Overview of Quality Improvement

How to Get Involved

HQSC-NURF Health Equity Conference

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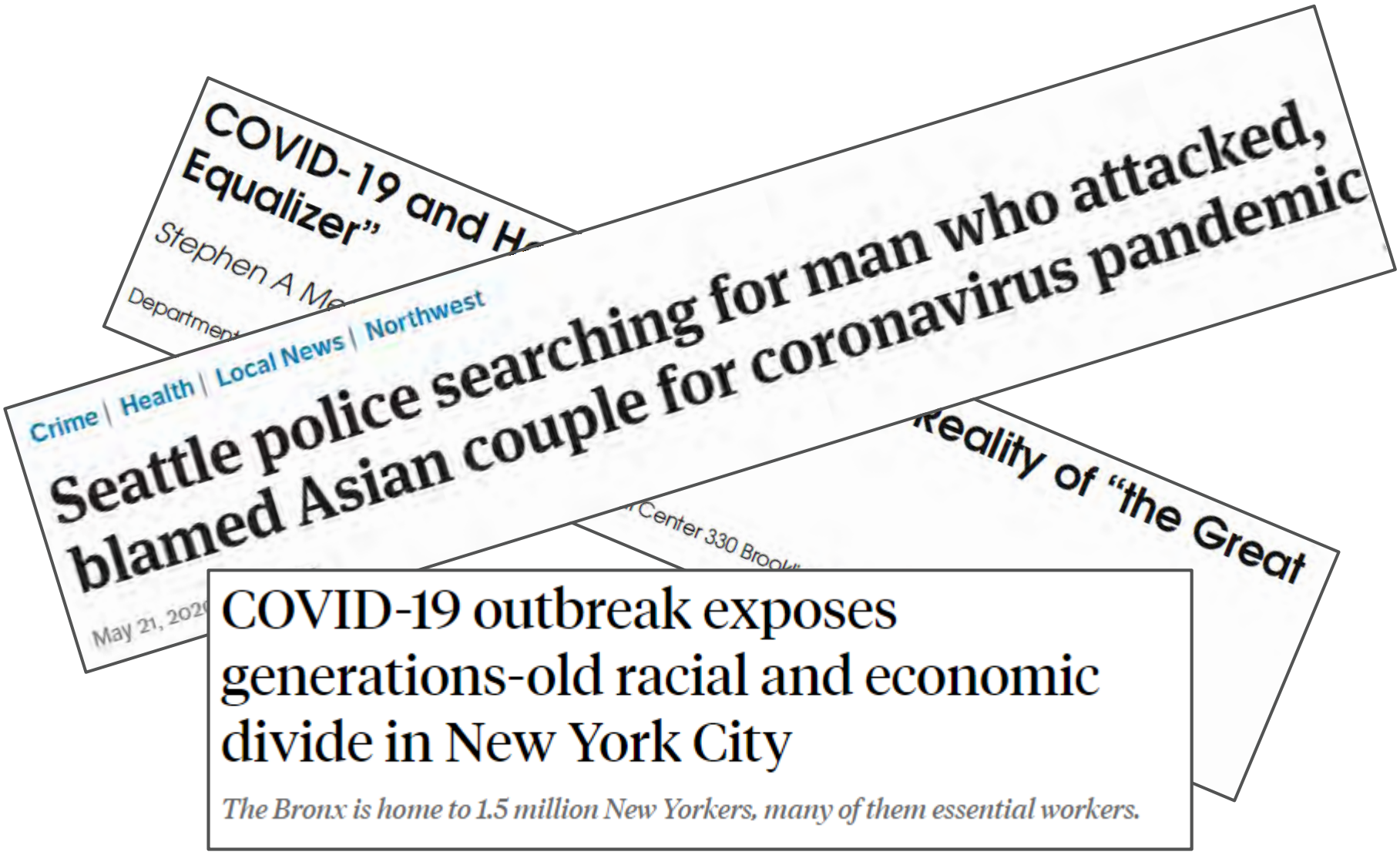

