




Planning for Success: HAI Prevention & Reduction Strategies

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Plans are worthless,
but planning is everything.

– Dwight D. Eisenhower

Learning Objectives

- Describe the process for forming HAI reduction programs
- Compare different performance improvement strategies, tools, and models
- Summarize a framework that details the steps in planning, implementing, evaluating, and sustaining change





The biggest problem of performance improvement is that people don't know how to define their problem; this is the first and most crucial step. **Do you even have a problem?**

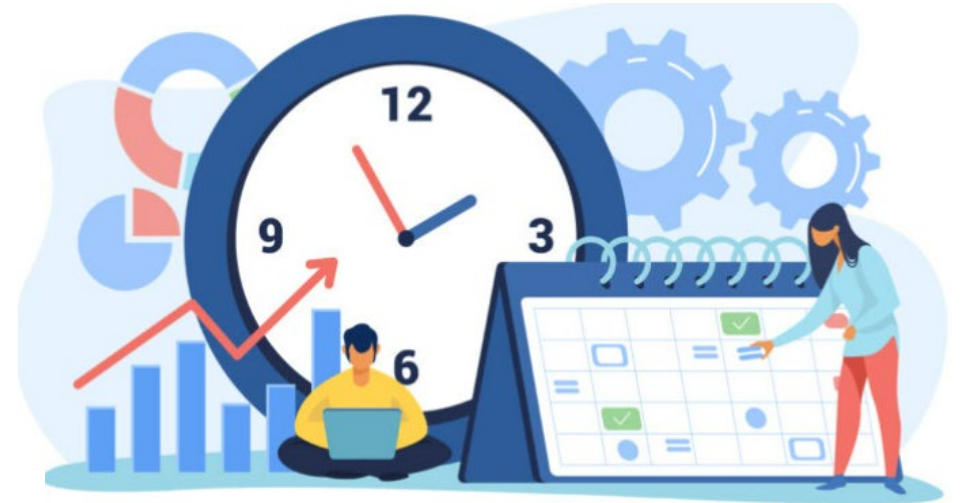
- Don't forget the 5 W's and the 5 Why's
- Actionable problems require SMART goals
- Don't get stuck on non-actionable problems/meetings
- Don't try to boil the ocean!

You don't know what you don't know,
best to find out

...and it's not always about the ability;



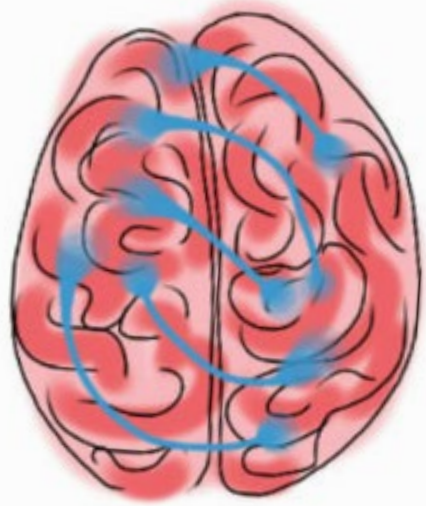
VS



oftentimes it's about availability

#StayCurrent

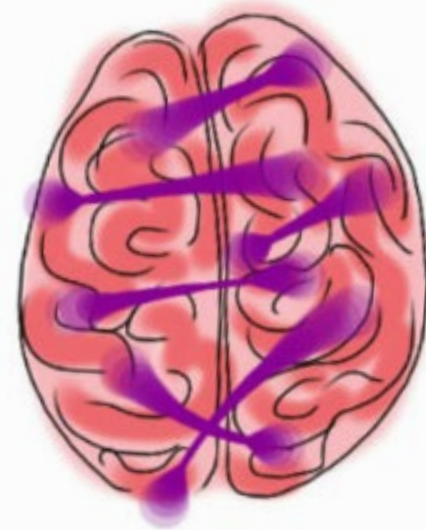
- ❖ Buetti N., Marschall J., Drees M., Fakh M., Hadaway L., Maragakis L., . . . Mermel L. (2022). Strategies to prevent central line-associated bloodstream infections in acute-care hospitals: 2022 Update. *Infection Control & Hospital Epidemiology*, 43(5), 553-569. doi:10.1017/ice.2022.87
- ❖ Patel PK, Advani SD, Kofman AD, Lo E, Maragakis LL, Pegues DA, . . . Yokoe DS (2023). Strategies to prevent catheter-associated urinary tract infections in acute care-hospitals: 2022 Update. *Infection Control & Hospital Epidemiology*, 44(8):1209-1231. doi: 10.1017/ice.2023.137
- ❖ Klompas, M., Branson, R., Cawcutt, K., Crist, M., Eichenwald, E., Greene, L., . . . Berenholtz, S. (2022). Strategies to prevent ventilator-associated pneumonia, ventilator-associated events, and nonventilator hospital-acquired pneumonia in acute-care hospitals: 2022 Update. *Infection Control & Hospital Epidemiology*, 43(6), 687-713. doi:10.1017/ice.2022.88



Learn



Unlearn



Relearn

Know your EBP Resources



- CDC Toolkits and Guides
- IHI Bundles and Tools
- AHRQ Library
- The Joint Commission Resources
- IDSA and SHEA
- APIC



NICE STORY.

