RADIOLOGY® LEADERSHIP INSTITUTE
AMERICAN COLLEGE OF RADIOLOGY

RLI
Power Hour

8/23/2023

Solis Mammography: The pain and joy of improvement at scale

- Chirag Parghi, M.D., M.B.A
  Chief Medical Officer, Solis Mammography

About Solis Mammography

The nation’s largest independent provider of breast screening and diagnostic services

1M+

- Serves more than **1 million** women each year.

100+

- Operates more than **100** locations in the U.S.

30+

- Helping women achieve breast health for more than **30 years**.

RADIOLOGY® LEADERSHIP INSTITUTE
AMERICAN COLLEGE OF RADIOLOGY

Cohort 1: April to November 2022

Project Team

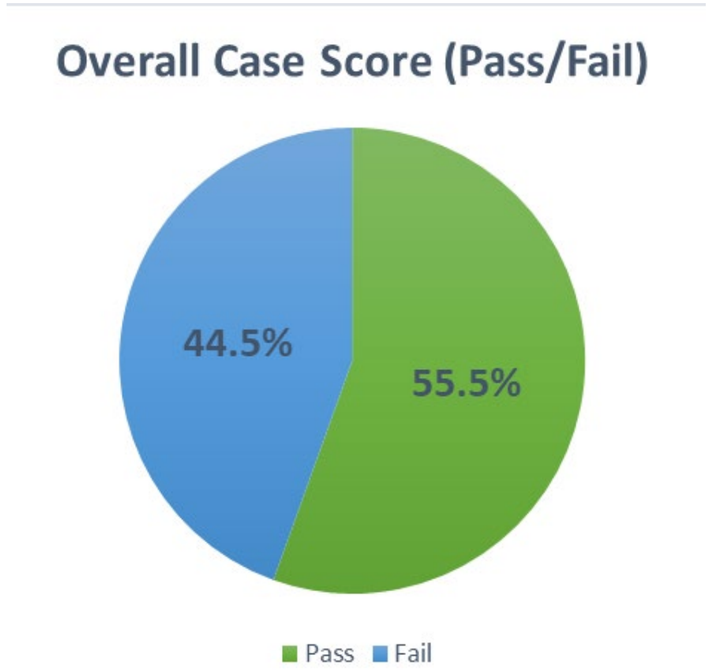
- 2 Strategic locations chosen:
  - Rose Medical Denver (large)
  - Progressive BelAir MD (small)
- Project Sponsor: Chirag Parghi, MD
- Each site project team consisted of:
  - Team Leader (the local center director)
  - Physician Leader (LIP)
  - QI Coach
  - Team of 3-4 Staff Technologists

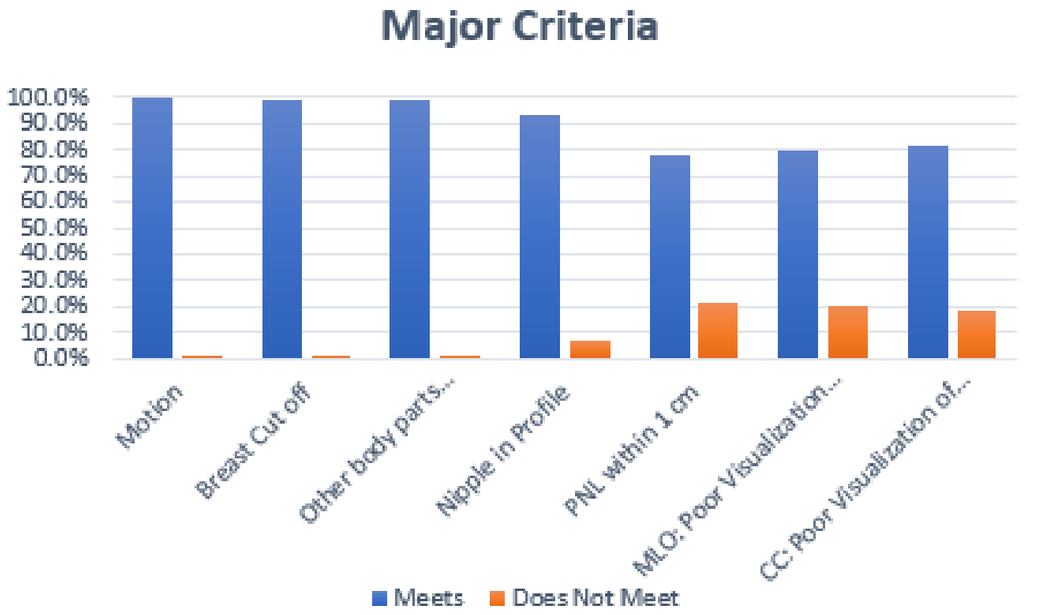
Mammography Positioning Improvement Collaborative
ACR LEARNING NETWORK
Improving Performance Together