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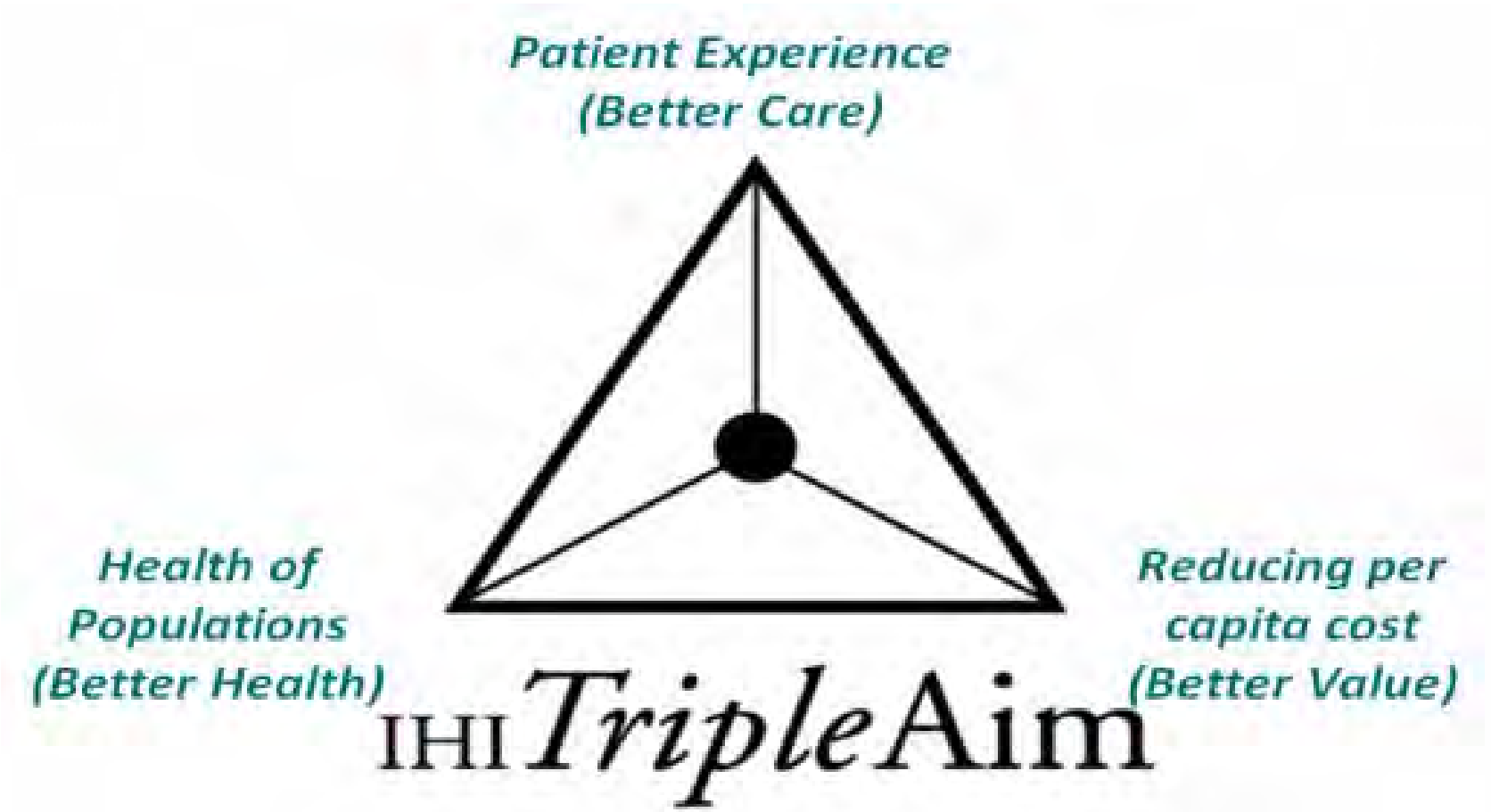

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So how do we fix healthcare?

- Traditional methods
  - M & M Conferences
  - “Just do better”
  - Metrics without solutions
  - Top down initiatives

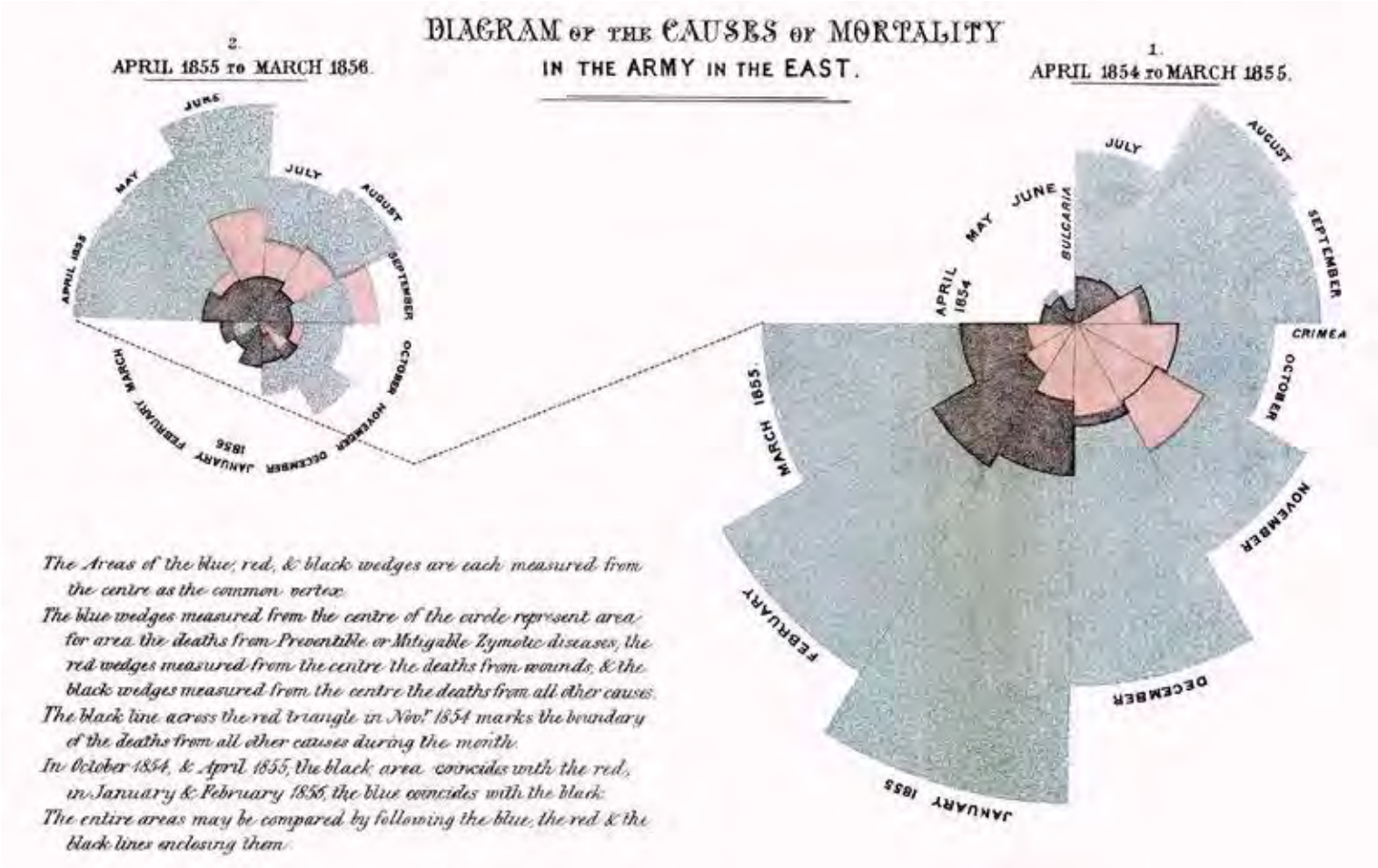
- Results
  - Disengagement
  - Burnout
  - Little improvement

