

Creating a Learning and Improvement Environment in a Virtual World

Our approach to adapting quickly to new realities

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Swati Garg

Joseph Mari

Andrew Nenos



**Mount
Sinai**

Agenda

1. Mount Sinai Health System
2. How the Pandemic Impacted Us
3. Our Team and Our Work
4. Process and Operations Improvement
5. Building Capability of our People

Mount Sinai Health System

Overview

- 8 hospital campuses in Manhattan, Brooklyn, Queens and Long Island – ~154,000 visits/year
- 410+ ambulatory locations; ~4,000,000 visits/year
- 7,300+ physicians
- 43,000+ employees
- 2,000 residents and clinical fellows
- 39 multidisciplinary research, educational and clinical initiatives
- 3,926 licensed beds
- 147 ORs
- 520,000+ ED visits
- U.S. News Best Hospitals Honor Roll (#14)

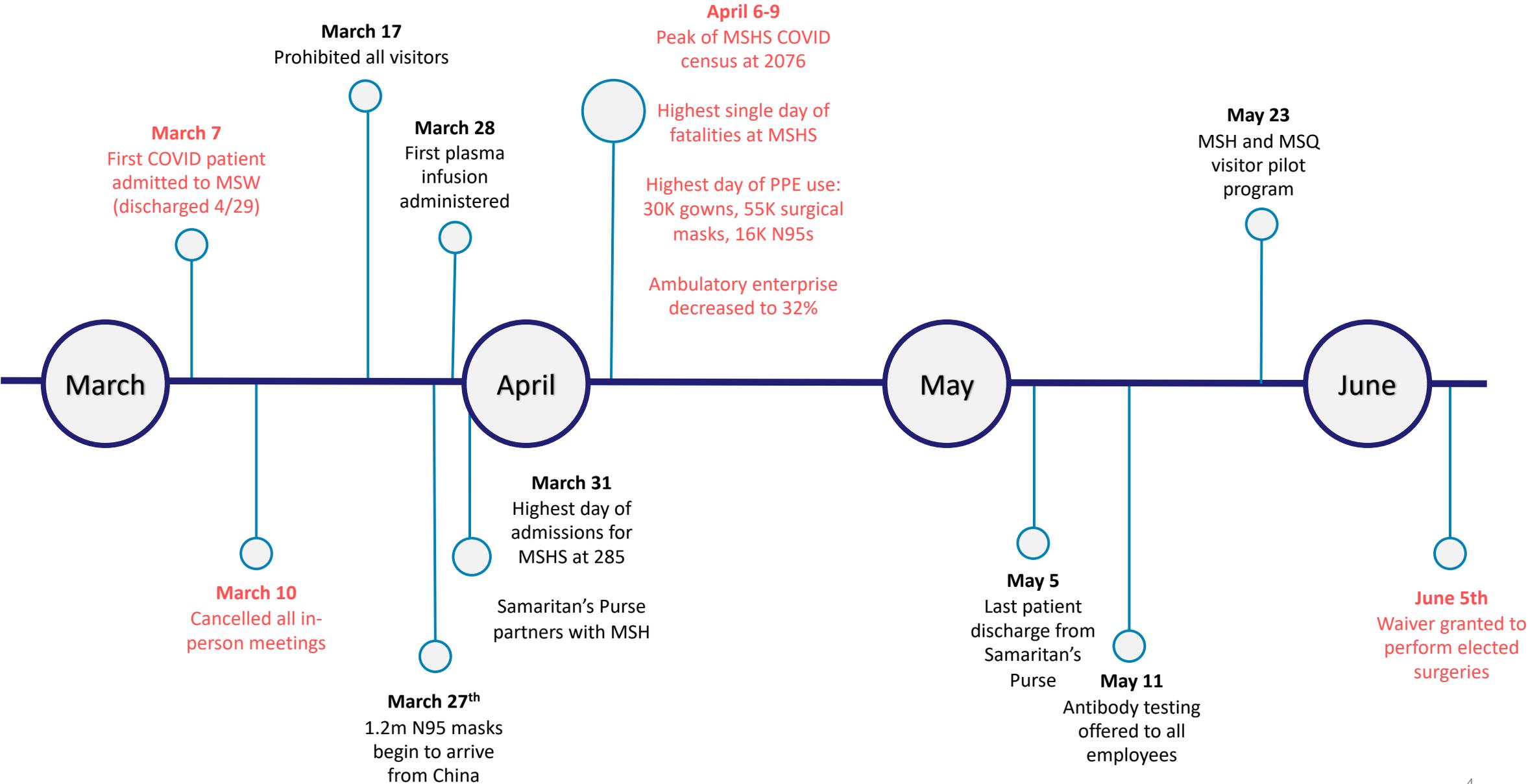
Other interesting facts

- 6 of our hospitals were founded before 1900s
- NYEE is the country's first specialty hospital – founded in 1820
- Guggenheim Pavilion designed by I.M. Pei
- Cared for ~1,130,000 of NYC's patients in 2019-20



**Mount
Sinai**

Our Pandemic Timeline



The Aftermath & Moving Forward

Aftermath

Major financial stress
Burned out workforce
Unclear future

Recovery

Rightsizing our workforce to demand
Reevaluating our programs and services
Managing and reducing all expenses

Moving Forward

Ongoing sustainability through continuous improvement by redesigning our work, becoming more efficient, and reducing burnout

Redesign and optimization of operational workflows

Daily improvement led by managers and their frontline teams

“We can’t cut our way out of the situation the pandemic has put us in.” – Chief Operating Officer/Chief Strategy Officer

Our Team

Health System Operations and Strategic Initiatives identifies and executes all operational and strategy priorities for the health system in conjunction with the Chief Operating Officer and Chief Strategy Officer

Improvement

- Identify and lead priority process and operations improvement initiatives

Development

- Develop the capability and environment for managers to drive and own continuous improvement

Planning

- Identify and manage opportunities related to expense management

Deployment

- Execute strategic and operational priorities

Analytics and Optimization

- Provide operational analytics to drive operational efficiency

Access Integration

- Drive ambulatory access initiatives for the organization

Service Line

- Drive strategic and operational transformation for key clinical service lines (cancer)

Guiding Principles of Continuous Improvement Work at Mount Sinai

- Always go and see the process and workflows when possible
- Involve frontline operators and management in improving their own work; pull them out of their day to day when we can
- While we may be experts at improvement and it's technical and social aspects, we are never the subject matter expert
- Our work around efficiency includes and balances safety, quality, experience, and equity

