TBI-BH ECHO

Traumatic Brain Injury – Behavioral Health ECHO

UW Medicine | Psychiatry and Behavioral Sciences

Key Concepts in Quality Improvement

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UW Medicine

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Project ECHO

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Speaker disclosures

No conflicts of interest

The following series planners have no conflicts of interest:

- ✓ Jennifer Erickson DO
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- ✓ Chuck Bombardier PhD
- ✓ Cara Towle MSN RN MA
- ✓ David Minor
- ✓ Amanda Kersey PhD
- ✓ Lauren Miles

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Learning Objectives

Upon completion of this session, learners will be able to

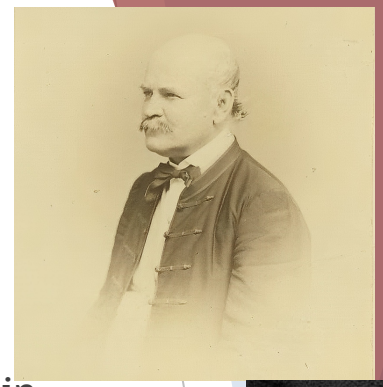
1. Identify and utilize quality improvement principles
2. Describe the Model for Improvement as a framework to approach improvement initiatives
3. Explain how to create an Aim statement

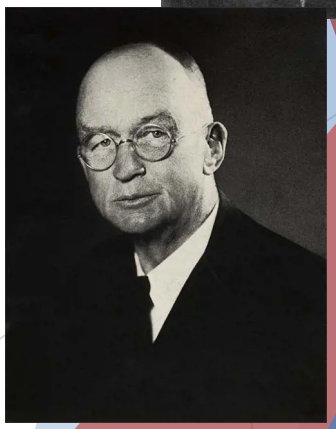
Where to learn more about QI

- **Certificate Program in Patient Safety and Quality**
  - **WHO:** Designed for healthcare professionals and teams
  - **WHAT:** 8-month program, consisting of 6 full-day conferences delivered over in person (with a virtual option), and work on a quality improvement project with a committed project mentor
  - Certificate Program in Patient Safety & Quality | Center for Scholarship in Patient Care, Quality and Safety (uw.edu)

- **Institute for Healthcare Improvement**
  - Home | Institute for Healthcare Improvement (ihi.org)

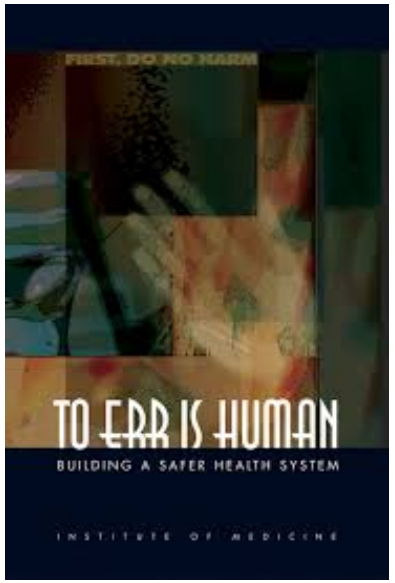
Origins of Quality Improvement

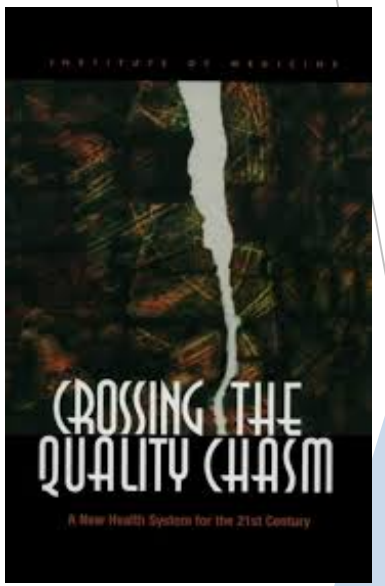




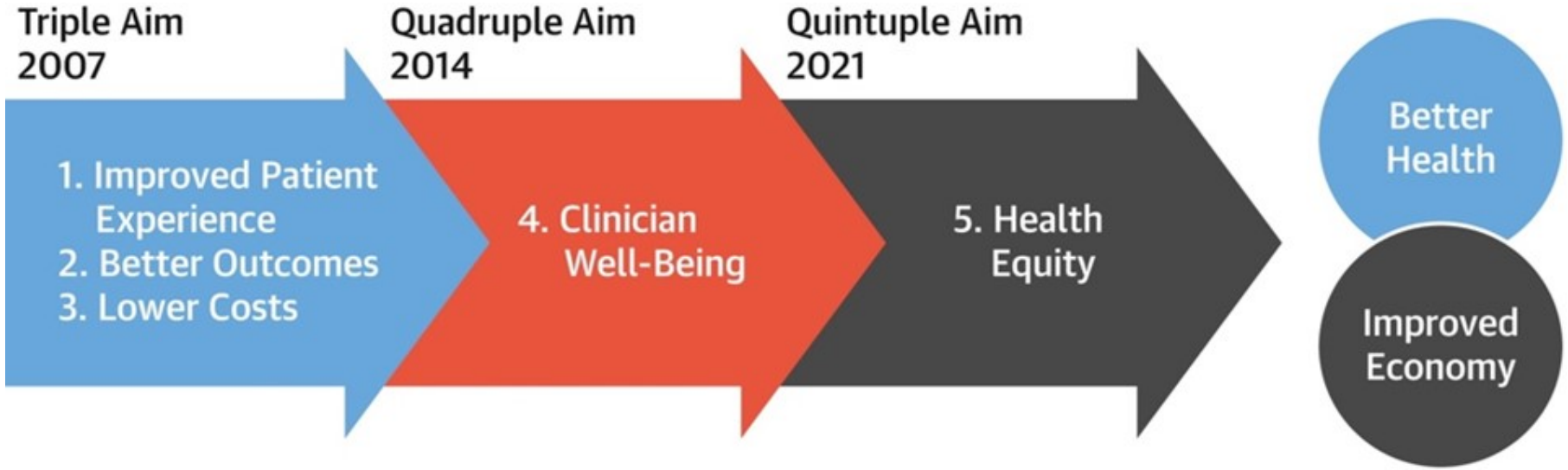
- Ignaz Semmelweis – Hungarian physician and scientist
  - The 19th Century obstetrician who championed the importance of hand washing in medical care
- Florence Nightingale – English nurse
  - Identified the association between poor living conditions and high death rates among soldiers treated at army hospitals
- Ernest Codman, MD - Surgeon in early 1900s
  - Instituted first Morbidity and Mortality conference at MGH
  - Proposed the “End Result Idea” system
    - Tracked outcomes for one year after surgery
    - Identify problems, learn from any failures and how to avoid those situations in the future
  - Led to the founding of the American College of Surgeons and its Hospital Standardization Program (later JCAHO/Joint Commission)

Quality Improvement in Healthcare





Evolution of the Triple Aim



Why should YOU get involved in Quality Improvement?

- Many initiatives are “top-down”
- Should involve the people who actually do the work
- Should include patients and families!
- Help get more people familiar with QI work!

“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

QI Frameworks

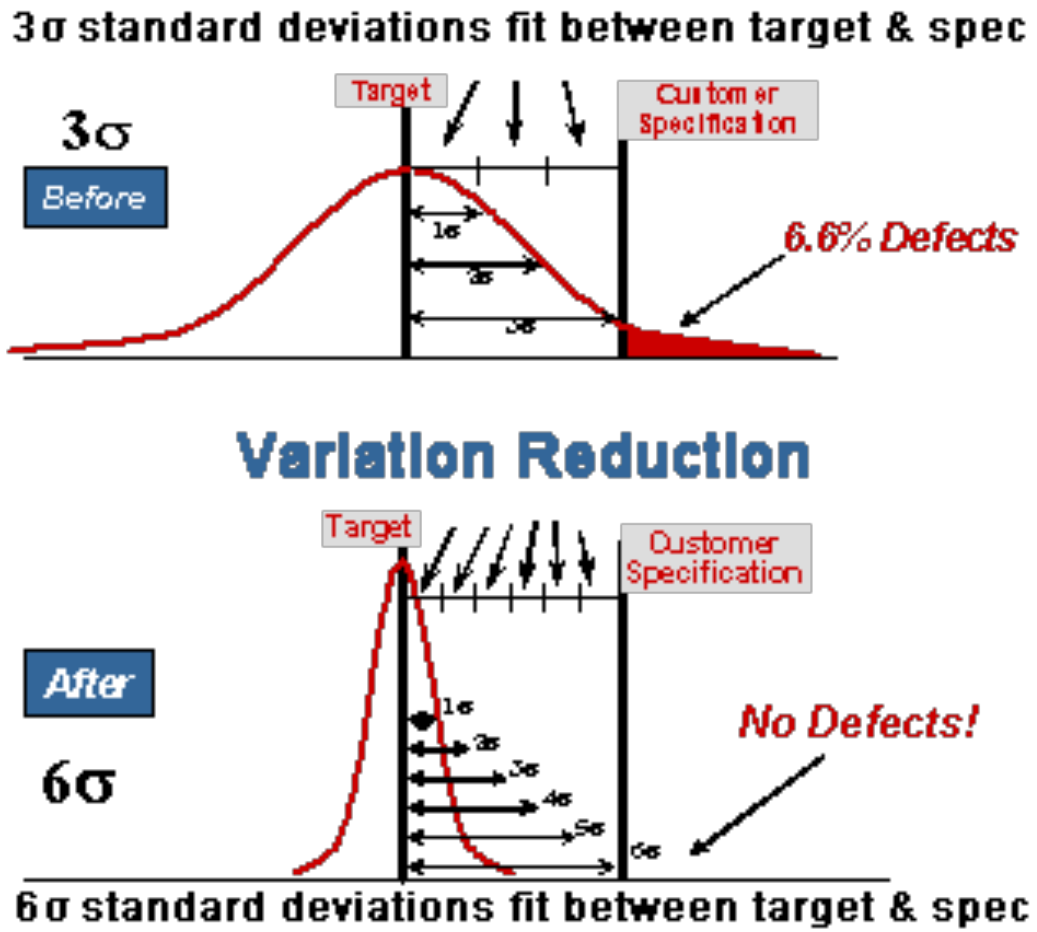
- Six Sigma
  - Improve Reliability
  - Reduce variation
- LEAN
  - Define Value
  - Eliminate Waste
- Model for Improvement
  - Small Tests of Change
  - Three simple questions

