Leading Innovative Quality Improvement in the Capricious Healthcare System: The Role of the DNP

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Disclosure

This speaker has no relevant financial relationships with commercial interests to disclose

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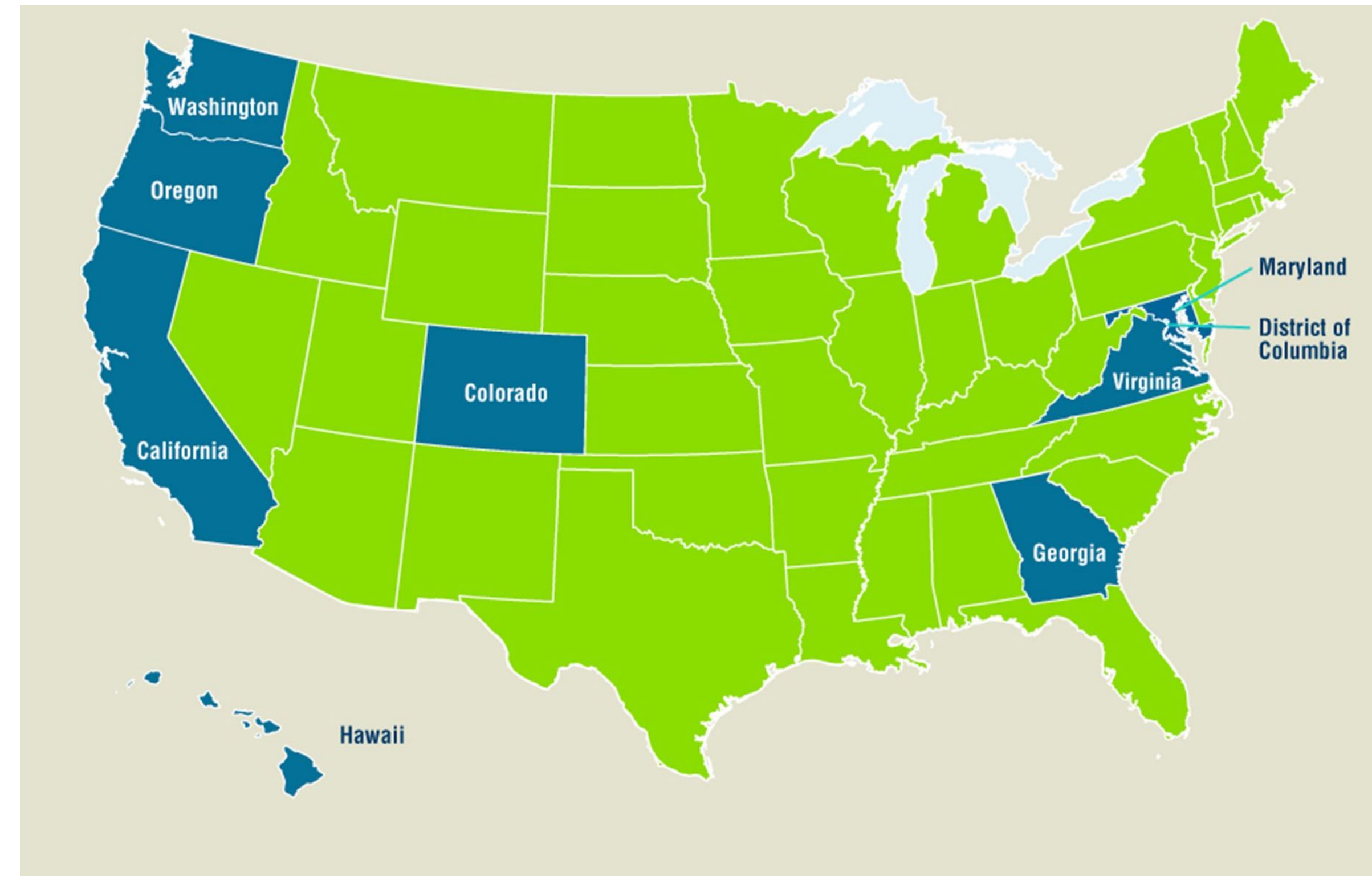IMPROVEMENT
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Objectives

- *Understand the importance of standard work*

- *Introduce a pathway for efficient decision making*

- *Improvement methodology used in a large integrated healthcare system*

- *How to make Quality improvement projects fun and engaging*

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Kaiser Permanente was Founded in 1945

The entities that comprise Kaiser Permanente are:

- Kaiser Foundation Hospitals (KFH)
- The Permanente Medical Groups (PMG)
- The Kaiser Foundation Health Plan (KPHP) and its subsidiary health plans

