Quality Improvement Community of Learning

May 1, 2023

2:00-4:00 pm ET

AIM

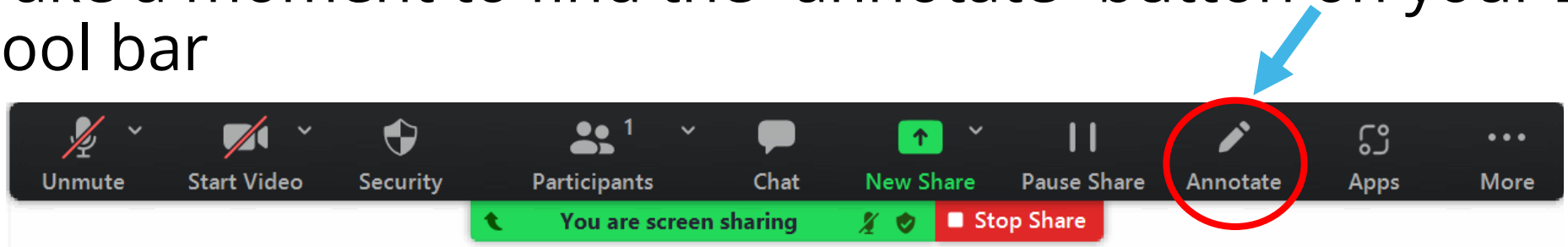
ALLIANCE FOR INNOVATION ON MATERNAL HEALTH

NICHQ

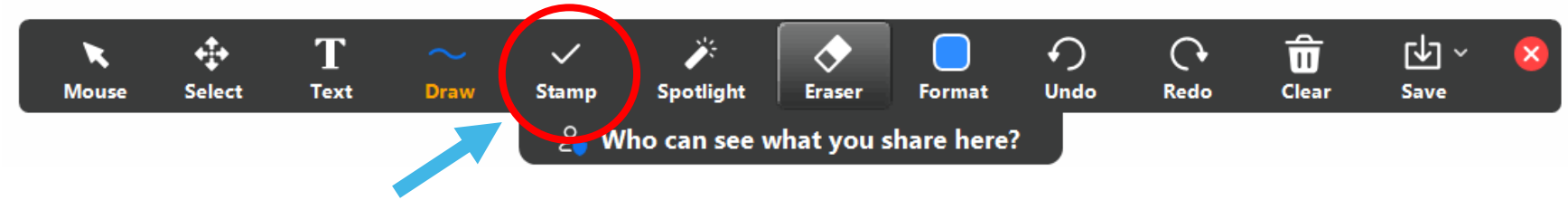
National Institute for Children's Health Quality

Tell us where you're from!

- Take a moment to find the "annotate" button on your zoom tool bar



- Now, locate the "stamp" feature



- Pick your favorite stamp and let us know where you're joining from!

SBD


Washington
Oregon
California
Idaho
Nevada
Montana
Wyoming
Utah
Arizona
Colorado
New Mexico
North Dakota
South Dakota
Nebraska
Kansas
Oklahoma
Texas
Minnesota
Iowa
Missouri
Arkansas
Louisiana
Wisconsin
Illinois
Michigan
Indiana
Ohio
Kentucky
Tennessee
Mississippi
Alabama
Georgia
Florida
South Carolina
North Carolina
Virginia
West Virginia
Pennsylvania
New York
Maryland
Washington, DC
Delaware
New Jersey
Connecticut
Rhode Island
Massachusetts
Vermont
New Hampshire
Maine
Alaska
Hawaii

The NICHQ Team

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Improvement Advisor

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Improvement Advisor

The faculty have nothing to disclose.

Objectives of the 4 QI Workshops

Support those new to quality improvement (QI) in:

- Laying a foundation for learning and improving
- Developing improvement capability for PQC, and other state or hospital-based teams
- Creating the environment for and leading quality improvement
- Applying QI principles to your existing projects

SBD NICHQ

Discussion Questions

As we move through the workshop today, please consider and participate in discussing these questions:

1. How can we implement our changes in a way they become sustainable?
2. How might we think about spread: across the state, across our system, across all clinical teams or staff?
3. How can we take what we have learned in these 4 sessions and apply it to day-to-day work?

QI Community of Learning Overview

Session Title	Date and Time
Quality Improvement: What and Why? Foundations of Improvement	Tuesday, January 31st 1:00 – 3:00 PM ET
Activating the How Using PDSA Cycles to Learn and Improve	Tuesday, February 21st 1:00 – 3:00 PM ET
Measurement for Improvement Collecting, Displaying, and Analyzing Data for Learning and Improvement	Monday, April 3rd 2:00 – 4:00 PM ET
Holding the Gains Sustaining Improvement and Cohort Learning	Monday, May 1st 2:00 – 4:00 PM ET

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Methods: How we Designed this Community of Learning Series

- Four Workshops
- Pre-work assignments for some workshops for the opportunity to apply what you learned in webinar to make learning practical and concrete
- Use of SharePoint and Jam Board for shared learning and feedback from us

Agenda for Session 4

- Welcome
- Review
  - analyzing data
  - testing changes
  - creating purpose or aim statements
- Implementing, Sustaining and Spreading Changes