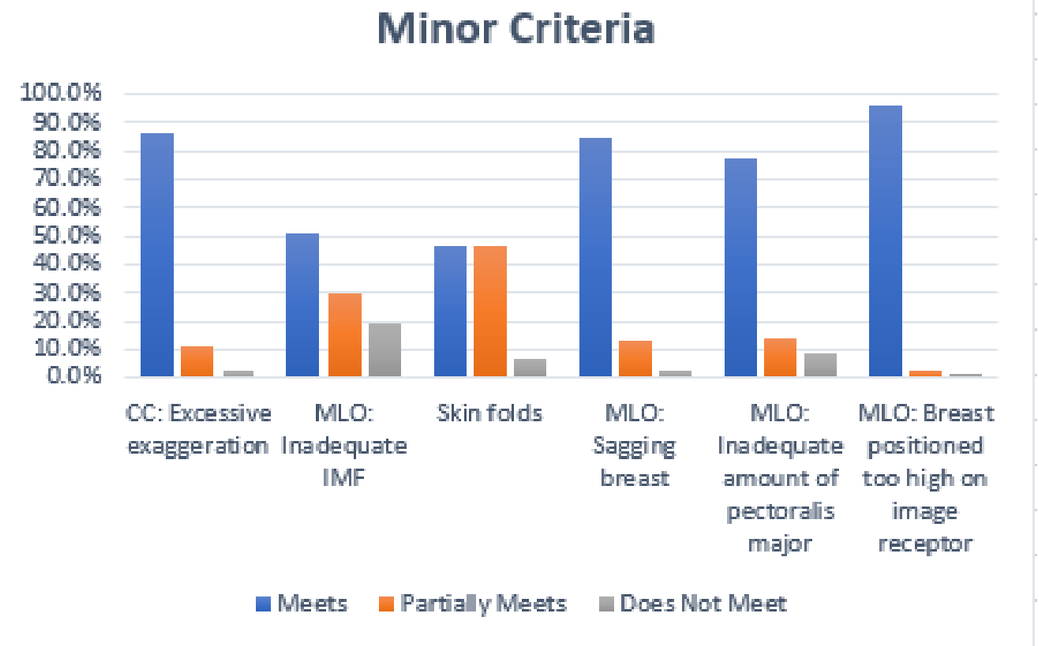
RADIOLOGY® LEADERSHIP INSTITUTE
AMERICAN COLLEGE OF RADIOLOGY

Initial Audit Data

236 screening mammograms between Apr-May 2022



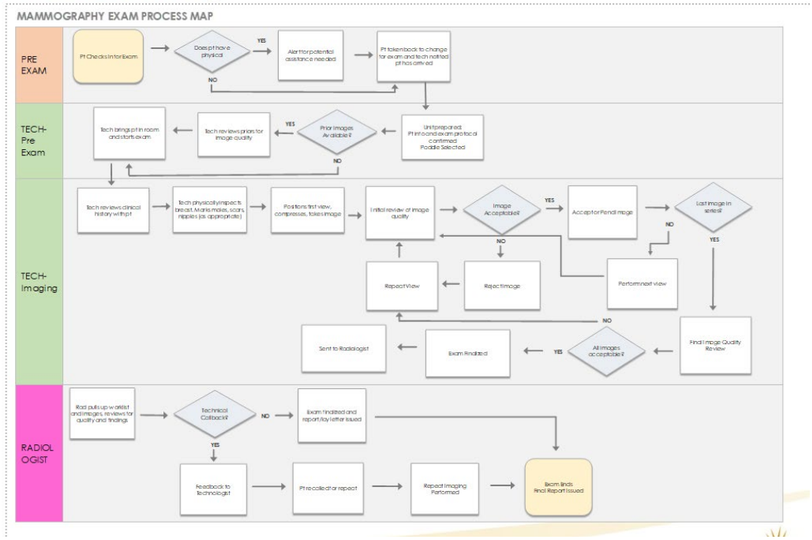




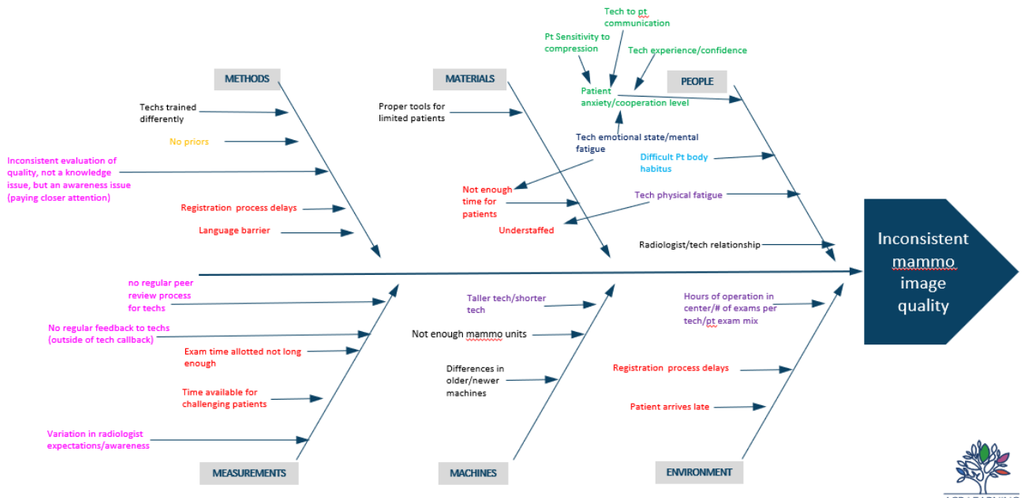
RADIOLOGY® LEADERSHIP INSTITUTE
AMERICAN COLLEGE OF RADIOLOGY

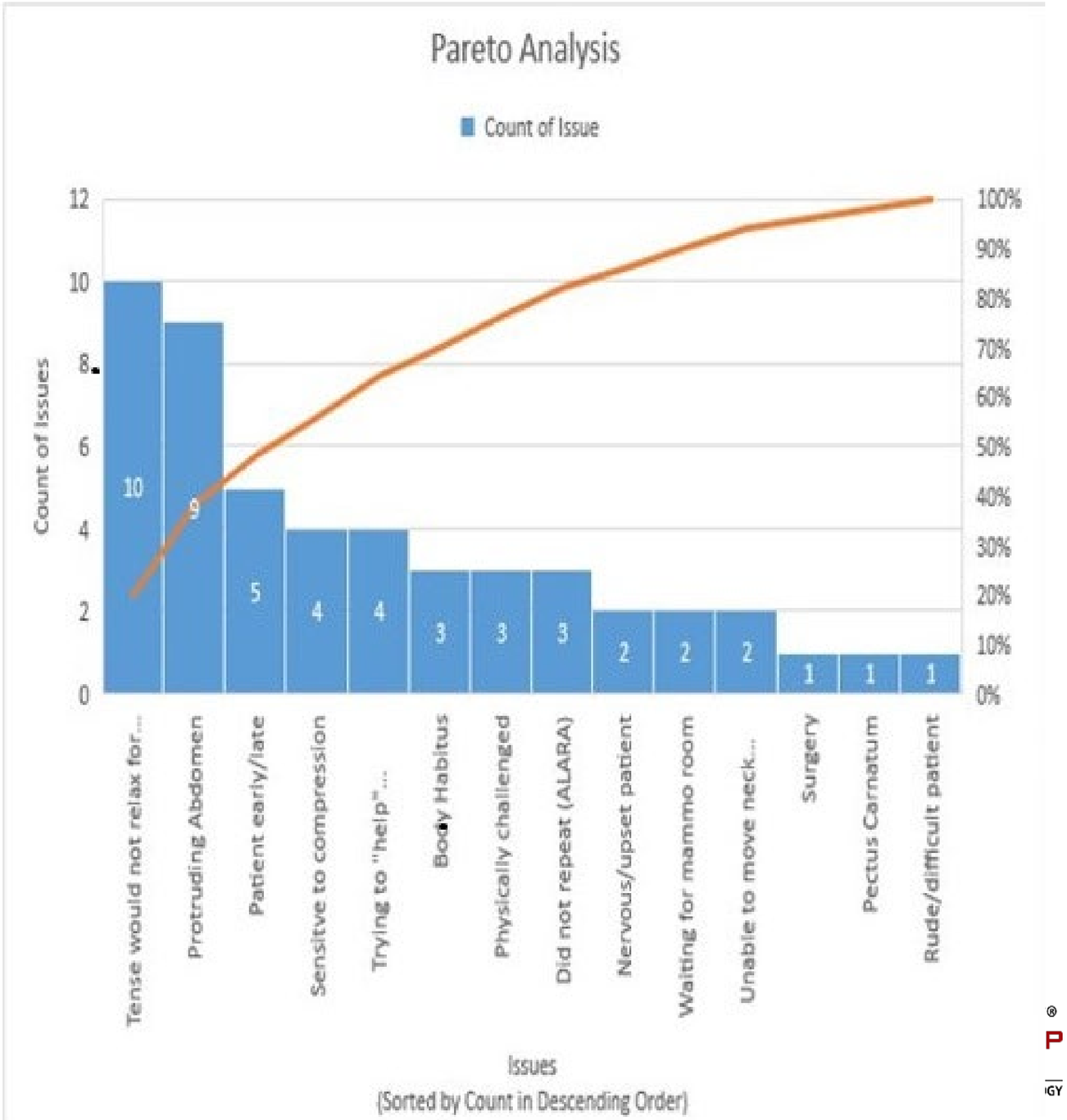
Analysis

Process Map



Cause and Effect Diagram





Key Drivers

Root Causes

Patient cooperation/understanding of positioning importance

↓

Difficult body habituses

↓

Lack of standardization on quality

↓

Feedback limited to EQUIP and technical recalls

↓

Variances in technologist training and background

Key Drivers

Improved patient education

Alignment on what defines image quality

Image quality feedback system

Technologist coaching on positioning troubleshooting

Structured new tech onboarding

Empowered technologists

RADIOLOGY® LEADERSHIP INSTITUTE
AMERICAN COLLEGE OF RADIOLOGY

Interventions

Improved patient education

Better Education = Better Cooperation = Better Imaging

- Patient Education Sheet
- Tech to Patient Communication
- Pink ribbon for feet position

Technologist coaching on positioning troubleshooting

- Positioning Articles/Videos
- Case of the month
- Positioning coach

Structured new tech onboarding

- Standardized method
- Quality standards
- Auditing positioning skills

RADIOLOGY® LEADERSHIP INSTITUTE
AMERICAN COLLEGE OF RADIOLOGY

Interventions

Reliability Level:
(1) Individuals: Feedback, checklists, training, basic standards
(2) Procedures: Embedded standard work, reminders, constraints
(3) Systems: Process design, fail safes, physical layout, built-in feedback, automated systems, concentration of responsibility

Maturity Bars:
0: Untested idea
1: Early tests / PDCA
2: Multiple PDCAs
3: Early implementation
4: Working well in operation