Six Sigma

Focus is on reducing defects

- Define
  - Who is the customer? What are their needs?
- Measure
  - How is the process defined and how are defects measured?
- Analyze
  - What are the most important causes of defects?
- Improve
  - How can the causes of defects be eliminated?
- Control
  - What actions are needed to sustain improvement?

Variation in process leads to variation in outcomes



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Lean Principles

- Define value from the point of view of the customer (patient)
- Map the process with the people who do the work
- Align on a vision (True North)
- Standardize
- Eliminate unnecessary steps (waste)
- Create a system that exposes improvement opportunities
- Continuously make improvements

Define Value and Eliminate Waste

- In manufacturing, a value-added step is one that brings the product one step closer to the consumer
- In health care, a value-added step is one which the patient receives (or experiences) something that brings them one step closer to better health
- Would the patient be willing to pay for the step on a line-item bill?


WE'RE HIRING A DIRECTOR OF CHANGE MANAGEMENT TO HELP EMPLOYEES EMBRACE STRATEGIC CHANGES.
OR WE COULD COME UP WITH STRATEGIES THAT MAKE SENSE. THEN EMPLOYEES WOULD EMBRACE CHANGE.
THAT SOUNDS HARDER.
Dilbert.com DilbertCartoonist@gmail.com
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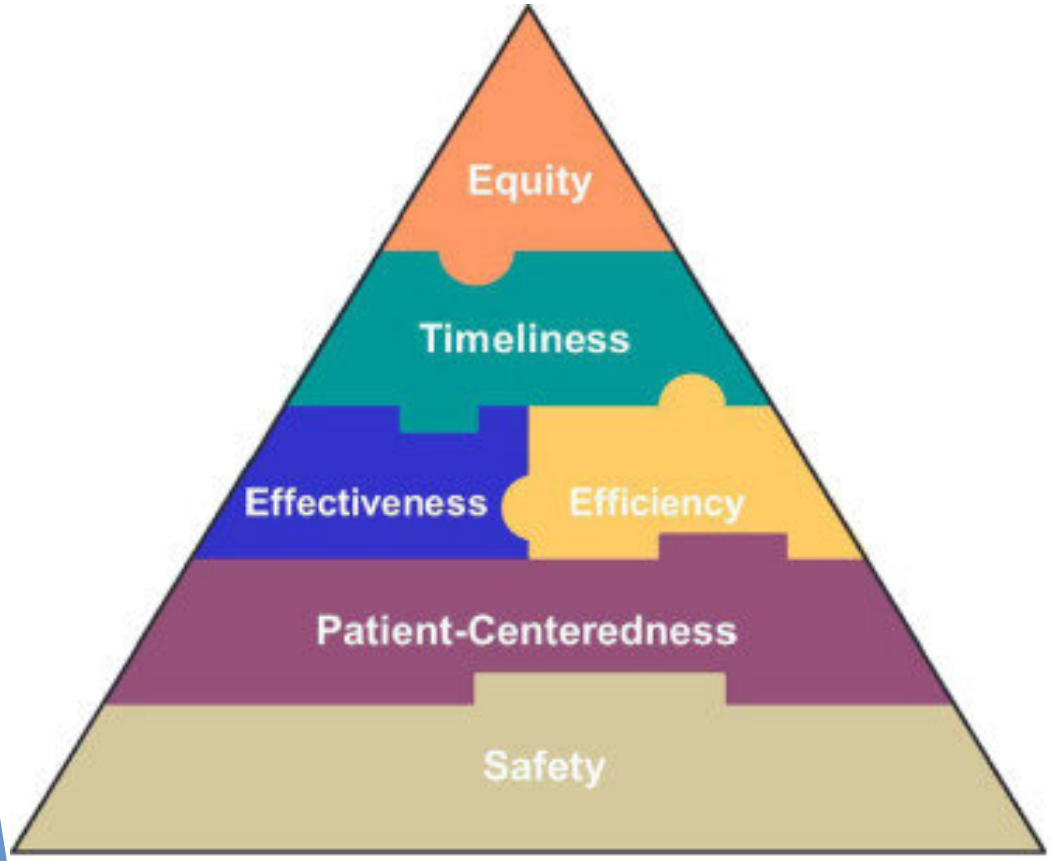
Discussion

Reflect on your experiences as a provider, patient or family member.

What “quality” issues come to mind?

Core Concepts

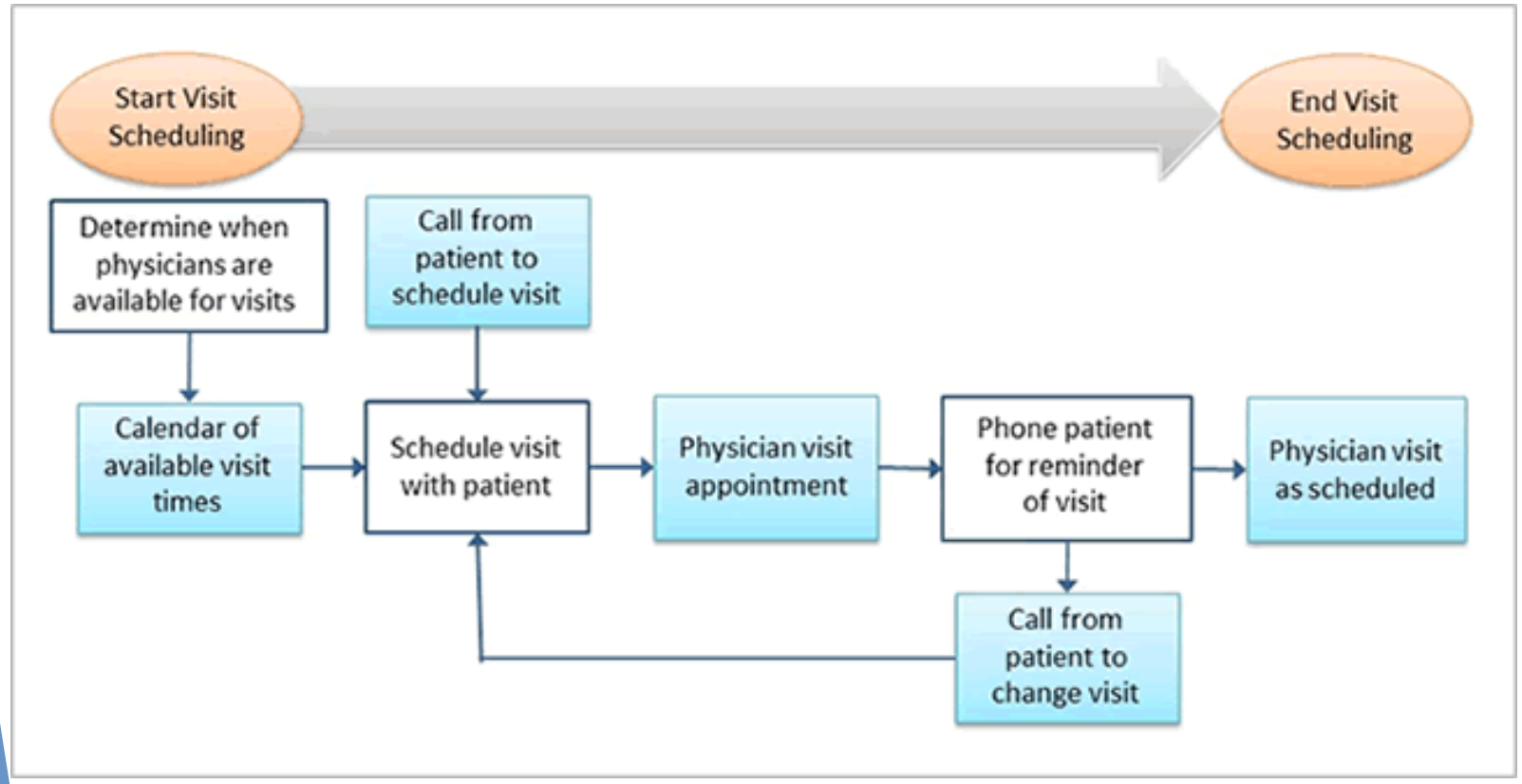
Quality: how well we meet patients' needs