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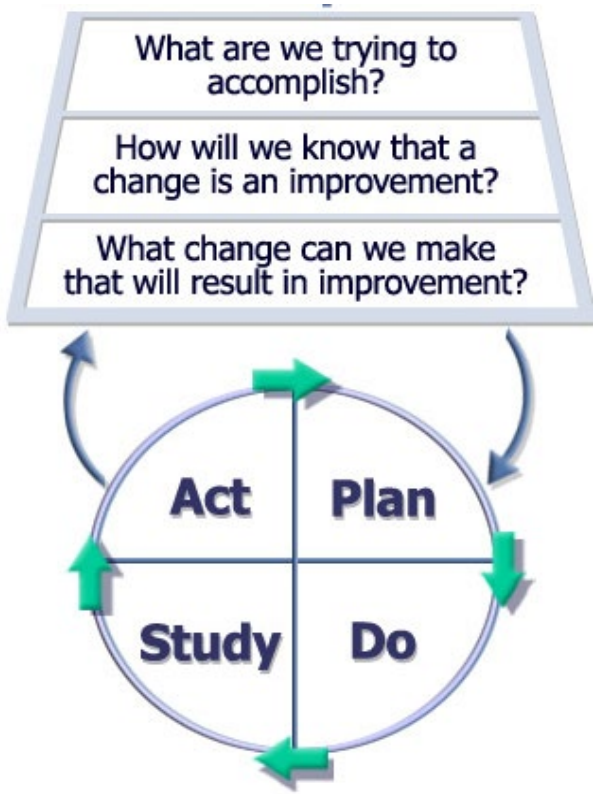
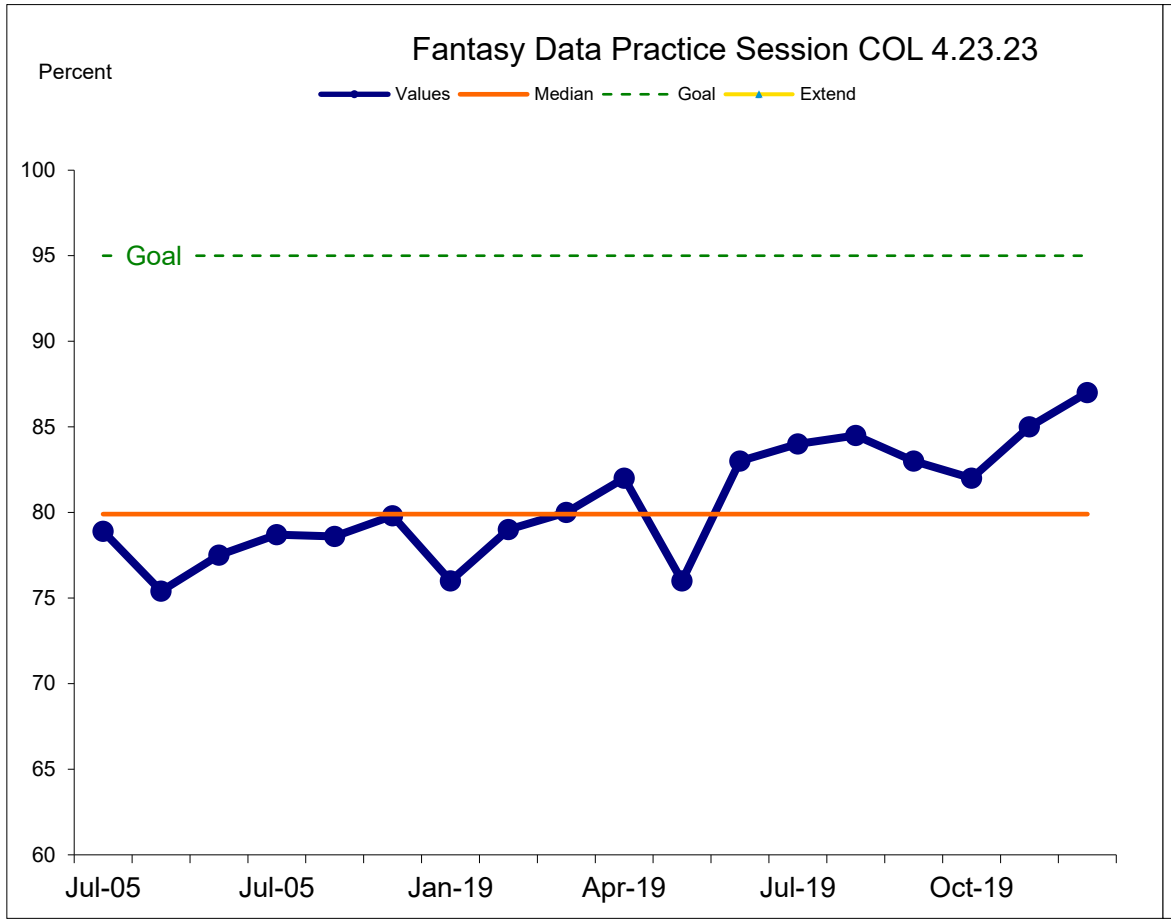
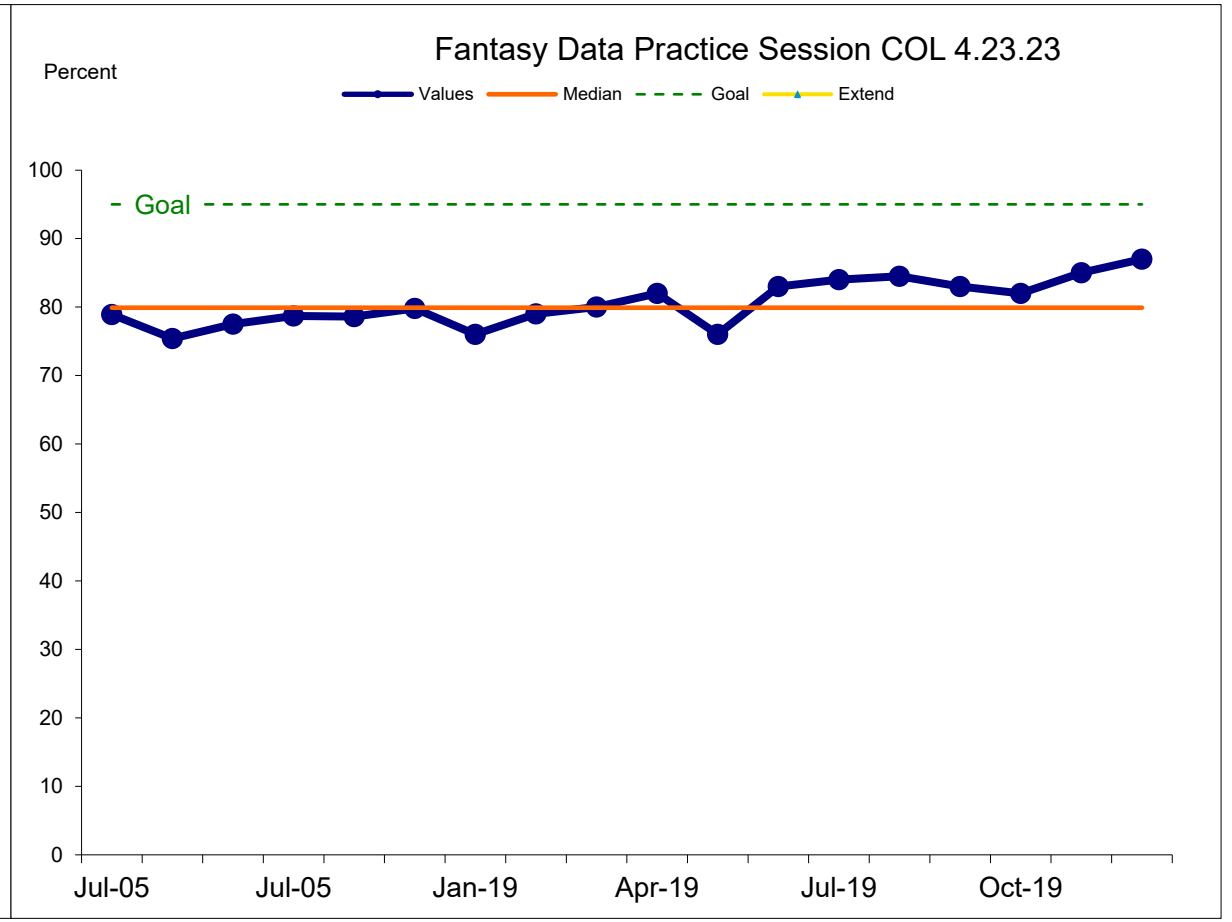
Model for Improvement