12.5M
Members

217K
Employees

64K
Nurses

24K
Physicians

39
Hospitals

723
Medical Offices

1925
Publications

3.6B
Spent on Community Health

As of December 31, 2020

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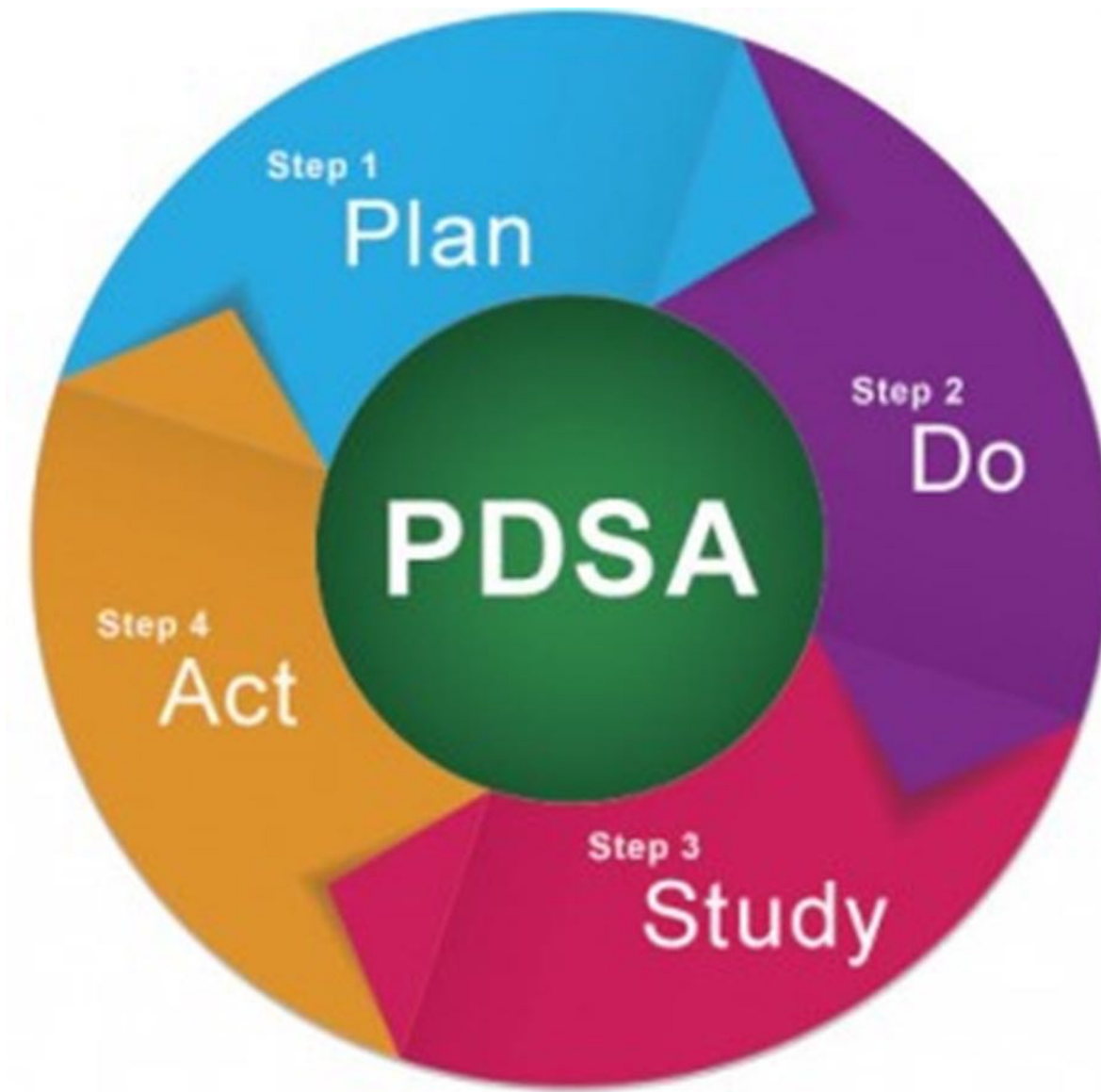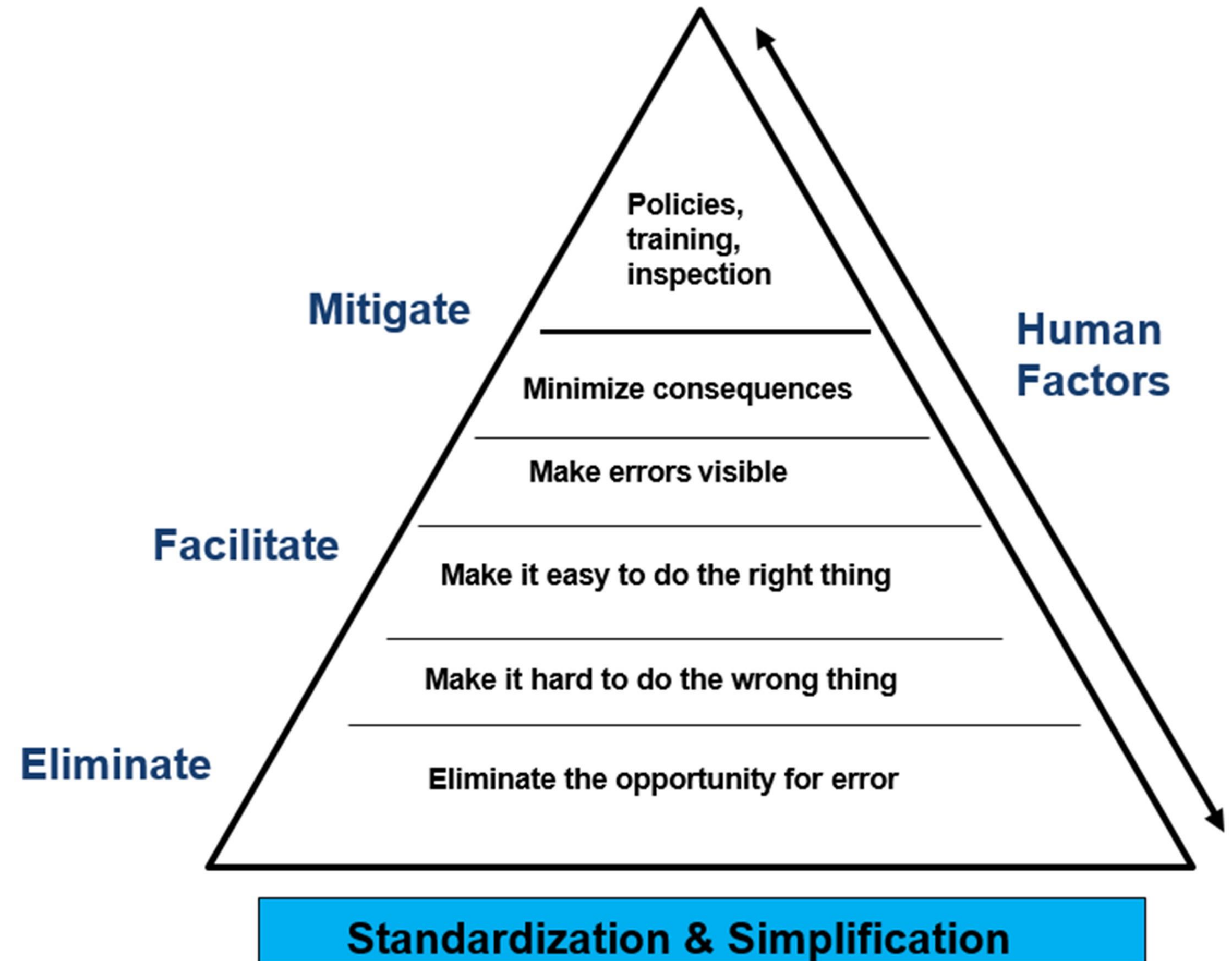IMPROVEMENT INSTITUTE