Operations Improvement

Operations Improvement Pre-Pandemic

Who we are

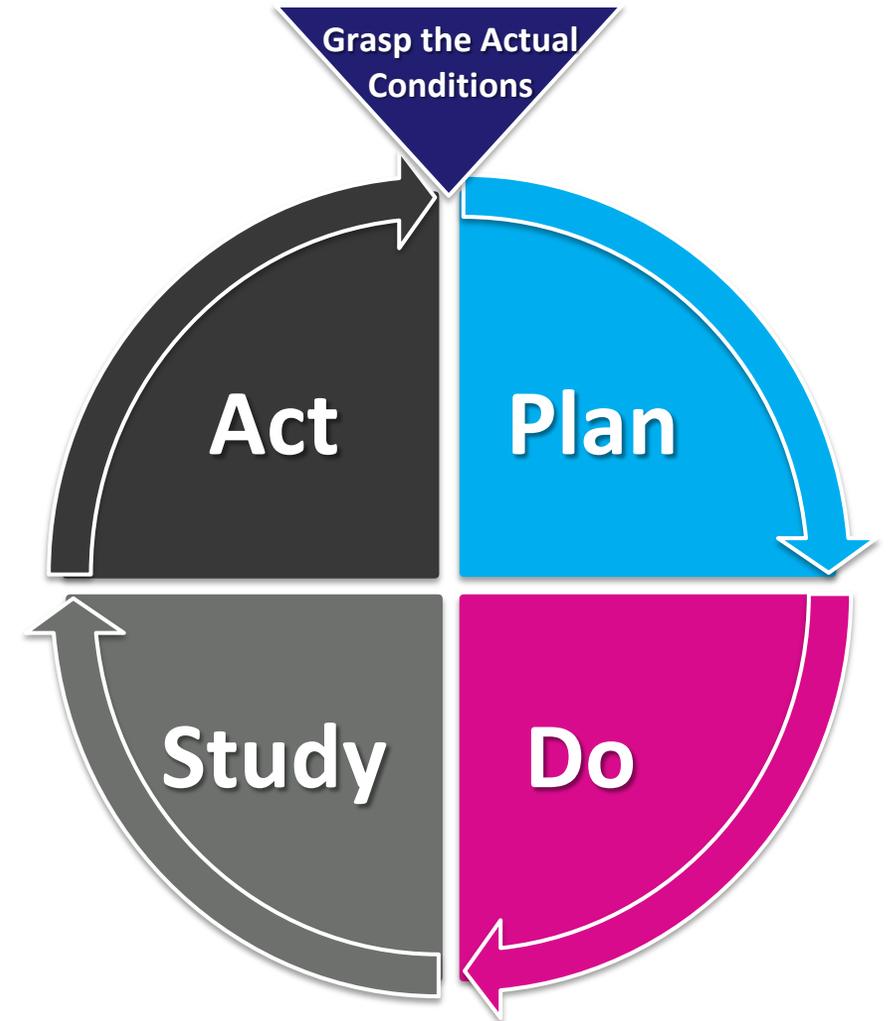
- 10 Process improvement engineers, analysts, and managers
- Deployed under the system COO to support 8 hospitals in achieving various key strategic and operational goals

What we do

- Traditional Process Improvement and Industrial Engineering Applications
- Implementation, project management, and tracking sustainment
- Portfolio primarily throughput, quality, patient experience, expense management, and operational planning

How we're deployed

- Leadership priorities
- By service line/hospital, or both
- Moving towards system-wide deployments, more facilitated structures where PI resources can't be present at every site



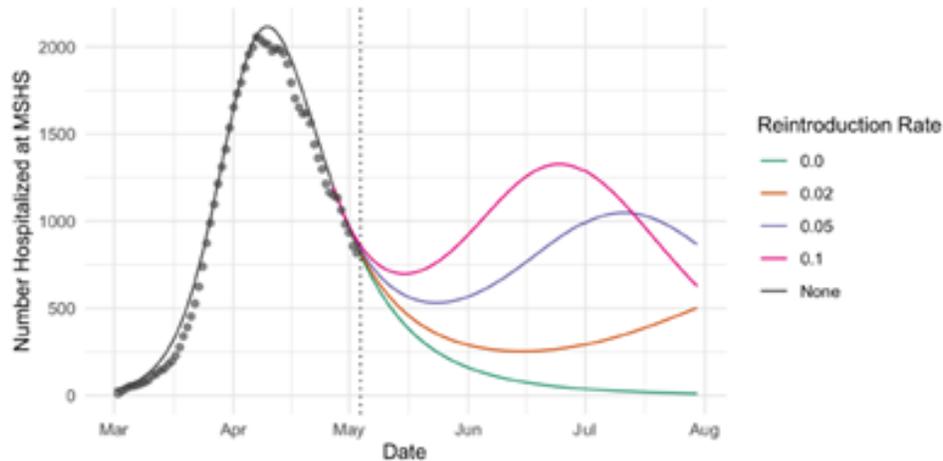
Operations Improvement during COVID-19 First Wave

Deployed entirely to support critical operational functions

- Calculating supply chain inventory and allocations
- Development of dashboards, patient registries, bed locations, resource utilization
- Development of communication tools and processes for site and department staffing and resource requests
- Forecasting models of staff, bed need, supply needs, equipment needs, and other resource needs

Overall patient census:

This is the total number of patients hospitalized at MSHS on each date. Again, gray dots are real data and the gray line is the model fit up to today (today = the dotted vertical line). The model was fit using only admissions data, so its close fit to the census means it's capturing length of stay well.