“Everyone in healthcare has two jobs when they come to work; to do their work and to improve it. This is the essence of Quality Improvement”

- Paul B. Batalden, Senior Fellow, Institute for Healthcare Improvement

Brief History of QI in Modern Medicine

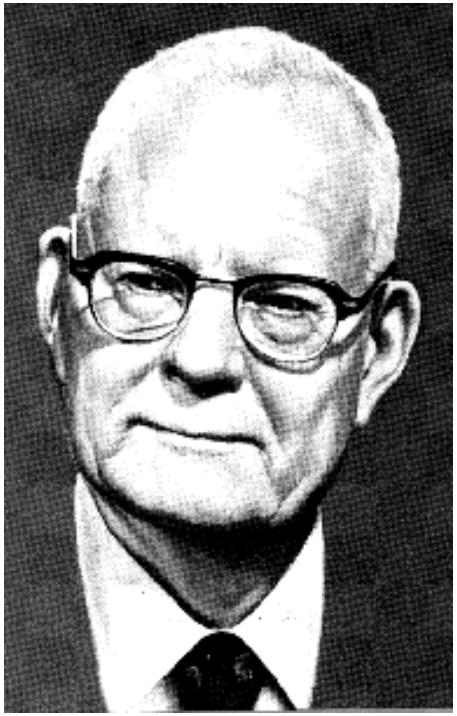
Florence Nightingale



Walter Shewhart – Bell Labs

- 1920’s
- Physicist
- Studied variation in manufacturing
- Sought out how observing variation could predict and develop future process
- Developed statistical process control

W. Edwards Deming



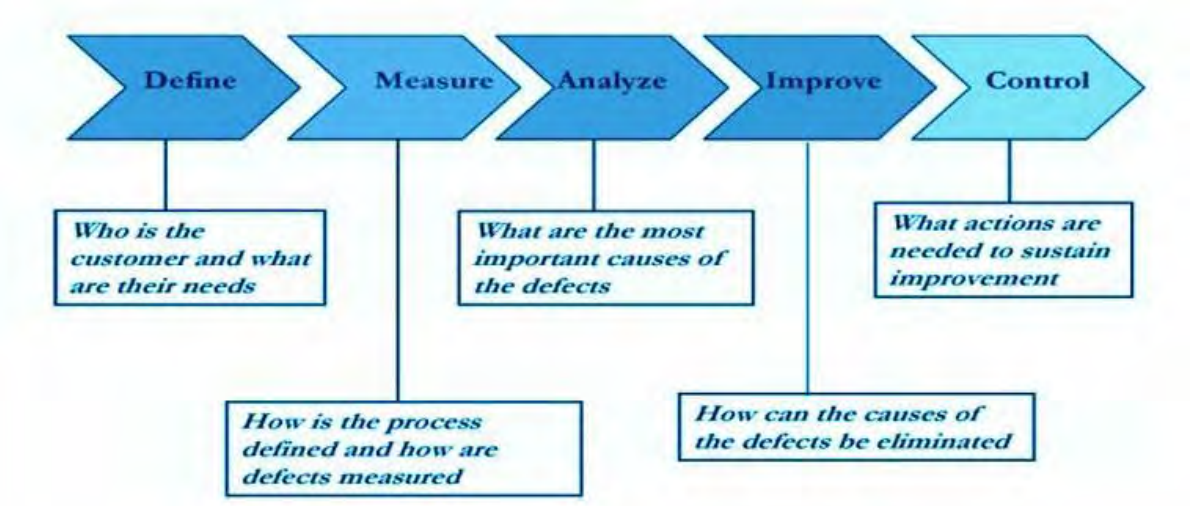
- 1950’s
- Student of Shewhart
- Taught quality control to Japanese scientists and engineers
- Theory of Profound Knowledge
  - Appreciation of a system
  - Understanding of variation
  - Theory of knowledge
  - Understading human nature
- PDCA / PDSA