Progress

Barrier

Abandoned

Alignment on what defines image quality

- Educational tool with examples of quality images

Image quality feedback system

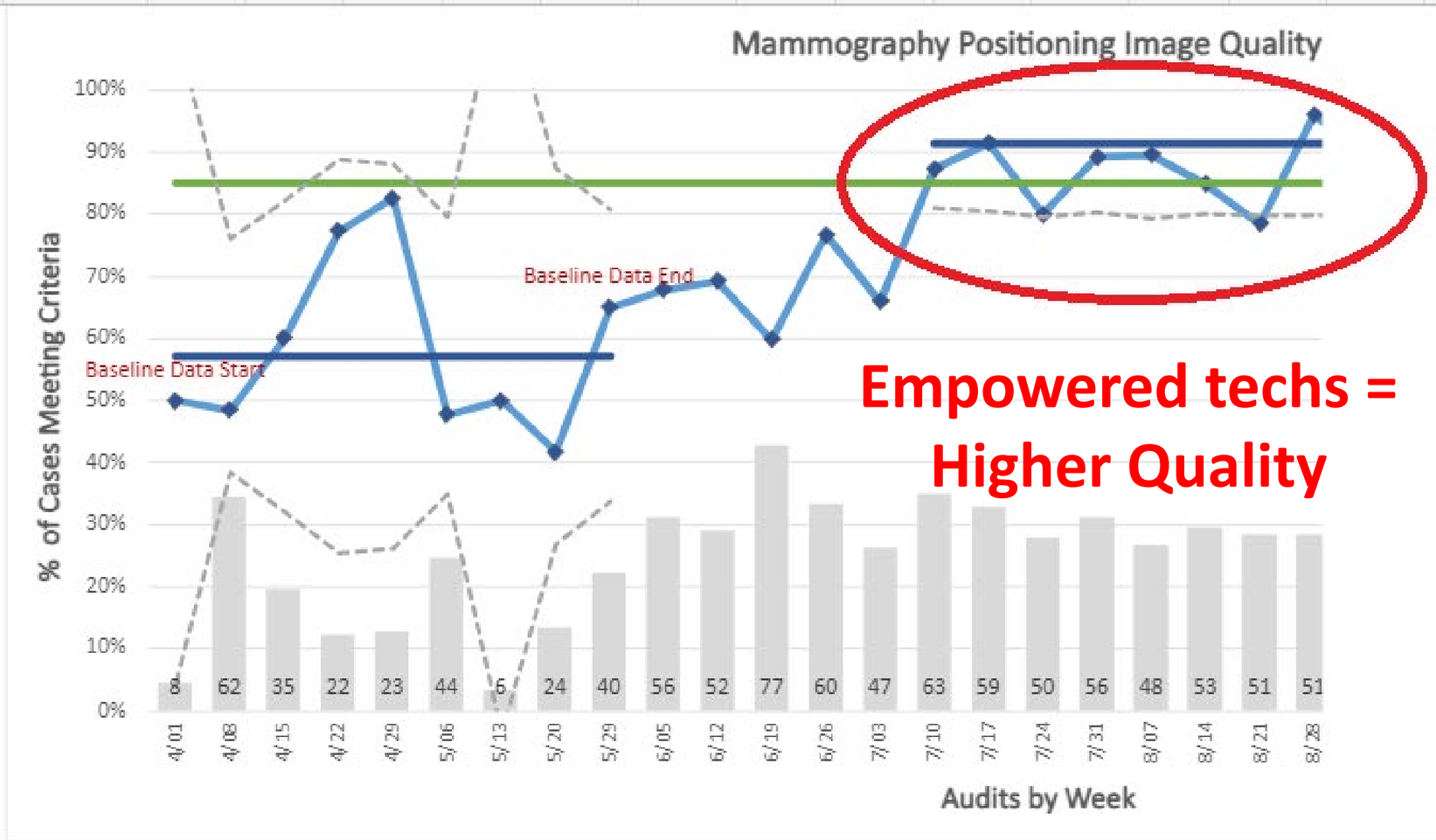
