



Reimagining a Virtual Radiology QI Structured Problem-Solving Program

- Driving a Culture of Continuous Improvement for Radiology Leaders -

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No Disclosures

Background



During the COVID pandemic, the Radiology department at Stanford experienced an immediate standstill of its 52in52 improvement program that was conceived in 2017 and geared towards providing improvement support to operations staff and lacking an opportunity to involve resident participation.

Stakeholder input via one-on-one interviews conducted with operations leadership and radiology faculty served as the deciding factor to 1. Create an alternative to reimagine a virtual radiology QI structured problem-solving program and 2. To allow trainees to participate in a QI initiative as part of the residency requirement.

Methods



Interview Ask

Will you approve and support a virtual restructure of the 52in52 program?

Operations

Team	Number of 1:1 Interviews
MRI	2
CT	3
Ultrasound	2
X-Ray	4
Nuclear Medicine	2
Mammography	1
Rad Nursing	3
Scheduling	4
Film Library	1
IT	2
Total Interviews	24

School of Medicine

Faculty Improvement Committee voted in favor of virtual restructure of 52in52 program.



Virtual Program Restructure

Approved

November 2020



Pre-Cohort Approval Process

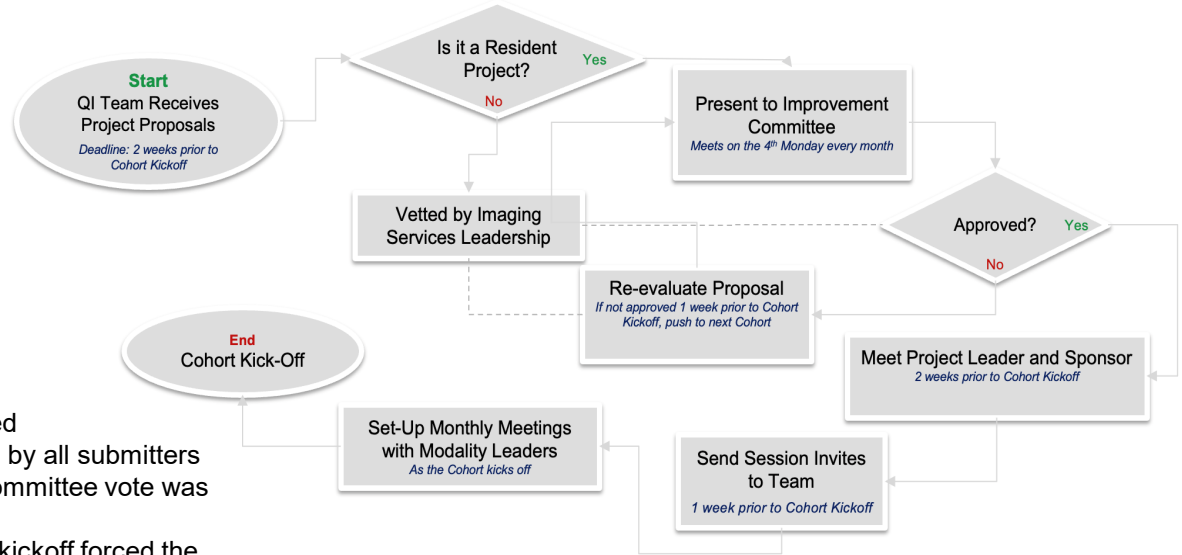


This pre-cohort process map was implemented after the interventions to restructure the program to a virtual platform.



How did this change?

- Deadlines were set in place
- Resident project intake process was included
- A standardized proposal template was used by all submitters
- Getting faculty approval via improvement committee vote was implemented prior to every cohort
- Failure to approve a project 1 week prior to kickoff forced the proposal to be vetted for the next cohort
- Meetings with project sponsors and team leaders were conducted prior to kickoff
- A virtual program curriculum was created prior to kickoff

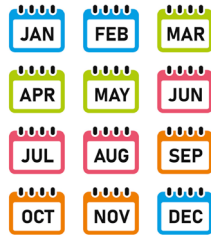


New 52in52 Program

Program Frequency

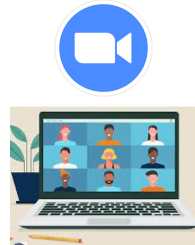
3 Cohorts / Year:
Spring, Fall, Winter

Length of Cohort:
14 Weeks



Virtual Check-ins

Project Leaders
Stakeholders
Program Leaders
Coaches



Idea Repository

Front Line Staff QI
Project Ideas

Approved by
Operations Leadership

Submit 52in52 Project Idea

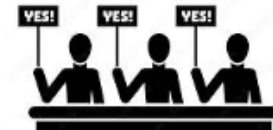
Click Barcode - Fill Out Form - Submit!



