

The University of San Francisco

## USF Scholarship: a digital repository @ Gleeson Library | Geschke Center

---

Master's Projects and Capstones

Theses, Dissertations, Capstones and Projects

---

Summer 8-18-2022

### EVIDENCE-BASED IMPROVEMENT PROJECT PROSPECTUS IMPROVING MAMMOGRAPHY SCREENING SCHEDULING THROUGH COVID-19 VACCINE CLINICS UTILIZING AN ONLINE POPULATION MANAGEMENT SYSTEM—A TEAM APPROACH

Katya E. Villanueva

University of San Francisco, [kevillanueva@usfca.edu](mailto:kevillanueva@usfca.edu)

Follow this and additional works at: <https://repository.usfca.edu/capstone>

---

#### Recommended Citation

Villanueva, Katya E., "EVIDENCE-BASED IMPROVEMENT PROJECT PROSPECTUS IMPROVING MAMMOGRAPHY SCREENING SCHEDULING THROUGH COVID-19 VACCINE CLINICS UTILIZING AN ONLINE POPULATION MANAGEMENT SYSTEM—A TEAM APPROACH" (2022). *Master's Projects and Capstones*. 1433.

<https://repository.usfca.edu/capstone/1433>

This Project/Capstone - Global access is brought to you for free and open access by the Theses, Dissertations, Capstones and Projects at USF Scholarship: a digital repository @ Gleeson Library | Geschke Center. It has been accepted for inclusion in Master's Projects and Capstones by an authorized administrator of USF Scholarship: a digital repository @ Gleeson Library | Geschke Center. For more information, please contact [repository@usfca.edu](mailto:repository@usfca.edu).

**EVIDENCE-BASED IMPROVEMENT PROJECT PROSPECTUS**

**IMPROVING MAMMOGRAPHY SCREENING SCHEDULING THROUGH COVID-19  
VACCINE CLINICS UTILIZING AN ONLINE POPULATION MANAGEMENT  
SYSTEM—A TEAM APPROACH**

Katya E Villanueva

University of San Francisco School of Nursing and Health Professions

Internship: NURS 670-K10

Professor Cathy Coleman, DNP, MSN, CPHQ, CNL

August 17, 2022

TABLE OF CONTENTS

**Section I: Title and Abstract**

Title .....1

Abstract .....5

**Section II: Introduction**

Introduction.....7

Problem Description .....8

Available Knowledge .....9

Rationale .....10

Aims .....11

    Specific Aims.....11

    Global Aim.....12

**Section III: Methods**

Context .....12

Microsystem Overview.....13

    Metrics that Matter.....14

    Return on Investment.....14

Intervention .....15

Study of the Intervention.....17

Measures .....17

Ethical Considerations.....17

Outcome Measure Results.....18

Process Measure Results.....19

Balancing Measure Results.....19

Summary.....19

Conclusion.....20

**Section IV: References .....22**

**Section V: Appendices**

Appendix A: Evaluation Table.....26

Appendix B: HEDIS BCS Scores.....28

Appendix C: Organizational BCS Target.....29

Appendix D: IHI Microsystem Assessment.....30

Appendix E: Team Meeting Agenda.....31

Appendix F: PDSA Gantt Chart.....32

Appendix G: Driver Diagram.....33

Appendix H: Cost and Benefit Analysis.....34

Appendix I: Project Charter.....35

## MAMMOGRAPHY SCHEDULING USING A POPULATION MANAGEMENT SYSTEM 4

Appendix J: SWOT Analysis .....	38
Appendix K: Team STEPPS Competencies .....	39
Appendix L: Breast Cancer Scheduling Script.....	40
Appendix M: Mammography Location Flyer .....	41
Appendix N: Same Day Mammogram Fast-Pass.....	42
Appendix O: Statement of Determination.....	43
Appendix P: Quality Improvement Poster.....	44

### **Abstract**

**Problem:** The recent Covid-19 Pandemic led to delays in necessary cancer screening procedures, such as Breast Cancer Mammography Screening (BCS). Suboptimal mammography screening rates persisted at 11% compared to the regional goal of 30% of eligible women in a primary care setting.

**Context:** Covid-19 Vaccination Clinics are part of a private HMO health plan that participates in quality accreditation and data benchmarking utilizing Healthcare Effectiveness Data and Information Set Measures (HEDIS). In this managed care health system, primary care clinics offer appointments and referrals for screening tests similar to mammography.

**Interventions:** Change ideas such as standardized scheduling scripting, standard work process for clinic registration staff, and team education related to population health management were incorporated to foster a Quality Improvement (QI) culture to increase breast cancer screening scheduling for eligible women 40-74 years of age.

**Measures:** The primary outcome measure addressed increasing breast cancer screening mammography scheduling, following organizational guidelines for the population of average risk eligible women aged 40-74. From a baseline of 11% to a target quarterly goal of 25% or more excellent by July 15, 2022. One process measure aimed for 90% of clinic staff to receive breast cancer screening scheduling training by June 8, 2022.

**Results:** For two months, 90% of clinic staff (N=15) received 1 to 1 real-time hands-on training related to scripting, scheduling, and same-day mammography scheduling.

**Conclusion:** Healthcare restrictions resulting from Covid-19 had unintended consequences that resulted in late cancer diagnoses and missed opportunities for life-saving cancer screening

mammography. Clinical nurse leaders are encouraged to employ evidence-based practices in the microsystem setting.

*Keywords: breast cancer screening, scheduling, primary care, HEDIS, clinical nurse leaders, care access*

**Improving mammography screening scheduling through covid-19 vaccine clinics utilizing an online population management system-a team approach.**

**Section II: Introduction**

**Introduction**

Due to the impact of the Covid-19 pandemic, healthcare institutions followed the moratorium guidelines postponing elective and non-essential surgeries, studies, and procedures. As a result, individuals who did not have significant clinical symptoms had delayed routine breast cancer screening (BCS) mammograms and diagnostic studies (Tsapatsaris et al., 2022). Delays in care compounded the issues related to healthcare inequities, such as lack of access to healthcare, decreased cancer detection rates, and advanced disease burden (Cohen et al., 2019). Stakeholders such as public health organizations, professional organizations, patient advocacy groups, corporations, and government entities advocate for increased cancer screening rates nationwide (Tsapatsaris et al., 2022).

By following the global breast cancer screening guidelines, healthcare systems can achieve regular mammography screening for women of average risk 40-74 years of age, resulting in early detection and improved prognosis (Ren et al., 2022). Continuous Quality Improvement (CQI) principles reduce healthcare costs and facilitate the implementation of evidence-based practice (Sollecito & Johnson, 2020). Care coordination improves patient experiences and is essential to high-quality care delivery (Elliott et al., 2021). Care coordination and patient experience positively correlate with 9 HEDIS performance scores (Elliott et al., 2021). Clinical Nurse Leaders (CNLs) possess the clinical knowledge and leadership competencies required to guide quality improvement teams within the microsystem (King et al., 2019).



**Problem Description**

During the pandemic, there was no standardized approach to deferred care, and various areas of care delivery were disproportionately affected. For example, an extensive healthcare system in New York reported a reduction in screening mammography by 99% (Freer, 2021). In the United States (US), breast cancer is the second cause of cancer-related death among women and the most frequent cancer diagnosis (Wong & Miller, 2019). The Centers for Disease Control and Prevention (2018) reported 264,121 new breast cancer cases among women, and 42,280 women succumbed to their disease, per 2019 incidence data.

In the US, breast cancer is the leading cause of cancer-related death among Hispanic women and second among white, black, Asian, Pacific Islander, and American Indian or Alaska Native women (CDC, 2019). In 1991 the National Breast and Cervical Cancer Early Detection Program (NBCCEDP), managed by the CDC, began breast cancer screening for underserved women who do not have access to care and are low-income (Wong & Miller, 2019). Unfortunately, unequal access to BCS and overall healthcare persist due to the social determinants of health and health disparities that negatively impact communities (Wong & Miller, 2019).