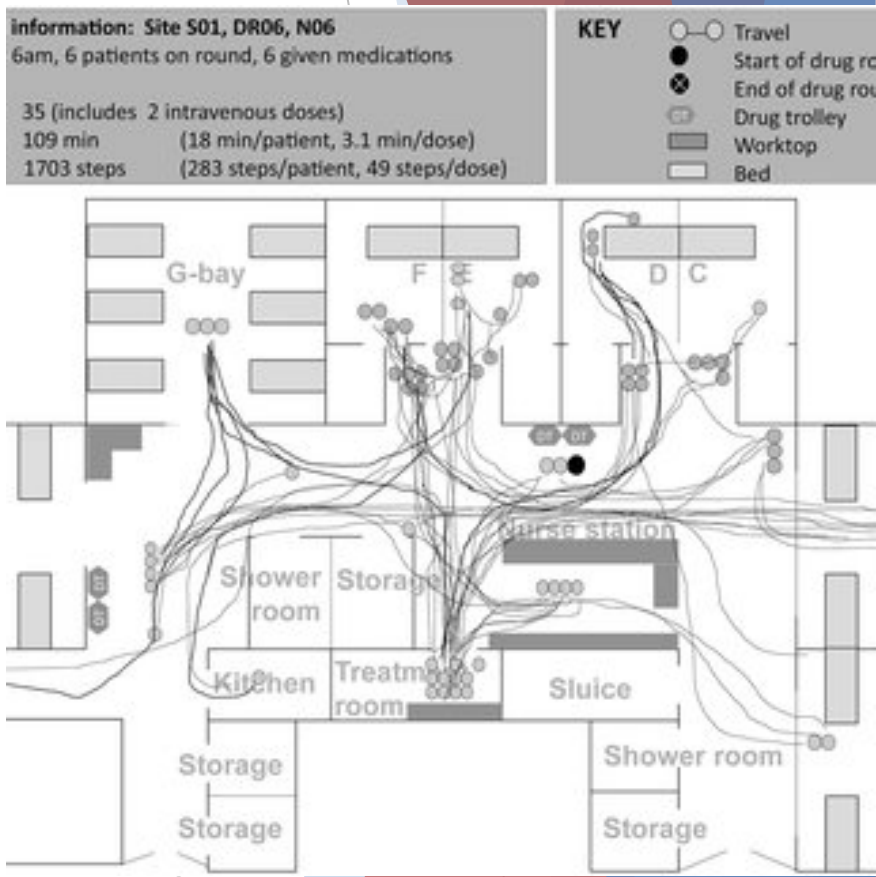


- EQUITABLE: reduce disparities and bias
  - Race, ethnicity, gender, geographic location or socioeconomic status
- TIMELINESS: avoid unnecessary or unwanted delay
  - Reduce wait times for patients (improve access)
  - Reduce waiting for providers
- EFFICIENCY: reduce waste in the system
  - Avoid waste of equipment, supplies, ideas, and energy
- EFFECTIVENESS: align best available evidence with optimal outcome
  - Improve outcomes, increase use of evidence-based care, avoiding underuse or misuse
- PATIENT-CENTERED: provide care that is respectful and responsive to patient preferences, needs and values
  - Care coordination, continuity, communication, education, shared-decision making
- SAFETY: avoid harm to patients
  - Reduce clinical errors, reduce adverse drug events

Institute of Medicine Model for Quality

Most problems are in processes, not people





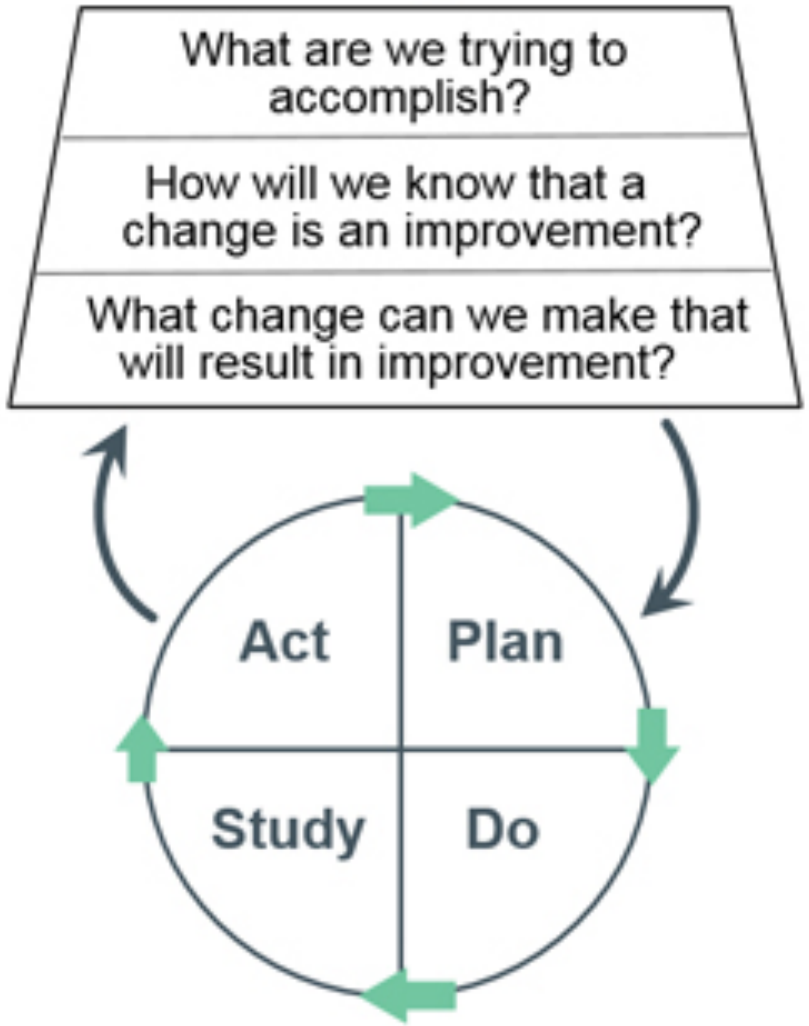
Common Examples

Start thinking about all the problems that you, and **patients/families**, put up with day to day!

- ACCESS
  - Referral process
  - Wait times
  - No Shows
- DIAGNOSIS/IDENTIFICATION OF SYMPTOMS
  - Use of PHQ-9, Bipolar screen, SUD screen
  - Suicide Risk Assessments
- TREATMENT/MANAGEMENT
  - Use of evidence-based treatments/protocols
  - Medication monitoring
- COMMUNICATION
  - Relaying recommendations back to referring provider

Model for Improvement

Model for Improvement



https://www.ihi.org/resources/how-to-improve

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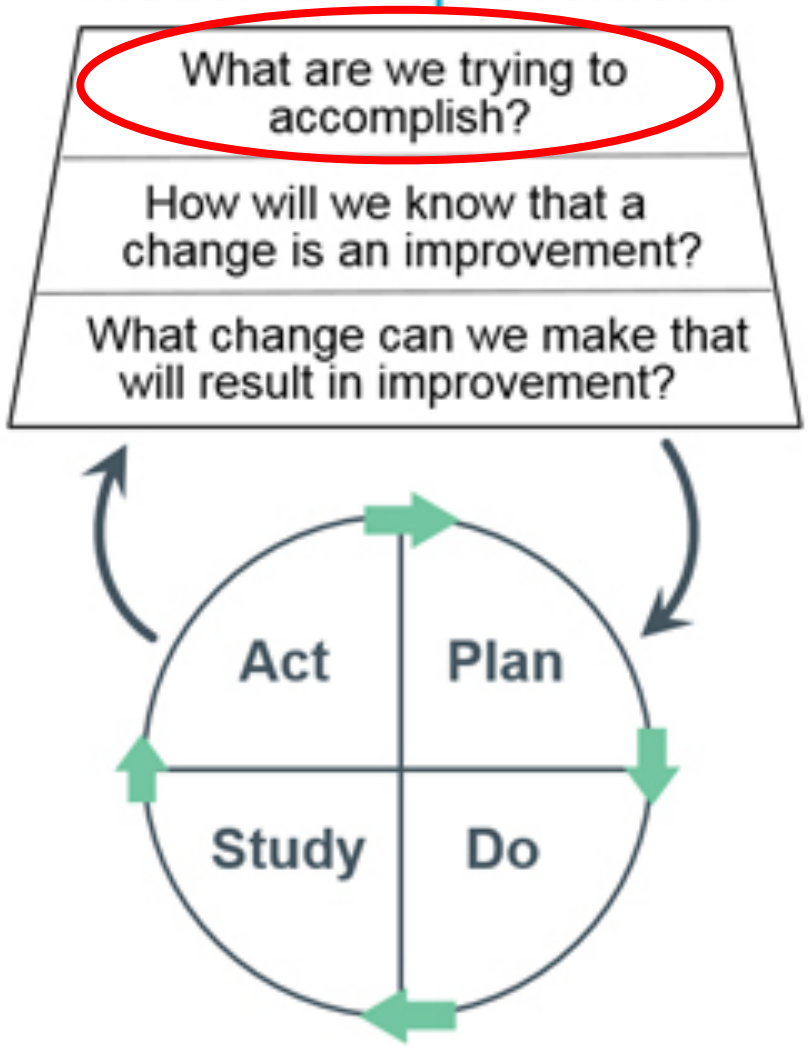
Model for Improvement



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What Are We Trying to Accomplish?

