



Mass General Brigham

# Reducing Breast Imaging Missed Care Opportunities Among Vulnerable Communities

*October 27, 2022*

Institutions: Radiology departments from MGH, BWH, Salem Hospital, Dana Farber, and Lynn Community Health Center

# Problem Statement

- Social determinants of health (SDoH) influence up to 50% variability in clinical outcomes.<sup>[1]</sup>
- There is literature demonstrating historically lower participation rates in screening mammography (SM) among ethnic minorities, resulting in worse outcomes due to advanced stage at the time of presentation.<sup>[2,3]</sup>
- Barriers to SM are complex and require multilevel interventions to assist patients in their breast imaging journey.
- At MGB, imaging sites serving minority communities (Lynn community health center and mobile mammography van) have high missed appointment rates (Mean cancellation rate 56% and 33%, respectively).

**Project Goal:** Reduce missed appointments/missed care opportunities by 10% at Lynn community health center and Dana Farber mobile mammography unit by the end of the CPIP period (September 2022).

[1] Hood CM, Gennuso KP, Swain GR, Catlin BB. County Health Rankings: Relationships between Determinant Factors and Health Outcomes. *American Journal of Preventive Medicine* 2016;50:129–35. <https://doi.org/10.1016/j.amepre.2015.08.024>.

[2] Ahmed AT, Welch BT, Brinjikji W, Farah WH, Henrichsen TL, Murad MH, et al. Racial Disparities in Screening Mammography in the United States: A Systematic Review and Meta-analysis. *Journal of the American College of Radiology* 2017;14:157-165.e9. <https://doi.org/10.1016/j.jacr.2016.07.034>.

[3] National Center for Health Statistics (US). Use of mammography among women aged 40 and over, by selected characteristics: United States, selected years 1987–2018, 2019.



# Year 1 Accomplishments - Overview

## *Completed interventions:*

- Improve patient appointment reminder process by providing care coordinators at Lynn Community Health Center access to accurate patient contact phone number across different Epic versions in the system.
- Piloted weekend appointments based on patient's convenience/preference.
- Creation and dissemination of culturally sensitive, language-concordant (English, Spanish, and Portuguese) educational videos

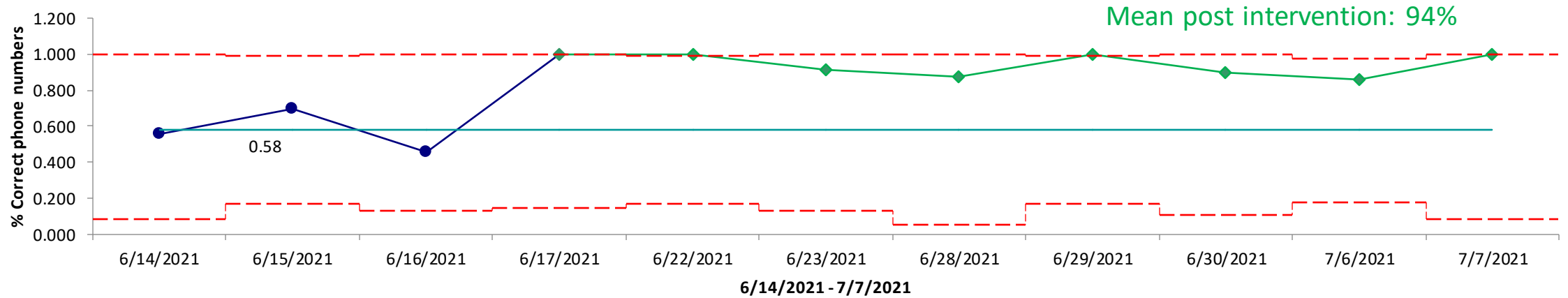
## *Accomplishments:*

- Brought together a team from four MGB sites (Salem, DFCI, BWH, MGH) and Lynn Community Health Center.
- Improve patient appointment reminder process increased phone number accuracy from 58% to 94% (19/33 vs 85/90) and increased successful appointment reminders also from 21% to 59% (7/33 vs 53/90).
- Piloted Saturday appointments had lower cancellation rates (4/29, 14%) compared to that of weekdays (117/229, 59.2%).

