Jefferson College of Population Health
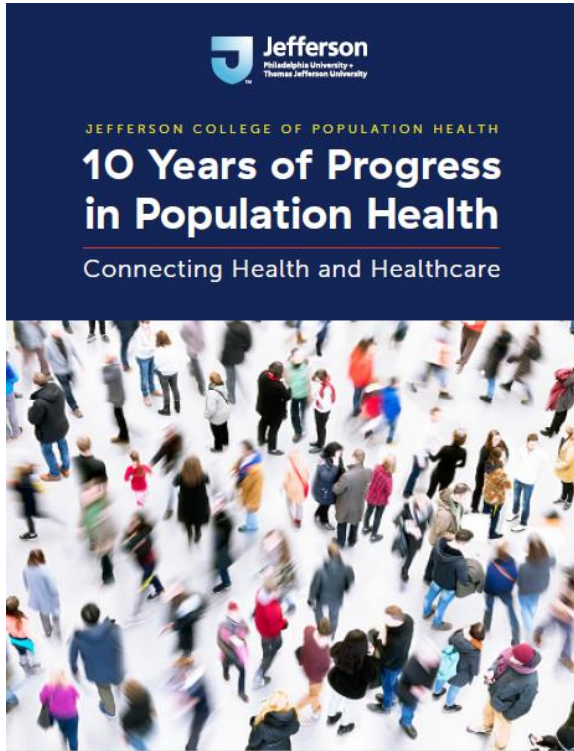
To prepare leaders with global vision to *develop*, *implement* and *evaluate* health policies and systems that improve the health of populations and thereby enhance the quality of life

About Dennis R. Delisle

Dennis R. Delisle
Sc.D, FACHE

LEAN HEALTHCARE

A Practical Guide for Executing Lean Improvements with Real-World Case Studies

Second Edition

Dennis R. Delisle

Foreword by David B. Nash

Early 2021

Executing Lean Improvements

A practical guide with real-world healthcare case studies

Dennis R. Delisle

Foreword by David B. Nash

Transformation and Your New EHR

The Communications and Change Leadership Playbook for Implementing Electronic Health Records

Dennis R. Delisle • Andy McLamb • Samantha Inch

Foreword by Stephen K. Klasko, MD, MBA

About Mary Reich Cooper

Mary Reich Cooper, MD, JD

Agenda

- Operational Excellence Overview

- Strategy & Execution

- Healthcare Case Study

- Q&A

The Workplace Firefighter…
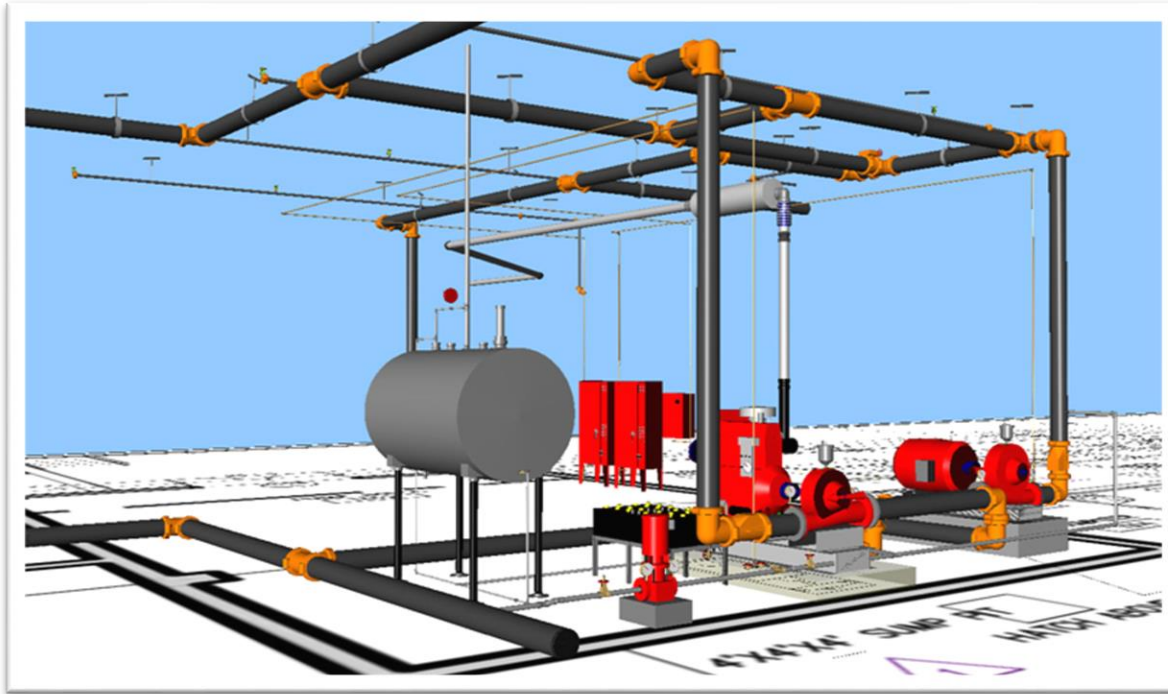## Reacting to Problems