Barriers to mammography screening in managed care populations include behaviors and attitudes towards healthcare systems, prior healthcare experiences, socioeconomic barriers such as lack of transportation and low literacy levels, and lack of awareness (Ahmed et al., 2009). The most significant barrier to mammography screening guideline adherence was a lack of physician recommendations (Ahmed et al., 2009). The Institute of Medicine (IOM) *Crossing the Quality Chasm* report recommends that healthcare organizations incorporate clinical decision support

systems to provide preventative care reminders, improving healthcare delivery and outcomes (Institute of Medicine, 2001). The Agency for Healthcare Research and Quality (AHRQ), 2021 National Healthcare Quality and Disparities Report (NHQDR), concluded that US healthcare organizations could enrich healthcare by improving access and quality and reducing disparities (AHRQ, 2022).

Kaiser Foundation Health Plan, Inc.-Northern California strives to provide high-quality care and service to members (Kaiser Permanente, 2022). The Kaiser Foundation Health Plans utilize the National Committee for Quality Assurance (NCQA), a private nonprofit organization that accredits and rates managed care plans (Kaiser Permanente, 2022).

### **Available Knowledge**

A PICOT (population, intervention, comparison, outcome, and may include timeframe) question facilitates the framework of evidence-based clinical research and is utilized for literature reviews (King et al., 2018). The PICOT question for this project: (P) Does Covid Operations staff schedule BCS mammography appointments (I) once prompt BCS mammography scheduling education and same-day mammogram fast-pass implementation have occurred (C) compared to standard practice (O) result in higher BCS mammography scheduling rates (T) within one year.

A literature review (see Appendix A) utilizing the Cumulative Index to Nursing and Allied Health Literature (CINAHL) and PubMed database search included keywords: breast cancer screening, disparities, barriers, mammography, medically underserved women, managed care, benchmarks, clinical performance, and quality. Kruse et al. (2018) identified 55 articles for review and analysis of population health systems and use. The review determined that the

systems increased efficiency, productivity, data, and quality of care. Tsapatsaris et al. (2022) qualitative review showed evidence supporting delayed BCS mammography due to the implications of the Covid-19 pandemic and delays in care. Sun et al. (2018) systematic literature review correlated delays in BCS mammography and increased cost correlate to late breast cancer diagnoses and advanced disease. Cohen et al. (2020), from the Department of Gynecology and Obstetrics, John Hopkins University, developed strategies and care practice guidelines for gynecological care during the pandemic, promoting equity in healthcare. Bicchierai et al. (2021), the Diagnostic Senology Unit, Azienda Ospedaliero Universitaria in Florence, Italy, developed a position statement based on eight randomized controlled trials for breast cancer survival rates based on early detection via mammography screening (see Appendix A).

## **Rationale**

According to the National Committee for Quality Assurance (NCQA), the HEDIS measures for screening mammography evaluates the rate for the population of women 50-74 years of age who had at least one mammogram to screen for breast cancer in the past two years. During the first quarter of the year, 11% of eligible women received screening mammography appointments through the Covid-19 vaccine community network in northern California; our institutional goal is for 30% eligible and screened with a prompt response (Kaiser Permanente, 2022). Pre-pandemic HEDIS measures for Commercial HMO managed care BCS rates were 73.5 in 2018 compared to the current BCS rate of 71.2 in 2020 (see Appendix B) (NCQA, 2020). The current organization BCS mammography target for the HEDIS population in 2022 is 84 (see Appendix C) (Personal communication T. D., July 2022).

Within the microsystem, Quality Improvement (QI) science is key to achieving outcomes by moving forward metrics that matter. By incorporating implementation science, one can ensure the implementation of evidence-based practice and best practice care standards within the microsystem (Sollecito & Johnson, 2020). The Covid Operations Primary Care Clinics are an integrated sub-system with many portals of entry. Systems improvement in the primary care clinic network will optimize and potentially expedite prompt screening mammography appointment scheduling.

Augmenting care requires highly efficient teams to utilize QI frameworks such as IHI Quality Improvement Methods and Lean Six Sigma to develop best practice standards of care (Scoville & Little, 2014). The team used a combination of IHI QI and Six Sigma methodologies, recognized as successful approaches to measurable healthcare improvement. Lean Six Sigma principles incorporate the development of standard work and expectation setting (Scoville & Little, 2014). The team displays quarterly visual data charts showing current progress and opportunities for systems improvement. Displaying metrics that matter can facilitate team buy-in and create a shared vision for quality improvement goals.

## **Aim**

### ***Specific Aim***

Increase screening mammography schedule using an online population management system from 11% to 25% or above by July 15, 2022, within the eligible female patient population among two Covid-19 Vaccine clinic sites. Due to the convenience and participation in primary care, one opportunity exists to cross-schedule same-day or future mammography screening exams for eligible women 40-74 years of age.

### ***Global Aim***

To surpass the pre-pandemic national HEDIS breast cancer screening rates for managed care commercial HMOs from 73.5 to 84 by 2024.

## **Section III: Methods**

### **Context**

An ongoing obstacle for high-functioning teams is lack of information sharing, defensiveness, complacency, conflict, lack of coordination and follow-up, and varying communication styles (AHRQ, 2020). TeamSTEPPS provides fundamental knowledge and practices that, when incorporated, can facilitate teambuilding and the development of high-performing teams. In addition, one can utilize the principles of improvement science to complete small tests of change to determine if the implemented interventions are leading to improvement. These small tests of change are known as Plan-Do-Study-Act (PDSA) cycles and facilitate the answers to the following three questions within the implementation framework. These three questions include: What are we trying to accomplish? How will we know that a change is an improvement? What change can we make that will result in improvement? (Perlo et al., 2017). Clinical Nurse Leaders (CNLs) deliver adapt leadership during the implementation of quality improvement initiatives within the microsystem (King et al., 2019).

The team participated in team training events establishing team member responsibilities, expectations, and clear communication. The three components in Team events include Sharing the Plan (Brief)-This helps establish the plan, facilitates team discussion, and develops team formation by determining the roles and responsibilities of team members. By monitoring and modifying the plan by holding ongoing meetings, teams can re-establish situational awareness

and action items and reassess the plan as needed. Reviewing the Team's Performance-Debriefing allows teams to exchange and explore various viewpoints and helps facilitate the team's ability to identify improvement opportunities and create adjustments (AHRQ, 2020).

### **Microsystem Overview**

The leadership team consists of 6 Registered Nurse (RN) Managers, 1 Non-RN Manager, and 3 Non-RN Clinical Supervisors. The North Valley Covid Operations clinics serve communities in Sacramento, Placer, Napa, Solano, and El Dorado Hills counties. The testing facilities provide employee and member covid-19 testing for pre-operative screening, surveillance, and symptomatic testing. The vaccine clinics provide immunocompromised, pediatric, elderly, and adult vaccines. The clinic staff includes Registered Nurses (RNs), Medical Assistants (MAs), and Licensed Vocational Nurses (LVNs); most staff is on call or contracted employees. An Institute for Healthcare microsystem assessment demonstrated opportunities for standard work development and training (see Appendix D).

The IHI QI and TeamSTEPPS frameworks helped guide the team to successful performance. The team QIP workgroup held regularly scheduled meetings (see Appendix E). The team followed a timeline for implementing PDSA cycles (see Appendix F). The team utilized a driver diagram, a visual display of what drives the project's aim (see Appendix G). As QI team leaders, CNLs understand implementation science; they effectively lead QI initiatives and incorporate evidence-based practices (King et al., 2019).