QI Frameworks

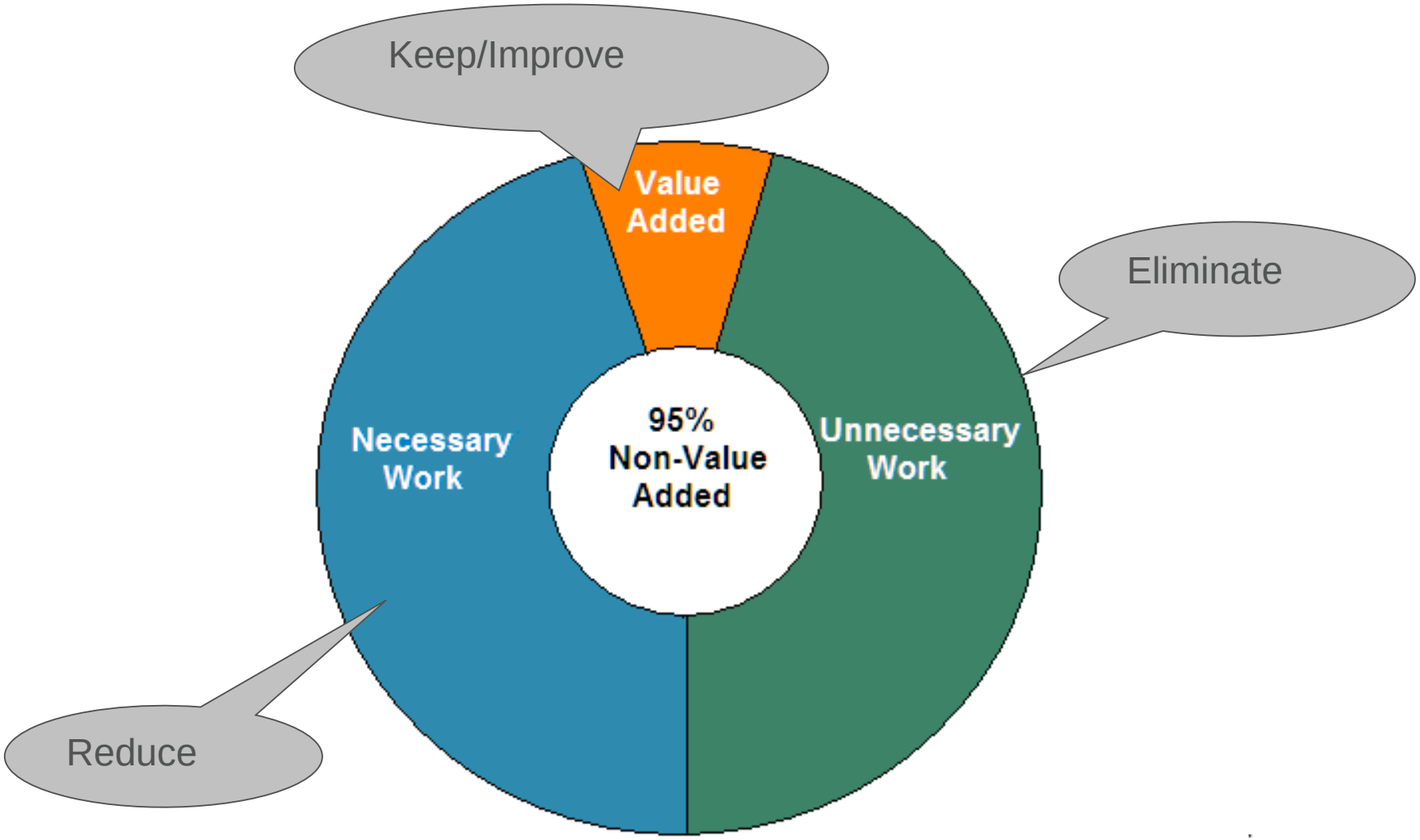
- Six Sigma
  - Improve Reliability
  - Reduce variation
- LEAN
  - Eliminate Waste
  - Pull and flow
- Model for Improvement
  - Small Tests of Change
  - Three simple questions

Six Sigma

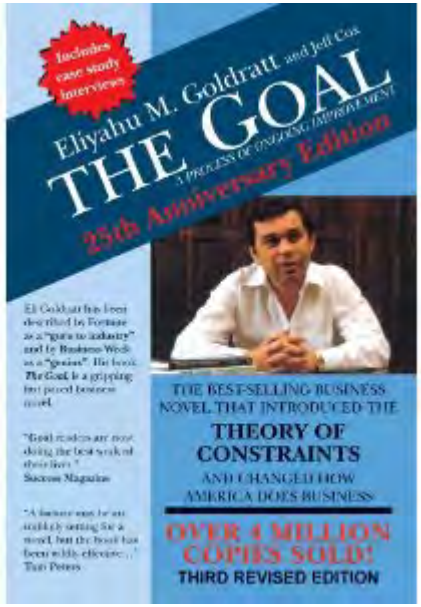
- Motorola 1980's
- Focus on reducing defects to 6 sigma levels (3.4 per million)
- Derived from Shewhart's work
- DMAIC



LEAN - FOCUS ON WASTE

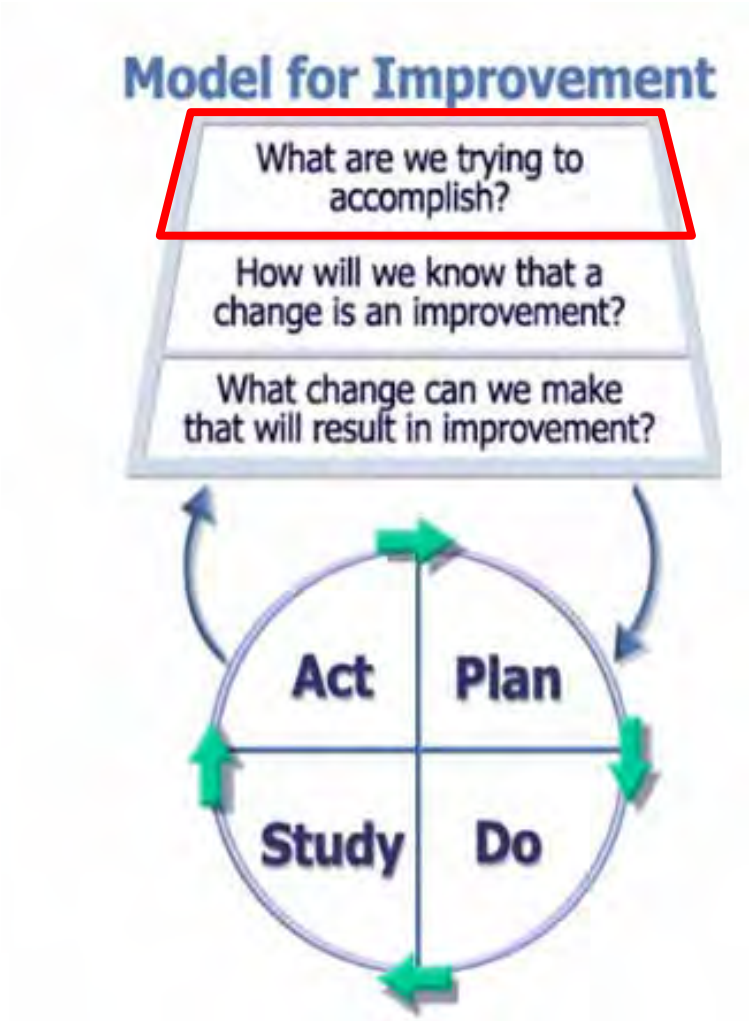


Theory of Constraints



- Eliyahu Goldratt – 1984
- The Goal
- Any goal-oriented system is most limited by constraint points
- The process won't improve unless you address the constraint
- Iteratively identify, address and monitor constraints

IHI Model for Improvement



What are we trying to accomplish?