What we feel like:

What we look like:

The Workplace Firefighter…
Strategic/ Systematic Prevention

What we should be doing:

Operational Excellence: Integration of Performance Improvement Methodologies

Method	Problem	Goal	Implementing Improvements	Approach	One Line Description
Lean	Process inefficiencies, space/ layout issues, poor quality	Reduce/ eliminate waste	Front-line based improvements or 2hr-3 day rapid improvement with solutions implemented during and within 30 days	Front-line improvement through PDCA/ Project Execution through DMAIC model	Identify and eliminate Non-Value Adding activity (waste)
Six Sigma	Variation in outcomes, complex processes	Reduce variation	Complex problem resolution which may take 3-9 months	Project execution through DMAIC model	Comprehensive statistical process improvement approach to reduce variation
Business Process Redesign	Not achieving desired outcomes with current process/ want dramatic results	Fundamental rethinking and radical process redesign	Teams redesign process, no defined timeline	Identify processes, review/ update/ analyze, design to-be, test & implement	Complete process redesign
Quality Assurance	Not meeting standards, errors	Fit for purpose and right the first time	Systematic measurement and monitoring	Feedback loop, no defined approach	Error-prevention, ensuring quality requirements are met
Total Quality Management	Poor quality	Quality of products and processes	All employees participate in improving processes, services, etc. daily	Management approach-everyone's responsibility	Quality is everyone's responsibility

Executing Lean Improvements

Lean, a Foundation of Operational Excellence

- Lean is a set of concepts, principles, and tools used to:
  - Create and deliver the most value from the customers' perspective

  - Optimize resources

  - Fully utilize knowledge and skills of people doing the work

Reductions in:
- Errors
- Cost
- Waiting times
- Waste

Improvements in:
- Quality
- Productivity
- Service Excellence
- Collaboration/coordination

Which Methodology is Best?

- There is no "Best"
  - Depends on organizational needs and current state

- Most effective approach: likely a combination of methodologies

- Key Goal:
  - Leadership Support/ Empowerment
  - Commitment to Approach
  - Vision
  - Strategic Deployment
  - Unrelenting Pursuit of Excellence