NOW SHOW ME THE



DATA

Measuring the Problem



Check data sources & validate accuracy intermittently



Be involved in EMR changes – user interface is great but the end product matters



Data presentation is audience-specific; language matters!



Personalization of data matters!! Storytellers are the best

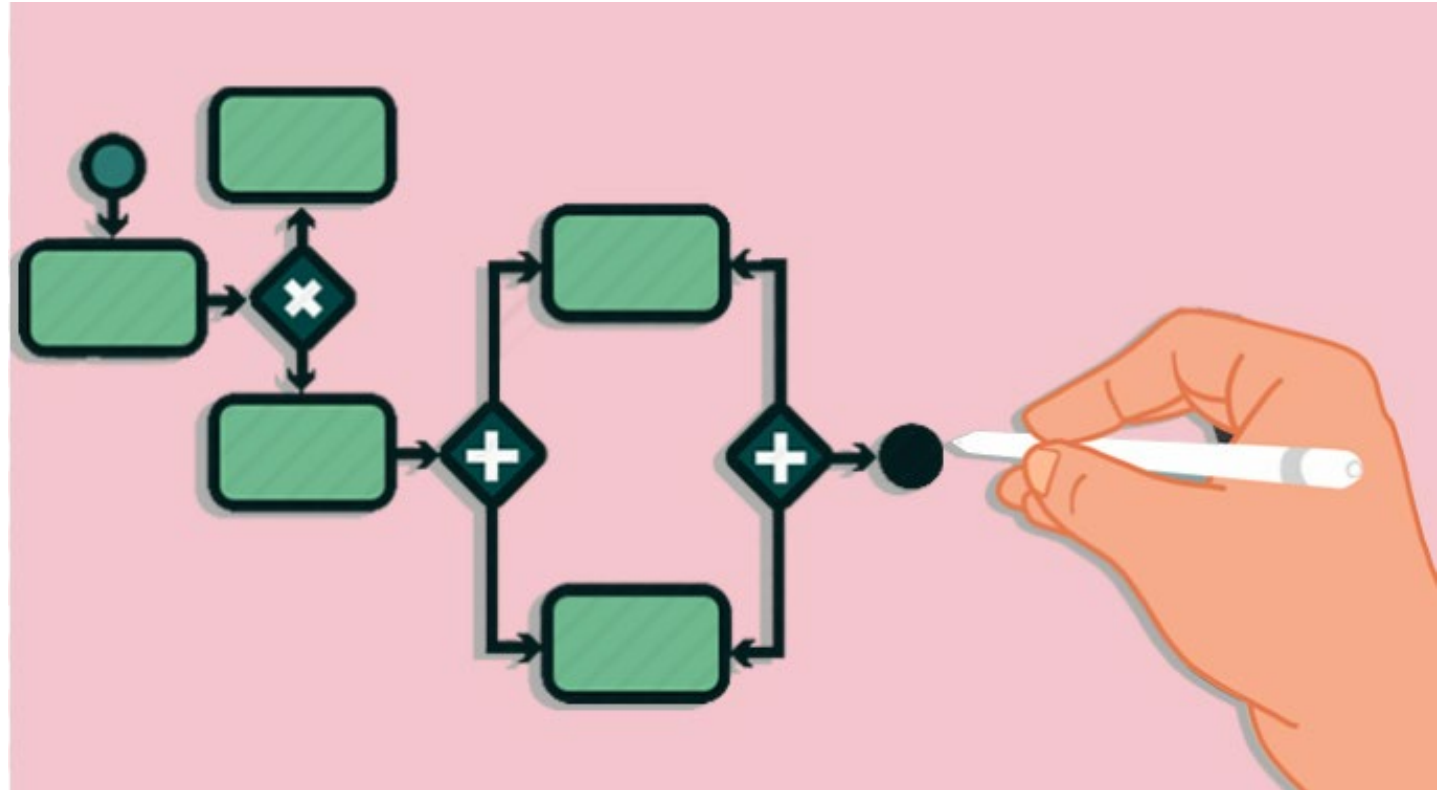


Benchmarking is key!!!