DEFINE THE TEAM

- Sponsor
  - Often a senior leader who can endorse a project, ensure it is aligned with institutional goals and remove obstacles as they arise
- Champion
  - Leader of a project who oversees planning and maintains momentum, reports up to sponsor on progress
- Process Owner
  - Stakeholders who have expertise and/or oversight to a process impacted by the project
- Team Member
  - Multidisciplinary members providing varying viewpoints in an impacted process

What are we trying to accomplish?

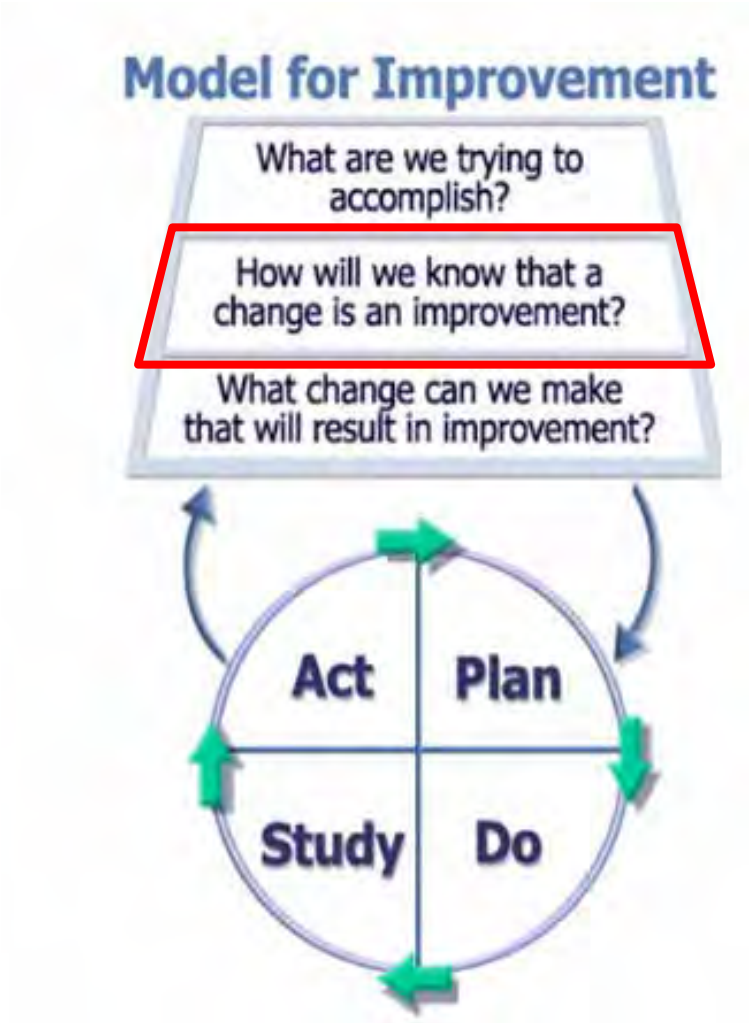
- Keep it **SMART**
  - **S**pecific
  - **M**easureable
  - **A**chievable
  - **R**elevant
  - **T**imely
- What? How Much? By When? By Whom?

Resident Project: Aim Statement

- "We aim to improve the care of patients with chronic pain at VA Puget Sound. By October 2013, we will decrease the number of new starts on chronic opioids by 10%"

Specific?
Measurable?
Achievable?
Relevant?
Time Bound?