- Wait time for appointment is too long!
- I have so many no-shows!
- Putting in a referral is such a hassle!
- Documentation takes forever!

What Are We Trying to Accomplish?

"Aim Statements"

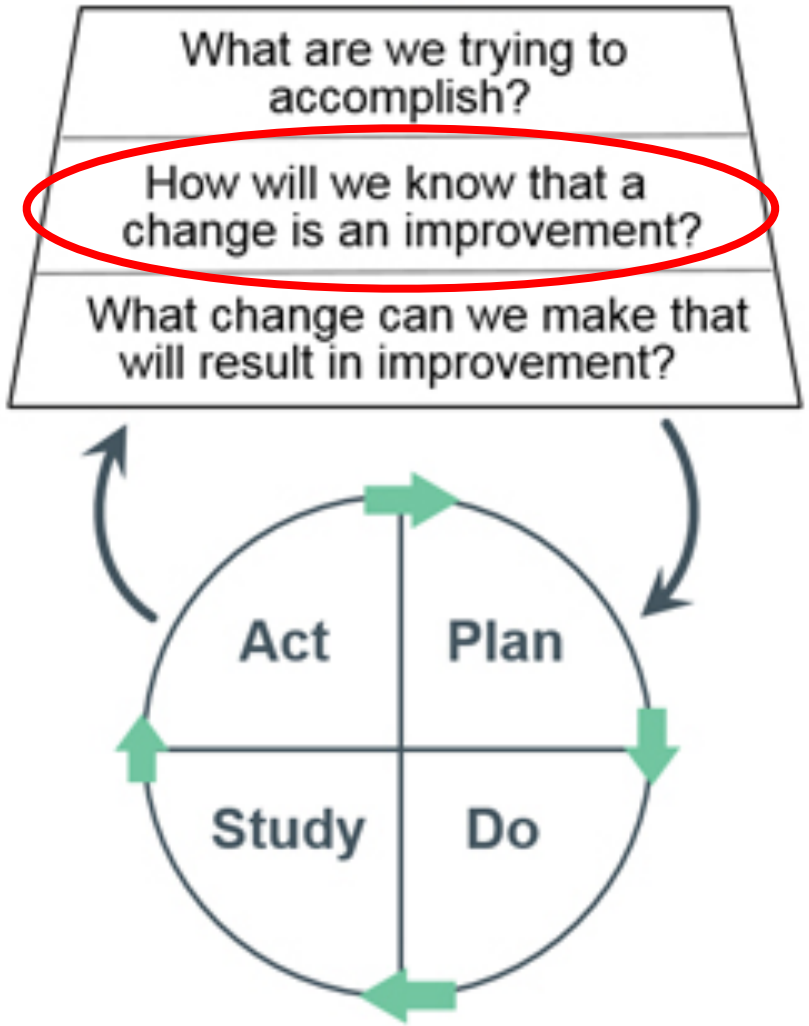
What Are We Trying to Accomplish?

What Are We Trying to Accomplish?

Sample "Aim Statements"

- My goal is to decrease wait time for a BH intake by 30% in the next 6 months.
- I plan to reduce the no-show rate for my group by 25% at the end of calendar year.
- In the next 4 months, we will increase referrals from PCP to BH by 50%.
- We will increase the rate of PHQ-9 completion at new visits from current 30% to goal of 90% by June 2024.

Model for Improvement



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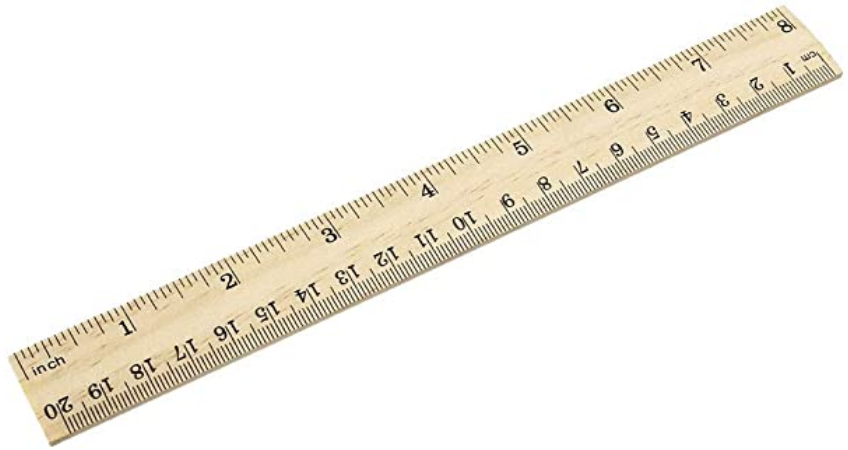
How Will We Know That Change Is an Improvement?



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How Will We Know That Change Is an Improvement?

	Purpose	*What is it measuring?*	*Questions to ask*
Outcome	Overall performance	Final product or result	Are you achieving your aim? What happened to the patient?
Process	Intermediate steps in the system	How the system works to produce the outcome	What are you doing differently? What is being done to the patient?
Balancing	Capture unintended consequences	How does this change impact the system	Have you caused a problem elsewhere? Is something else impacting the outcome?

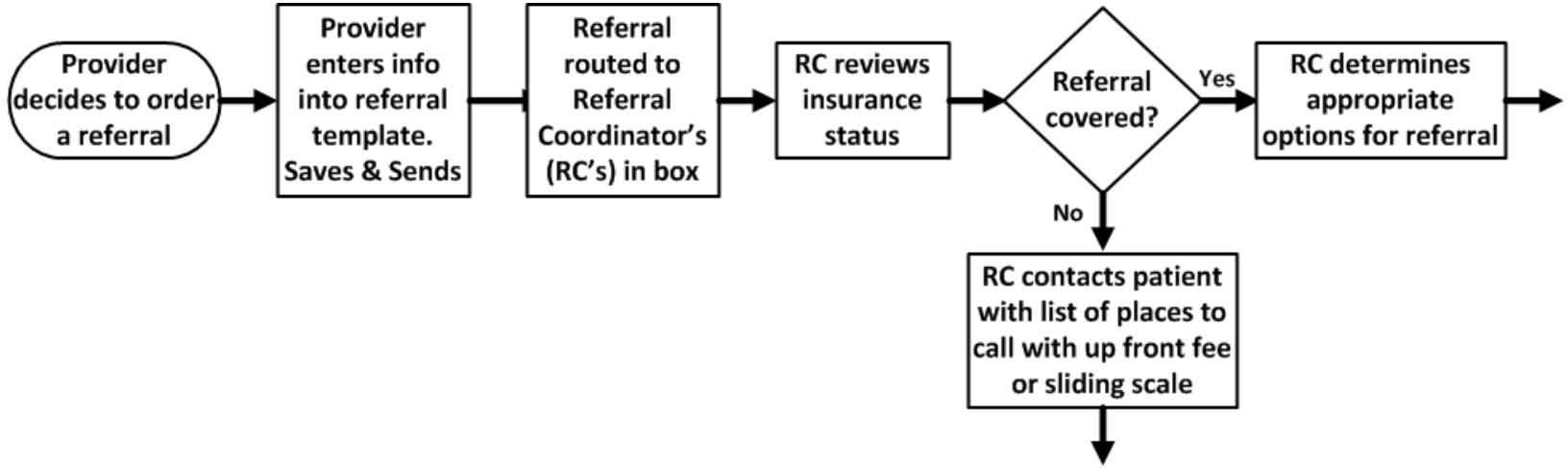
AIM Statement Example and Measures:

Reduce falls on the inpatient unit by 20% within 12 months

Outcome	• Number of falls • Percentage of falls • Rate of falls
Process	• Percentage of patients properly assessed • Percentage of patients reassessed within 24 hours • Number of times a patient is monitored or checked
Balancing	• Volume of admissions (less/more patients -> impact number of patients falling?) • Time • Financial • Flow