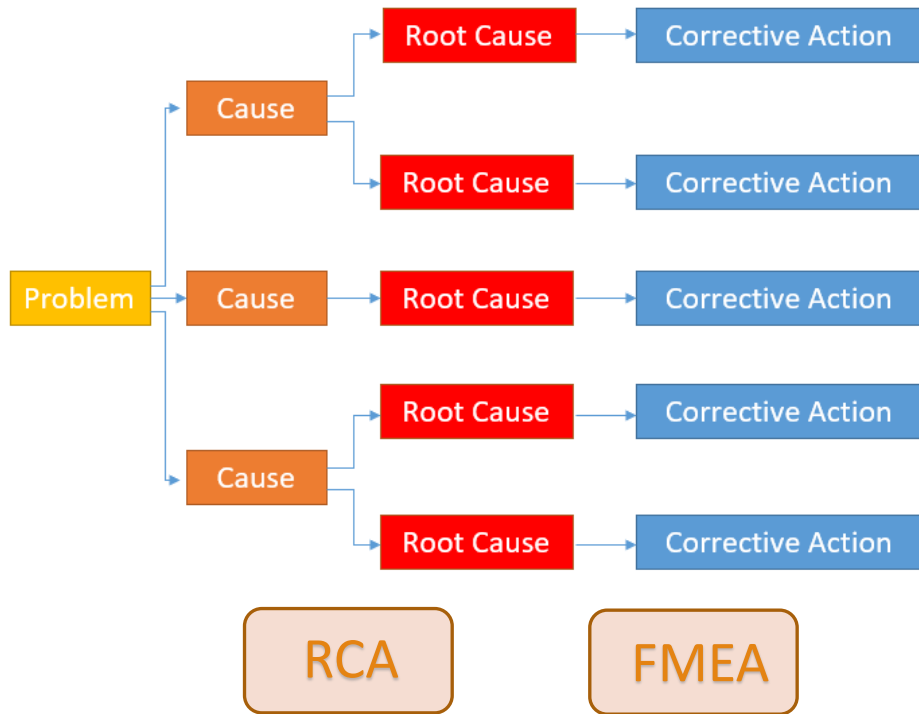
Process Mapping

“If you can’t describe what you are doing as a process, you don’t know what you’re doing.”

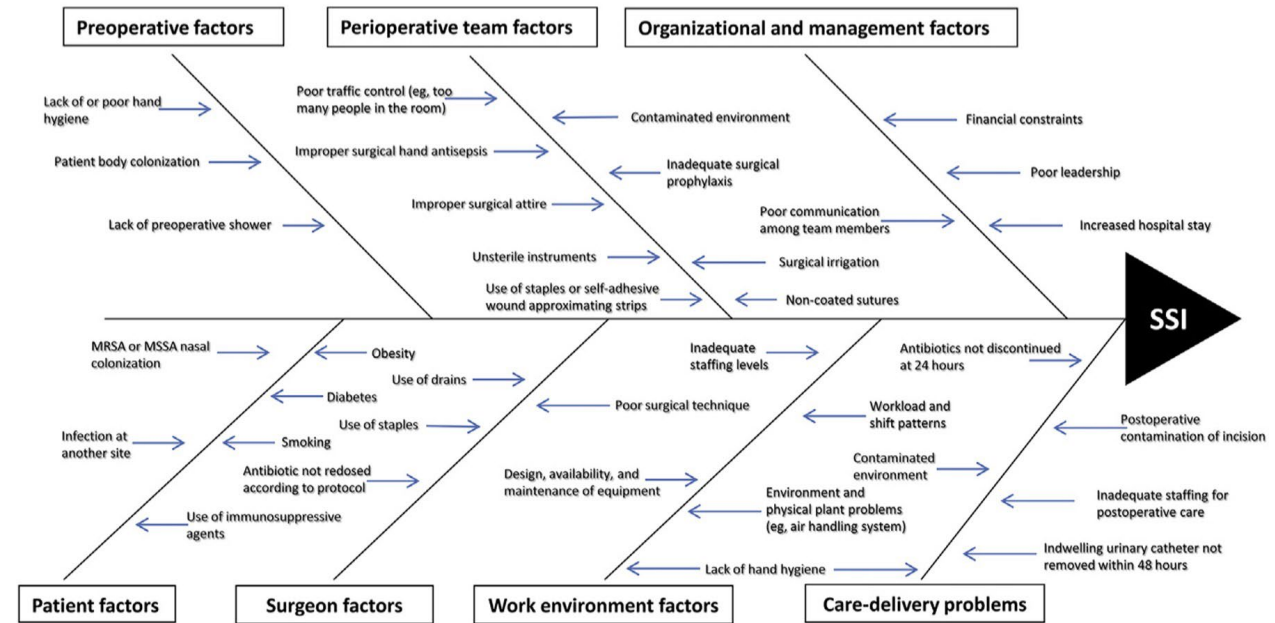
- W. Edwards Deming



Root Cause Tree



SSI Fishbone Diagram



MRSA = methicillin-resistant *Staphylococcus aureus* (*S aureus*); MSSA = methicillin-sensitive *S aureus*; SSI = surgical site infection.