Source: Langley, et al, The Improvement Guide, 2009

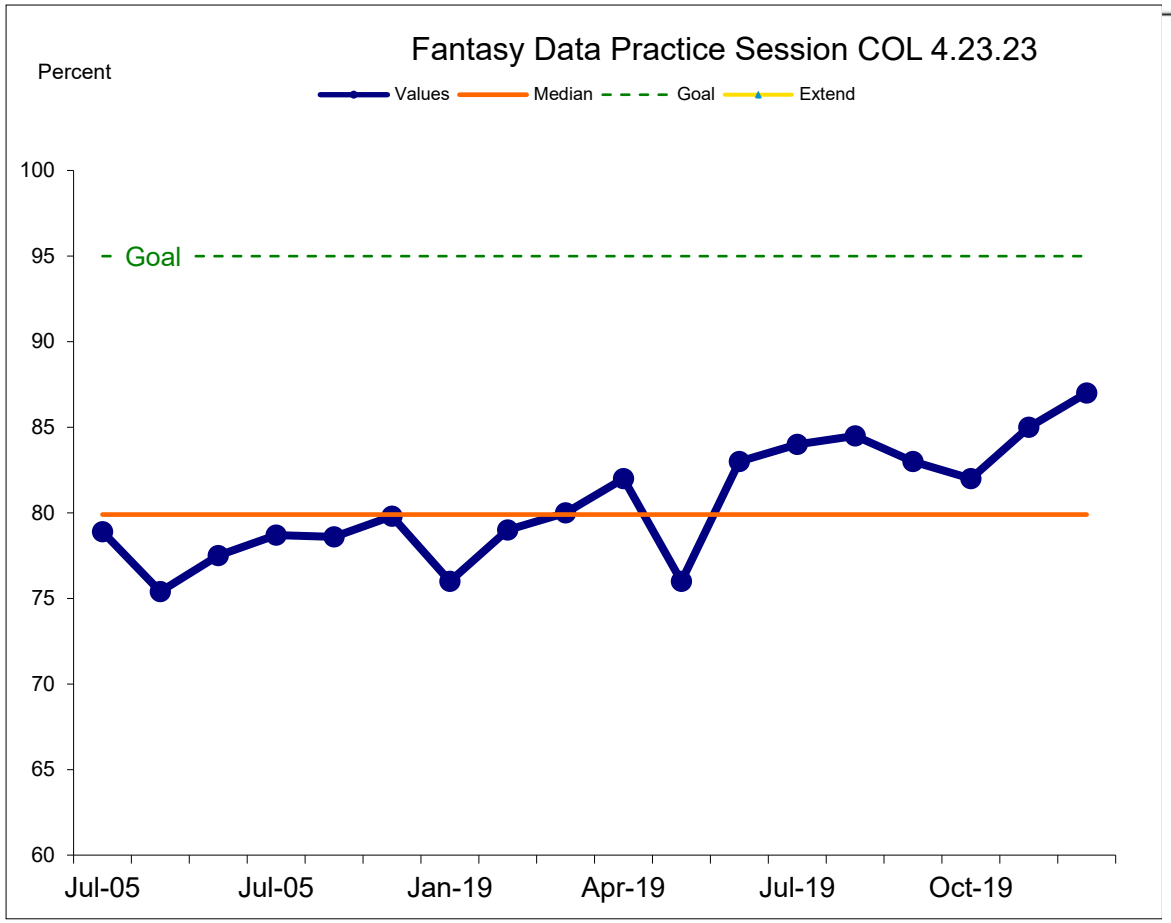
Run chart review

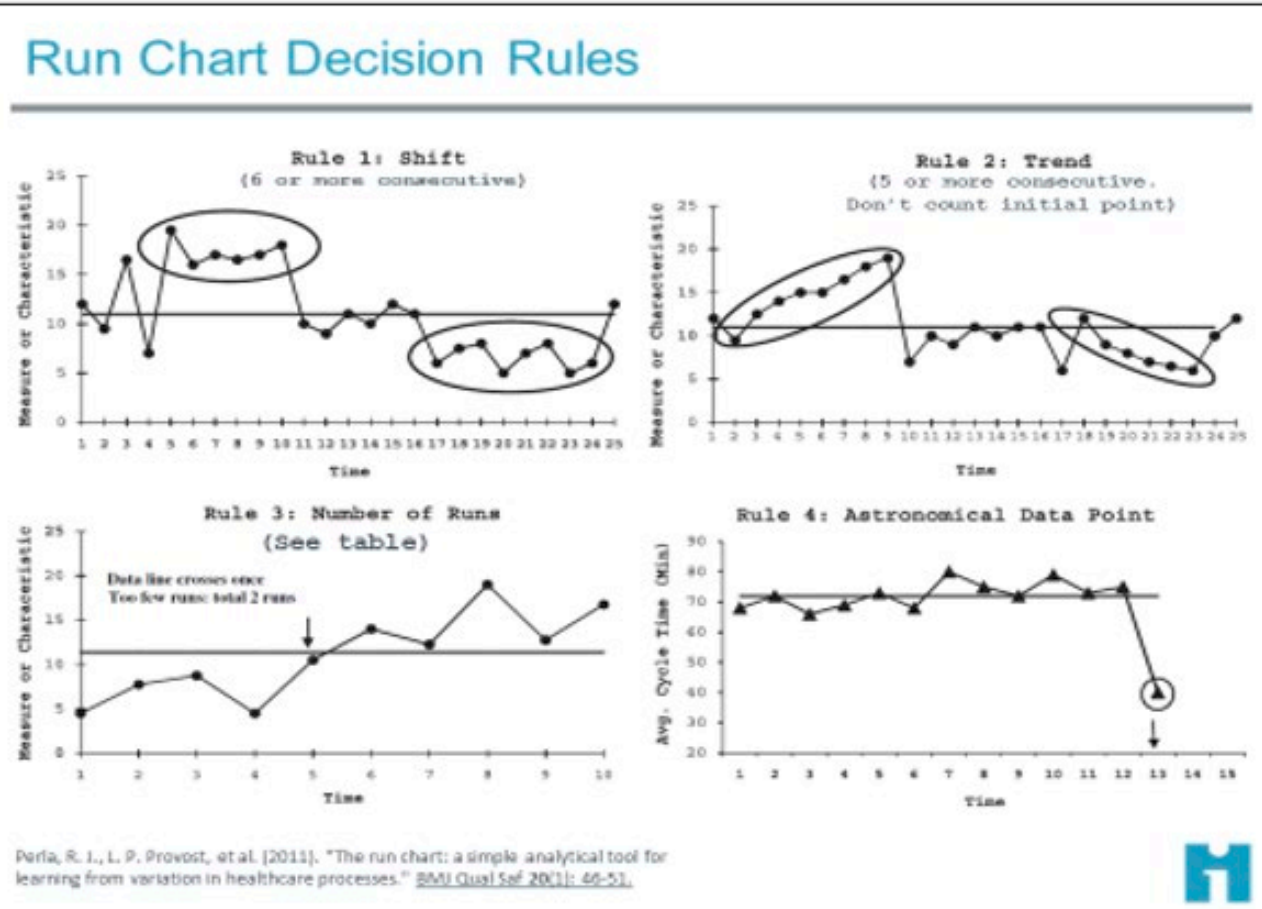




Scale matters: note y axis

Let’s review rules





Poll

The most useful rules for analyzing run chart data are:

a) Astronomical point
b) A shift of 6 points above or below median without crossing it
c) A trend of 3 points steadily ascending or descending
d) Too few/too many runs - data points crossing the median
e) All of the above

Plan-Do-Study-Act Review

- Discussion Question:

When you are working with others and want them to make a change or try a new idea using PDSA, how do you explain it?

Sources of Change Ideas: Review

Changes may come from:

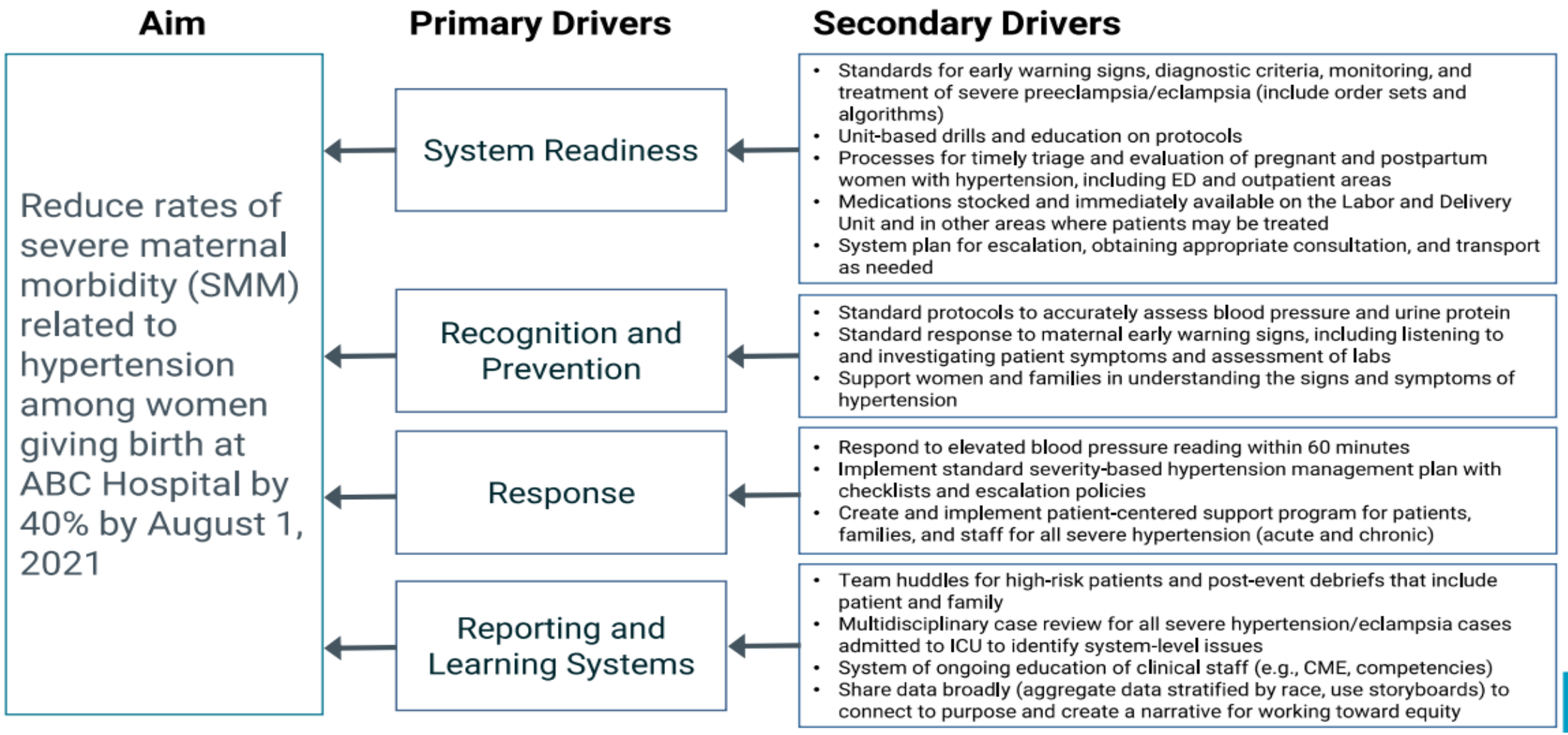
- Literature: evidence-based changes
- Experience of experts
- Staff experience
- Lived experience
- Observation
- Analogous observation
- Innovation

Changes: Review

- Good ideas "ready for use"
- Evidence based ideas
- Specific changes that will bring about improvement
- Different approaches to processes, work design that will lead to improvement
- May also include generic concepts (The Improvement Guide, pp. 357-408)
  - Specific applications of generic change ideas

Change Ideas Review: driver diagram as guide

Example Driver Diagram: Severe Hypertension During Pregnancy (Based on AIM Bundle)



Aim Statement Review

- What do you intend to accomplish?
- For whom?
- By how much?
- By when?