Process Mapping

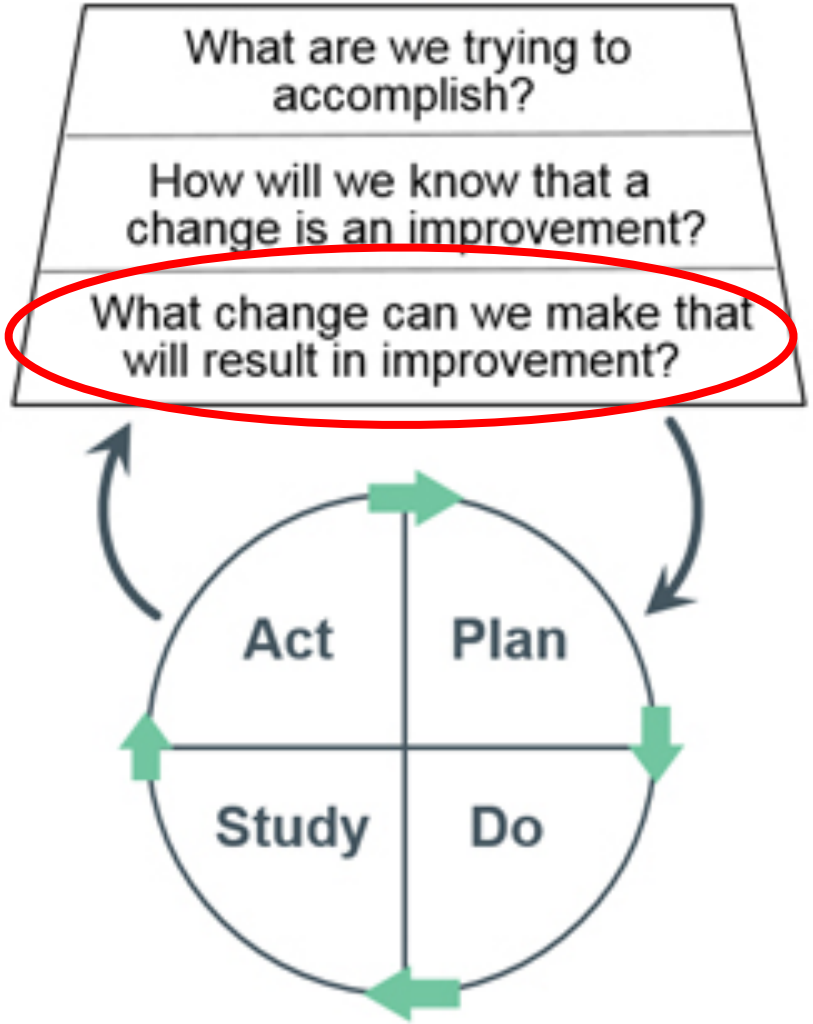
- A workflow is the sequence and interactions of related activities, tasks and steps that make up a process, from beginning to end
- All processes in the workflow should be measurable with clear performance indicators
- A process map visually describes the flow of activities



Why Create a Process Map?

- Clear visual definition of current workflow
- Common understanding of work
- Focus on the process not the people
- Illuminate improvement opportunities by clarifying unnecessary work
- Identify metrics to measure improvement

Model for Improvement



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What changes can we make that result in improvement?

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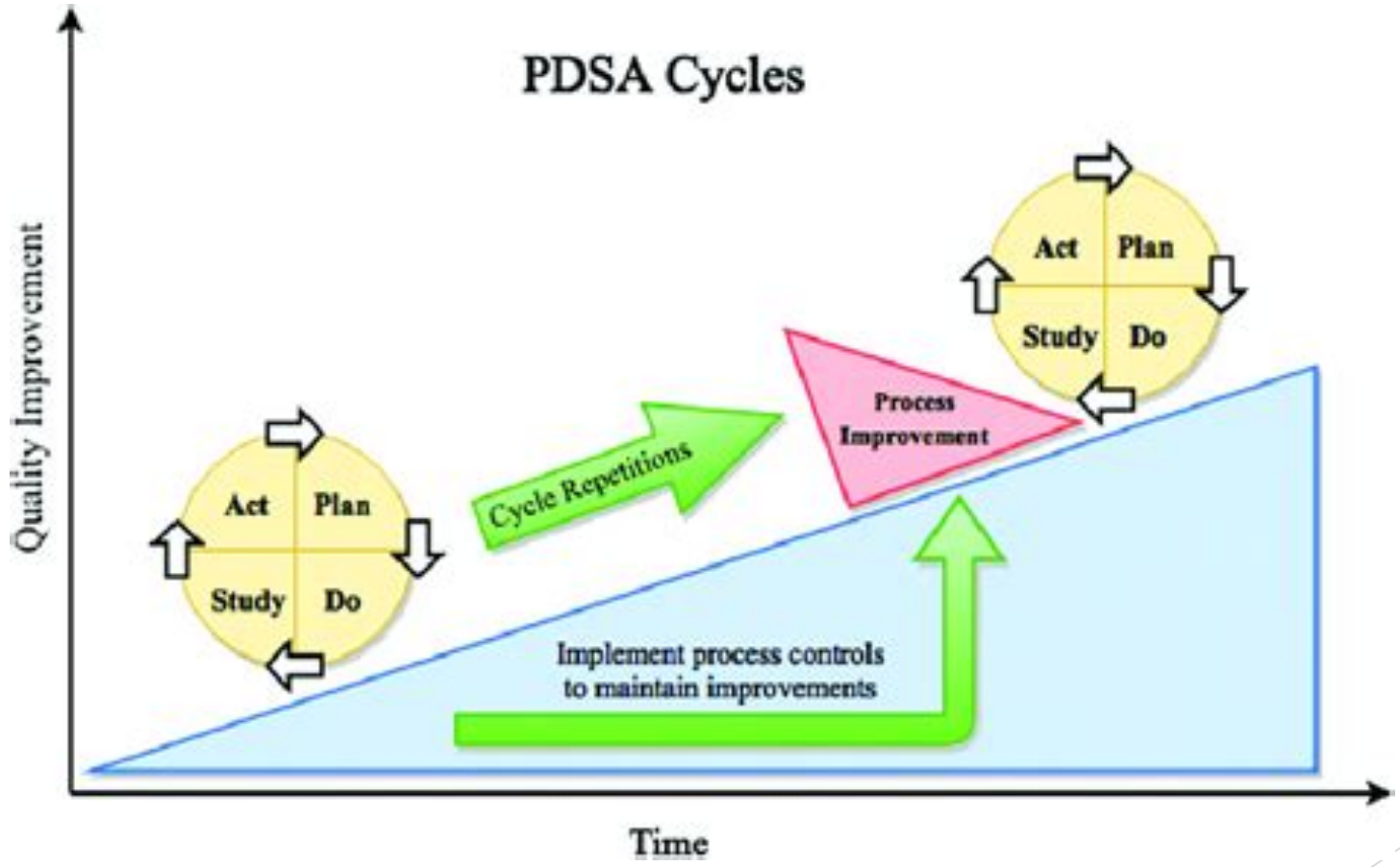
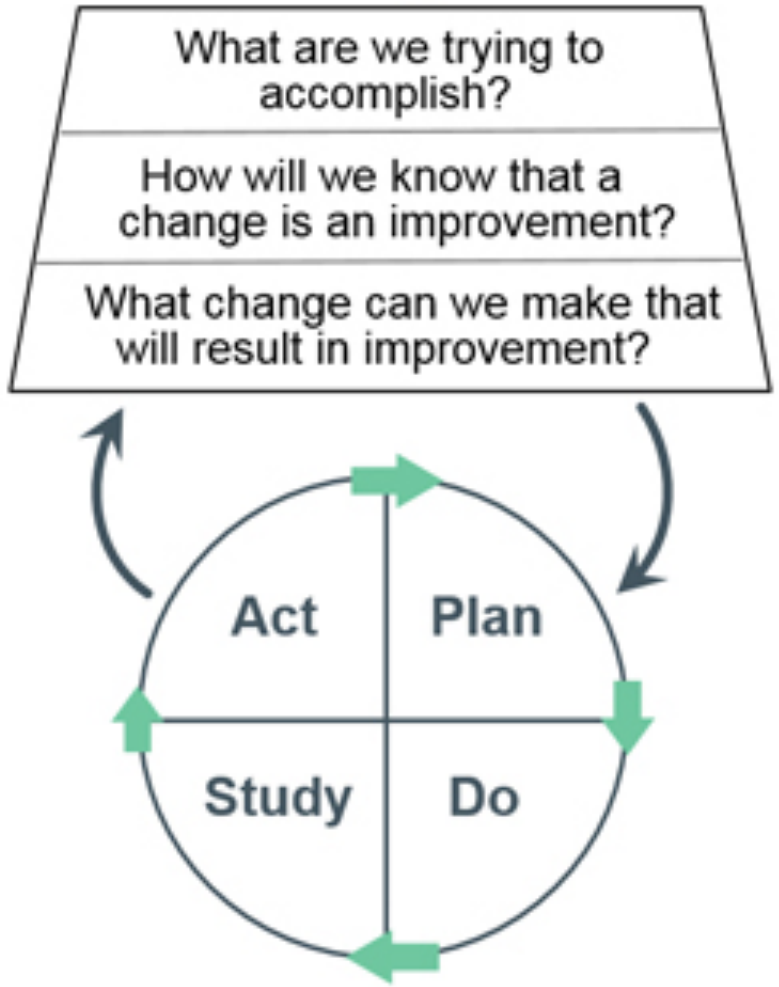


Model for Improvement



Aim Statement

Measures

Interventions

Institute for Healthcare Improvement

http://www.ihi.org/resources/Pages/HowtoImprove/default.aspx

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Picking a topic: Scope

There's no depression screening in my organization. I'm going to roll out annual PHQ9s for every patient across 7 sites!