Cause and Effect Analyses

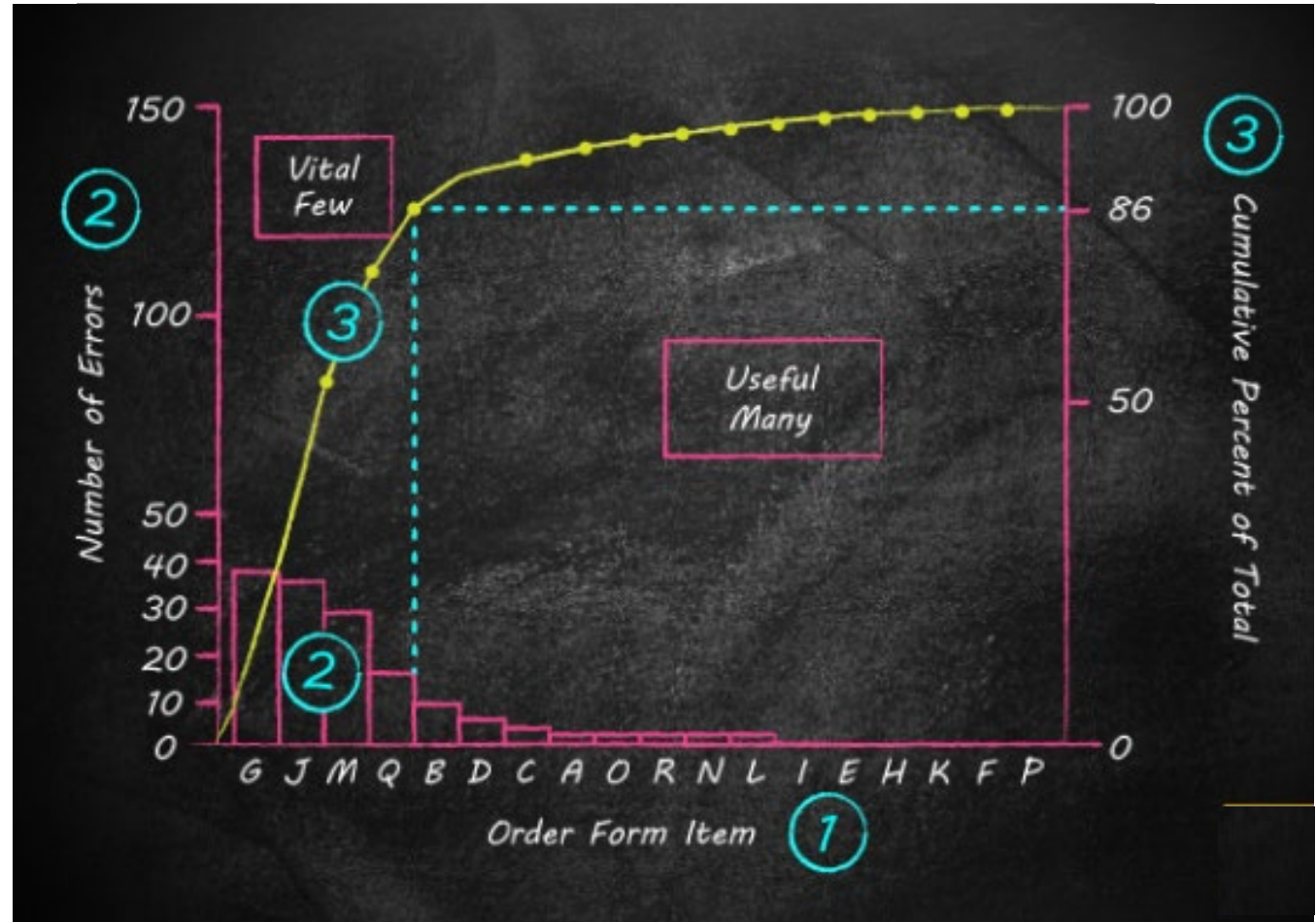
Pareto Principle



80% of problems come from 20% of the cause



Prioritize the “Vital Few”



TOGETHER
EVERYONE
ACHIEVES
MORE



Communicate & Escalate:

Engagement is 50% of the battle

- Create a sense of Urgency
- You need an executive sponsor
- You need multidisciplinary champions
- You need a team because going at it alone only lead to frustration and failure

Address all levels of the Issue

Problems are universal and may need universal solutions

Problems are local and may need local resolutions

Problems are individual and may need individual interventions

Organizations are plagued with communication, resource, and accountability issues



Preparing for.....