Guide for Developing Solutions/ Process Design:
Steven Spear's 4-Rules

1 All activities are clear and well-defined
- Staff know WHAT to do, WHEN, and for HOW LONG

2 Steps are SIMPLE and DIRECT

3 Flow is SIMPLE and DIRECT
- As few steps and people as necessary

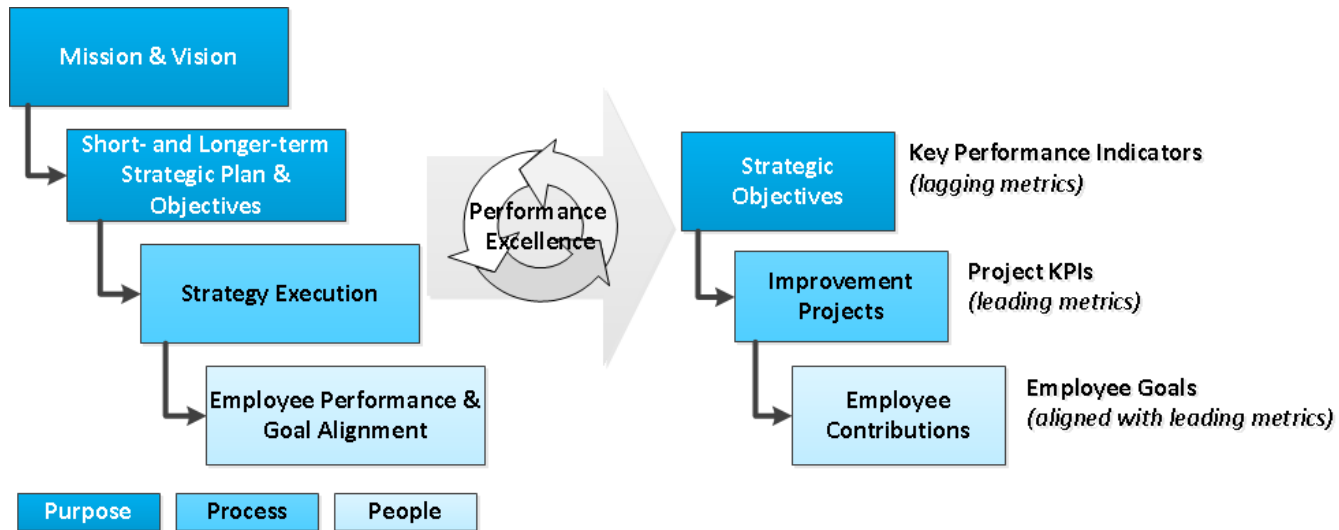**4** Problems and issues are dealt with DIRECTLY and TIMELY

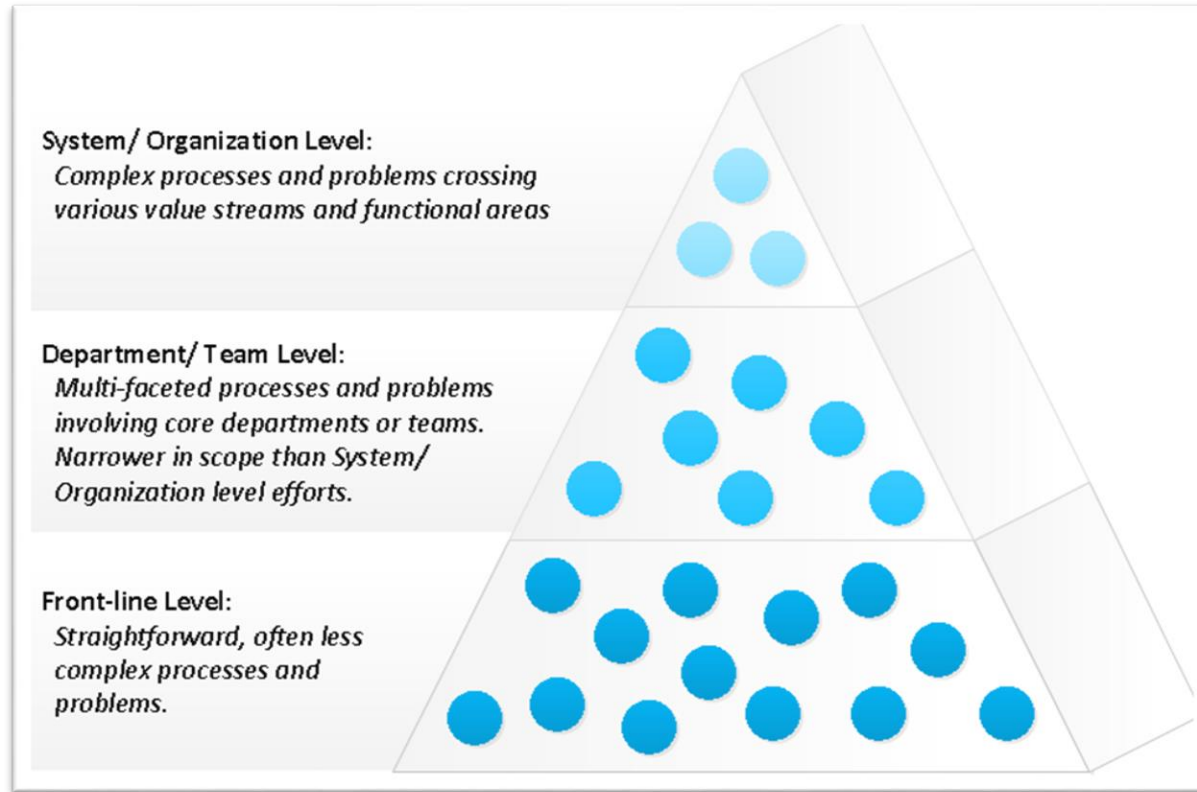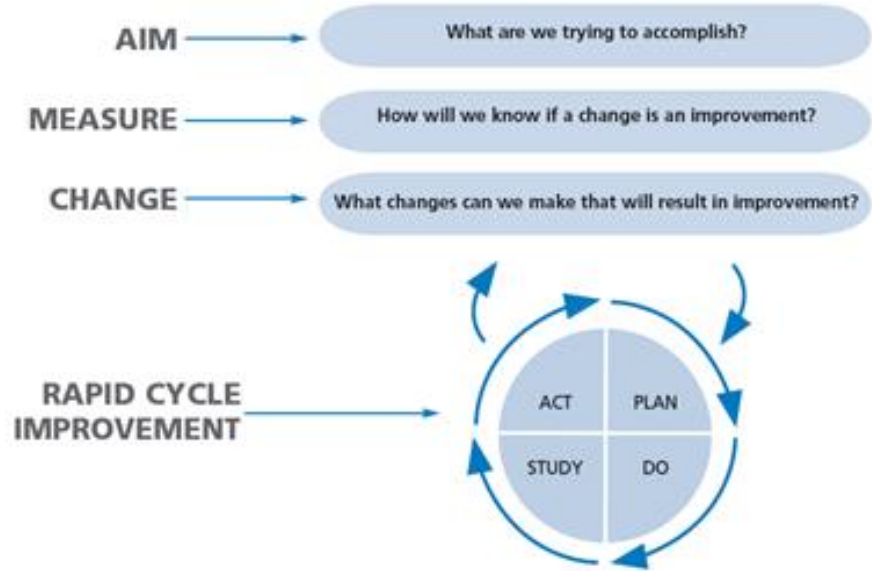Strategy & Execution

