 mammograms for our patients."
Targeting All 3 Cancers	How practices chose to focus on the targeted cancer groups under the project	"Well, as we are a family practice, we do kind of focus on all of the above. I don't know that one takes more precedence than the other." "We did discuss it in a provider meeting, and we decided to select colorectal cancer screenings because that is where we are most deficient."

New Policies/Activities and Patient Outreach

New policies and activities were noted in all but two practices; the two practices that did not have any new policies or activities chose to focus on enhancing existing activities and workflow. Additionally, one participant stated that it was difficult for her practice to implement new formal policies due to an arduous review process by the health system:

"It is really hard, because it's such a big group, before we can put policies in place, it has to go through like a, what we call, it has to go to higher ups. You know, we can't really decide policy changes in our small practice. Even though there are only four providers, we are covered by the umbrella of a much larger group."

All of the practices worked on patient education through a mixture of one-on-one interaction with the provider, handouts, models, posters, or mailings. Almost all of the practices focused on increasing the use of reminder letters, follow-up calls or automated reminder calls with patients who were due or overdue for screening tests.

Three practices targeted uninsured/underinsured patients who were not currently screened for colorectal cancer through phone campaigns and connected these patients with the Cancer Services Program:

> *"And we are reaching out to patients in particular that don't have insurance because we don't want them to get lost and get left out of the loop as well. So we started a process with them, working with the Cancer Services Program, to reach out to those patients and let them know that they may be able to qualify for free cancer screenings."*

Additionally, several practices utilized mobile mammography services for the first time under this project and adopted new workflows and procedures to replicate this activity in the future.

Those practices that had not already worked on streamlining their EHR-based patient screening registry chose to improve their EHR system and/or implemented a new registry system if not previously done for specific cancer screenings. From this, most of the practices said they used monthly reports to form patient cancer screening lists and evaluate their progress in completing recommended screenings. One participant mentioned that her practice began using a tickler attached to patient charts throughout the visit to prompt screening reminders and education opportunities in an effort to augment the EHR-based reminders.

Targeting All 3 Cancers

Focus group/interview participants from 16 of the participating practices stated that they were able to focus on all three cancers during the project period. Many respondents reflected that as a family practice, they needed to focus on all three cancer groups, and this drove their practices' decision to dedicate effort toward increasing screening for all three cancers targeted under the project. However, it is important to note that individuals from eight practices noted that while their practice targeted improvement efforts across all cancer groups, they may not have had equal emphasis on each cancer type in terms of strength of intervention. These individuals noted that their practices were better able to address breast cancer and colorectal cancer screening by targeting structural barriers for their patients, such as the use of mobile mammography and patient case workers. Additionally, two individuals from these practices provided feedback that, in retrospect, it may have been more productive for their practice to focus on one cancer group at a time:

> *"I myself want to focus on one and make it efficient before I do another one, but he [medical director] was the one who grabbed all three of these."*

> *"I think it was too many in the time allotted."*

The remaining seven practices that did not focus on all three cancer screenings chose to focus on breast cancer, colorectal cancer, or a mixture of the two. It appears that none of these practices chose to focus on cervical cancer screening due to a large volume of concurrent care being provided to their patients from outside Ob-Gyn specialists:

> *"Well, cervical is low on our radar because a lot of our patients have an Ob-Gyn that will usually follow that."*

Feedback from individuals at these seven practices also indicates that for many practices, focusing on more than one cancer group would have been too demanding given staff limitations and outside obligations. It was hard to focus on all 3 due to competing demands:

> *"It is just a matter of chewing off what we can, one at a time. There are a lot of things that we have to meet, for pay for performance, you know. There is just a lot."*

Topic Area 4: Cancer Screening Barriers

Code	Code Description	Example Quote
Screening Barriers	Patient-, practice- and system-level barriers to cancer screening	"We do our best to notify and advise and follow up. After it goes from there, we can't always guarantee that the patients follow up and get there." "The other barrier would be that we have a care manager that's half time. We are an urban practice, so having a care manager half time is rough." "I don't do most of my own Pap smears, and the Gyn's are terrible about letting us know that they're done and forwarding mammograms."
Practice-Specific Issues	Roadblocks to increasing screening unique to the practice	"We had a backlog where one of our providers had left. I think it was October." "We service a lot of patients with schizophrenia and bi-polar disorder, and those patients are just – they don't want to get colonoscopy done. They are refusing it."