Kotter's Change Management Theory

Lewin's Change Management Model

McKinsey's 7S Model

Kubler-Ross Change Curve

PDCA/PDSA/Deming Cycle

Prosci ADKAR Model

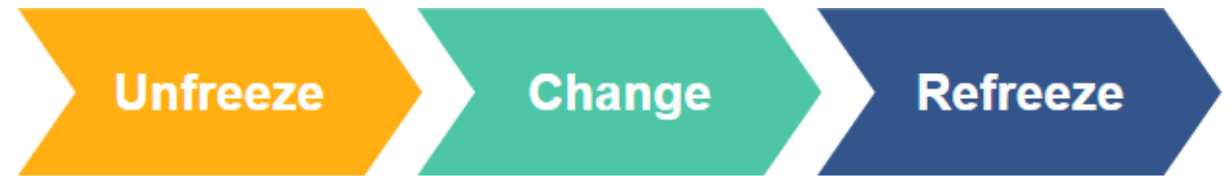
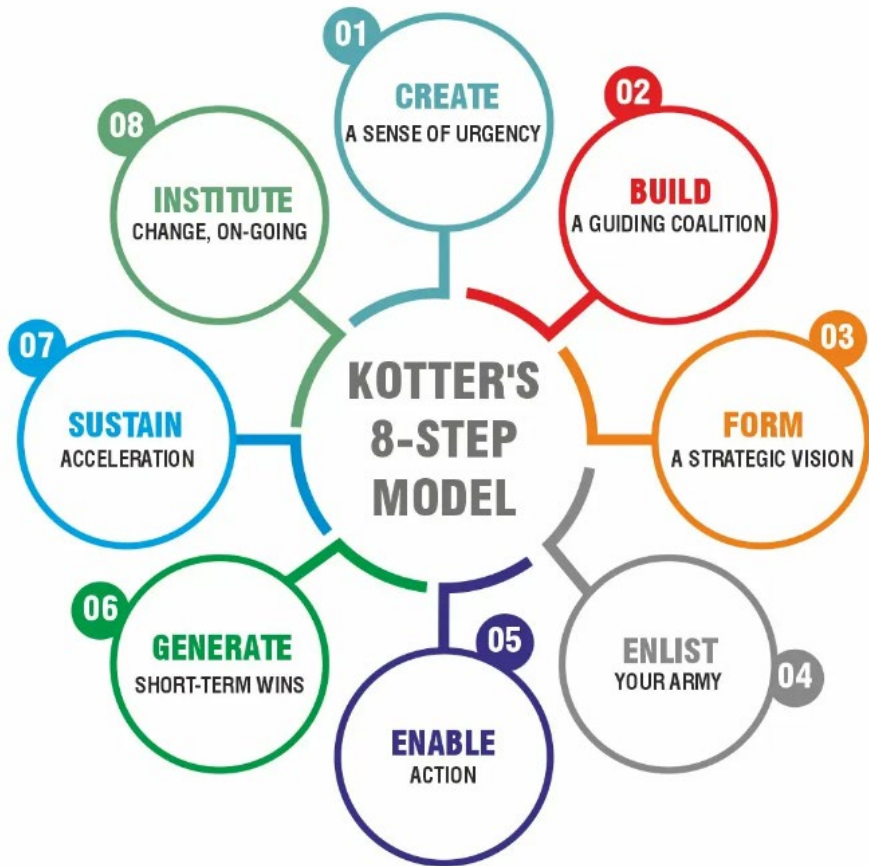
Kaizen Model