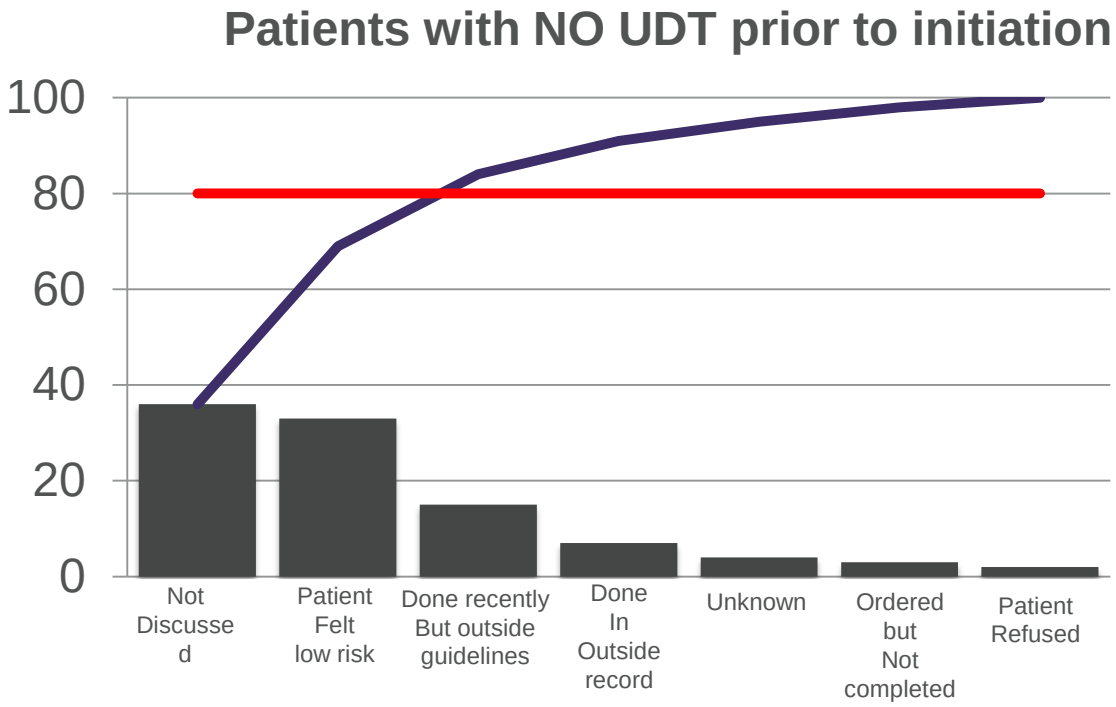
IHI Model for Improvement



Types of Measures

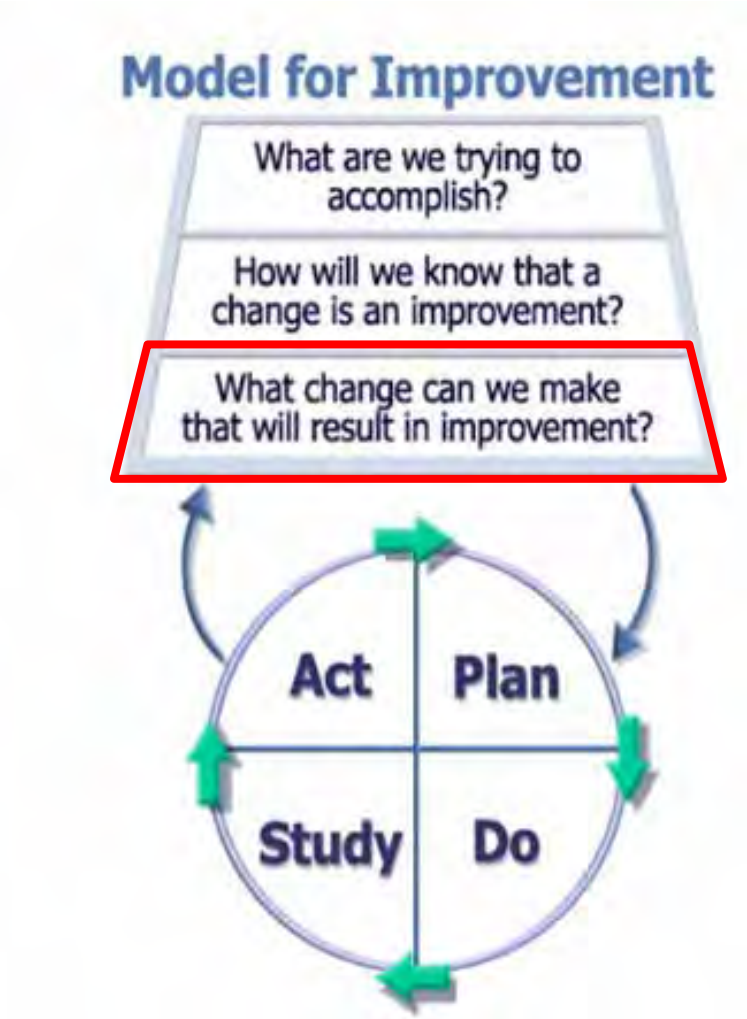
- Outcome: Final product, result
  - *What happens to the patient?*
- Process: How system works
  - *What is done to the patient?*
- Balance: Capture unintended consequences
  - *How else does this effect the system?*