SBD

Poll (Callie, they may choose up to 6 right answers)

Aim statements make the following contribution:

A) Communicate the magnitude change expected

B) Provide direction for the team

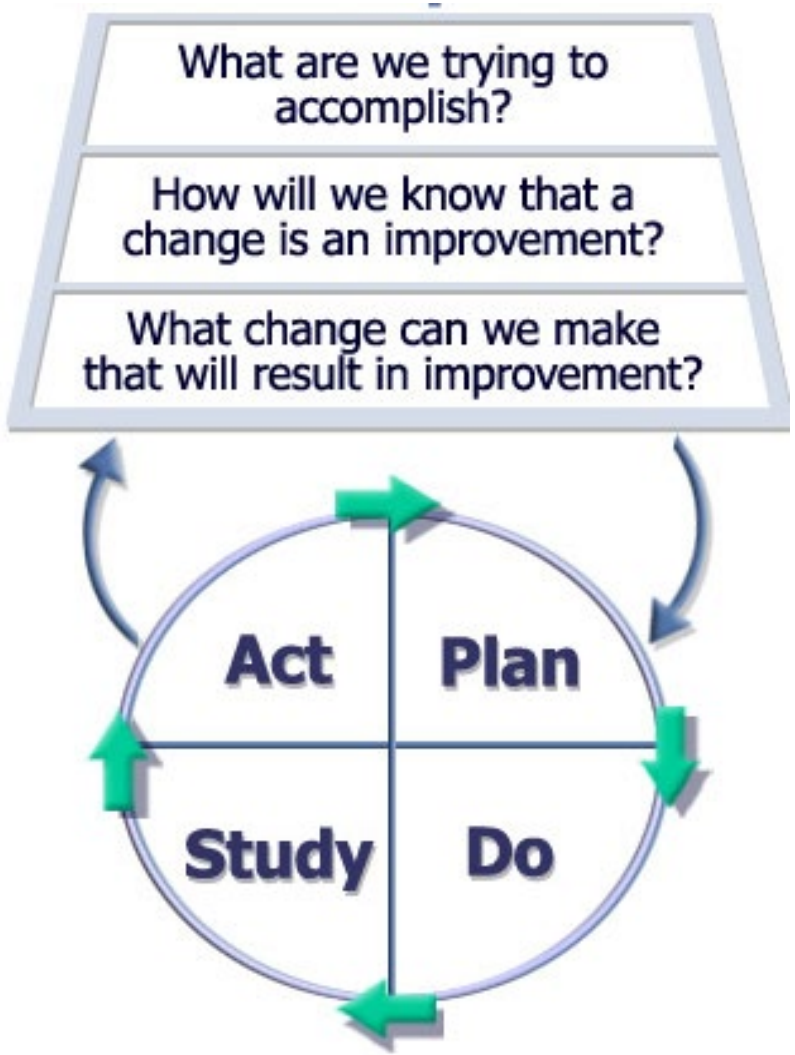
C) Are always ”Smart” aims

D) State what system or process will improve

E) Do not include a statement of goal(s)

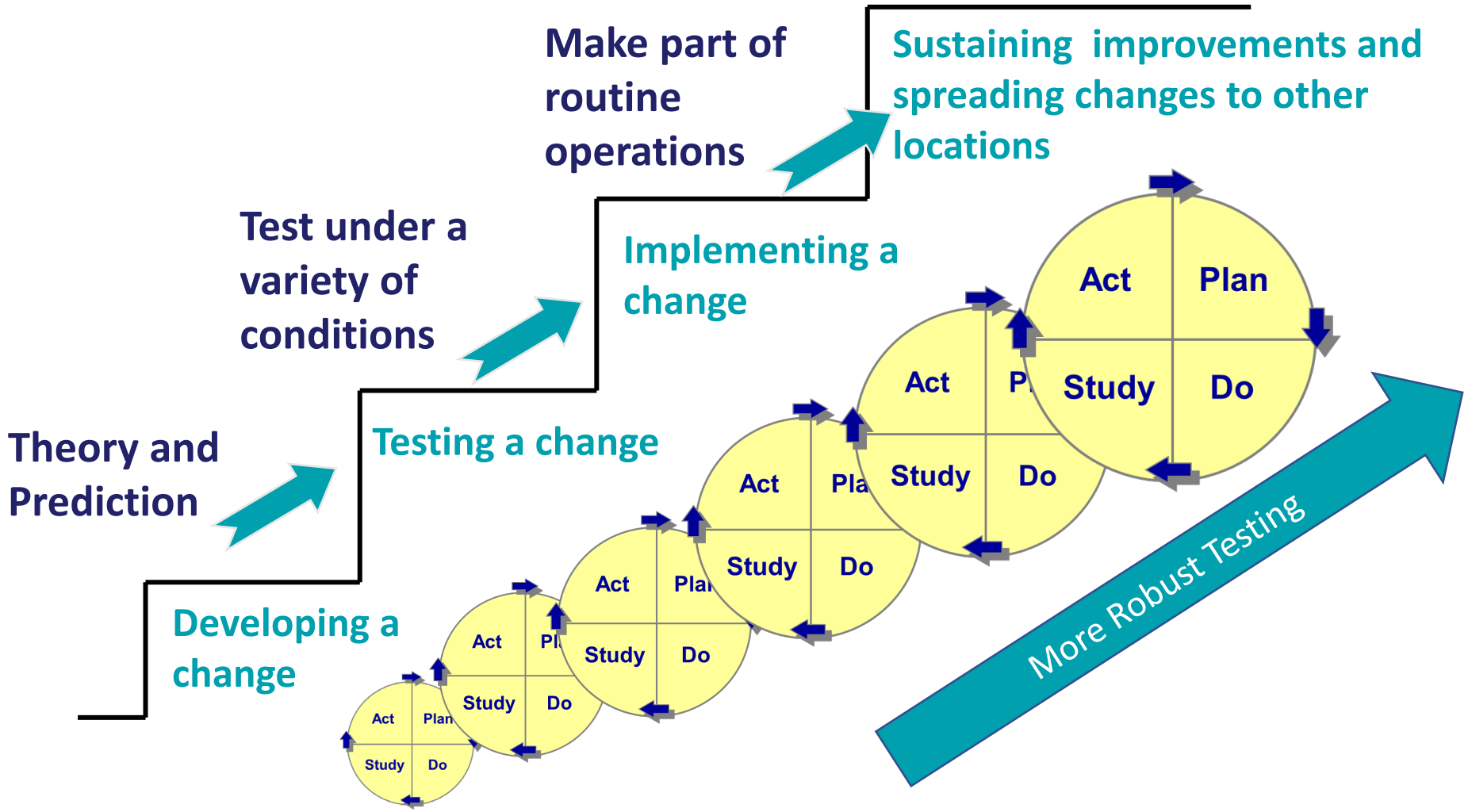
F) All of the above

Model for Improvement



Source: Langley, et al, The Improvement Guide, 2009

Sequence of Improvement



Source: IHI

Implementation

Implementation in improvement science has a unique definition and meaning:

- The change becomes a part of the routine day-to-day operation of the system
- No longer expect failure to occur – learned all that is needed
- Need to plan for human reactions to change because more people are impacted than are during testing
- Increased resistance compared to testing
- Implementation requires more time than testing

To make change permanent and sustainable

Key tasks

1. Updating job descriptions,
2. Implement change in hiring and orientation processes,
3. Create standard work,
4. Document the new process,
5. Implement training,
6. Develop robust communication plans that include what and why the change
7. Continue measurement to ascertain if gains are held

Deciding on the Scale of the Test

Source: The Improvement Guide: A Practical Approach to Enhancing Organizational Performance, Table 7.1, p. 146.

Readiness To test changes		No commitment	Some commitment	Strong commitment
Low degree of belief that change idea will lead to Improvement	Cost of failure large	Very small-scale test	Very small-scale test	Very small-scale test
	Cost of failure small	Very small-scale test	Very small-scale test	Small-scale test
High degree of belief that change idea will lead to Improvement	Cost of failure large	Very small-scale test	Small-scale test	Large-scale test
	Cost of failure small	Small-scale test	Large-scale test	**Implement**

Different stages require different activities

Testing

Trying and adapting a change.

Learning what works in your system.

Start on a small scale and expand to wider range of conditions, as knowledge grows.

- Change is not permanent
- Failure very useful here, even expected
- Fewer people impacted than during implementation

Implementing:

- Making this change a part of the routine day-to-day operation of the system in your pilot population
  - Don’t expect failure here
  - More people impacted than during testing
  - Increased resistance compared to testing
  - Generally requires more time than testing