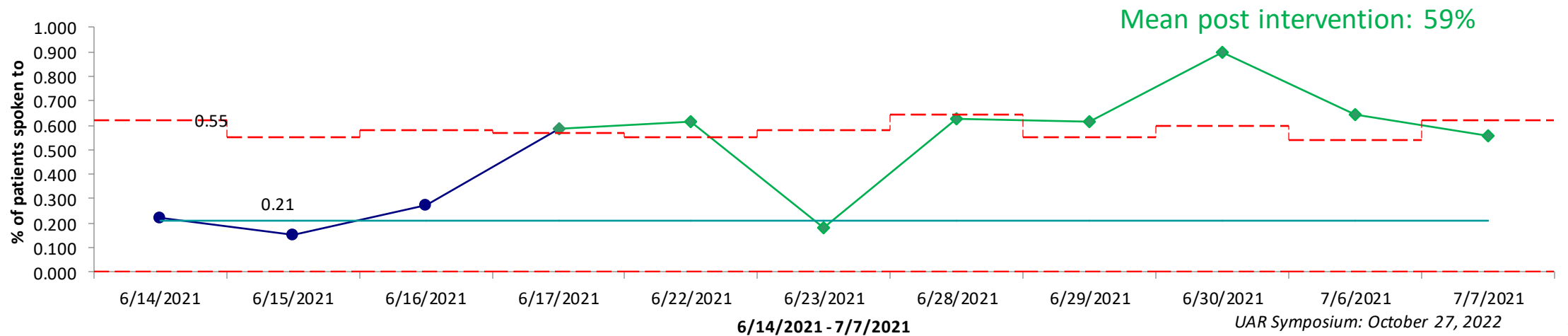


# Year 1 Accomplishments – Process Metrics

**Percent of Correct Phone Numbers Available**  
P Chart, 3  $\sigma$ , Baseline 6/16-7/7/2021

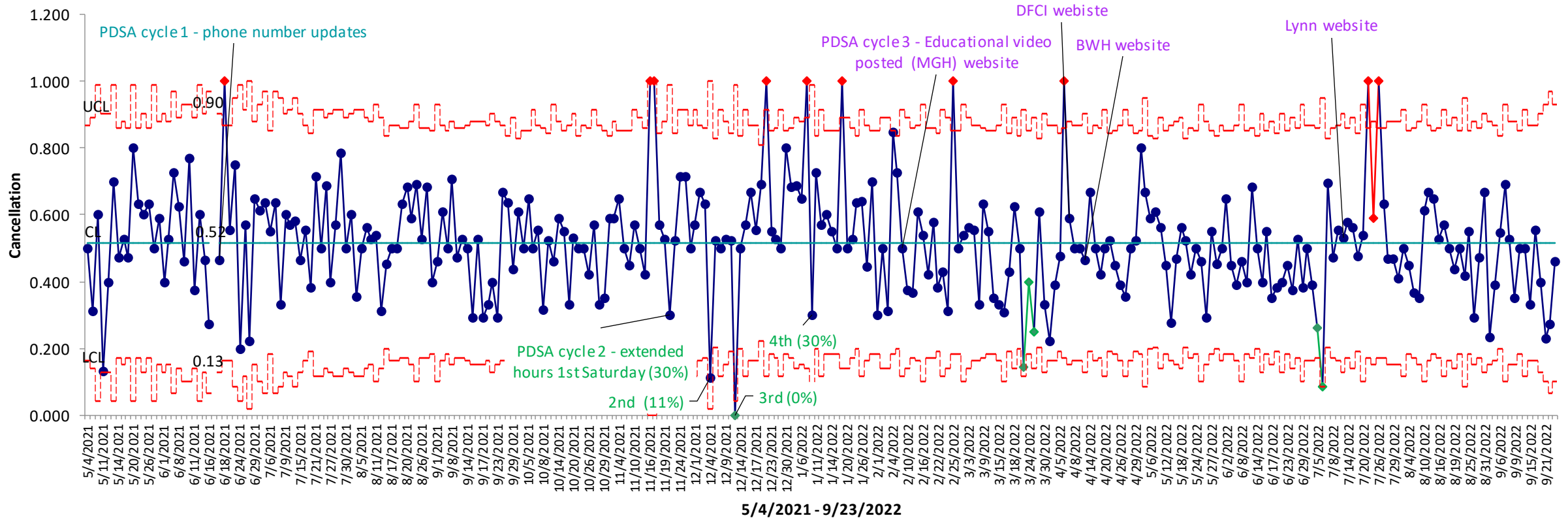


**Percent of Patients Spoken to on the Phone**  
P Chart, 3  $\sigma$  Baseline 6/16-7/7/2021



# Year 1 Accomplishments – Clinical Outcome Metrics

## Cancellation/Total at Lynn Community Health Center p Chart - 3 Sigma



# Year 1 Challenges

## ***SMS reminder system:***

- The process involves multiple departments and institutions (data management, IT, contract, media, etc); identifying initial contacts and navigating nuances unique to each institution in system required a steep learning curve.
- Differing institutional Health Information Management entities and variability in interpretation of policies about what is considered PHI across MGB. ***This highlights need for a centralized/consistent approach that can be disseminated across system.***
- EPIC is a barrier to patient engagement by preventing the use of SMS to engage patients without Patient Gateway text and with blank texting consent.
- Outside vendors can be cost prohibitive or provide platforms not conducive to engaging high priority communities.

## ***Transport and Weekend Appointments:***

- Personnel shortages and turnover.
- Need for developing a centralized radiology care coordination resource to assist patients overcome multilevel barriers to breast imaging care



# Looking Ahead: Plans for Year 2

Year 1 summary – we did not meet our goal to reduce missed appointments/missed care opportunities by 10% by September 2022.

*Our next steps include:*

- 1) Our experience navigating aforementioned challenges helped us identify a potential resource developed in collaboration with MGB resources including MGB Digital (Karen?) MII2 team (Marcus Stout Radiology Informatics) and MAG (Oleg Pianykh and team) that leverages a previously used platform to execute SMS reminder process.
- 2) Develop centralized radiology care coordination resource with access to toolkit of programs to overcome barriers
  - Ride share
  - Connecting with digital health access coordination service across MGB to increase access to Patient gateway