LaMarsh Change Management Model

Maurer's 3 Levels of Resistance

LEAN Six Sigma

John Kotter and Kurt Lewin

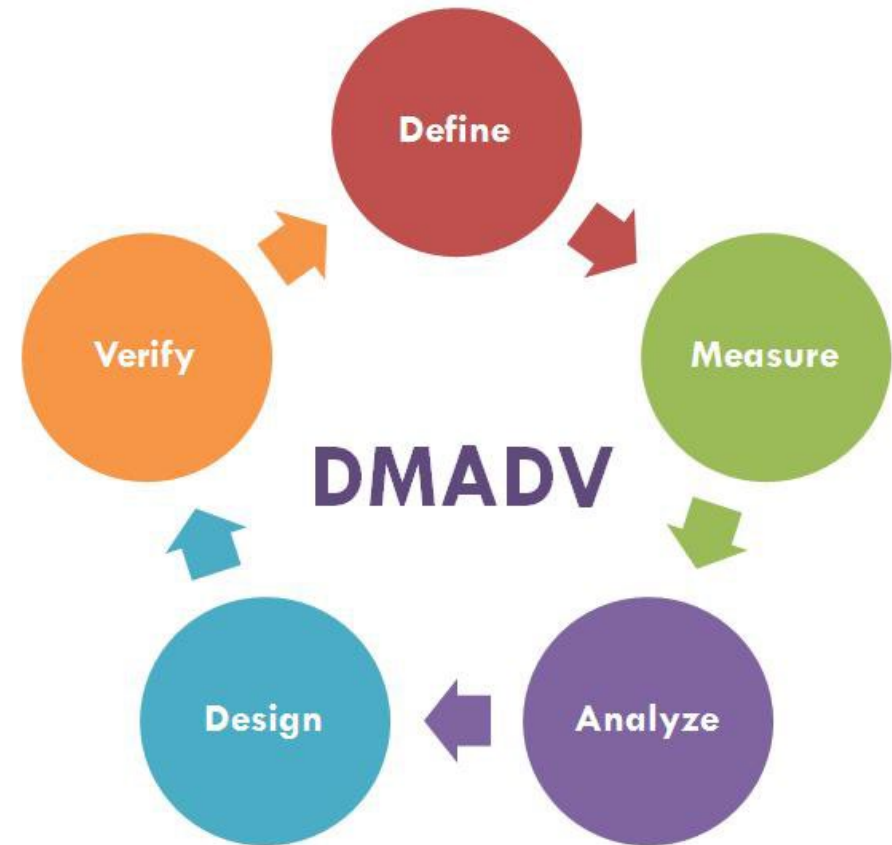
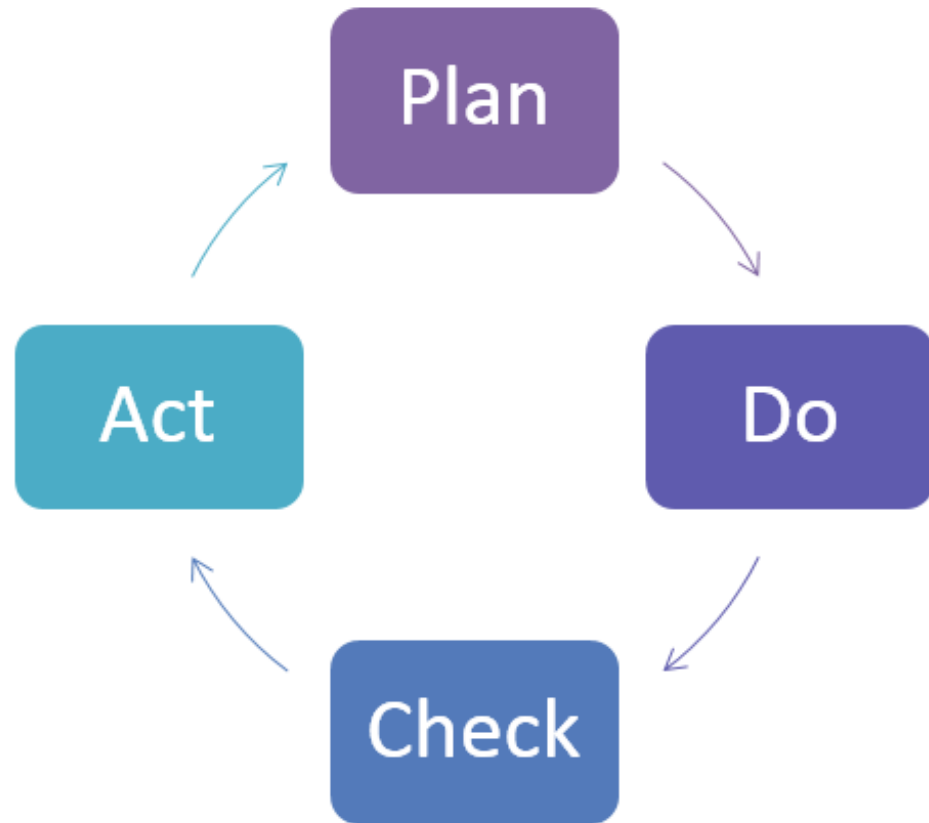


1. Recognize the need for change
2. Determine what needs to change
3. Encourage the replacement of old behaviors and attitudes
4. Ensure there is strong support from management
5. Manage and understand the doubts and concerns