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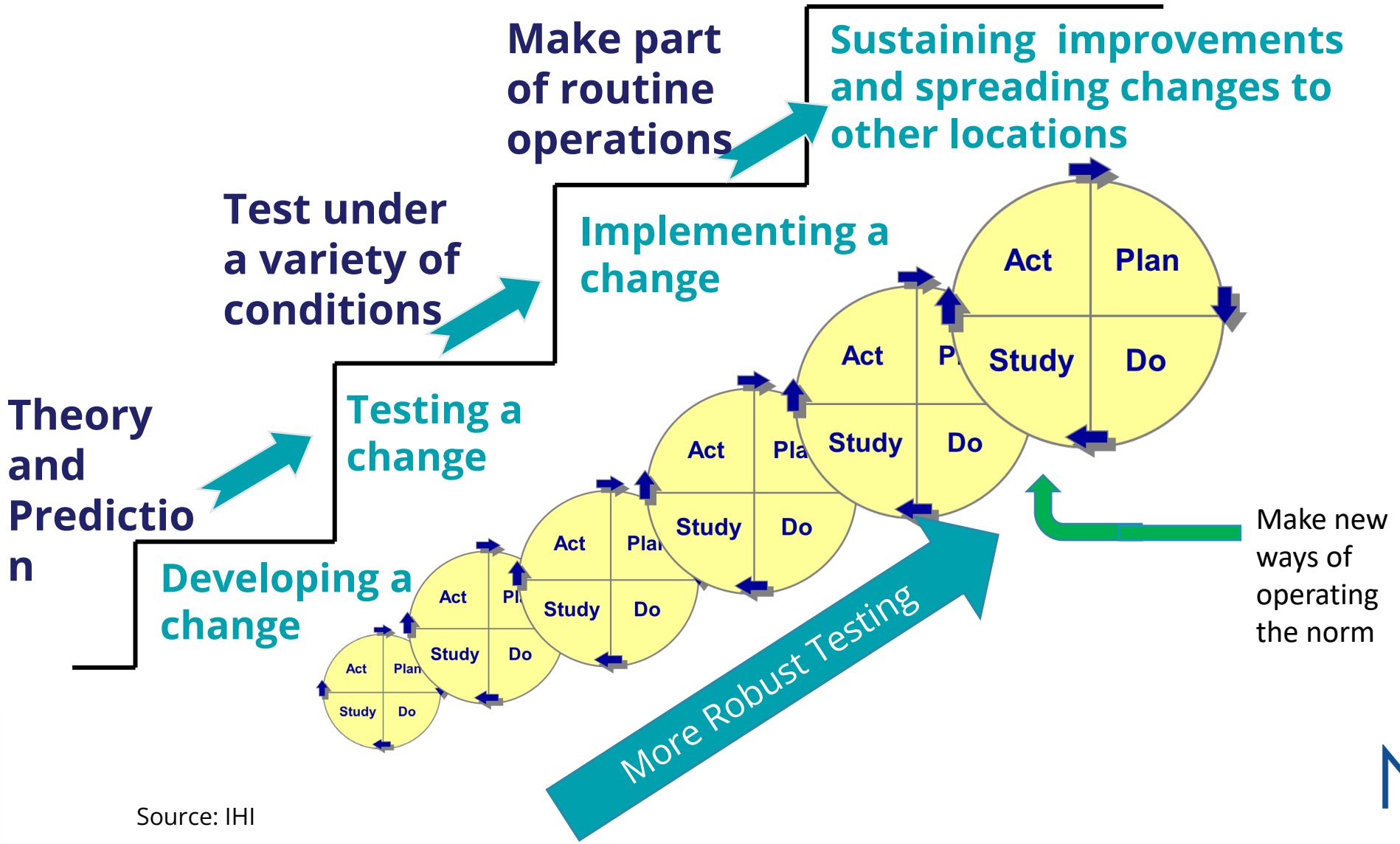
Sequence of Improvement



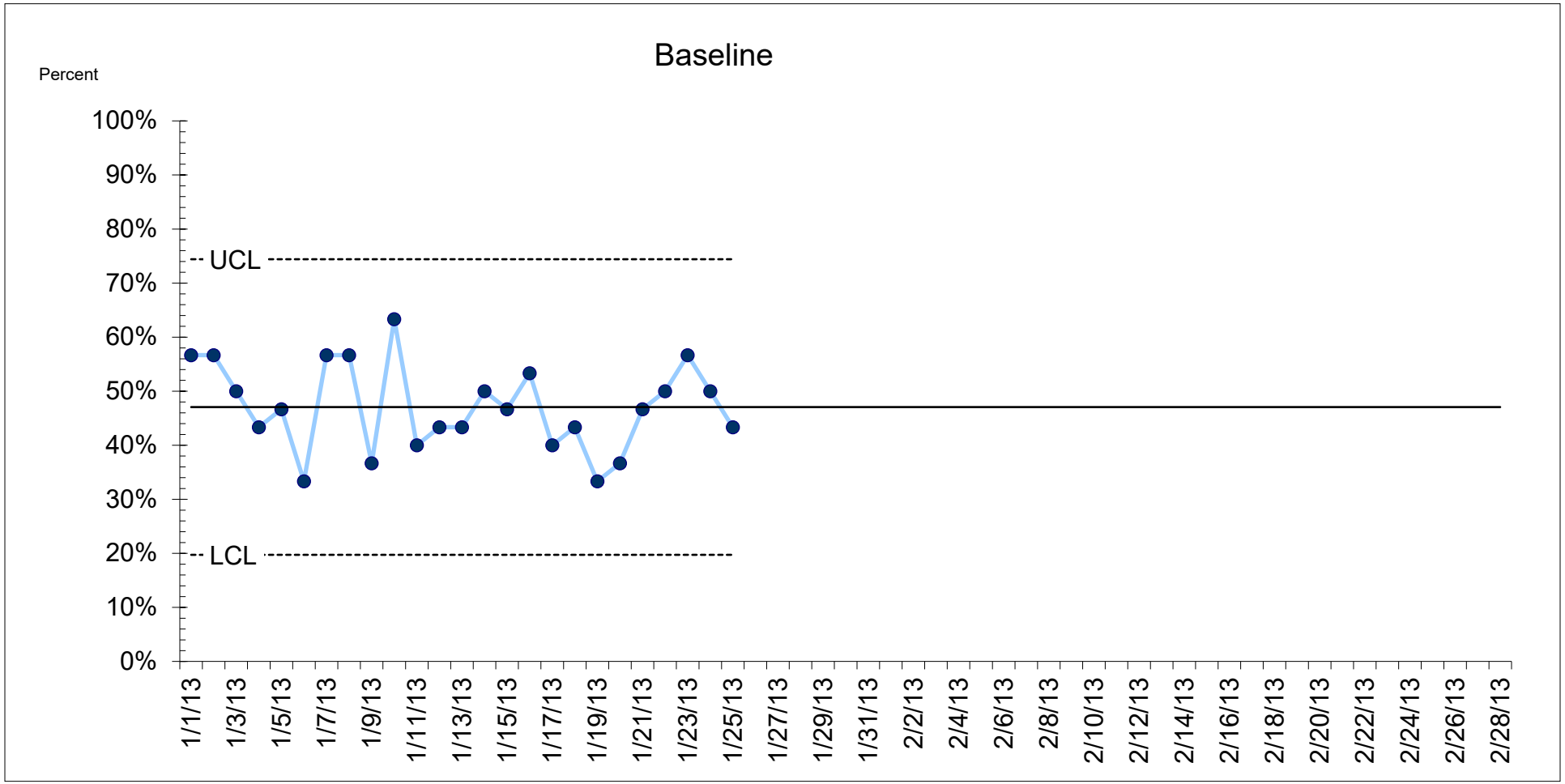
Source: IHI

Worksheet: Considerations for Sustainability

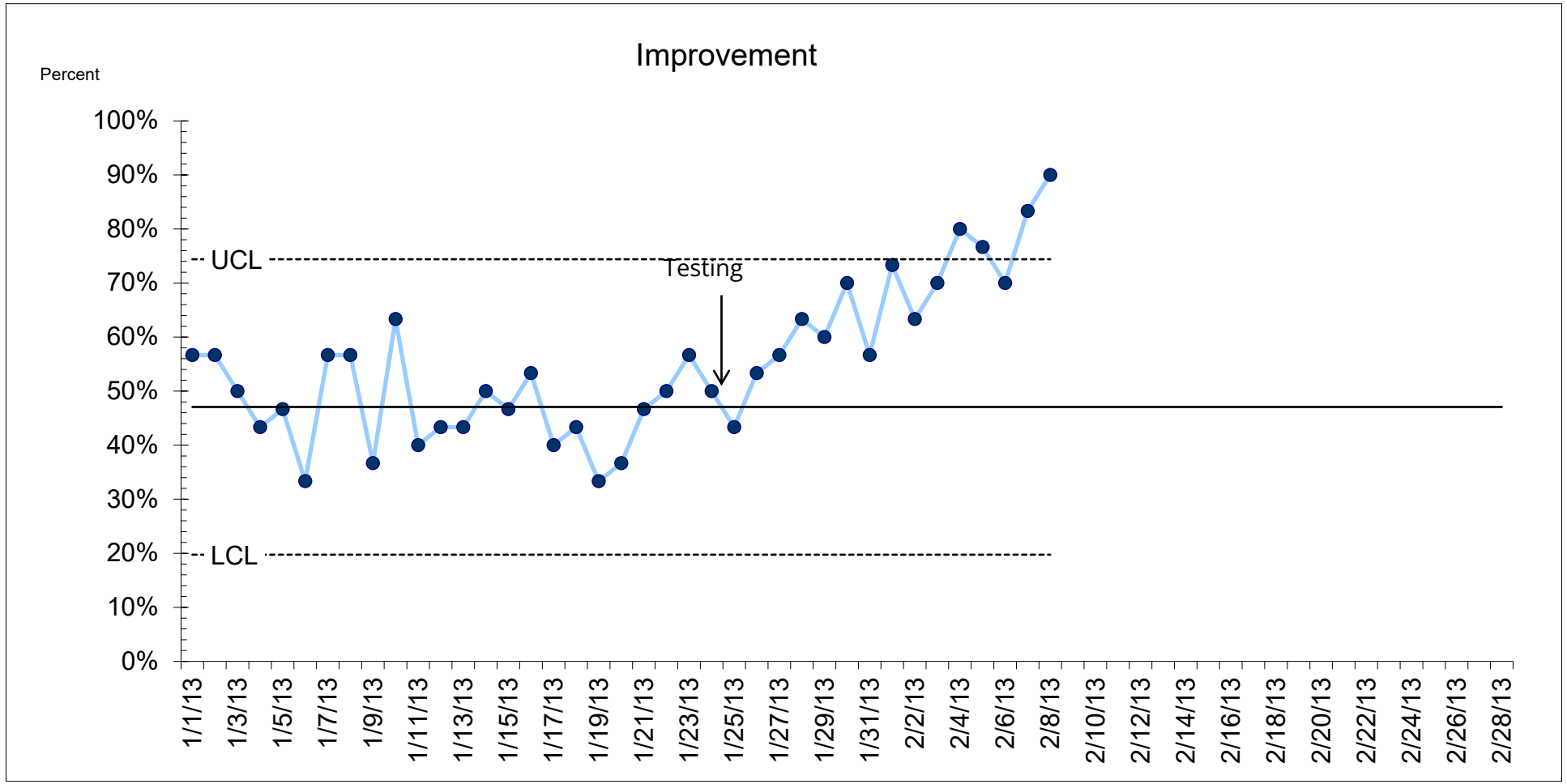
Attribute	Notes on Questions
Measurement What would we continue to measure? What would we stop measuring? What is our plan if we see a negative signal (aka special cause variation)?	
Ownership Who will own the new standard work? Are they engaged and onboard with our improvement work?	
Communication and Training How will we communicate about this work? Who will be the messengers? How will we support individuals in the "new right way"? What type of training will we use?	
Hardwiring the Change & Build the Infrastructure How will we make it hard to do the wrong thing and easy to do the right thing? How will we standardize? Can we reduce reliance on human memory? What about documentation. Do we have all the resources needed?	
Assessment of Workload Are our changes increasing the overall workload to the system? If so, how can we decrease the workload? If not, how will we communicate about what is changing and not changing?	