I'm going to roll out annual PHQs for every patient in my clinic site.

I'm going to do PHQ9s for all my patient visits

Start small

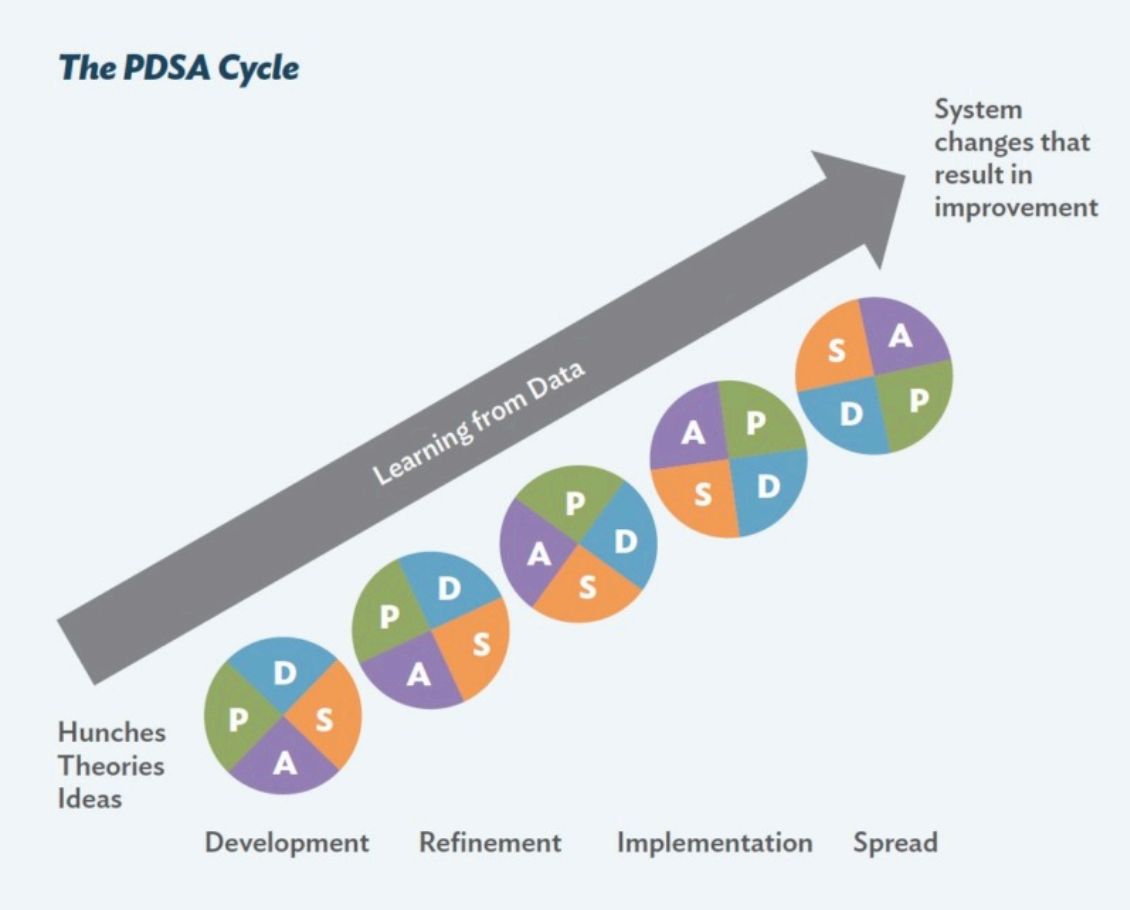
There's no depression screening in my organization. I'm going to roll out annual PHQ9s for every patient across 7 sites!

I'm going to roll out annual PHQs for every patient in my clinic site.

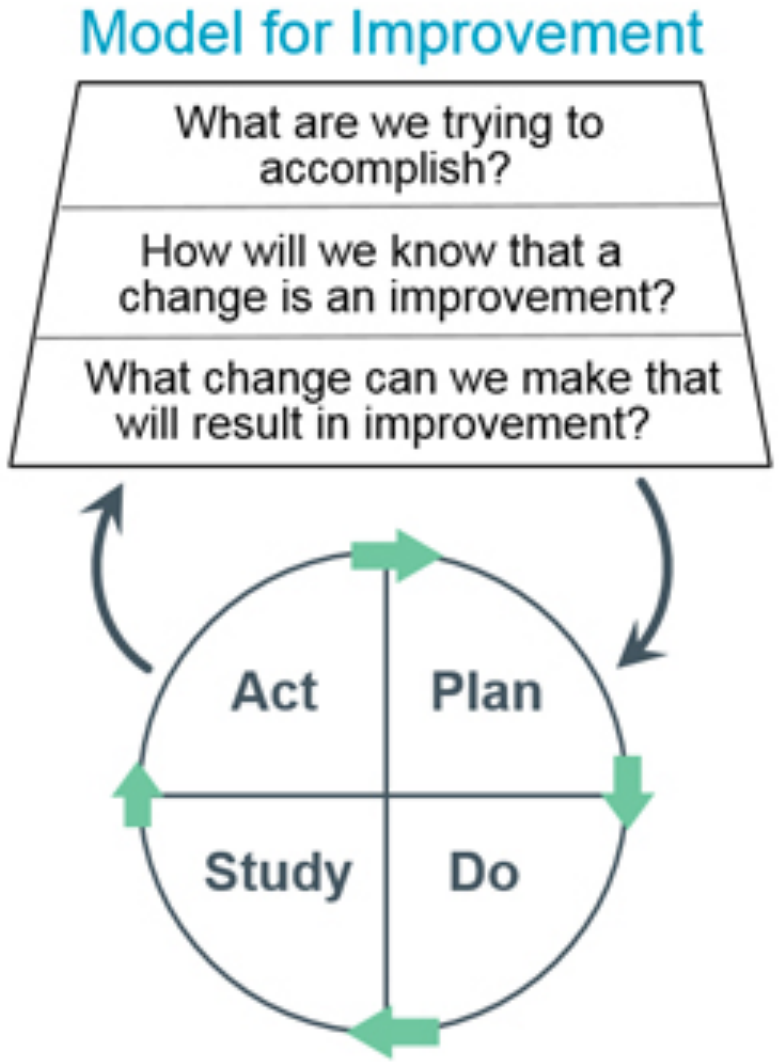
I'm going to do PHQ9s for all my patient visits

I'm going to do PHQ9s for my new intake visits

You can always go big later



https://ed.unc.edu/2018/10/15/charting-a-science-of-improvement-in-education/



Aim Statement

Measures

Interventions

Institute for Healthcare Improvement

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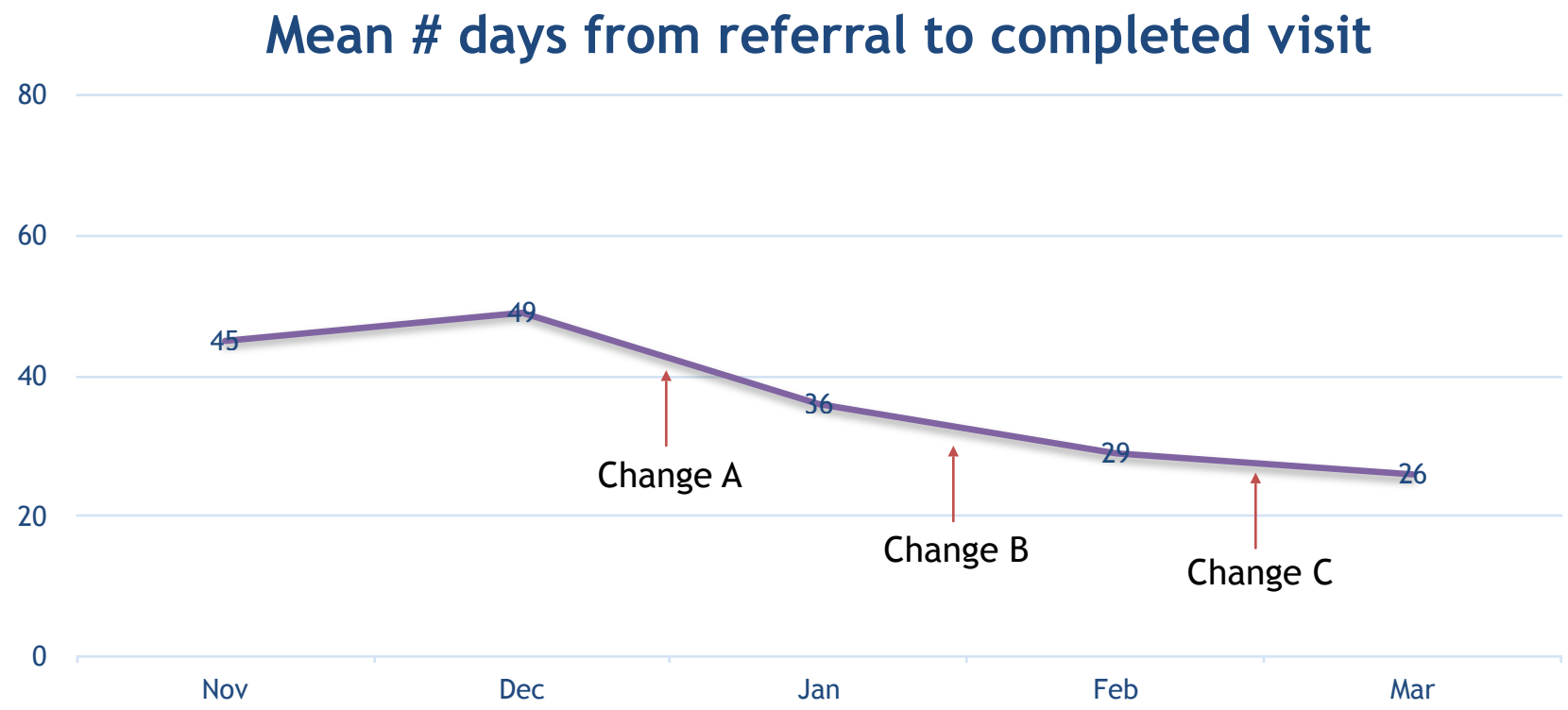
Thinking Ahead - Data Visualization