# Appendix





# Team Members

Name	Credentials	Role/Discipline (i.e. hospitalist, nurse manager, analyst, etc.)
<b>Project Leaders:</b>		
<b>Nita Amornsiripanitch</b>	MD (Brigham and Women's Hospital)	Breast Imaging and Intervention Radiologist
<b>Efrén J Flores</b>	MD (Massachusetts General Hospital)	Thoracic Radiologist
<b>Team Members:</b>		
<b>Erin Kistler</b>	Salem Hospital (SH)	Operation Manager
<b>Kristina McLoughlin</b>	Salem Hospital	Manager, Community Benefits
<b>Maria Paulo</b>	Salem Hospital	Radiology Office Supervisor
<b>Tia Goodman</b>	MS (Dana Farber Cancer Institute)	Program Manager
<b>Kristen Dean</b>	Massachusetts General Hospital	Senior Manager, Patient Experience
<b>Oleg Pianykh</b>	PhD (Massachusetts General Hospital)	Director of Medical Analytics
<b>Dana Jessup</b>	Massachusetts General Hospital	Senior Manager, Strategic Communications
<b>Pragya Dhar</b>	Massachusetts General Hospital	Graduate Student Research Assistant
<b>Project Sponsors:</b>		
<b>James Brink</b>	MD (MGH & BWH)	Radiologist-in-Chief
<b>Miriam Neuman</b>	MD, MPH (SH)	Chair, Dept. of Radiology
 <b>Catherine Giess</b>	MD (BWH)	Deputy Chair, Dept. of Radiology

- Ultrasound (prenatal and general)

guidelines and recommendations.

**Lab services, including:**

- A1C glucose and other diabetic blood work
- Pregnancy tests
- Urine collections / tox screens

## Screening Mammograms at Lynn Community Health Center

Screening mammograms are preventive exams that encourage health and wellness. They may lead to early detection and help save lives. These screenings are covered by all insurances, for all genders!



*English*



*Spanish*



*Portuguese*



Dana-Farber's Mammography Van is the only mobile digital mammography program in the Commonwealth of Massachusetts. It provides screening mammograms and breast health education to women 40 years of age and older.

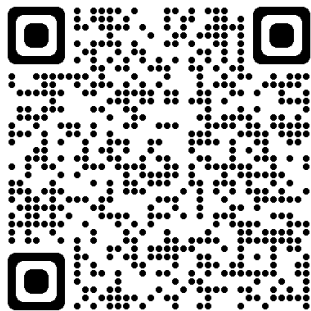


### Why should I get a mammogram?

View this short video to learn more about the value for your health of mammography at Dana-Farber.

[En español](#)

[Em português](#)





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