Source: Institute for Healthcare Improvement

Our Baseline

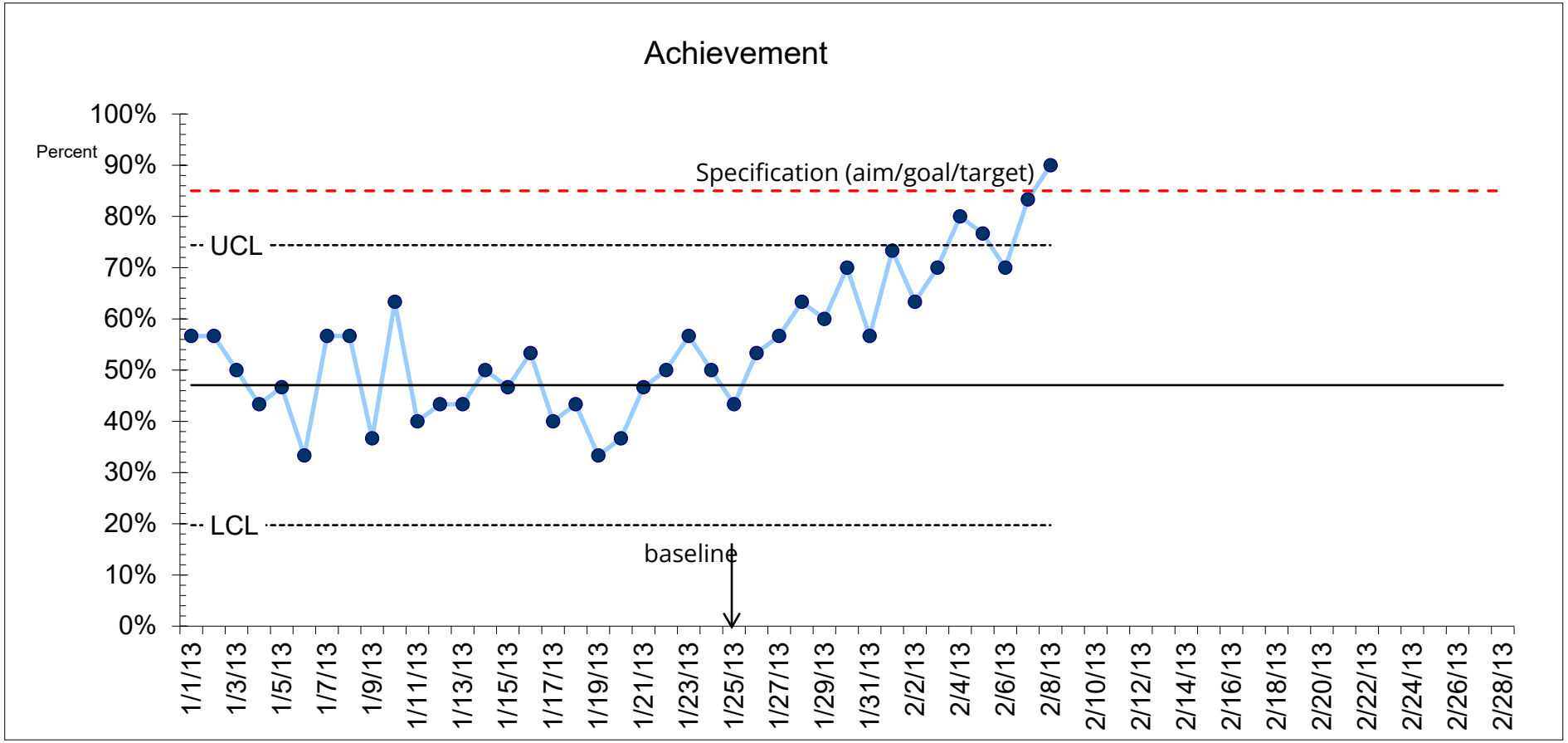


We are improving!

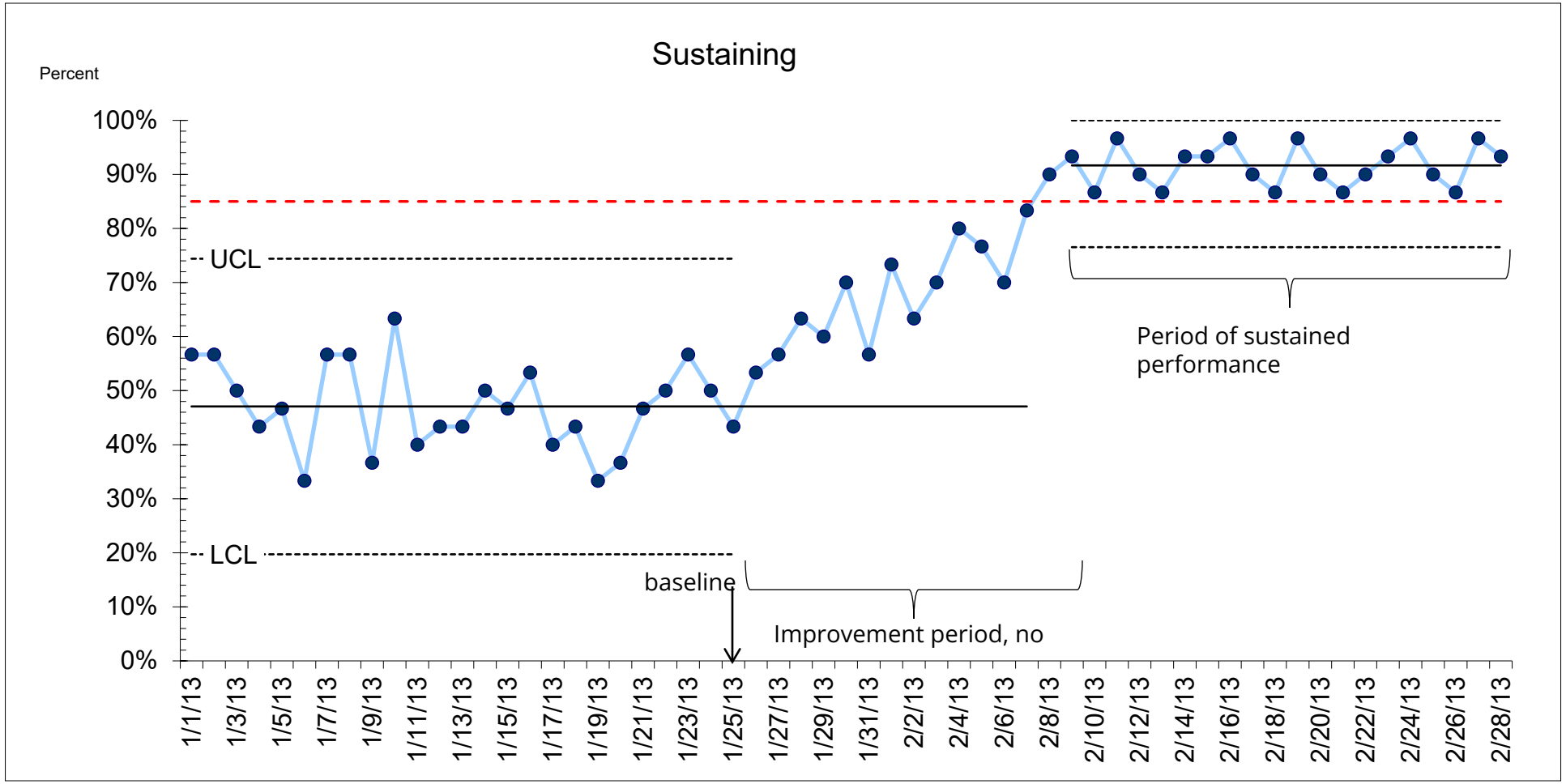


•Percent

We hit our target . . .