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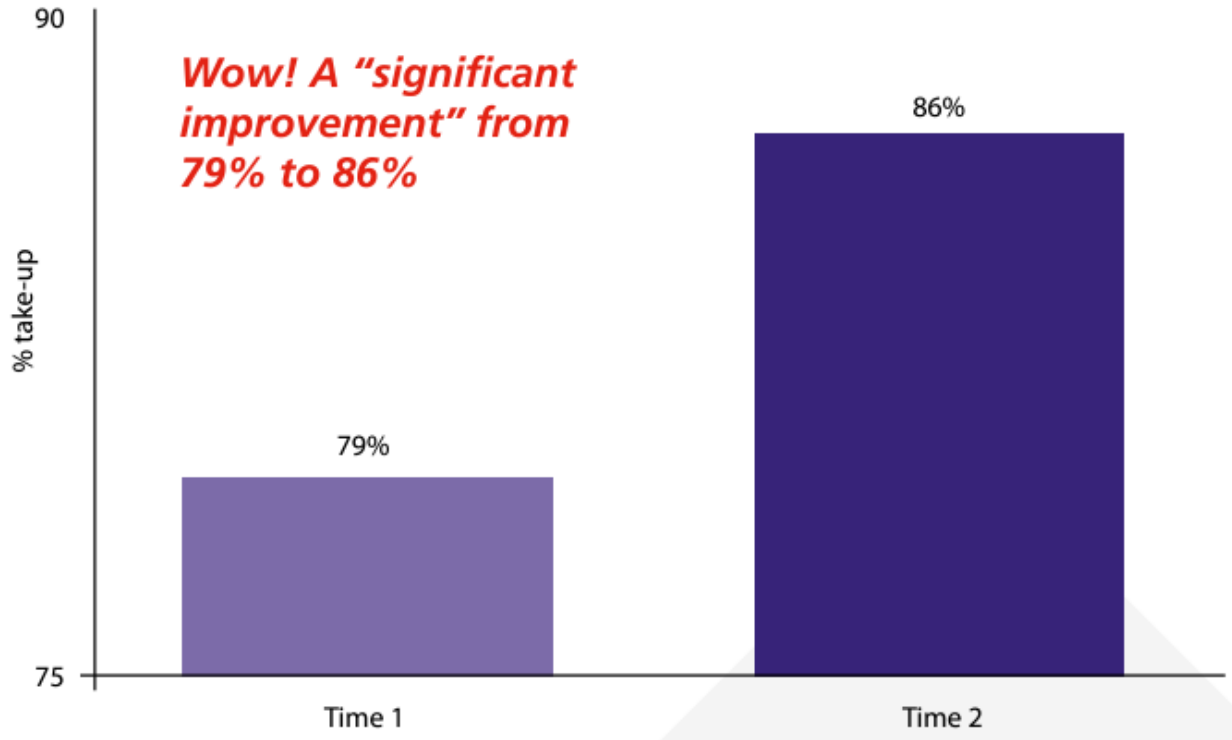
Importance of Time-Based Measurements

Improving Immunization Rates: Before vs After



Conclusion - The change was a success!

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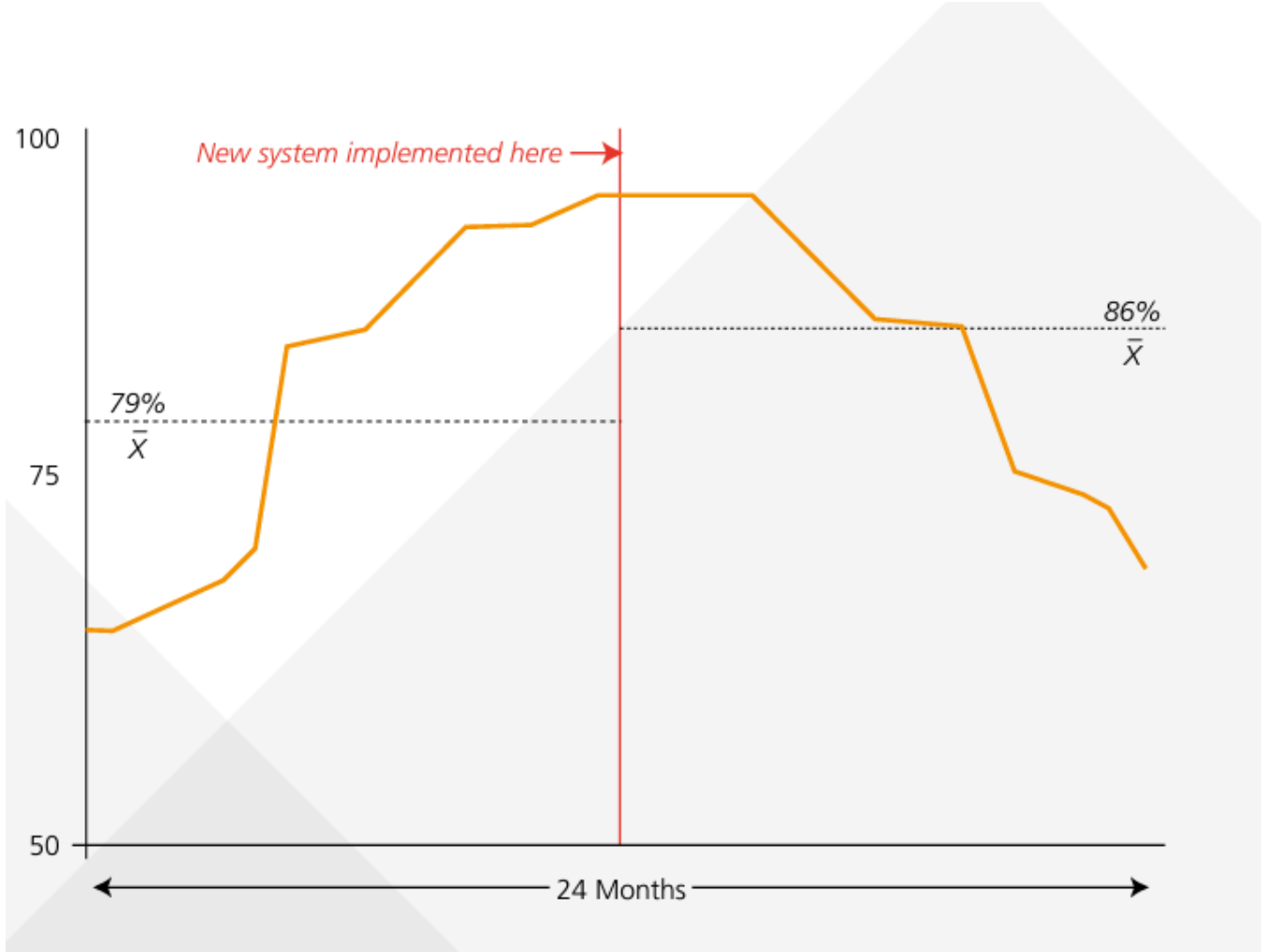
Plotting data over time shows a different story!



Now what do you conclude about the impact of the new system?

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Putting it All Together Example:

SMART Aim

Specific, Measurable, Achievable, Relevant, Timely

"We will increase the rate of depression improvement from 35% to 60% in 6 mos."

Interventions: Prioritize based on most important causes.

Pareto principle: 80% of effects come from 20% of causes.

Tools: Driver diagram, Fishbone diagram help identify potential intervention targets

Measures: Think Broadly, Define Precisely

◊ Outcome measures. The final patient-oriented result.