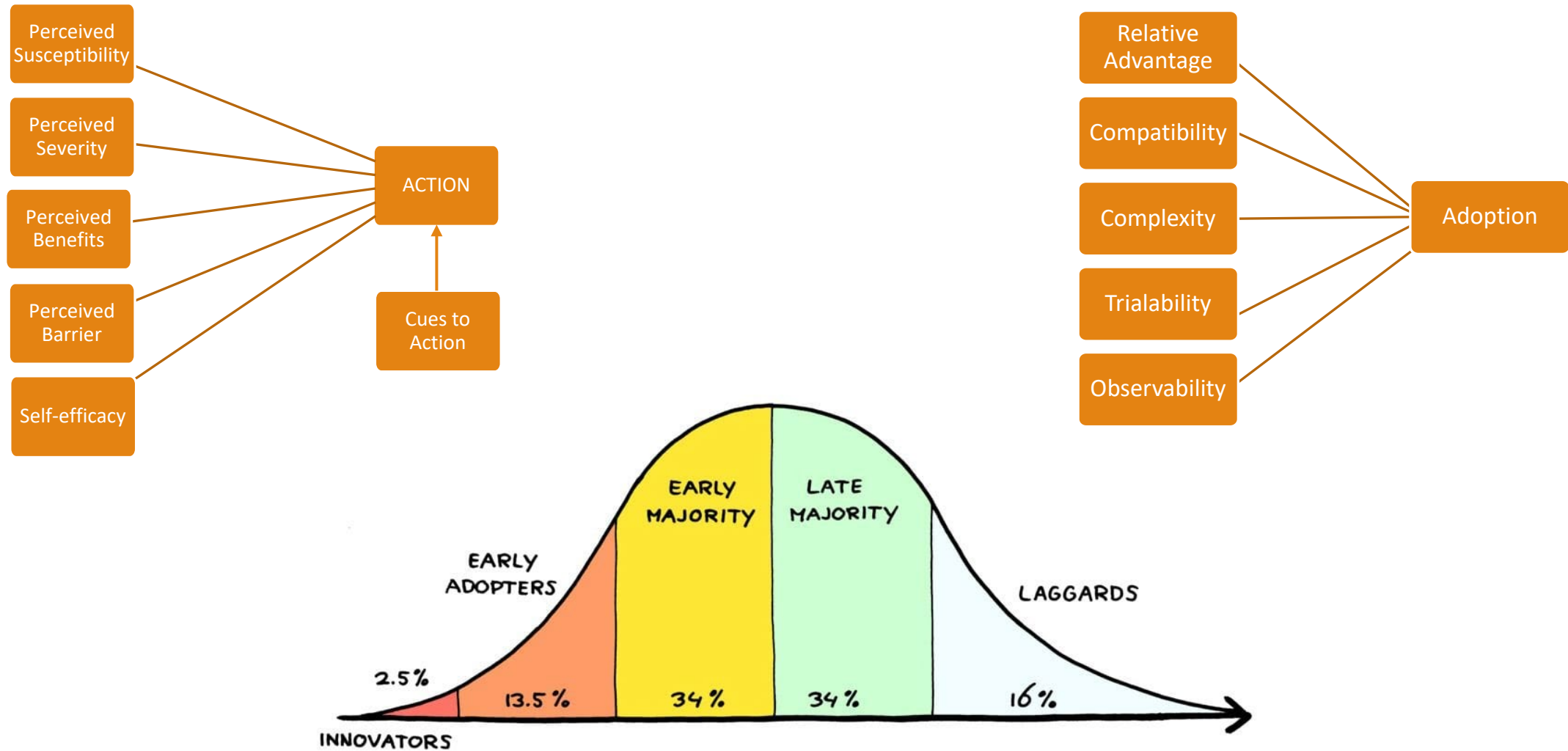
1. Plan the changes
2. Implement the changes
3. Help employees to learn new concept or points of view

1. Changes are reinforced and stabilized
2. Integrate changes into the normal way of doing things
3. Develop ways to sustain the change
4. Celebrate success

PDSA & Six Sigma



HBM and Diffusion of Innovation



Evaluation
&
Sustainability
is not an
afterthought,
it is by design

*You cannot improve what
you cannot measure.*

*You cannot measure what
you cannot define.*

Evaluating Change



Evaluate SMART goals:

- Statistical Process Control (SPC)
- Statistical Analysis (p-values)
- Outcome Evaluation vs Process Evaluation vs Impact Evaluation

Program Evaluation Models:

- RE-AIM Model
- PRECEDE-PROCEED Model
- Implementation Outcomes Framework
- CDC Framework



Among Categories



Column Chart



Grouped Column

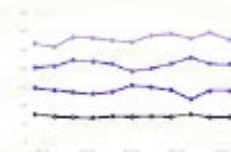


Bar Chart

Over Time



Line Chart



Overlay Line

Exact Values

Year	2010	2011	2012	2013
Q1	10	12	15	18
Q2	8	10	12	15
Q3	6	8	10	12
Q4	4	6	8	10
Q5	2	4	6	8
Q6	1	2	4	6
Q7	0.5	1	2	4

Table

How the Values Compare to Each Other

So many ways to slice and dice.....