Screening Barriers

Patient noncompliance was mentioned as a barrier to receiving cancer screening among the participants at all participating practices. Noncompliance for all three cancer screenings was thought to stem from fear of the results, lack of transportation, insurance costs, lack of follow up, and patients forgetting the appointment. Patient-related barriers to screening were mentioned most for colorectal cancer screening, and several participants felt that the unpleasantness of the procedure, including prep work, time requirements, and delays in scheduling the appointment were significant contributors to patient noncompliance. Transportation was an issue for colorectal screening in all practices, and for breast and cervical cancer screening in rural practices. Several practices cited education as a barrier for many patients and felt that patients did not understand the guidelines for screening or the need for continuous cancer screening.

Participants also mentioned practice- and system-level barriers they experienced for cancer screening. The most commonly mentioned system-level barrier was lack of communication between the practices and the referred specialists (Ob-Gyn and GI). All of the practices mentioned issues of cost as a large barrier to improving screening rates. Costs to the practices ranged from increasing their staff to handle the additional time requirements to the cost of patient education and reminders. The time required for follow up on patient referrals, as well as patient reminders, were also commonly mentioned issues among the practices.

Practice –Specific Issues

Seven practices experienced heavy staff turnover and/or absence due to medical leave during the project period. These practices faced a large degree of uncertainty in their ability to continue normal operations in the future, and felt that quality improvement would need to take a smaller role in their office due to staff constraints.

Two practices in this project served a high proportion of populations with increased difficulty regarding care management: homeless population and individuals with psychiatric disorders. Participants from both practices felt that patient issues surrounding mental health and the management of existing chronic diseases took precedence over cancer screening. Additionally, one individual felt that patients from these populations were more likely to refuse screening compared to other patient groups.

Three practices connected to large university health systems also mentioned that they had little support from their organizations' IT support staff. These practices wanted to optimize and streamline their EHR-based patient-registry systems, but felt progress was at a standstill on this effort due to lack of IT support.

Topic Area 5: Sustainability

Code	Code Description	Example Quote
Overlap with PCMH/MU/Health Reform	Project activities aligned with requirements for health system reform	"It all ties in on Patient Centered Medical Home, Meaningful Use. In these projects there's a lot to collate, so if we can take a project and make it meet all different measures, that's just better and easier for us."
Spill Over	Strategies/interventions initiated under project can impact other aspects of patient care beyond cancer screening	"I think that would be very helpful because even beyond cancer screenings, we're always trying to test different things. So even beyond that, we could apply it to different areas."
Monetary Incentive	Role monetary incentive played in project participation and activities completed	"We have all different types of patients, so to provide even pamphlets in different languages can be very costly. So whatever money we could get, we certainly would utilize to benefit for education resources."
Plan to Continue Activities	Degree to which project activities and goals will continue to be pursued	"We've put our focus on it and our focus will remain there for a little while." "I think it is a good thing to target and continue doing more with it, even if the grant finishes."

Overlap with Health Reform and Spill Over into Other Practice Objectives

Focus group/interview participants from all but one of the participating practices found that this project aligned with the requirements for health system reform (Accountable Care Organization, Patient Centered Medical Home, Meaningful Use). Only one practice was unsatisfied, stating that they would like any future quality improvement efforts to align more closely with these requirements, and felt that this should be done in a top-down approach from the state:

> "And then it's not well coordinated at the state level…I understand that a lot of things are important, if you have a lot riding on DSRIP or Patient Centered Medical Home or something else, then the Department of Health could recognize that."