How did COVID-19 Change Process Improvement at Mount Sinai Health System

- The urgency and chaos facilitated a more trusting environment
- Operations teams that never worked together before were forced to communicate
- Perfect is the enemy of good enough
- Virtual discussions can be just as efficient, sometimes more efficient, than in-person
- Increased acceptance to 'improve with what we have' until more comprehensive solutions can be developed
- Difficult to fully replace on-site observation, but still applied when protocols can be observed

Operations Improvement – Where are we today?

- Portfolio a mix of department-specific and system-wide projects
- Team primarily works from home, occasional in-person work when all safety protocols can be observed
- Focused on streamlining processes as a predecessor and driver for meeting financial targets
- Customized approach tailored to customers

Applications in Project Lifecycle

Discovery

Observation when necessary and possible

LucidChart/Visio guided value stream mapping

Facilitated process mapping and documentation

Continued front line involvement

Flexible approaches tailored for the customer

Designing Future State

Guided reinforcement of original target conditions

Ensuring all stakeholders are aware of one another's expertise

Shared documentation to facilitate input in real-time

Implementation

Shared, interactive documentation and project management

Local and executive stakeholder ownership

Frequent engagement and check ins

Operations Development

Operations Development

- **Team was established in August 2019 with the following purpose:**
 - Develop capability to support operational stability and continuous improvement
- **Goals:**
 - Create and implement a standard approach to daily and visual management and improvement coaching
- **Responsibility:**
 - Implement tiered huddles
 - Coach managers in daily and visual management processes and tools
 - Coach leaders and managers in continuous improvement concepts, tools and behaviors
- **Roles on the team:** 4 facilitators/coaches

Coaching virtually: My problem to solve

- March 2020 – abrupt & unprecedented shut down of NYC
 - Care delivery operations singularly focused on crisis care
 - My team was pulled into crisis response
 - Over the weeks, no real end in sight
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- Problem(s) to solve for:
 - How can we virtually coach front line managers, whose workplace is no longer accessible to us?
 - How can I lead a team if I'm not optimizing their talent?
 - How can I be a leader in the health system if I'm not also being a financial steward?