Pareto Charts

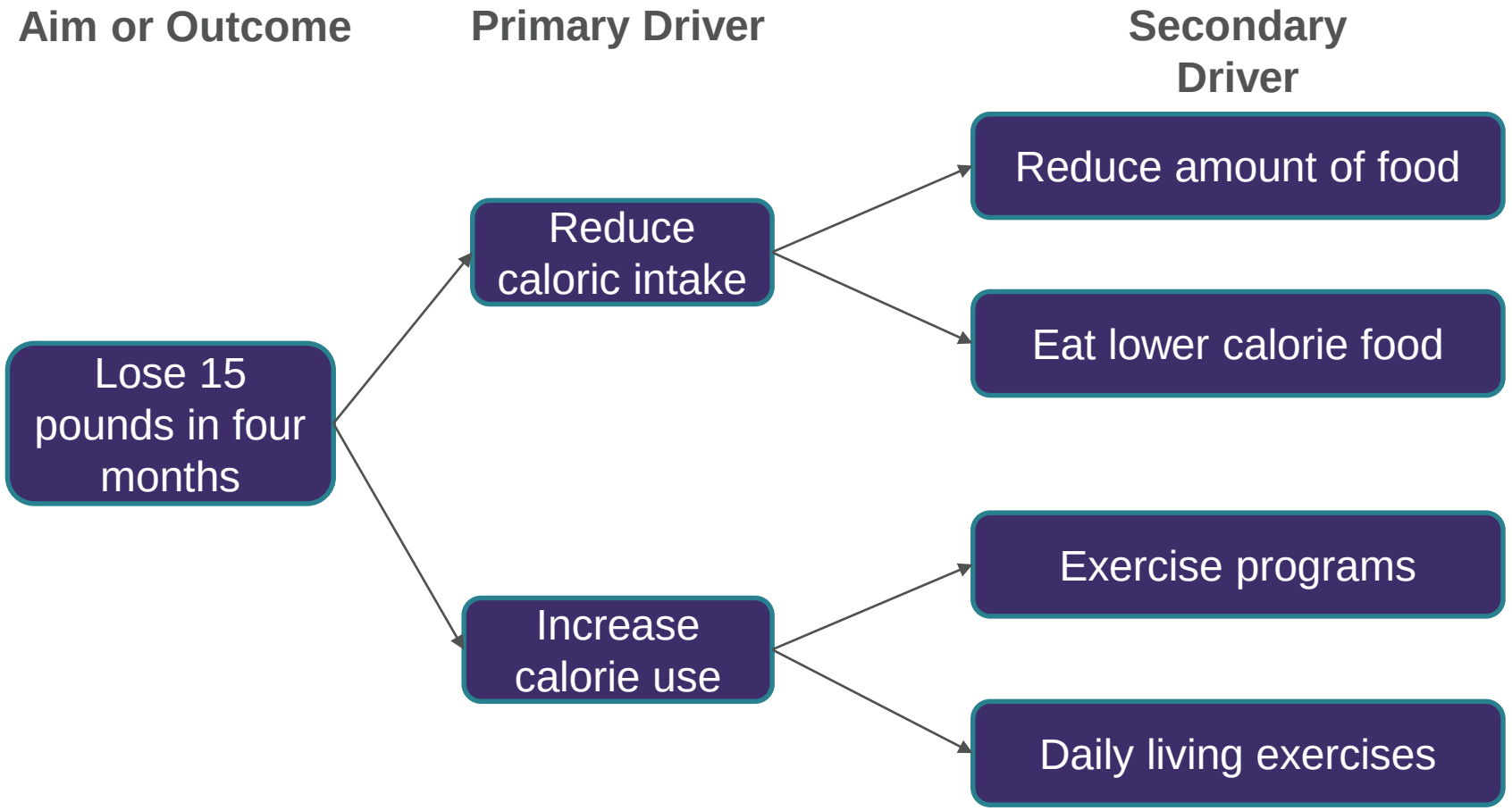


- Frequency chart to demonstrate what factors contribute to low quality
- Often demonstrates “80/20” rule

IHI Model for Improvement



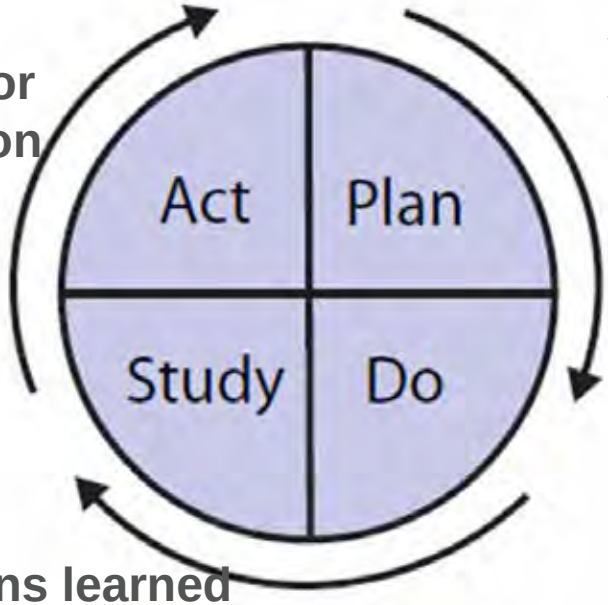
Driver Diagrams



PDSA

- PDSA cycles are the action portion of a QI project
- Iterative small tests of change
- 1 test can demonstrate a fatal flaw

Adapt
Adopt or
Abandon

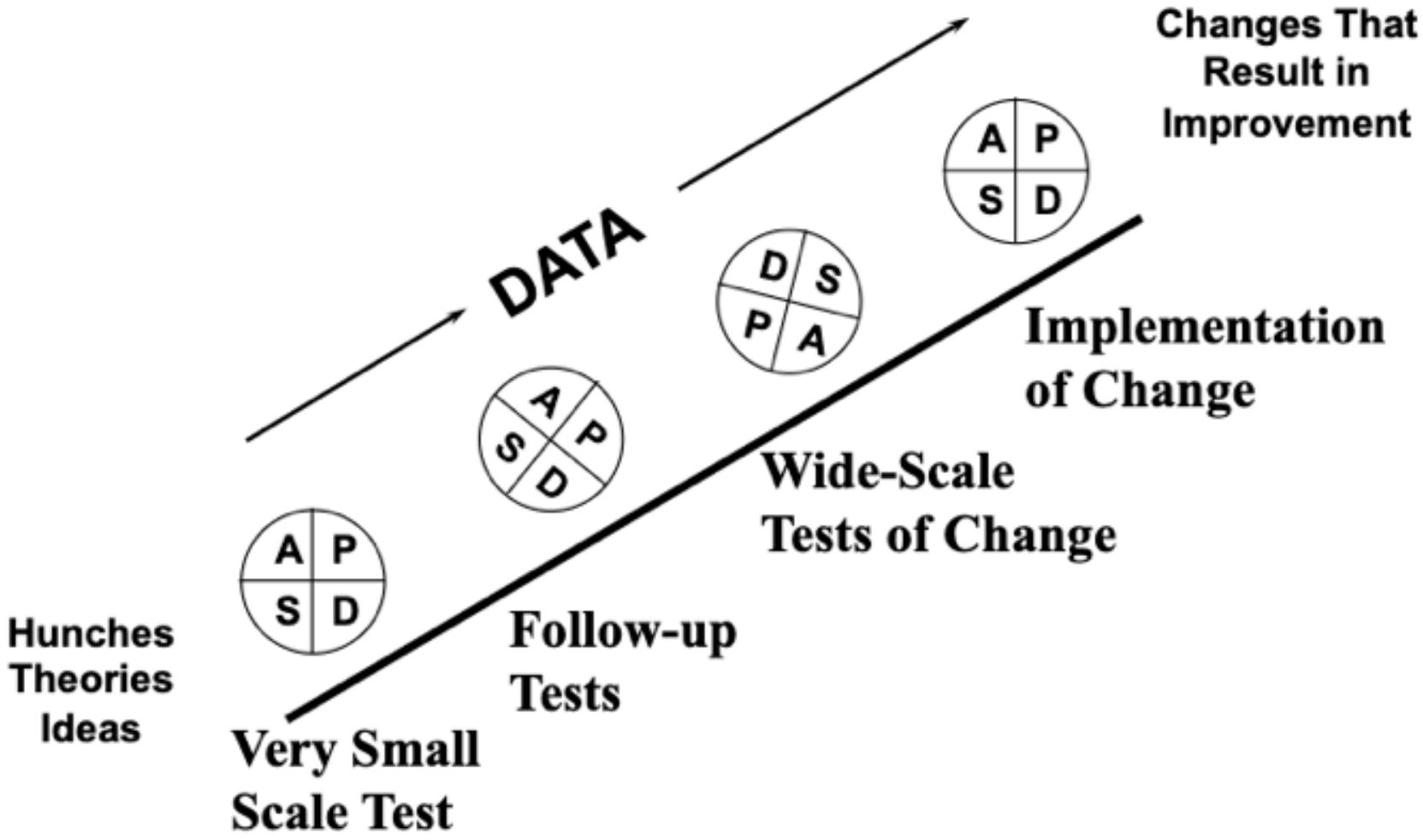


Who? What? When?
Where? + Data Plan?