Vetting Process

New Resident QI
Project Ideas:

Vetted and Approved
by Faculty Division
Performance Leaders

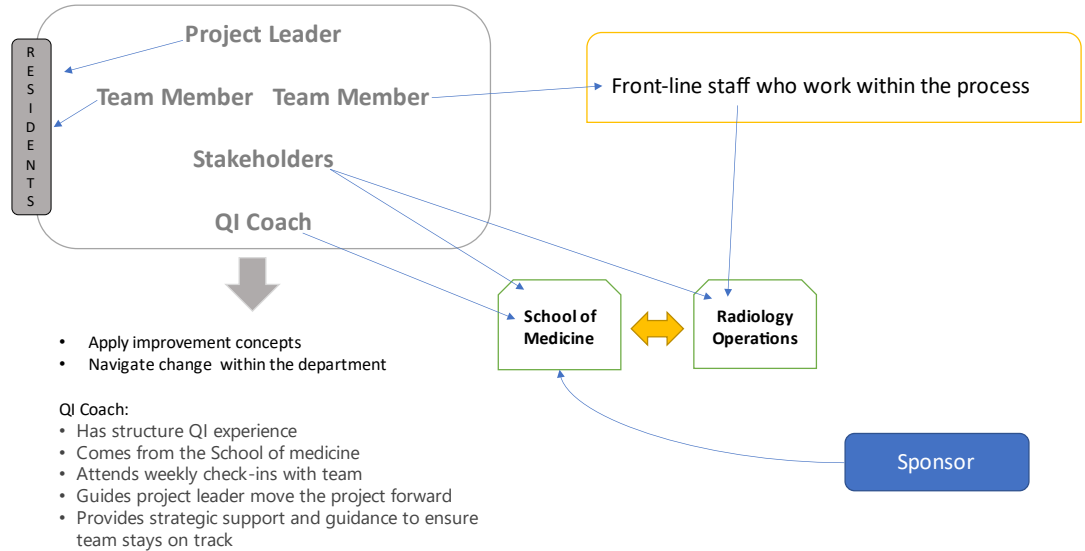


Residents Doing Improvement

Lessons Learned & Highlights

- Consider joining a team during the first 1.5 years of your residency and leading a team a R3 or R4
- Improvement projects have a proven track record to sharing at national meetings and publications
- An improvement skillset proved to be a desirable mechanism to avoid burnout
- Trainees can have an opportunity to make a difference for the department in 14 weeks
- The program provided experiential learning, coaching, and access to leadership sponsors
- Expanding a network within the school of medicine and hospital operations has mutual gains and builds teamwork

Resident projects that involve team members from a radiology modality / operations tend to gain better understanding of key workflows and perform better gaining better outcomes.



52in52 Graduates

After Program Restructure

Operations-Led Teams



Coordination of ED Exams within Radiology

X-Ray Staff Injuries

Discontinuing Patient Shielding

Nuclear Medicine Radio pharmacy Compliance

Reducing the number of exams being completed under 'Ghost' resources

PO Contrast Documentation Improvement

Breast Imaging Outside Film Review Workflow Standardization

Increasing 562in52 Program Participation

Optimizing Qualtrics Patient Reporting

CT Central Line Access Optimization

CT MSK Auto protocol Efficiency

Standardizing X-Ray Coaching Model

Ultrasound Undercharged Codes Correction

Office supplies Optimization

Increasing Prior Image Availability in Mammography

Routed Protocols Optimization in Nuclear Medicine, CT and MRI

Resident-Led Teams



MSK MRI Protocolling

Radiology Resident Feedback

Body CT Protocolling

Workflows for IV contrast extravasation

Improving Op Body CY Efficiency

Improve efficiency of outpatient nuclear medicine protocolling

Decreasing denied chest radiograph claims caused by preventable errors in ordering and reporting

Improve Engagement in Thursday Resident Lectures

Increasing Resident Satisfaction with Remote Readout

Increasing the Accessibility of Official Hospital Policies for Radiology Residents on Call or Injection Shift