### ***Metrics that Matter***

NCQA collects Healthcare Effectiveness Data and Information Set Measures known as HEDIS. Consumers and organizations can compare performance measures from various health plans. HEDIS measures include six domains of care (AHRQ, 2018):

- Effectiveness of Care
- Access of Care
- Experience of Care
- Utilization and Risk Adjusted Utilization
- Health Plan Descriptive Information
- Measures Reported Using Electronic Clinical Data Systems.

The AHRQ has leveraged accreditation organization initiatives to implement and sustain CQI in healthcare (Sollecito, & Johnson, 2020).

### ***Return on Investment***

Accredited managed care HMOs often cost 4% less than other private plans. In addition, accreditation indicates a higher level of quality and service. Accreditation is often required for government and managed care reimbursements, such as Medicaid and Medicare. NCQA accreditation requires preventative care and public health screening, which results in decreased healthcare costs (NCQA, 2022). For example, the approximate costs of breast cancer treatment in the US in 2015 were based on diagnosis stage: Stage I \$29,724, Stage II \$39,322, Stage III \$57,827, stage IV \$62,108. Stage IV had 109% higher costs than stage I (Sun et al., 2018).

The financial expense for this QI project was minimal; education and training were provided during regularly scheduled hours, and no additional staff was required. The QI project costs included future Clinical Nurse Leaser estimated compensation, color paper, laminating sheets, a laminator, and ink cartridges. The approximate total for the four-and-a-half-month project budget is \$135.00 for materials and an estimated one-time future CNL compensation of \$7,360. Every two-breast cancer stage I and II diagnosed due to BCS mammography results in a cost-benefit ratio of 2.35% and a net benefit of \$50,889.00 (see Appendix H).

### **Intervention**

As QI project manager, the future CNL completed a QI Project Charter (see Appendix I). The QI team was formed and began meeting regularly to develop the BCS same-day mammography scheduling QIP. A SWOT analysis was used to identify readiness for change, opportunities, and team strengths and assist in project priority setting (see Appendix J). The team initially participated in QI education and TeamSTEPPS training. Educational content included a PowerPoint interactive presentation of the Quality Improvement Science overview and framework. Followed by TeamSTEPPS team events training, team members simulated using tools for brief, monitoring, modifying the plan, and reviewing the team's performance (Brief, Huddle, and Debrief). Team members had an opportunity to teach back the use of the Situation, Background, Assessment, and Recommendation and Request (SBAR) communication tool for communicating issues and concerns. During education and simulation training, team members received a small, laminated template card with SBAR steps for future reference.

After receiving Knowledge, Attitudes, and Performance (KAP), TeamSTEPPS education participants had the opportunity to discuss learnings and possible impact on the care team and



patient care outcomes. AHRQ recommendations for achieving high-functioning teams are part of the TeamSTEPPS curriculum (AHRQ, 2020). Once team members completed QI and TeamSTEPPS training, participants provided feedback in a post-education survey. This allowed the faculty leading the instruction to adopt recommendations and make necessary changes for future and follow-up training sessions. As part of TeamSTEPPS competencies, team members completed a return demonstration of communication and team leadership tools using teach-back sessions (see Appendix K).

Once team expectations and responsibilities were established, the team began creating the following tools and small tests of change for this QI project:

- Engage Quality Liaison and Upper leadership as stakeholders
- BCS script implementation (see Appendix L)
- BCS mammogram location flyer (see Appendix M)
- BCS prompt scheduling standard work
- BCS scheduling training provided
- Real-time observations and feedback for staff
- Visual data display of overall clinic performance for BCS prompt booking
- Implementation of same-day mammogram fast-pass (see Appendix N)
- Employee kudos for following standard work
- Drill down of missed opportunities
- Various topics affecting BCS booking reviewed during daily huddles

### ***Study of Intervention***

Data was collected from a prepopulated EHR report that shows daily opportunities, individual performance, and overall BCS booking trends. Peer observation reports for registration have been created. Data trends are identified as observation data is extracted into the spreadsheet; in the future, one would like to create fallout Pareto charts for the display of improvement themes. A post-implementation survey will be distributed to staff during the last quarter of 2022.

### **Measures**

Measurement is vital in determining if a quality improvement process initiative yields positive results (Scoville & Little, 2014). Various measurement tools will be utilized to determine if the quality improvement initiatives and teamwork tools have resulted in a positive trend. Measurement strategies will include quantitative BCS prompt booking percentage rates. Standard work observation tools will be utilized to carry out quality control real-time observations of current practice state concerning standard work expectations. In addition, the staff's continued qualitative insight will be considered for future BCS improvement efforts.

### **Ethical Considerations**

CNLs should consider financial incentives and motivation to achieve high HEDIS health plan ratings. However, providing the proper care at the right time is most important. Preventative care decreases the burden on an already stretched healthcare system by reducing unnecessary costs. In addition, patients have more treatment choices and a better prognosis when breast cancer is caught in its early stages. One should also consider that some women may feel "they are being put on the spot." According to the American Nurses Association code of ethics (2015),

nurses have an ethical duty to do no harm called "beneficence." Beneficence is the "bioethical principle of benefitting others by preventing harm, removing harmful conditions, or affirmatively acting to benefit another, often going beyond what is required by law."

This QI project encompasses one's duty to do that and mitigate harm by incorporating best practice breast cancer mammography screening guidelines. Ethical considerations should include impartial staff survey results; this may be due to staff perception that they must complete favorable results for future contract and on-call employment. Provision 6 of the ANA code of ethics obliges nurses with the duty to elevate ethical behaviors in the workplace (American Nurses Association, 2015). This QI project provides the opportunity to develop positive working relationships within the Covid-19 operations leadership team and clinic staff. The scope of the BCS mammogram QIP directly impacts the well-being of the community by reducing healthcare disparities and creating a culture of care and quality improvement. The BCS mammogram scheduling QIP meets the Institutional Review Board (IRB) guidelines for an evidence-based change in practice project (see Appendix O).

### **Outcome Measure Results**

By May 9, 2022, 100% of QIP team members (N=4) agreed on BCS prompt staff training. The primary outcome measure addressed increasing breast cancer screening scheduling of eligible women from a baseline of 11% to a quarterly goal of 25% or above.

### **Process Measures Results**

By May 23, 2022, 90% of Clinic Staff (N=15) had received breast cancer screening mammography scheduling training. One process measure aimed for 90% of clinic staff to receive 1 to 1 real-time observation and feedback by July 15, 2022.

## **Balancing Measures Results**

By July 15, 2022, 90% of the Leadership Team (N=11) will participate in 10 weekly QI management meetings to address barriers that impact reliable scheduling operations.

## **Summary**

Throughout this QI project, the newly formed leadership team has progressed through Tuckman's Five Stages of team formation (NCS, 2022):

- Forming
- Storming
- Norming
- Performing
- Adjourning

The transition from storming to norming was challenging yet rewarding for the team. The future CNL has observed team growth and more robust team bonds as the team has learned to rely on and count on each other. During the QI implementation phase, competing priorities existed, such as the implementation phase of infant and toddler Covid-19 vaccines and Monkeypox vaccines, which resulted in limited implementation within two of seven vaccine clinic sites. During the project implementation phase, many contracted staff completed their temporary work assignments and there was a waiting period for hiring. As the team continues to team build trust and reach consensus on workflow issues and goals, a culture of continuous improvement and learning has occurred.

## **Conclusion**

Healthcare restrictions resulting from Covid-19 had unintended consequences that resulted in late cancer diagnoses and missed opportunities for life-saving cancer screening. Due to the development of Covid-19 vaccinations and the California Department of Public Health and Centers for Disease Control and Prevention (CDC) Covid-19 guidelines, healthcare institutions can once again safely provide life-saving mammography screening procedures. Clinical nurse leaders are encouraged to employ evidence-based practices in the microsystem setting. BCS mammography can improve healthcare outcomes and reduce mortality rates, resulting in more treatment options and lower healthcare costs for patients. CNLs are equipped and efficient in managing outcome measures, improving healthcare gaps, and positively impacting healthcare inequities (King et al., 2019).