Carry out test
Document outcome
and observations

Analyze data
Discuss lessons learned

Current Situation		Staff/Clinician Readiness		
		Resistant	Indifferent	Ready
Low Belief Change leads to improvement	**Cost of failure LARGE**	Very Small Test of change	Very Small Test of change	Very Small Test of change
	Cost of failure SMALL	Very Small Test of change	Very Small Test of change	Small-scale
High Belief Change leads to improvement	**Cost of failure LARGE**	Very Small Test of change	Small-scale	Large-scale
	Cost of failure SMALL	Small-scale	Large-scale	Just do it



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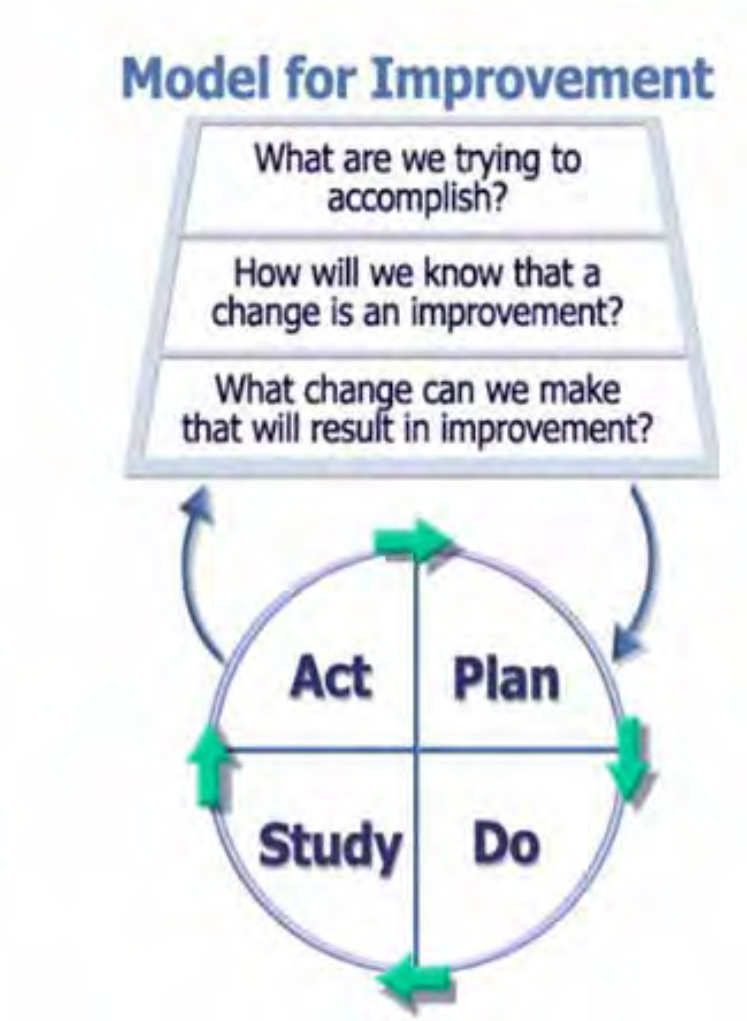
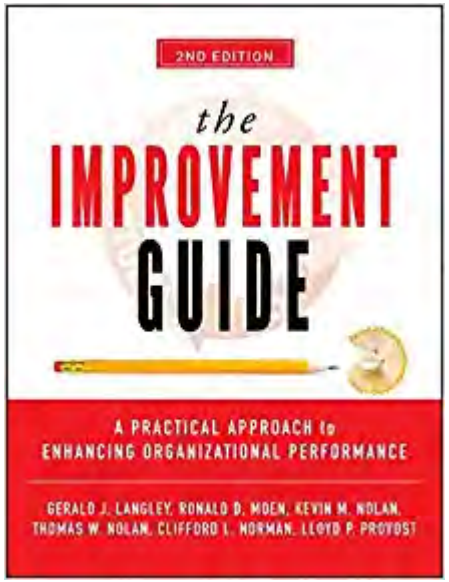


Opportunities to Learn More

- UW Medicine Center for Scholarship in Patient Care Quality & Safety
  - https://patientsafety.uw.edu
  - Website has a curated selection of QI and Safety resources, tools and links

- Institute of Healthcare Improvement/NPSF
  - IHI Open School
  - Certified Professional in Patient Safety
    - CPPS Review Courses
  - IHI National and International Forums



Opportunities to Learn More

- James Anderson Center/Cincinnati Children's
  - I2S2 Improvement Course
  - Advanced Improvement Methods

- Intermountain Healthcare
  - Advanced Training Program
  - MiniATP courses

UW Center Offerings

- QI Bootcamps
  - Several per year sponsored by UW Medicine
  - Ad hoc bootcamps
- UW Medicine/Seattle Children's Certificate Program
  - 8 months
  - 6 full-day sessions
  - Full-day equity session
  - Extended QI bootcamp
  - Broad overview of QI and safety topics
  - Longitudinal QI Project
  - https://patientsafety.uw.edu/certificate-program


What questions do you have?
Thank you!