- *What patient experiences.*
- Example: Depression remission

◊ Process measures. Whether the system is doing the right things to obtain the desired outcome.

- *What is done to/for the patient?*
- Example: % of pts. receiving PHQ-9 screening

◊ Balancing measures: Unintended consequences or other factors that may affect outcomes.

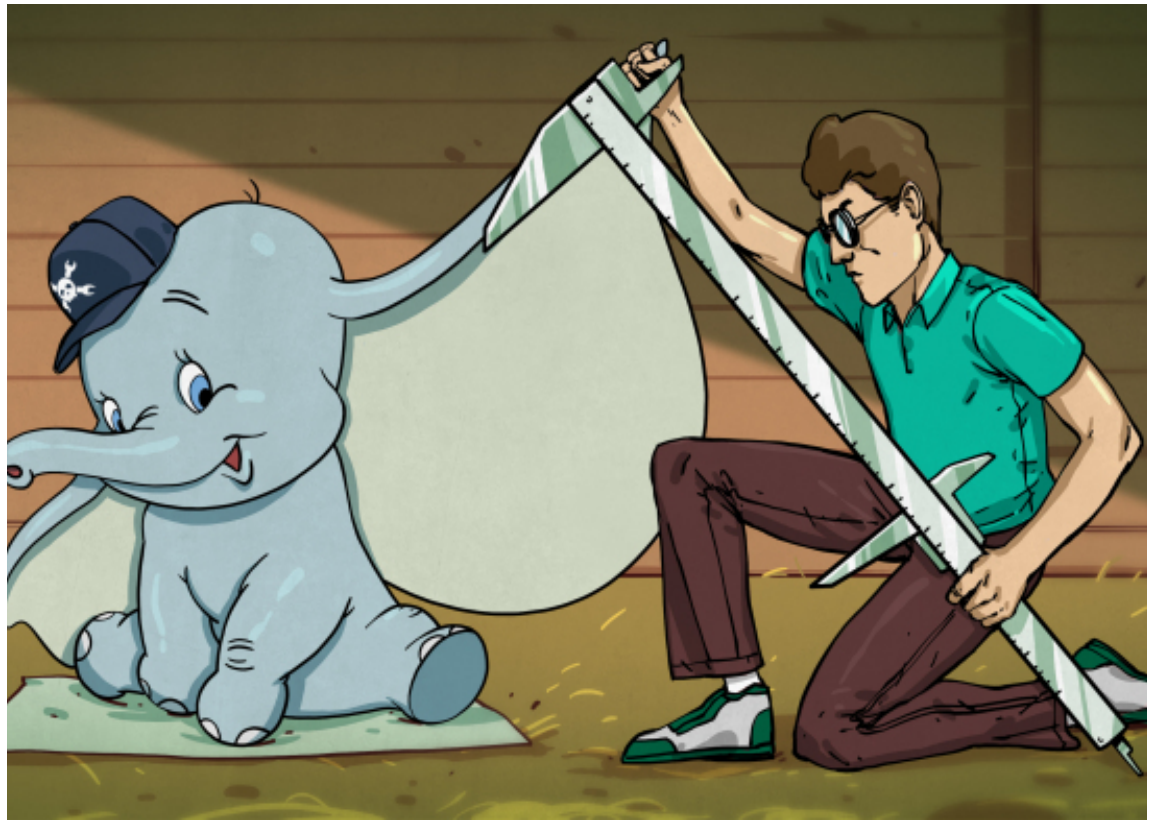
- *How else does this affect the system?*
- Example: Team member turnover

http://www.ihi.org/resources/Pages/HowtoImprove/ScienceofImprovementEstablishingMeasures.aspx
http://www.ihi.org/resources/Pages/HowtoImprove/ScienceofImprovementTipsforEffectiveMeasures.aspx

In the weeds…

- Take a series of PHQ-9 scores for a single patient
- *How do you define whether scores are improving?*

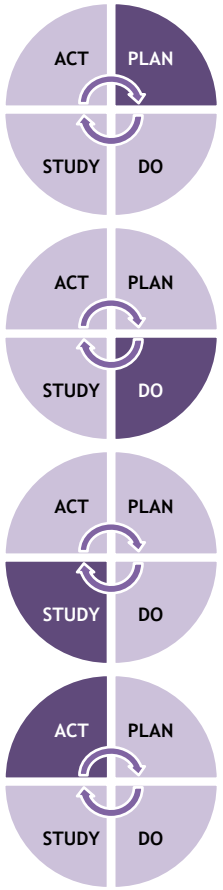
Operational Definition



The specification of the procedures (operations) used to define or calculate a measure (variable)

PDSA Cycle Overview

Iterative ***small*** tests of change. One test can reveal a fatal flaw.



Plan

Plan your test. Include your predictions. Plan data collection.

Do

Run your test on a small scale. Document observations and problems. Collect data.

Study

Analyze your results and compare them to your predictions. Summarize and reflect on your learning.

Act

Adapt (modify), adopt (scale up), or abandon (try a different idea). Plan your next PDSA.

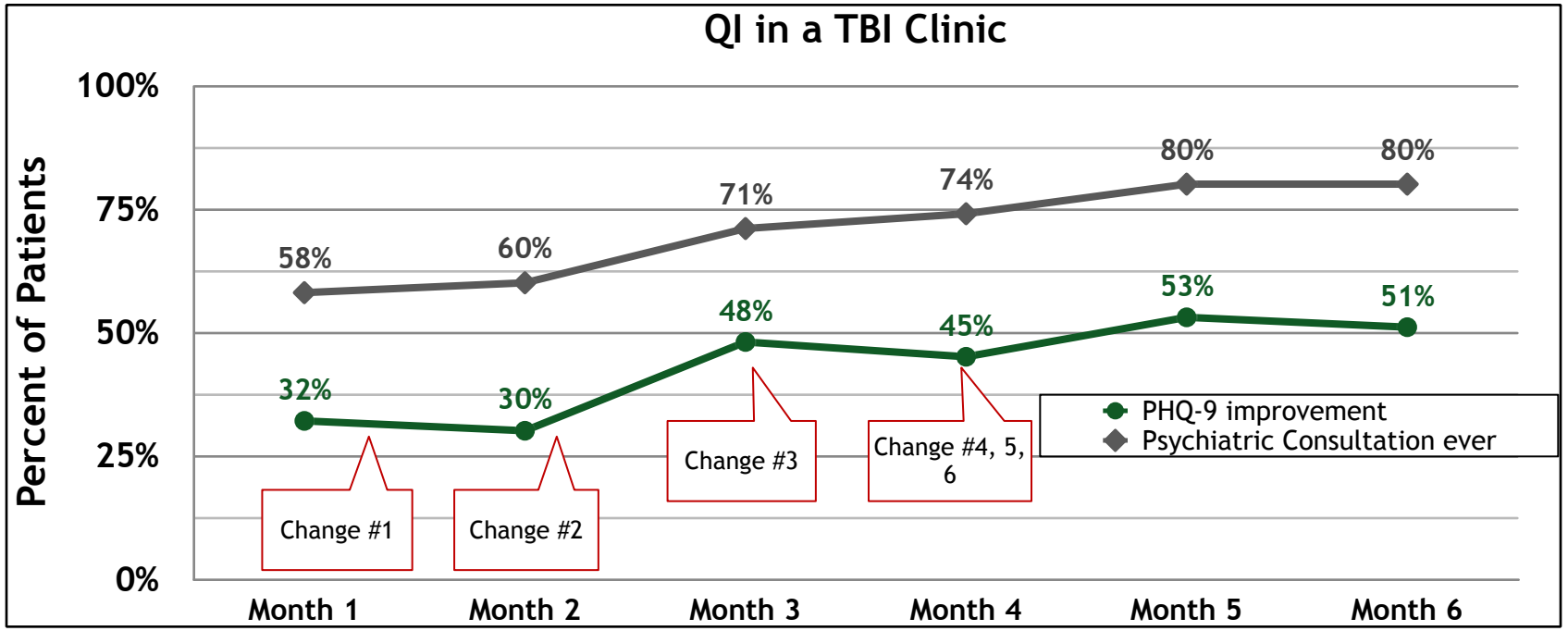
How to Design a PDSA?

Design a PDSA cycle that you can complete in less than a week.

Example:

- Goal: Increase # patients achieving depression remission
- Attach PHQ-9 to patient registration paperwork for 3 days
- Measures:
  - % patients with PHQ-9 done
  - % patients with PHQ-9 > 10 and no treatment change
  - % patients with PHQ-9 < 5
  - Patient satisfaction with depression care

"We will increase the rate of depression improvement from 35% to 60% in 6 mos."



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Some Things to Remember…

- Front-line staff and patients should be involved in improvement projects
- Efficiency isn't the only goal
- Improvement and ownership must be longitudinal
- Staff must see the results and the results must be meaningful
- These are tools, not guarantees
- Not every QI project needs to be huge lift, OK to do small projects
  (small or simple projects don't necessarily need to use all these QI tools)

Questions?

THANK YOU!