## **Author Acknowledgments**

Special thank you to Kaiser Permanente Nurse Scholars Program for this incredible opportunity, in which one has achieved beyond expectations, professional mentor and project sponsor Dr. Michelle M. Machon, Dir Nursing & Clinical Practice, Dr. Jennifer Henson, Service Line Director for Covid Operations and Medical Office Administration, Ryan Sutherland, AIA Advisor and Area Portfolio Leader, Daniel J. Tovatt, Performance Improvement Consultant; USF Advisors and Professors Dr. Cathy Coleman and Dr. Sara Horton-Deutsch, KP Cohort-10, RN Leader Colleagues and Supervisor Leadership Team, Covid-19 Operations Staff. Family, Husband and Children. Thank you for your support. In this journey, one has found purpose and regained Nurse Identity.

#### Section IV: References

Agency for Healthcare Research and Quality. (2022). *National healthcare quality and disparities report*. <https://www.ahrq.gov/sites/default/files/wysiwyg/research/findings/nhqrd/2021qdr.pdf>

Agency for Healthcare Research and Quality. (2018). *Six domains of health care quality*. <https://www.ahrq.gov/talkingquality/asures/six-domains.html>

Agency for Healthcare Research and Quality. (2020). *TeamSTEPPS*.

Ahmed, N. U. (2009). Barriers to mammography screening in a managed care population. *Public Administration and Management*, 13(3), 7-39.

American Nurses Association. (2015). *Code of ethics with interpretive statements*. Silver Spring. <https://www.ahrq.gov/teamstepps/instructor/essentials/pocketguide.html>

Bicchierai, G., Di Naro, F., De Benedetto, D., Cozzi, D., Pradella, S., Miele, V., & Nori, J. (2021). A review of breast imaging for timely diagnosis of disease. *International Journal of Environmental Research and Public Health*, 18(11), 5509. <https://doi.org/10.3390/ijerph18115509>

Champion, V. L., Christy, S. M., Rakowski, W., Lairson, D. R., Monahan, P. O., Gathirua-Mwangi, W. G., Stump, T. E., Biederman, E. B., Kettler, C. D., & Rawl, S. M. (2020). An RCT to increase breast and colorectal cancer screening. *American Journal of Preventive Medicine*, 59(2), e69–e78. <https://doi.org/10.1016/j.amepre.2020.03.008>

Cohen, M. A., Powell, A. M., Coleman, J. S., Keller, J. M., Livingston, A., & Anderson, J. R.

(2020). Special ambulatory gynecologic considerations in the era of coronavirus disease 2019 (COVID-19) and implications for future practice. *American Journal of Obstetrics and Gynecology*, 223(3), 372–378. <https://doi.org/10.1016/j.ajog.2020.06.006>

Center for Disease Control and Prevention. (2019). United states cancer statistics: Data

visualizations. <https://gis.cdc.gov/Cancer/USCS/#/AtAGlance/>

Elliott, M. N., Adams, J. L., Klein, D. J., Haviland, A. M., Beckett, M. K., Hays, R. D., Gaillot,

S., Edwards, C. A., Dembosky, J. W., & Schneider, E. C. (2021). Patient-reported care coordination is associated with performance on clinical care measures. *Society of General Internal Medicine*. 36(12), 3665-71. <https://10.1007/s11606-021-07122-8>

Freer, P. E. (2021). The impact of the COVID-19 pandemic on breast imaging. *Radiologic*

*Clinics of North America*, 59(1), 1–11. <https://doi.org/10.1016/j.rcl.2020.09.008>

Institute of Medicine (US.) Committee on Quality of Health Care in America. (2001). *Crossing*

*the Quality Chasm: A New Health System for the 21st Century*. National Academies Press.

Institute of Medicine. (US.) Committee on Quality of Health Care in America, Kohn, L. T.,

Corrigan, J. M., & Donaldson, M. S. (Eds.). (2000). *To Err is Human: Building a Safer Health System*. National Academies Press.

Kaiser Permanente. (2022). Measuring quality.

<https://healthy.kaiserpermanente.org/northern-california/pages/quality-safety/measuring-quality>

King, C. R., Gerard, S., & Rapp, C. G. (2018). *Essential knowledge for CNL and APRN nurse leaders*. Springer Publishing Company.

Kruse, C. S., Stein, A., Thomas, H., & Kaur, H. (2018). The use of electronic health records to support population health: A systematic review of the literature. *Journal of Medical Systems*, 42(11), 214. <https://doi.org/10.1007/s10916-018-1075-6>

Ren, W., Chen, M., Qiao, Y., & Zhao, F. (2022). Global guidelines for breast cancer screening: A systematic review. *The Breast*, 64, 85-99. <https://doi.org/10.1016/j.breast.2022.04.003>

National Committee for Quality Assurance. (2022). HEDIS report card.

<https://ncqa.org/hedis/measures/breast-cancer-screening/>

Network for College Success. (2022). Tuckman's team development model.

[https://ncs.uchicago.edu/sites/ncs/uchicago.edu/files/uploads/tools/NCS\\_PS\\_Toolkit\\_BS\\_T\\_Set\\_C\\_StagesTeamDevelopment.pdf](https://ncs.uchicago.edu/sites/ncs/uchicago.edu/files/uploads/tools/NCS_PS_Toolkit_BS_T_Set_C_StagesTeamDevelopment.pdf)

Ostropolets, A., Zhang, L., & Hripesak, G. (2020). A scoping review of clinical decision support tools that generate new knowledge to support decision making in real time. *Journal of the American Medical Informatics Association: JAMIA*, 27(12), 1968–1976.

<https://doi.org/10.1093/jamia/ocaa200>



Perlo J, Balik B, Swensen S, Kabcenell A, Landsman J, Feeley D. (2017). IHI framework for improving joy in work. *IHI White Paper*, 1-41.

Scoville, R., & Little, K. (2014). Comparing lean and quality improvement. *IHI White Paper*, 1-30.

Seely, J. M., & Alhassan, T. (2018). Screening for breast cancer in 2018-what should we be doing today?. *Current Oncology*, 25, 115–124. <https://doi.org/10.3747/co.25.3770>

Sollecito, A.W., & Johnson K. J. (2020). *McLaughlin and Kaluzny's continuous quality improvement in healthcare* (5<sup>th</sup> ed.). Jones & Barlett Learning.

Sun, L., Legood, R., Dos-Santos-Silva, I., Gaiha, S. M., & Sadique, Z. (2018). Global treatment costs of breast cancer by stage: A systematic review. *PLOS One*, 13(11), e0207993. <https://doi.org/10.1371/journal.pone.0207993>

Tsapatsaris, A., Babagbemi, K., & Reichman, M. B. (2022). Barriers to breast cancer screening are worsened amidst COVID-19 pandemic: A review. *Clinical Imaging*, 82, 224–227. <https://doi.org/10.1016/j.clinimag.2021.11.025>

T., D. (July, 2022) Personal communication: Organizational breast cancer screening goal.

van den Ende, C., Oordt-Speets, A. M., Vroling, H., & van Agt, H. (2017). Benefits and harms of breast cancer screening with mammography in women aged 40-49 years: A systematic review. *International Journal of Cancer*, 141(7), 1295–1306. <https://doi.org/10.1002/ijc.30794>

Wong, F. L., & Miller, J. W. (2019). Centers for disease control and prevention's national breast and cervical cancer early detection program: Increasing access to screening. *Journal of Women's Health*, 28(4), 427-431. <https://10.1089/jwh.2019.7726>