Strategy Deployment

Levels of Improvements

System/ Organization Level:
Complex processes and problems crossing various value streams and functional areas

Department/ Team Level:
Multi-faceted processes and problems involving core departments or teams. Narrower in scope than System/ Organization level efforts.

Front-line Level:
Straightforward, often less complex processes and problems.

IHI Model for Improvement

The model has two parts:

1. Three fundamental questions, which can be addressed in any order

2. Plan-Do-Check-Act (PDCA) cycle to test changes in real work settings

AIM → What are we trying to accomplish?

MEASURE → How will we know if a change is an improvement?

CHANGE → What changes can we make that will result in improvement?

RAPID CYCLE IMPROVEMENT →

ACT | PLAN
STUDY | DO

Lagging versus Leading Measures

- Lagging Measure:
  - Outcomes/ end results

- Leading Measure:
  - **Predictive** of achieving the goal
  - Can be **influenced** by the team
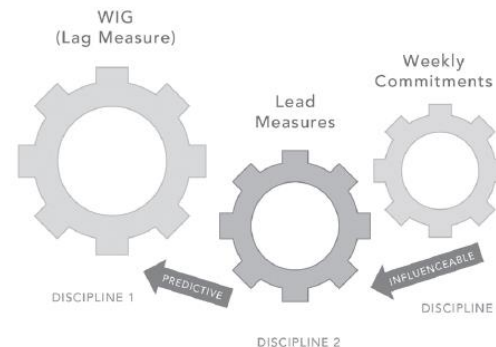 - New behaviors that will drive success on the lag measures
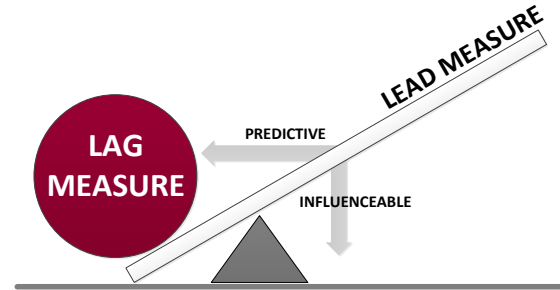
Healthcare Examples:

- Lagging Measures: Mortality, Readmissions, Length of Stay

- Leading Measure: % of patients seeing follow-up physician within 5 days of discharge, medication reconciliation compliance

Lagging versus Leading Measures EXAMPLE

- Lagging Measure:
  - Weight (in pounds)

- Leading Measures:
  - Calories consumed per day
  - Number of hours of exercise per week
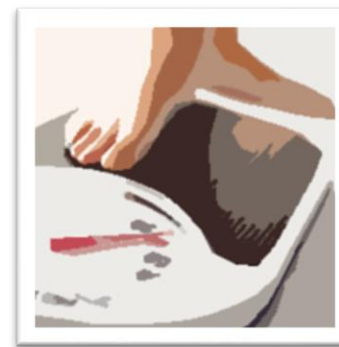
Understanding lead measures will be one of the most important insights you take from this session!

WIG
(Lag Measure)

Weekly Commitments

Lead Measures

PREDICTIVE

INFLUENCEABLE

DISCIPLINE 1

DISCIPLINE 2

DISCIPLINE 4

By keeping their weekly commitments, team members influence the lead measure, which is in turn is predictive of success on the lag measure of the WIG.

Healthcare Case Study

Background

- Setting: Urban Community Hospital (150-200 beds, 800-1,000 FTEs), part of larger academic health system

- Vizient Quality & Assurance dashboard serve as barometer for progress and success

- 2019 Outcomes (ranks based on 125 Community Hospitals):

Measure	Rank	Percentile (out of 125 comm hospitals)
Overall Rank	34th	27%
Effectiveness	62nd	50%
Safety	36th	29%
HCAHPS	65th	52%
Efficiency	97th	78%
Mortality	20th	16%

Note: a lower Rank/ Percentile indicates BETTER performance compared to benchmarked peers

Operational Excellence Approach

Alignment & Accountability:

- Leverage balanced scorecard (BSC) framework to focus on:
  - Quality & Safety
  - Service & People
  - Finance & Operations

Driving Improvements:

- Structure, system, and process changes
- Strategic projects utilizing Lean, Change Management, and Project Management to design quality and efficiency into the model

Aligning work to the BSC Framework

Area of Focus	Goal	Plan Should Target	Key Forums (examples)	KPIs
Quality & Safety	Highest quality and safest care possible	Systems, processes, workflows, space, infrastructure that impact outcomes	• Quality Improvement & Patient Safety Committee	• Mortality • Readmissions • LOS • CMI
Service & People	Consistent, excellent patient-centric service delivery Recruit and retain talent, foster employee engagement	Processes, amenities, patient flow, space, staffing, etc. that impact care Issues driving turnover, disengagement	• Leadership Rounding • Management Update • Employee Forums	• Likelihood to Recommend • Outpatient Satisfaction • OP Access • Turnover • Engagement
Finance & Operations	Drive resource efficiency and stewardship, grow service lines	Variation reduction, bed and OR capacity/ utilization, workflows, systems, technology, staffing, etc. that impact efficiency, productivity throughput in acute care and outpatient settings	• Operations Meeting • Strategic Financial Review	• Revenue • Expenses • Income from Operations • Clinical Volumes

Highlight: Service Excellence

Operational Excellence in action:

- Gemba walks- Weekly Leadership Rounding

- Unit-specific Action Plans- based on Patient Satisfaction scores, target top drivers (e.g., Pain Management)

- Staff Training/ Support -Service excellence training, service recovery toolkits

- Employee Forums- held every 4 months provide updates and bi-directional communication with staff on issues, challenges, and opportunities

- Leadership Development Program- 40 leaders were selected to complete a robust program emphasizing engagement, transformation, and execution

An Integrated Model to Accelerate Patient Satisfaction Improvement

Dennis R. Delisle, ScD, FACHE[1], Jana Dajani, MPH[1], and Lauren Overton, BS[1]