How Values Relate to Each Other



Bubble Chart



Heat Map

How the Data is Distributed



Box Plot



Column Histogram



Scatter Plot

How the Data is Composed

Among Categories



Donut Chart



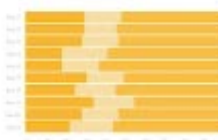
Pie Chart

Over Time



Area Chart

Two Dimensions



Stacked Percent



Stacked Column

Sustaining Change



Dynamic Sustainability Framework

- Ensure Fidelity with Core Implementation Elements
- Adapting intervention to “Fit” with current environment
- Keep adapting intervention over time across different environments with Core Fidelity

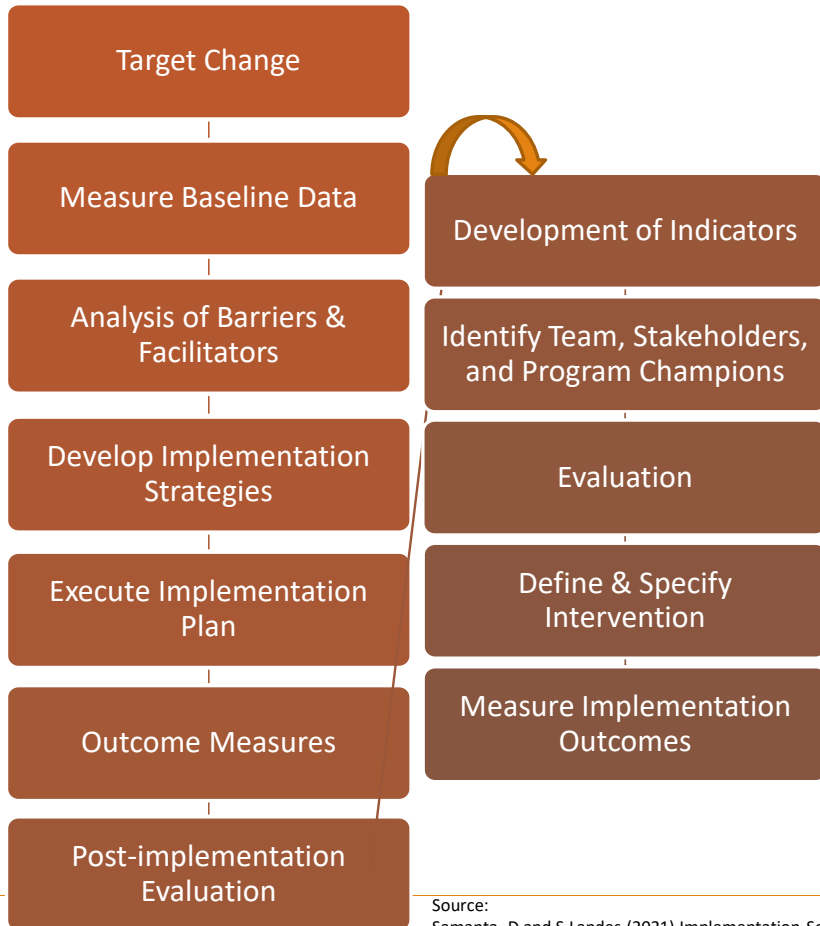
Normalization Process Theory

- Social organization of the work (implementation)
- Making practices routine elements of everyday life (embedding)
- Sustaining embedded practices in their social contexts (integration)

Summary



Implementation Science



&

Don't be a drone to the daily routine

MY MORNING ROUTINE TRACKER

08:00 AM	<input type="checkbox"/> isolation review
09:00 AM	<input type="checkbox"/> HAI review
10:00 AM	<input type="checkbox"/> isolation rounds
11:00 AM	<input type="checkbox"/> meeting
12:00 AM	<input type="checkbox"/> lunch
01:00 PM	<input type="checkbox"/> meeting
02:00 PM	<input type="checkbox"/> reportables

*“It is not enough to be busy.
So are the ants. The question is:
What are we busy about?”*



- Henry David Thoreau