**Section V: Appendices**

**Appendix A**

**Evaluation Table**

Evidence Citation	Design/Method	Sample/Setting	Findings	JHNEBP Appraisal Rating
(Kruse et al., 2018)	Systematic literature review	A literature search of PubMed and CINHAHL utilizing MESH subject headings with search criteria HER and EMR and population health or public health	From the initial 420 articles, 55 were selected for review. The analysis showed 13 facilitators and 13 barriers to population health when utilizing clinical and/or population health systems. The facilitators were an increase in productivity/efficiency, and an increase in date and quality of care; the facilitators compared 3:2 to barriers.	IV B
(Tsapatsaris et al., 2022)	Qualitative literature review	Review using keywords: breast cancer screening, disparities, barriers, mammography, and medically underserved women	Evidence shows that breast cancer screening imaging delays result in larger tumor size compared to pre-pandemic—impact of Covid-19 on previously existing health inequalities.	V B
(Sun et al., 2018).	Systematic literature review	Literature review utilizing PICOS framework. A search of MEDLINE, EMBASE, and NHS economic evaluation database. Reference primary studies and reviewing article publications.	Delays in breast cancer studies and increased cost correlated to later detection of breast cancer.	IV B

MAMMOGRAPHY SCHEDULING USING A POPULATION MANAGEMENT SYSTEM 27

(Cohen et al., 2020)	Position statement	Department of Gynecology and Obstetrics, John Hopkins University School of Medicine. Cancer screening review and how care can be modified during pandemic times	Develop strategies and care practices to ensure access to gynecological care to obtain health equity.	IV A
(Bicchierai et al., 2021)	Position statement	Diagnostic Senology Unit, Azienda Ospedaliero-Universitaria Careggi, Florence Italy, 8 RCTs	Breast cancer survival rate is significantly based on early detection via mammography screening.	IV A

**Appendix B**

**HEDIS BCS Rating**

**RESULTS**

---

**Breast Cancer Screening Rate**

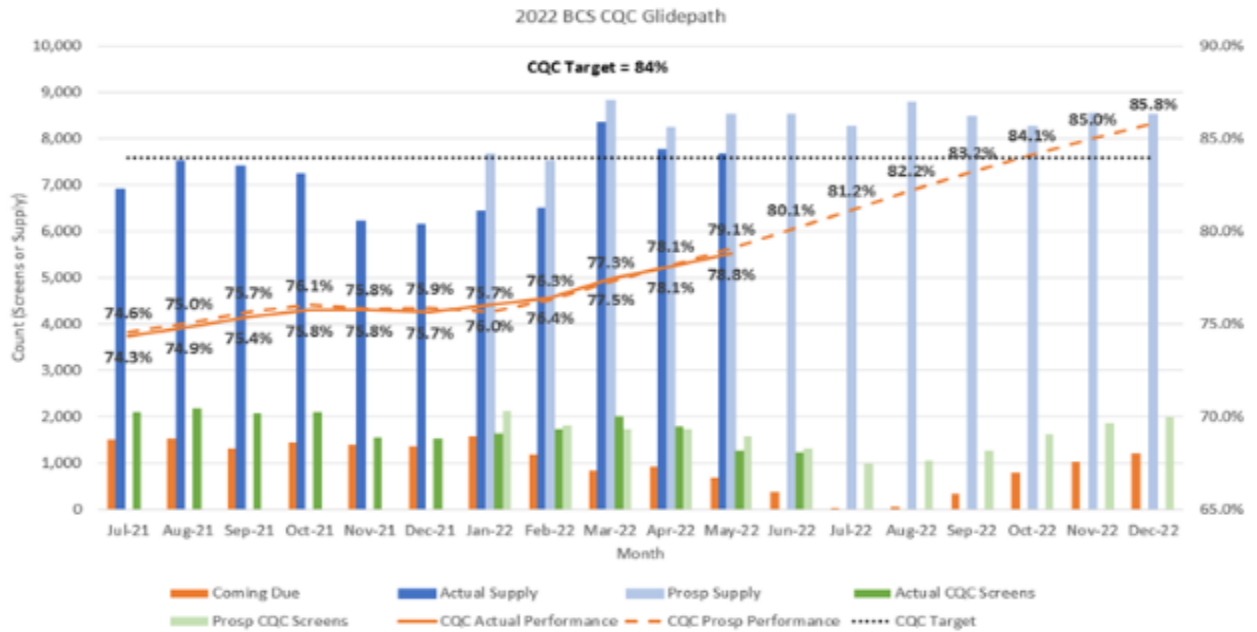
Measure Year	Commerical HMO	Commercial PPO	Medicaid HMO	Medicare HMO	Medicare PPO
2020	71.2	69.5	53.7	69.4	71.5
2019	73.7	71.6	58.4	§	§
2018	73.5	70.7	58.4	73.2	73.7

National Committee for Quality Assurance. (2022). HEDIS report card.

<https://ncqa.org/hedis/measures/breast-cancer-screening/>

### Appendix C

### BCS Target and Performance



Appendix D

IHI Microsystem Assessment Tool

CLINICAL MICROSYSTEM ASSESSMENT TOOL

Instructions: Each of the "success" characteristics (e.g., leadership) is followed by a series of three descriptions. For each characteristic, please check the description that best describes your current microsystem and the care it delivers OR use a microsystem you are MOST familiar with.

	Characteristic and Definition	Descriptions			
Leadership	<b>1. Leadership:</b> The role of leaders is to balance setting and reaching collective goals, and to empower individual autonomy and accountability, through building knowledge, respectful action, reviewing and reflecting.	<input type="checkbox"/> Leaders often tell me how to do my job and leave little room for innovation and autonomy. Overall, they don't foster a positive culture.	<input checked="" type="checkbox"/> Leaders struggle to find the right balance between reaching performance goals and supporting and empowering the staff.	<input type="checkbox"/> Leaders maintain constancy of purpose, establish clear goals and expectations, and foster a respectful positive culture. Leaders take time to build knowledge, review and reflect, and take action about microsystems and the larger organization.	<input type="checkbox"/> Can't Rate
	<b>2. Organizational Support:</b> The larger organization looks for ways to support the work of the microsystem and coordinate the hand-offs between microsystems.	<input type="checkbox"/> The larger organization isn't supportive in a way that provides recognition, information, and resources to enhance my work.	<input type="checkbox"/> The larger organization is inconsistent and unpredictable in providing the recognition, information and resources needed to enhance my work.	<input checked="" type="checkbox"/> The larger organization provides recognition, information, and resources that enhance my work and makes it easier for me to meet the needs of patients.	<input type="checkbox"/> Can't Rate
Staff	<b>3. Staff Focus:</b> There is selective hiring of the right kind of people. The orientation process is designed to fully integrate new staff into culture and work roles. Expectations of staff are high regarding performance, continuing education, professional growth, and networking.	<input type="checkbox"/> I am not made to feel like a valued member of the microsystem. My orientation was incomplete. My continuing education and professional growth needs are not being met.	<input type="checkbox"/> I feel like I am a valued member of the microsystem, but I don't think the microsystem is doing all that it could to support education and training of staff, workload, and professional growth.	<input checked="" type="checkbox"/> I am a valued member of the microsystem and what I say matters. This is evident through staffing, education and training, workload, and professional growth.	<input type="checkbox"/> Can't Rate
	<b>4. Education and Training:</b> All clinical microsystems have responsibility for the ongoing education and training of staff and for aligning daily work roles with training competencies. Academic clinical microsystems have the additional responsibility of training students.	<input type="checkbox"/> Training is accomplished in disciplinary silos, e.g., nurses train nurses, physicians train residents, etc. The educational efforts are not aligned with the flow of patient care, so that education becomes an "add-on" to what we do.	<input type="checkbox"/> We recognize that our training could be different to reflect the needs of our microsystem, but we haven't made many changes yet. Some continuing education is available to everyone.	<input type="checkbox"/> There is a team approach to training, whether we are training staff, nurses or students. Education and patient care are integrated into the flow of work in a way that benefits both from the available resources. Continuing education for all staff is recognized as vital to our continued success.	<input type="checkbox"/> Can't Rate
	<b>5. Interdependence:</b> The interaction of staff is characterized by trust, collaboration, willingness to help each other, appreciation of complementary roles, respect and recognition that all contribute individually to a shared purpose.	<input type="checkbox"/> I work independently and I am responsible for my own part of the work. There is a lack of collaboration and a lack of appreciation for the importance of complementary roles.	<input type="checkbox"/> The care approach is interdisciplinary, but we are not always able to work together as an effective team.	<input type="checkbox"/> Care is provided by a interdisciplinary team characterized by trust, collaboration, appreciation of complementary roles, and a recognition that all contribute individually to a shared purpose.	<input type="checkbox"/> Can't Rate
Patients	<b>6. Patient Focus:</b> The primary concern is to meet all patient needs — caring, listening, educating, and responding to special requests, innovating to meet patient needs, and smooth service flow.	<input type="checkbox"/> Most of us, including our patients, would agree that we do not always provide patient centered care. We are not always clear about what patients want and need.	<input type="checkbox"/> We are actively working to provide patient centered care and we are making progress toward more effectively and consistently learning about and meeting patient needs.	<input checked="" type="checkbox"/> We are effective in learning about and meeting patient needs — caring, listening, educating, and responding to special requests, and smooth service flow.	<input type="checkbox"/> Can't Rate