Multi-Departmental Teams

Reducing OR Calls For Specimen Imaging

MD Preference List Auto-Populating Comments



Since Program Reconfiguration in November 2020

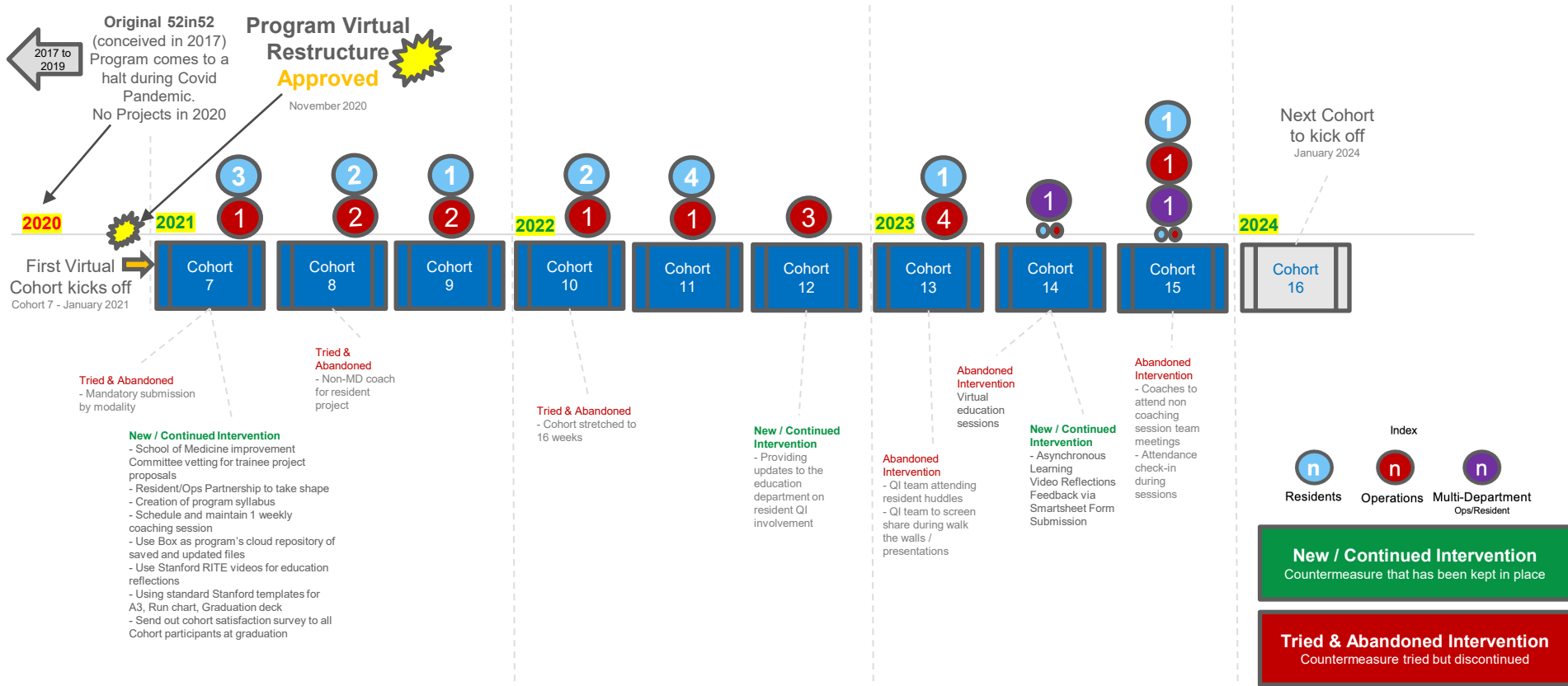
Completed Projects

28

Total Cohorts

9

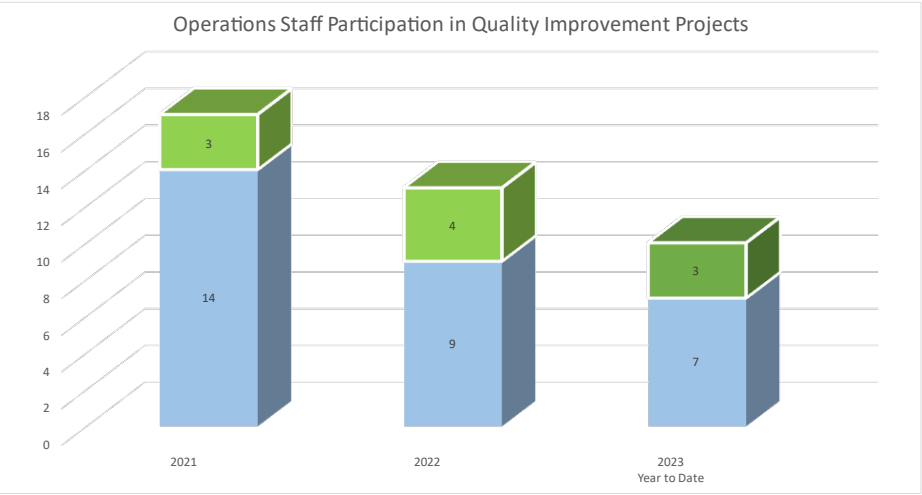
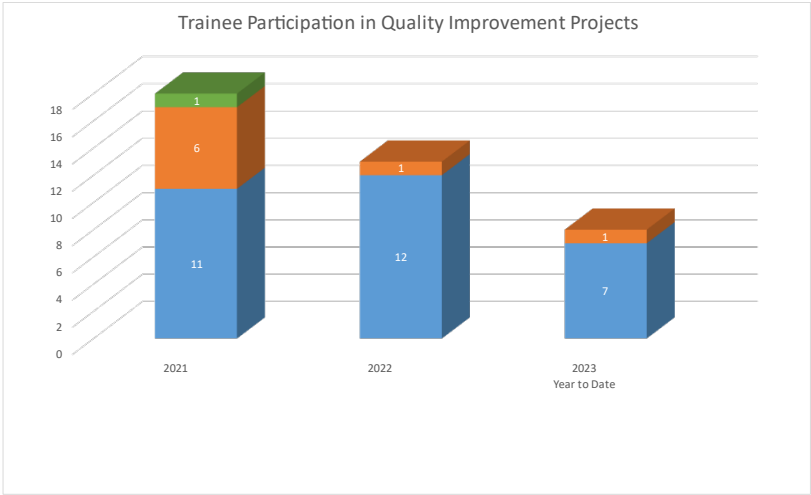
Intervention Timeline