Abstract
Patient satisfaction is gaining traction in the strategic direction and daily operations of hospital executives. The financial penalty/incentive tied to patient satisfaction scores creates a burning platform to accelerate progress. Previous studies have shown the effectiveness of various improvement strategies including leadership rounding and employee training, among others. There has not been a study utilizing an integrated model that incorporates known best practices into a holistic approach. The integrated model included service excellence training, nursing unit-specific action plans, and weekly leadership rounding. Implementation of the model led to significant and sustainable improvements in patient satisfaction in the community hospital setting. This approach can be leveraged and scaled in other organizations to accelerate the pace of change.

Keywords
patient satisfaction, service excellence, leadership rounding, HCAHPS, process improvement, quality improvement

Table 4. Results (Pre Intervention January 2017 to June 2018; Post Intervention July 2018 to June 2019).

| Variable	Pre	Post	Difference	% Improvement	P value
Overall[a]	59.58	64.11	4.53	7.6%	.000
Recommend the Hospital[a]	65.22	68.35	3.13	4.8%	.027
Communication with Doctors	79.96	80.98	1.02	1.3%	.246
Communication with Nurses[a]	81.32	83.78	2.45	3.0%	.020
Hospital Environment[a]	63.72	67.15	3.43	5.4%	.034

[a]Indicates statistically significant at an α level of 0.05.

Highlight: Quality & Safety

Operational Excellence in action:

- Alignment- Developed the Quality Improvement & Patient Safety (QIPS) Committee to focus on the quality scorecard and strategic projects to drive outcomes.

- Prioritized metrics
  - Mortality
  - Readmissions
  - LOS
  - CMI
  - CC/ MCC Capture

- Strategic Projects: areas for improvement based on Vizient data analysis and organizational priorities:
  - Clinical documentation improvement
  - Care progression
  - Readmissions

Example 1-pager
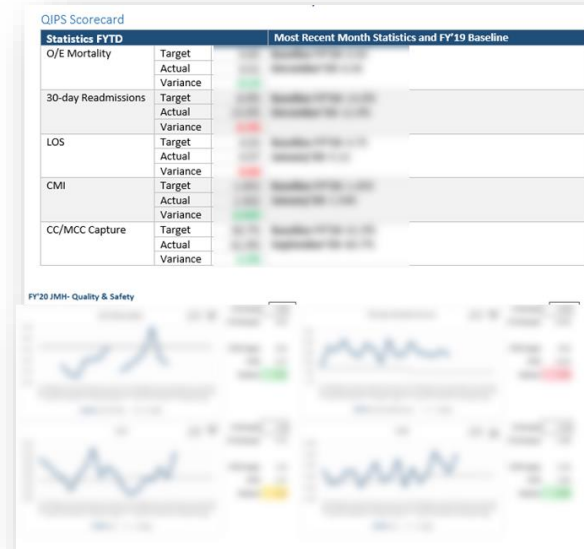
Note: Other Q&S metrics (HACs, Nurse sensitive indicators, etc.) are monitored and managed within appropriate workgroups/ depts

Outcomes

From 2019 to Q1 2020 (pre-COVID), the following outlines the Vizient score improvements:

Measure	BEFORE		AFTER	
	Rank	Percentile (out of 125 comm hospitals)	Rank	Percentile (out of 125 comm hospitals)
Overall Rank	34th	27%	6th	5%
Effectiveness	62nd	50%	11th	9%
Safety	36th	29%	8th	6%
HCAHPS	65th	52%	12th	10%
Efficiency	97th	78%	64th	51%
Mortality	20th	16%	17th	14%

Note: a lower Rank/ Percentile indicates BETTER performance compared to benchmarked peers

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Lessons Learned

- Transformation of the leadership and management systems requires clarity around performance expectations (KPIs and targets) and accountability

- Use of proven operational excellence methodologies can accelerate results as shown through this case study

- Imperative to use data to inform and direct improvements

Key Takeaways/To Dos

- Keep it simple- refine/revise what already exists (teams, reports, etc.)

- Keep it focused- manage to targeted set of KPIs

- Keep it fun- Engage staff, share progress, celebrate wins

Q & A

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