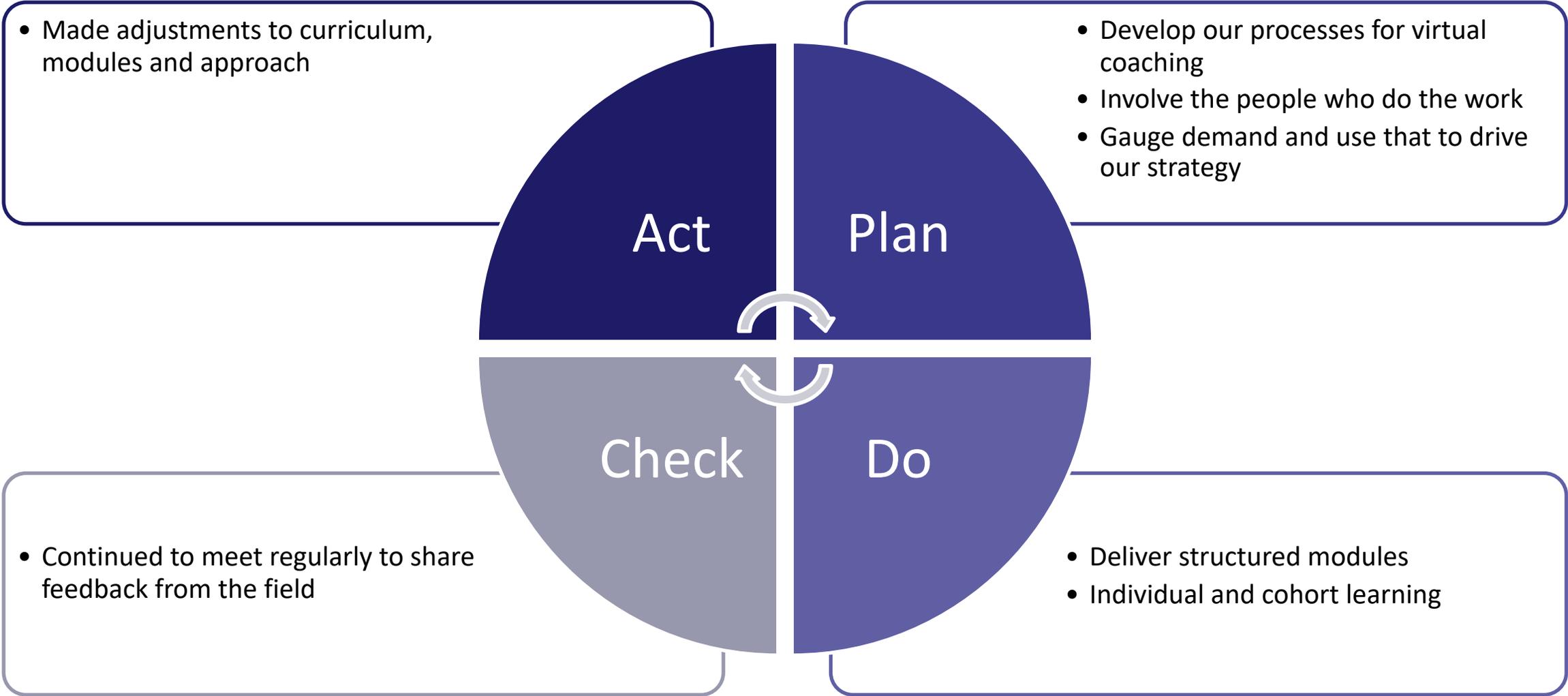


Focus on purpose



Creating aha moments

Our PDCA process



Modifications for a virtual world

| Problem | Countermeasures |
|----------------------------|---|
| Engagement & Socialization | <ul style="list-style-type: none">• Increased emphasis on regular touch points with leaders and key stakeholders• Repetition, repetition, repetition (even more than usual!)• Increased sharing of media tools (videos, recordings, etc)• Increased use of shared documentation• Identify champions earlier and leverage them more• Establishing relationships virtually can take longer |
| Discovery & Prioritization | <ul style="list-style-type: none">• Structured surveys to help grasp the situation• Virtual information interviews• Facetime / Zoom gamba "tours"• Lots of pictures and videos sent back and forth• Sharing screens and live scribing• Increased use of shared and collaborative documentation |

Modifications for a virtual world

| Problem | Countermeasures |
|---------------------------------|--|
| Implementation | <ul style="list-style-type: none">• Structured and shared documentation: slide decks, checklists, self-assessments• Virtual going to see• Virtual observations (Zoom, Facetime)• Sharing of media tools |
| Teaching & Coaching Improvement | <ul style="list-style-type: none">• Sequenced virtual modules with defined workflows• TWI approach: break down concepts into key points and tactics• Multi-modal teaching (readings, videos, homework worksheets, etc)• Regular time set aside for discussion and facilitation• Encouraging others to join for team-based learning• Still high-touch, just virtually• Reflection• Show, don't tell• Make it visible• Repetition, repetition, repetition |

In Summary

- While the pandemic has forced us to adapt to a new reality, continuous improvement and its value and importance in our organization has not changed
- Working in a new socially distant reality is both about **tools** and **technique**
- All the right tools exist
 - Video conferencing and engaging others
 - Shared workspace
 - Process mapping
- Thinking through what you need to accomplish is just as important
 - What are we trying to accomplish?
 - What is the culture of our organization like?
 - What will best engage the teams you're working with?
- There is no one right way...