© Julie K. Johnson, MSPH, PhD, November 2001, Revised 2/21/03

Side A

Please continue on Side B

CLINICAL MICROSYSTEM ASSESSMENT TOOL

- CONTINUED -

	Characteristic and Definition	Descriptions			
Patients	<b>7. Community and Market Focus:</b> The microsystem is a resource for the community; the community is a resource to the microsystem; the microsystem establishes excellent and innovative relationships with the community.	<input type="checkbox"/> We focus on the patients who come to our unit. We haven't implemented any outreach programs in our community. Patients and their families often make their own connections to the community resources they need.	<input type="checkbox"/> We have tried a few outreach programs and have had some success, but it is not the norm for us to go out into the community or actively connect patients to the community resources that are available to them.	<input type="checkbox"/> We are doing everything we can to understand our community. We actively employ resources to help us work with the community. We add to the community and we draw on resources from the community to meet patient needs.	<input type="checkbox"/> Can't Rate
Performance	<b>8. Performance Results:</b> Performance focuses on patient outcomes, avoidable costs, streamlining delivery, using data feedback, promoting positive competition, and frank discussions about performance.	<input type="checkbox"/> We don't routinely collect data on the process or outcomes of the care we provide.	<input checked="" type="checkbox"/> We often collect data on the outcomes of the care we provide and on some processes of care.	<input type="checkbox"/> Outcomes (clinical, satisfaction, financial, technical, safety) are routinely measured, we feed data back to staff, and we make changes based on data.	<input type="checkbox"/> Can't Rate
	<b>9. Process Improvement:</b> An atmosphere for learning and redesign is supported by the continuous monitoring of care, use of benchmarking, frequent tests of change, and a staff that has been empowered to innovate.	<input type="checkbox"/> The resources required (in the form of training, financial support, and time) are rarely available to support improvement work. Any improvement activities we do are in addition to our daily work.	<input checked="" type="checkbox"/> Some resources are available to support improvement work, but we don't use them as often as we could. Change ideas are implemented without much discipline.	<input type="checkbox"/> There are ample resources to support continual improvement work. Studying, measuring and improving care to a scientific way are essential parts of our daily work.	<input type="checkbox"/> Can't Rate
Information and Information Technology	<b>10. Information and Information Technology:</b> Information is THE connector — staff to patients, staff to staff, needs with actions to meet needs. Technology facilitates effective communication and multiple formal and informal channels are used to keep everyone informed all the time, listen to everyone's ideas, and ensure that everyone is connected on important topics.  <i>Given the complexity of information and the use of technology in the microsystem, assess your microsystem on the following three characteristics: (1) integration of information with patients, (2) integration of information with providers and staff, and (3) integration of information with technology.</i>	<b>A. Integration of Information with Patients</b> <input type="checkbox"/> Patients have access to some standard information that is available to all patients.	<input type="checkbox"/> Patients have access to standard information that is available to all patients. We've started to think about how to improve the information they are given to better meet their needs.	<input checked="" type="checkbox"/> Patients have a variety of ways to get the information they need and it can be customized to meet their individual learning styles. We routinely ask patients for feedback about how to improve the information we give them.	<input type="checkbox"/> Can't Rate
		<b>B. Integration of Information with Providers and Staff</b> <input type="checkbox"/> I am always tracking down the information I need to do my work.	<input type="checkbox"/> Most of the time I have the information I need, but sometimes essential information is missing and I have to track it down.	<input checked="" type="checkbox"/> The information I need to do my work is available when I need it.	<input type="checkbox"/> Can't Rate
		<b>C. Integration of Information with Technology</b> <input type="checkbox"/> The technology I need to facilitate and enhance my work is either not available to me or it is available but not effective. The technology we currently have does not make my job easier.	<input type="checkbox"/> I have access to technology that will enhance my work, but it is not easy to use and seems to be cumbersome and time consuming.	<input type="checkbox"/> Technology facilitates a smooth linkage between information and patient care by providing timely, effective access to a rich information environment. The information environment has been designed to support the work of the clinical unit.	<input type="checkbox"/> Can't Rate

© Julie K. Johnson, MSPH, PhD, November 2001, Revised 2/21/03

Side B

**Appendix E**

**QIP Meeting Agenda**

<b>NVLY Covid-Ops Team Meeting</b>	
Date:	6/15/2022
Time:	1330-1400
Location:	Via Teams
Participants:	John, Katy, Donna and Katya
Meeting:	PROMPT BCS Same Day Booking



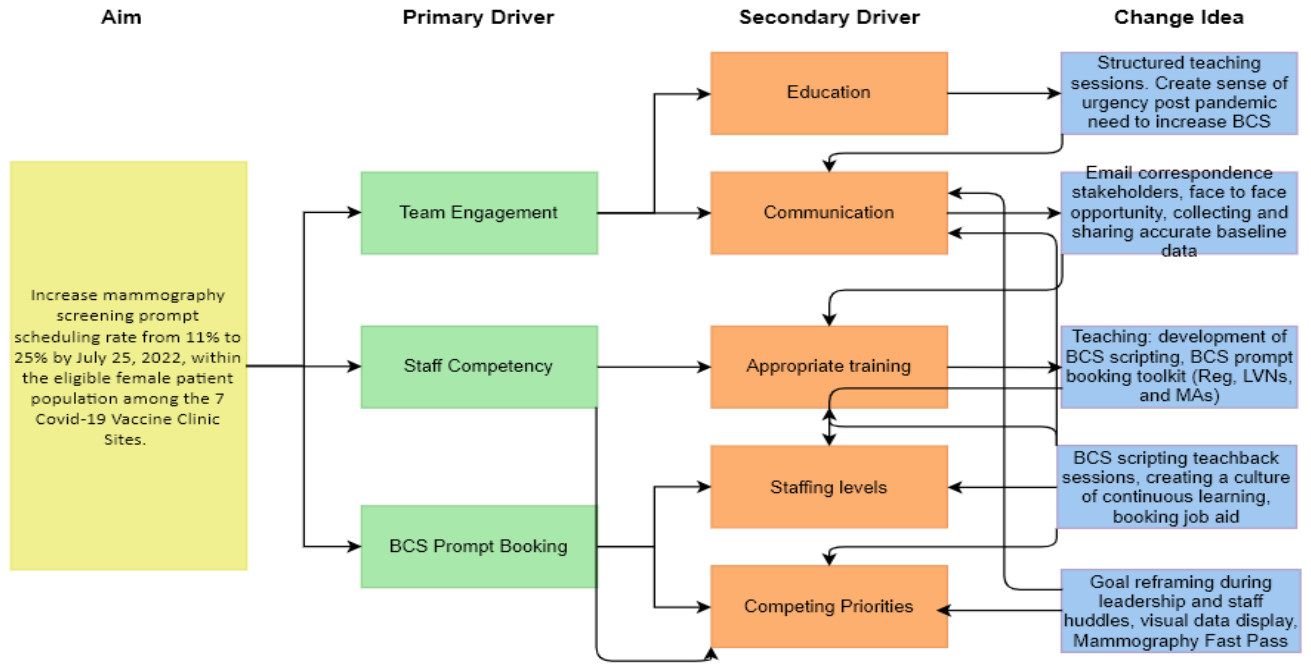
<b>Agenda</b>	
<b>Topic / Subject</b>	<b>Notes</b>
<b>BCS Script</b>	<ul style="list-style-type: none"> <li>• Script use observations during scheduling</li> </ul>
<b>BCS Tools</b>	<ul style="list-style-type: none"> <li>• Review docs/tools</li> </ul>
<b>PINK Ticket</b>	<ul style="list-style-type: none"> <li>• PDSA</li> </ul>
<b>Action Items</b>	<ul style="list-style-type: none"> <li>• Manager/Supervisor-communication with Radiology Manager</li> </ul>
<b>Meeting Adjourned</b>	