- Meaningful feedback from Rads to techs
- Regular random audits

Empowered technologists

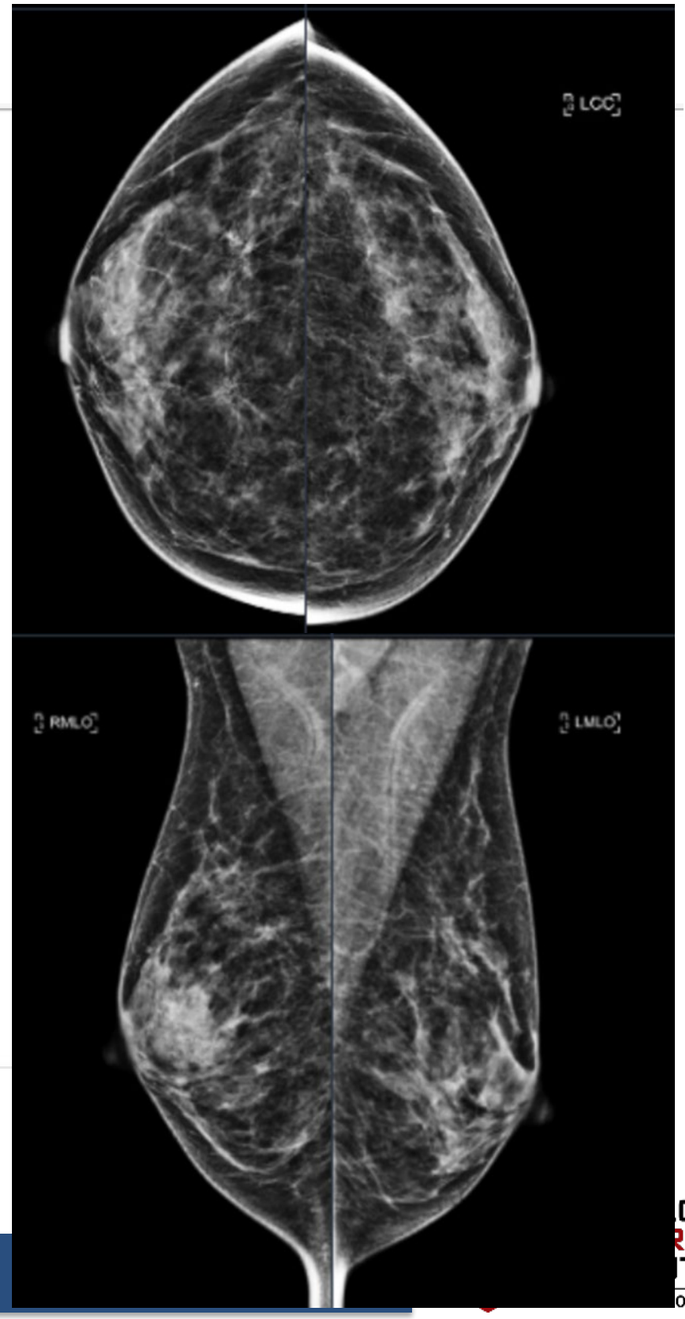
- Techs engaged in audits
- Learning together, accountability