Many used the reports for PCMH to assist in determining their cancer screening rates, and will continue to use the processes they learned under this project for PCMH. Additionally, six practices noted the project activities and processes initiated under this project overlapped into their day-to-day management of other patient issues, such as hypertension and hemoglobin A1C testing. In fact, one practice chose to address multiple aspects of patient health maintenance through the intervention developed under this project:

> *"I think that there is a sustainability thing because it's part of a bigger push or effort within the office…We're trying to get everybody to work at their highest level. And so what the doctors can do best is treat and manage patients, but if they are spending their time chasing after a form from this office or did you get it done from that office, that isn't really efficient. So as an ongoing effort we are trying to develop standards and do nurse training sessions on a monthly basis."*

Monetary Incentives

Overall, practices found that the monetary incentive did influence them to participate in the study. One individual stated that the monetary incentive was actually the main reason her practice chose to participate:

> *"I would say it is 100% the reason we participated in this project. We have so many large quality improvement projects going on all the time between Meaningful Use and PCMH. No one is interested in participating in anything extra unless there is some, either financial gain, or a person, like a person that can be in your office one day a week."*

 Only one participant felt that the incentive did not influence his practice's participation:

> *"I think that was nice, but the thing is I don't think that influenced the importance of it. We recognized the importance of it. We recognize that we want to keep improving the system. So, I mean, that stands for itself."*

Overall, participants found the monetary amount to be, "fair", "adequate", "appropriate", or "sufficient". Three participants felt the incentive should be high enough to cover additional labor and personnel; the monetary incentive amount these individuals would like is from $5,000 to $7,000.

All of the participants chose to use the $1,000 monetary incentive to cover the cost of outreach and educational materials used during the project. Some chose to also use the participation stipend offered under the project to cover the cost of outreach and educational materials, even though it was not earmarked for this purpose by the project funder. Many of the participants also plan to put the incentive towards staff reimbursement, staff training, additional educational materials, and upgrading their automated telephone reminder service.

Continuing Activities

Plans to continue increasing colorectal cancer, cervical cancer, and breast cancer screening were reported from every practice. Continuing to improve staff workflow and staff education was mentioned by many of the practices. Several of the practices plan to continue using mobile mammography services at least once a year. Ten practices plan to conduct patient portal, phone or mailing campaigns to increase follow up and patient education. Additionally, including FIT kits in the office as an alternate to colonoscopy was mentioned as the next step for two practices.

Appendix F: Project Results Dissemination

An oral presentation of project findings was presented at two separate conferences:

- Mader EM, Fox CH, Vitale K, Wisniewski AM, Epling JW, Noronha GN, Swanger CM, Norton AL, Morley CP. Practice facilitation and academic detailing improves colorectal cancer screening rates in safety net primary care clinics. Abstract presented at: 7th Annual Conference on the Science of Dissemination and Implementation; December, 2014; Bethesda, Maryland, USA.
- Mader EM, Fox CH, Vitale K, Wisniewski AM, Epling JW, Noronha GN, Swanger CM, Norton AL, Morley CP. Practice facilitation and academic detailing improves colorectal cancer screening rates in safety net primary care clinics. Abstract presented at: North American Primary Care Research Group Practice-Based Research Network Conference; June, 2015; Bethesda, Maryland, USA.

The presentation for the 7th Annual Conference on the Science of Dissemination and Implementation Research exhibited the results of the Y1 project period, which focused exclusively on colorectal cancer screening. The presentation for the NAPCRG Practice-Based Research Network Conference included an update on preliminary findings for the Y2 project period in addition to the Y1 project period findings.

The findings from the Y2 project period will also be presented as a poster at the upcoming 43rd NAPCRG Annual Meeting in Cancun, Mexico, on October 24-28, 2015. This 2015 conference presentation will include data from Y2 of the project for colorectal cancer, breast cancer, and cervical cancer screening rates.

 All conference presentations have been approved by the New York State Department of Health.