## Appendix G

### Driver Diagram



**Appendix H**

**Cost and Benefit Analysis**

Table 2 Cost-Benefit Analysis		
Item	Cost	Estimated savings per occurrence
Stage III Breast Cancer vs Stage I Breast Cancer	\$57,827.00 -\$29,724.00	\$28,103.00
Stage IV Breast Cancer vs Stage II Breast Cancer	\$62,108.00 -\$39,322.00	\$22,786.00
CNL one time compensation for hours required for project	\$7,360.00	
QIP Annual Budget	\$130.00	
<b>CBA</b>		
Total net benefit	\$50,759.00	\$50,889.00
B/C Ratio	2.35%	

## Appendix I

### Project Charter

#### QI Project Charter

**Team:**

M.M., J.H., R.S., 5-RN Managers, 1-Non-RN Manager, and 3-Non-RN supervisors

**Project:**

Improving Timely Screening Mammography Scheduling Through Covid-19 Vaccine Clinics-A Team Approach

#### What are we trying to accomplish?

**Problem**

Describe in 2–3 sentences the existing condition you hope to improve (i.e., the gap in quality):

The recent Covid-19 Panedmic lead to delays and underutilization of screening procedures such as mammography (Freer P. E. (2021). The impact of the COVID-19 pandemic on breast imaging. Radiologic Clinics of North America, 59(1), 1 – 11. <https://doi.org/10.1016/j.rcl.2020.09.008>

NCQA collects Healthcare Effectiveness Data and Information Set Measures known as HEDIS. Consumers and organizations use common performance measures from various health plans. HEDIS measure include sub domains of age (AUCB) 2018:

**Rationale**

Explain in 4–5 sentences why the current system or process needs improvement. Include baseline data and relevant benchmarks, e.g., from the literature:

1. According to NCQA, the HEDIS measure for screening mammography evaluates the rate for BCS of eligible women 50-74 yrs of age.
  2. During the last quarter 11% of eligible women received BCS appointments through the covid-19 clinics (KP, 2022).
  3. During 2018 the BCS rate for commercial HMOs was 73.1.
  4. The role of the CNL includes three major domains; 1 improving the care management work environment, 2 improving outcomes (clinical educational financial, 3 advocating as a Nurse Leader for the frontline microsystem leader (Bender, 2020)
- Student acting in the role of CNL, change agent

**Aim Statement**

What outcome, in measureable terms, are you hoping to accomplish? Specify **how good, for whom, and by when** — i.e., by what exact date:

**Specific Aim** The primary outcome measure addressed increasing breast cancer screening scheduling of eligible women from a baseline of 11% to a target quarterly goal of 25%. One process measure aimed for 90% of clinic staff to receive breast cancer screening scheduling training by April 15, 2022..

**Global Aim** To surpass the pre-pandemic national HEDIS breast cancer screening rates for managed care commercial HMOs from 73.5 to 84 by 2024.

**Expectations**

Why have you chosen the aim you've set forth? Explain, in specific terms, what you believe will be the beneficial outcomes of this project:

These two AIMS were chosen because they align with the macrosystem organizational goals. The beneficial outcomes of this project will include 1. Creation of a standardized scheduling script 2. Introduce best practices for conducting team meetings that support staff participation and constructive communication. 3. Foster a culture of continues learning and improvement. 4. Complete real time observations and provide feedback.



## How will we know a change is an improvement?\*

### Outcome Measure(s)

List the measure(s) you ultimately want to affect as a result of this project:

1. The primary outcome measure addressed increasing breast cancer screening scheduling of eligible women from a baseline of 11% to a target quarterly goal of 25%. One process measure aimed for 90% of clinic staff to receive breast cancer screening scheduling training by April 15, 2022.

### Process Measures

List the measures that will tell you if the parts or steps in the system are performing as planned to affect the outcome measure:

Means to the end  
By May 16, 2022, 90% of Clinic Staff (N=15) received 1 to 1 real-time hands-on training.

One process measure aimed for 90% of clinic staff to receive breast cancer screening scheduling training by April 15, 2022.

### Balancing Measures

List the measures that will tell you whether you are introducing problems elsewhere in the system:

By July 1, 2022, 90% of the Leadership Team (N=11) will participate in 14 weekly QI management meetings to address barriers that impact reliable scheduling operations.

## What changes can we make to improve?

### Key Stakeholders

Whose input and support will this project require?

Sponsors= Jen/Michelle

How will you engage these key stakeholders?

Frequent communication via teams, email, or phone on a biweekly basis (5 min progress update).

Bestween 5/1-8/1

### Barriers

What barriers do you predict to your success?

1. Resistance from 9 managers/supervisors
2. Lack of staff participaton
3. Lack of senior leaders support for incentives for staff to complete surveys.
4. Increased turnover amongst staff
5. Inconsistent leadership at clinic sites

How will you overcome these barriers?

### Change Ideas

How will you learn more about the process or system you're trying to improve? (e.g., interviews with people within the process, cause and effect or driver diagrams, etc.)

1. Analyze prior BCS scheduling data
2. Weekly communication among department leaders
3. Introduce the concept of a team huddle and standardized work
4. Introduce idea of small incentives to engage staff
5. Critically analyze results of training utilizing a subset survey data and create staff responsive interventions.

What ideas do you have for initial tests of change (PDSA cycles)?