RADIOLOGY® LEADERSHIP INSTITUTE
AMERICAN COLLEGE OF RADIOLOGY

Results

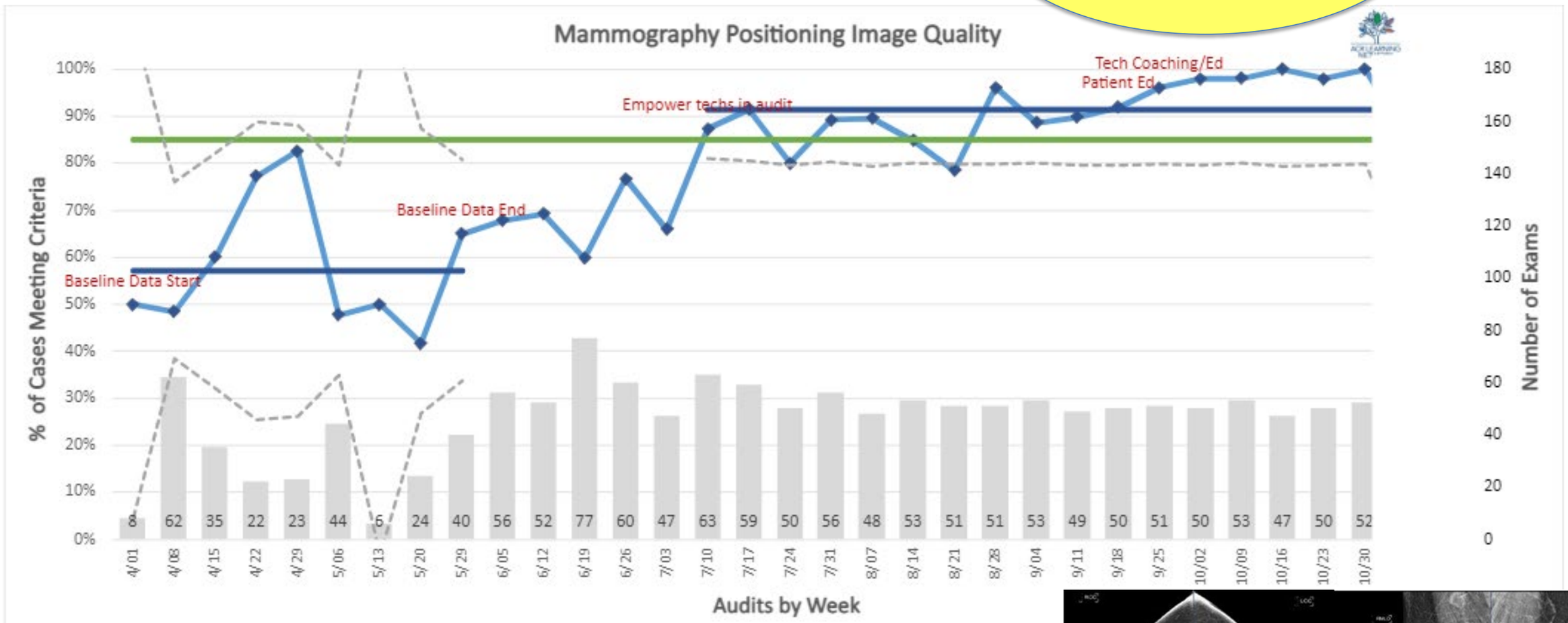


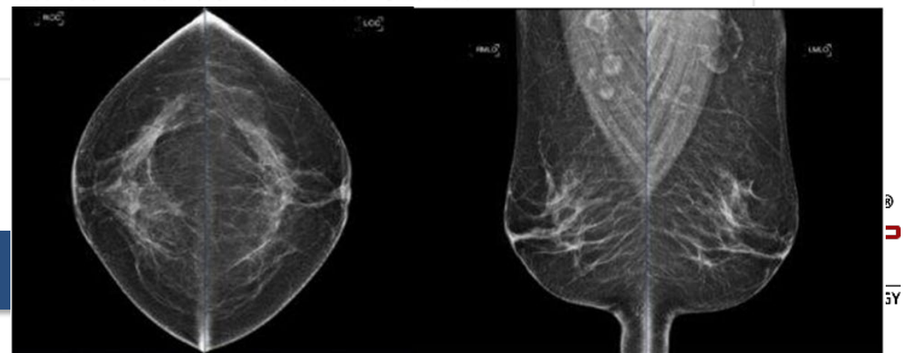
Empowered techs = Higher Quality



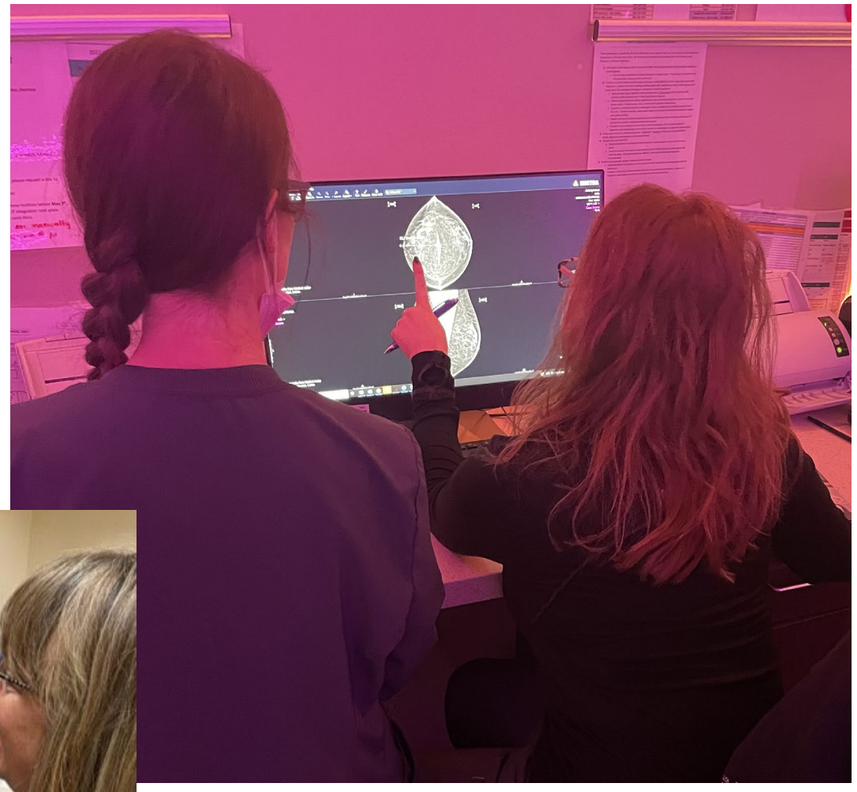
Results

Sustained trend ABOVE 85% for 10 weeks!





Empowerment is KEY!



RADIOLOGY® LEADERSHIP INSTITUTE
AMERICAN COLLEGE OF RADIOLOGY

Cohort 2: March to September 2023

Evolution of Learning

Cohort 1: Belair, Md & Denver, Co

Cohort 2: 3 sites in greater Houston area

Larger, scalable audit process throughout Solis

My learning lessons from the ACR Mammo Collaborative

- Change is the healthy antidote to complacency
- Ambiguity and subjective self-evaluations of quality aren’t good enough
- Meaningful improvement requires deep introspection before action
- Change at scale is different from change in a clinic
- Tight labor markets are opportunities for creativity!