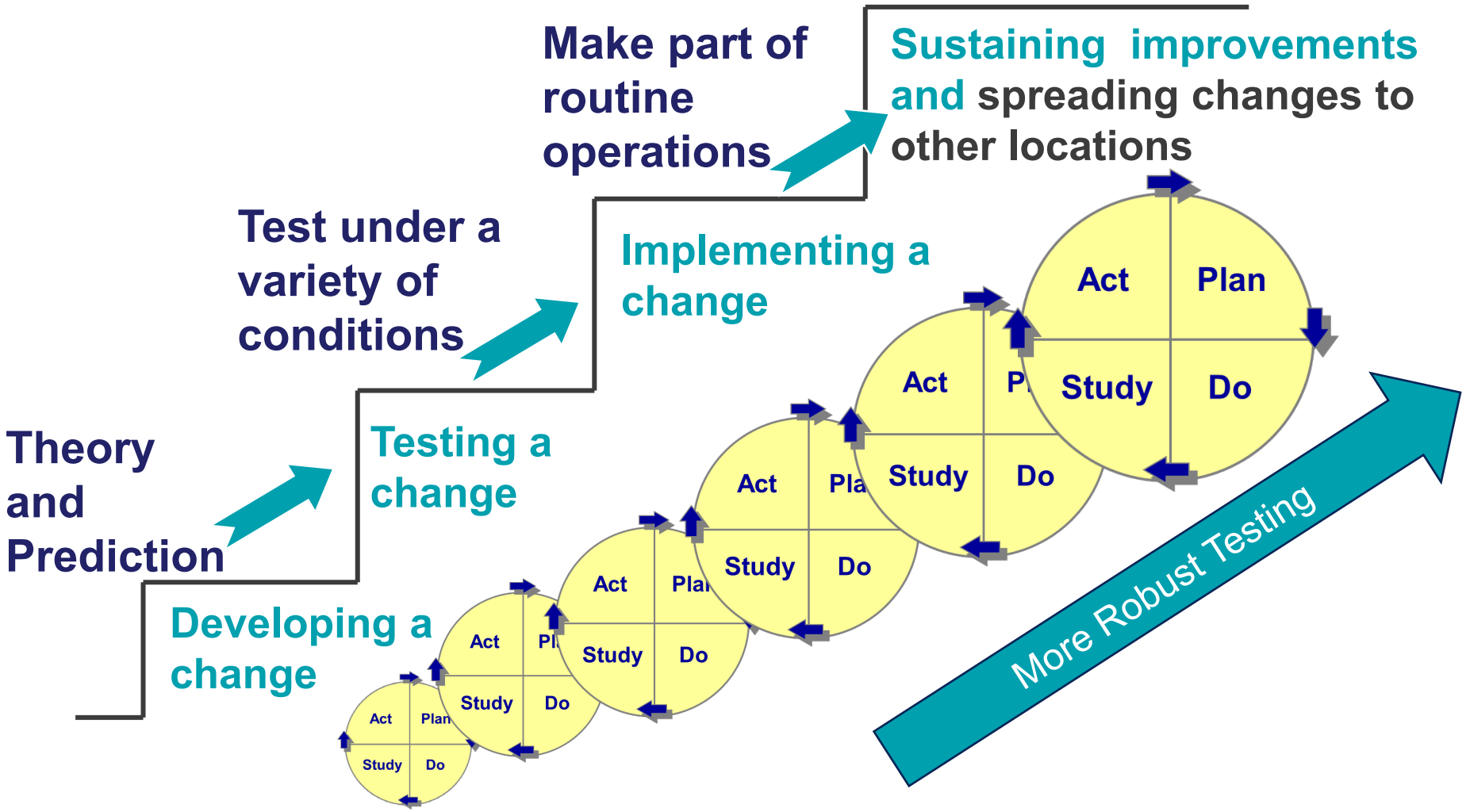
Holding our Gains!



Scale up and Spread

- Taking a new system or intervention and replicating it at other locations
- Overcoming system and infrastructure issues that arise during both implementation and spread to secure results at the system level

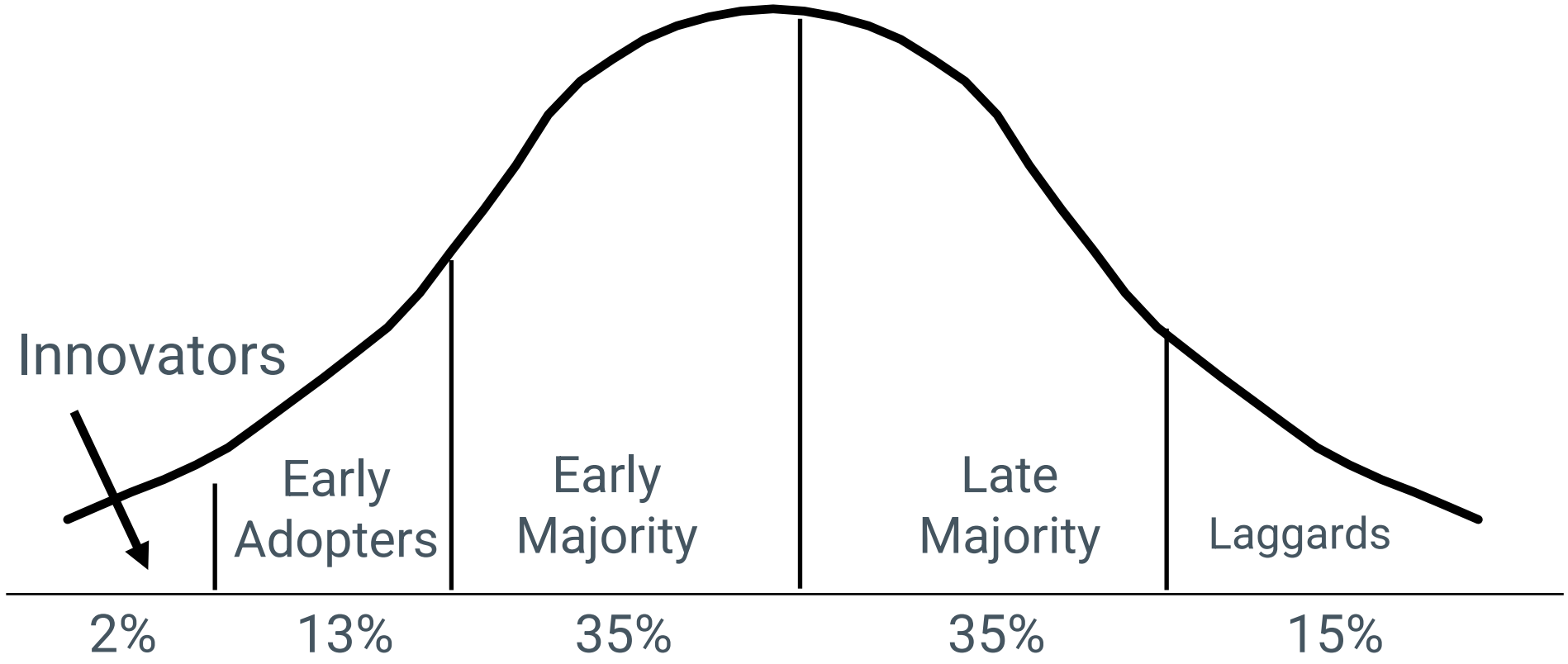
Sequence of Improvement



Source: IHI

JAT

Everett Rogers Adopter Categorization:



Adopter Characteristics and Strategies

Innovator enthusiasts 2.5%

Characteristics

- Venturesome, risk takers
- Appreciate innovation for its own sake
- Motivated by the idea of being a change agent
- Love to talk about new ideas/products
- Gate keepers for early adopters

Strategies

- ✓ Seek them out and invite them to be partners in design

Early adopter visionaries, 13.5%

Characteristics

- Once benefits start to be seen they leap in
- Have a natural desire to be trendsetters
- Provide excellent tester subjects to trial for innovation
- They work out kinks for early majority
- Serve as the opinion leaders

Strategies

- ✓ Involve in testing, reward and promote their participation
- ✓ Recruit to be peer educators
- ✓ Keep in the loop, inform and provide feedback

Early majority pragmatists, 34%

Characteristics

- Need proof of benefits and must-see solid endorsement
- Cost sensitive, risk adverse and prudent
- Want low complexity, high convenience and reliability
- Also serve as opinion leaders, but later in the process