Overall Participation

Following QI Restructure in November 2020:

Participation increased from average 1.5 project proposals per cohort submitted at baseline after the Covid Pandemic began to 4.5 proposals per cohort.



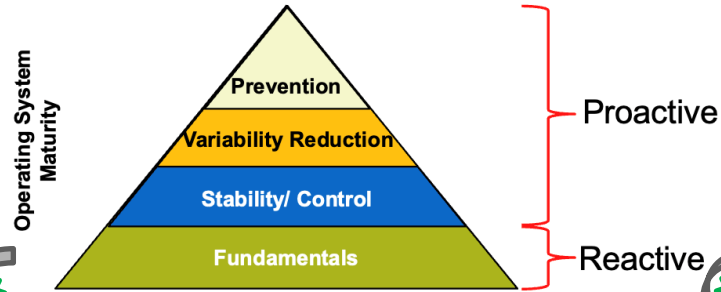
- Residents
- Fellows
- 2nd Project

First Virtual Cohort kick off after reconstruction
 January 2021
 Cohort 7

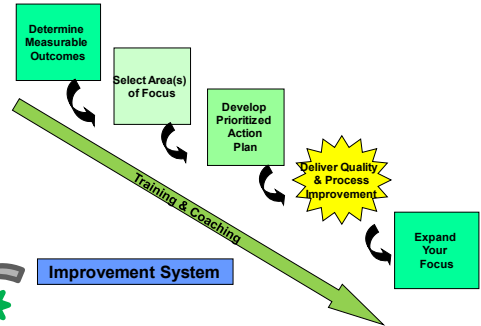
- Operations Staff
- 2nd Project



Key Takeaways



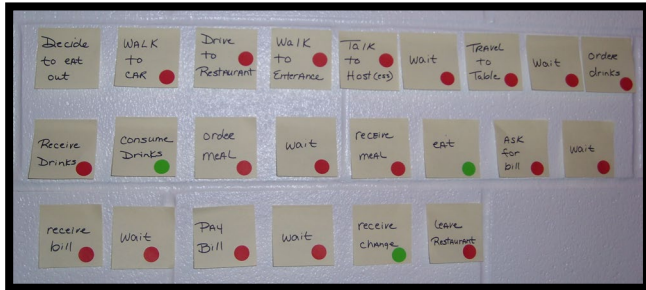
The restructure of 52in52 taught us that addressing stability and predictability were important prerequisites of continuous improvement and should not be avoided.



We found that the secret to good coaching lies in the cycle of expanding your focus after delivering results. There are always missed opportunities in coaching that must be reflected and addressed if the desire is to do better.



Adding an educational component into the curriculum remains a challenge with trainees due to their schedule conflicts. Operations staff adapted better. We cannot favor one group over another because of availability.



We found that revising process maps after going to GEMBA was the ideal time to spot system gaps.

Voice of the Customer	Voice of the Staff	Voice of the Organization
<ul style="list-style-type: none"> •No waiting •Only answer questions once •Live voice •Speak in my language •Coverage from 7am to 9pm 	<ul style="list-style-type: none"> •All tools where I work •Everything electronic •Overflow coverage 	<ul style="list-style-type: none"> •Minimum footprint for workspace •Low capital investment •Low operating costs

Projects that addressed all 3 voices added the most value and tended to reach / come close to their SMART Goal.



Communication and Advertisement have remained the most challenging aspects of running a successful 52in52 Program that maximizes its potential for its end users.



THANK YOU

Sincere Gratitude to the RSNA Improvement Committee and Participants in the 2023 Conference