1. Approve set script for BCS prompt booking
2. Creating subset survey
3. Introduce and disseminate feedback related to RRV staff input of staff huddles/standardized boards

**Appendix J**

**Implementation of BCS Same Day and Future Scheduling QIP**

**SWOT Analysis Matrix**

<p><b><u>Strengths</u></b></p> <ul style="list-style-type: none"> <li>• High Patient Satisfaction</li> <li>• Operational efficiency due to changes in workflows to include prompt review during registration</li> <li>• Physical layout of clinic sites conducive for effective patient care</li> </ul>	<p><b><u>Weaknesses</u></b></p> <ul style="list-style-type: none"> <li>• On call or contracted staff</li> <li>• High employee turnover</li> <li>• Leaders rotate sites</li> <li>• Non-standard workflow</li> </ul>
<p><b><u>Opportunities</u></b></p> <ul style="list-style-type: none"> <li>• Standardize workflows</li> <li>• Safety culture work, speak up culture</li> <li>• Team building strategies for new leadership team</li> <li>• Increase staff moral</li> <li>• Expectation setting</li> <li>• Real time observations and feedback</li> <li>• Increase patient satisfaction with the clinic and organization</li> <li>• Increase staff satisfaction and retention</li> <li>• Prevent staff burnout</li> </ul>	<p><b><u>Threats</u></b></p> <ul style="list-style-type: none"> <li>• Loss of revenue from out-of-network patients</li> <li>• Safety risks due to infrequent shifts</li> <li>• Inconsistent staff performance</li> <li>• Onboarding new leaders</li> </ul>

## Appendix K

### TeamSTEPPS Competencies

#### Team Performance Observation Tool

<p><b>Team Structure</b></p> <ul style="list-style-type: none"> <li>Assembles team.</li> <li>Assigns or identifies team members' roles and responsibilities.</li> <li>Holds team members accountable.</li> <li>Includes patients and families as part of the team.</li> </ul>
<p><b>Communication</b></p> <ul style="list-style-type: none"> <li>Provides brief, clear, specific, and timely information.</li> <li>Seeks information from all available sources.</li> <li>Uses check-backs to verify information that is communicated.</li> <li>Uses SBAR, call-outs, check-backs, and handoff techniques to communicate effectively with team members.</li> </ul>
<p><b>Leadership</b></p> <ul style="list-style-type: none"> <li>Identifies team goals and vision.</li> <li>Utilizes resources efficiently to maximize team performance.</li> <li>Balances workload within the team.</li> <li>Delegates tasks or assignments, as appropriate.</li> <li>Conducts briefs, huddles, and debriefs.</li> <li>Role models teamwork behaviors.</li> </ul>
<p><b>Situation Monitoring</b></p> <ul style="list-style-type: none"> <li>Monitors the state of the patient.</li> <li>Monitors fellow team members to ensure safety and prevent errors.</li> <li>Monitors the environment for safety and availability of resources (e.g., equipment).</li> <li>Monitors progress toward the goal and identifies changes that could alter the care plan.</li> <li>Fosters communication to ensure a shared mental model.</li> </ul>
<p><b>Mutual Support</b></p> <ul style="list-style-type: none"> <li>Provides task-related support and assistance.</li> <li>Provides timely and constructive feedback to team members.</li> <li>Effectively advocates for the patient using the Assertive Statement, Two-Challenge Rule, or CUS.</li> <li>Uses the Two-Challenge Rule or DESC script to resolve conflict.</li> </ul>

Agency for Healthcare Research and Quality. (2020). *TeamSTEPPS*.



## Appendix L

### BCS Script



I see you're due for your Mammogram Screening

**1. What have you heard about the benefits of screening for**

- Breast cancer

**2. I have some helpful information. May I share it?**

- 1 in 8 women will be diagnosed with breast cancer during their lifetime.
- A mammogram is a screening test that can help find cancer before you have any symptoms.

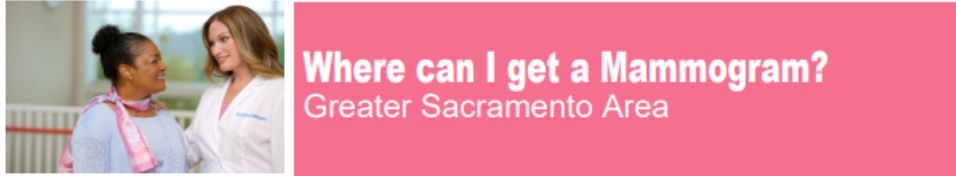
**3. You can get this done today. Offer same day if available.**

Or Schedule for a convenient day and time and provide location flyer

**When would you like to get this scheduled? What day of the week works best for you?**

## Appendix M

### Mammogram Imaging Location Flyer




#### When should I get a Mammogram?

- Mammograms are recommended every 1 to 2 years for women age 50 to 74 unless bilateral mastectomy.
- Women age 40 to 49 should consider the risks and benefits of mammography before deciding.
- Women age 75 and older should discuss the need for mammography with their doctor.
- Mammograms are not recommended for women age 39 and younger.

#### How can I get a Mammogram?

Mammograms are available in the Radiology Department at many facilities in the Greater Sacramento Area.

- Schedule an appointment through our website <http://kp.org> or with KP My Doctor Online App 
- Schedule an appointment by calling our Appointment and Advice Call Center (916) 784-4050 or (916) 614-4040
- Same Day appointments are available.

Screening Mammography Locations	Days & Hours
<b>Davis</b> 1955 Cowell Blvd, Davis	<b>Mon-Fri 8:45am – 4pm</b> <i>Closed daily for Lunch 12:30-1:30pm</i>
<b>Downtown Commons</b> 501 J Street, Sacramento	<b>Mon-Fri 8:45am – 4pm</b> <i>Closed daily for Lunch 12pm-2pm</i>
<b>Fair Oaks</b> 2345 Fair Oaks Blvd, Sacramento	<b>M/T/Th/F 8:30am - 5pm</b> <b>Wed 9:30am - 5pm</b> <i>Closed daily for Lunch 1-2pm</i>
<b>Folsom</b> 2155 Iron Point Rd	<b>Mon-Fri 8:15am – 4:15pm</b> <i>Closed daily for Lunch 12:30-1:30pm</i>
<b>Lincoln</b> 1900 Dresden Dr., Lincoln	<b>Mon-Fri 8:45am – 5:30pm</b> <i>Closed daily for Lunch 1-2pm</i>
<b>Point West</b> 1650 Response Road, Sacramento	<b>Mon-Fri 8:30am – 5pm</b>
<b>Rancho Cordova</b> 10725 International Dr., Rancho Cordova	<b>Mon-Fri 8:45am - 4pm</b> <i>Closed daily for Lunch 12:30-1:30pm</i>
<b>Riverside</b> 1001 Riverside Ave, Roseville	<b>Mon-Fri 8:15am - 5pm</b>
<b>Roseville Eureka Building C</b> 1600 Eureka Road, Roseville	<b>Mon-Fri 8:00am - 6:30pm</b> <b>Saturday 8:45am - 5:30pm</b> <b>Sunday 12pm - 5:30pm</b>
<b>Sacramento Med Center</b> 2025 Morse Ave, Sacramento	<b>No Mammography services</b>

Appendix N

Mammogram Fast Pass



## Appendix O

### Statement of Determination



The project is conducted by staff where the project will take place and involves staff who are working at an agency that has an agreement with USF SONHP.	X	
The project has <b>NO</b> funding from federal agencies or research-focused organizations and is not receiving funding for implementation research.	X	
The agency or clinical practice unit agrees that this is a project that will be implemented to improve the process or delivery of care, i.e., <b>not</b> a personal research project that is dependent upon the voluntary participation of colleagues, students and/ or patients.	X	
If there is an intent to, or possibility of publishing your work, you and supervising faculty and the agency oversight committee are comfortable with the following statement in your methods section: <i>"This project was undertaken as an Evidence-based change of practice project at X hospital or agency and as such was not formally supervised by the Institutional Review Board."</i>	X	

**ANSWER KEY:** If the answer to **ALL** of these items is yes, the project can be considered an Evidence-based activity that does **NOT** meet the definition of research. **IRB review is not required. Keep a copy of this checklist in your files.** If the answer to **ANY** of these questions is **NO**, you must submit for IRB approval.

\*Adapted with permission of Elizabeth L. Hohmann, MD, Director and Chair, Partners Human Research Committee, Partners Health System, Boston, MA.

**STUDENT NAME (Please print):**

Signature of Student:

*Katya E Villanueva* DATE March 7, 2022

**SUPERVISING FACULTY MEMBER NAME (Please print):**

Signature of Supervising Faculty Member:

*Cathy Coleman* DATE March 7, 2022