Strategies

- ✓ Get endorsements from credible similar users
- ✓ Improve to maximize ease and simplicity
- ✓ Provide strong customer support and service & training
- ✓ Simplify instructions for use – plug and play

Late majority skeptics, 34%

Characteristics

- Skeptical, cautious and hate risk
- Often innovation shy and do not like your new idea
- Very cost sensitive and respond to economic necessity
- Require bulletproof solutions
- Respond to peer pressure and trusted advisors

Strategies

- ✓ Reduce cost and maximize ease of use
- ✓ Provide strong user support and minimize learning curve
- ✓ Get credible endorsements from respected skeptics

Last adopter disbelievers, 16%

Characteristics

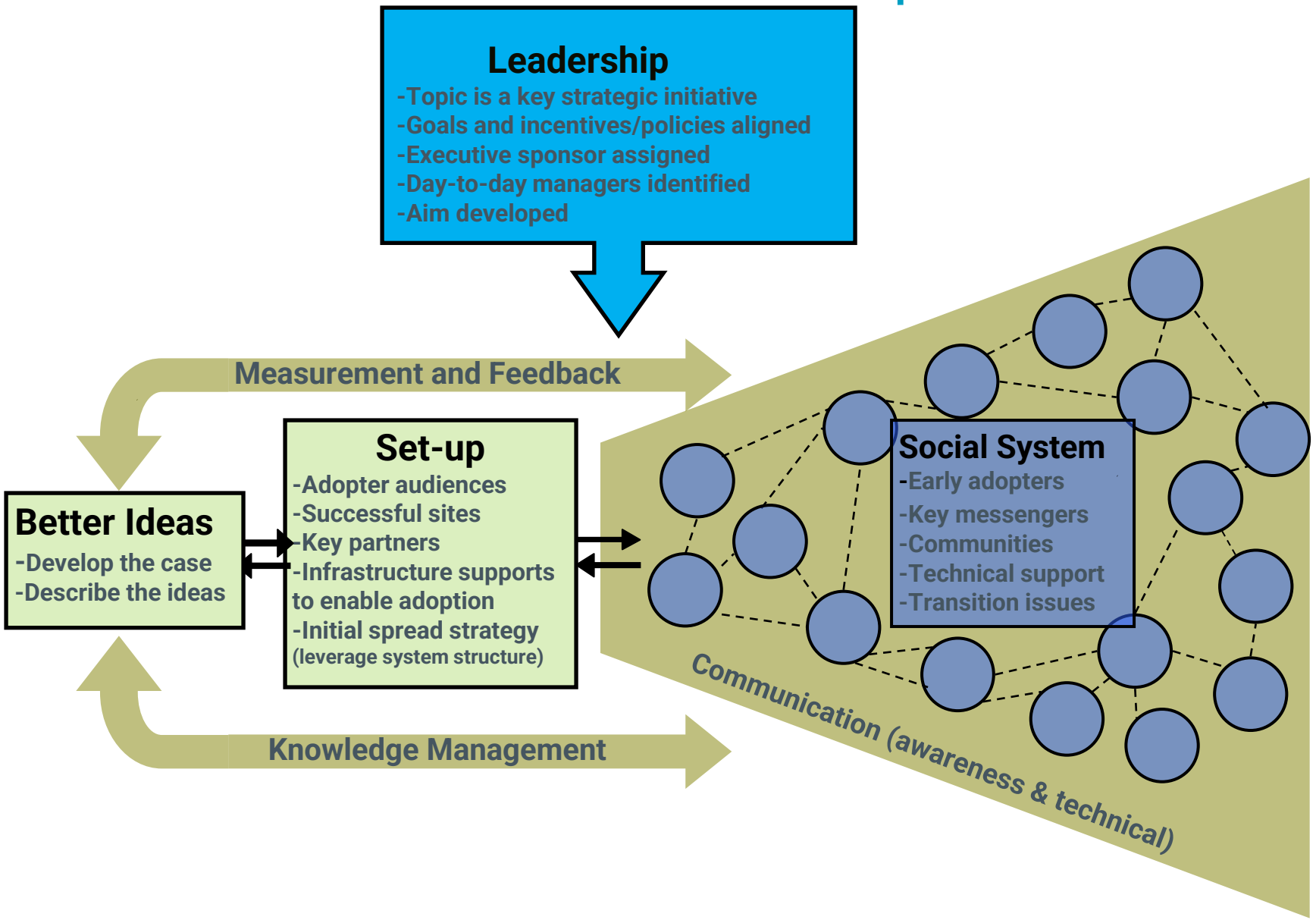
- Want to maintain status quo, reference is in the past
- Often isolated from opinion leaders
- See proposed innovation as a hindrance
- Usually invest only if all other alternatives are worse

Strategies

- ✓ Provide personal control – when, where, how they adopt
- ✓ Maximize their familiarity with new process / behavior
- ✓ Let them learn from other successful last adopters

Adapted from Rodgers, Diffusion of Innovation

IHI Framework for Spread



IHI.org

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Five key factors that influence adoption of ideas

Relative Advantage	Simple Easy	Trialable	Compatible	Observable

Advantage Photo by Muhamad Reza Junianto on Unsplash
Easy Photo by Tyler Lastovich on Unsplash
Trailable Photo by Ho Hyou on Unsplash
Compatible Photo by bhuvanesh gupta on Unsplash
Binoculars Photo by Jen Theodore on Unsplash

Adapted from Rodgers, Diffusion of Innovation

Exercise: Assess the readiness of ideas for rapid expansion

1. Select one improvement or promising intervention you want to spread
2. Use a 1- 5 scale to rate each of the five attributes from the viewpoint of the target audience. Record your assessment in the table below:

    1 - Change is very weak relative to this attribute

    3 - Change is okay relative to this attribute

    5 - Change is very strong relative to this attribute
3. Based on the assessment and considering the adopter categories and strategies handout, discuss with your colleagues the steps you would take to accelerate the uptake of the change

Worksheet: Assess the Readiness of an Idea for Rapid Spread

Change/Improvement/Intervention: _____

Attribute	Score (1 – 5)	Actions to Take
Relative advantage (i.e., how strong is the evidence that the change is better than the old way)		
Compatibility with current system (i.e., how well does it fit the current structure, values, and practices)		
Simplicity of the change (i.e., how easy is the change to adopt)		
Testability (i.e., can people try it)		
Observability (i.e., can people see it before trying it)		

Summary_Diffusion_Theory.pdf (enablingchange.com.au)

Changeology

A summary of Diffusion of Innovations

By Les Robinson

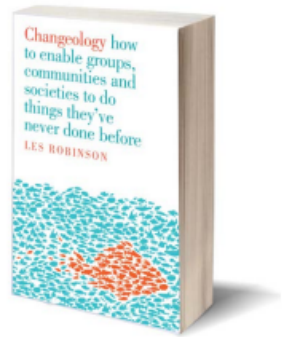
[Fully revised and rewritten Jan 2009]

Diffusion of Innovations seeks to explain how innovations are taken up in a population. An innovation is an idea, behaviour, or object that is perceived as new by its audience.

Diffusion of Innovations offers three valuable insights into the process of social change:

- What qualities make an innovation spread.

- The importance of peer-peer conversations and peer networks.



behaviours so they become better fits for the needs of individuals and groups. In Diffusion of Innovations it is not people who change, but the innovations themselves.

Why do certain innovations spread more quickly than others? And why do others fail? Diffusion scholars recognise five qualities that determine the success of an innovation.

1) Relative advantage
This is the degree to which an innovation is perceived as better than the idea it supersedes by a

Sue and Jane hope that you will take these humble lessons and apply them to your AIM work, your Perinatal Quality Collaborative work, your unit or organizational challenges and even your day-to-day life to experience the joy of learning how to do things better, how to improve your lives and the lives of those you serve.

Sue Jane

Photo by Sammie Vasquez on Unsplash

Thank you!

Please take a moment to complete the brief evaluation before signing off!

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Resources

- The Improvement Guide (2007). Langeley et al. Jossey Bass.
- Diffusions of Innovation (5th Ed 2003)., Everett Rogers. Free Press
- University of Cincinatti PDSA (Plan Do Study Act) cycles // Testing BEFORE Implementing.https://www.youtube.com/watch?v=_YOq4KXBahM
- https://www.nichq.org/resource/quality-improvement-101
- https://www.nichq.org/resource/quality-improvement-102
- https://www.enablingchange.com.au/Summary_Diffusion_Theory.pdf
- SpreadPlannerIHITool (4).pdf

Resources, cont.

- How to Improve, IHI Website How to Improve | IHI - Institute for Healthcare Improvement
- Dr. Robert Lloyd's "A Family of Measures" on youtube@ https://www.youtube.com/watch?v=uow7mzrFif4
- Dr. Lloyd's "Applying Four Rules to Understand a Run Chart" on youtube @ https://www.youtube.com/watch?v=8e38RCU8-uA
- Summary of Diffusion of Innovations Summary_Diffusion_Theory.pdf (enablingchange.com.au)