What do you think of when someone says Quality?

Performance Improvement can help us improve quality while reducing variation, errors, and costs

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Different types of Quality improvement

PDSA- Dr. William Edwards Deming (1950)
LEAN- James P. Womack, Daniel T. Jones and Daniel Roos(1991)
Six Sigma-Mikel Harry and Bill Smith (1986)

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The idea is to put *evidenced-based practices* in place that will address the root cause of your problem/issue and to make it the *standard way to do work for now* until a better practice is discovered, tested, and implemented.

Kaiser Permanente Improvement Institute

The Improvement Institute delivers a **complementary suite of offerings** aimed at enabling **continuous quality improvement**, highly **scalable solutions**, and achievement of **sustainable breakthrough performance**.

Institute Programs

- National Quality Conference
- Quality Leader Development and Quality Vice President Onboarding
- Quality Professional Fellowship
- Improvement Sciences
- Rapid Improvement Model (RIM+)
- Associate Improvement Advisor
- Improvement Advisor
- Lean Six Sigma Black Belt
- Human Centered Design
- Advanced Patient Safety
- Process Improvement (PI) Leadership Training

Comprised of an **integrated team** of educators, delivery operation specialists, and performance excellence advisors that **utilize standardized framework** to assess, design, test, spread, and sustain effective practices.

3,825 EXPERTS TRAINED

STUDENT PROJECT SAVINGS **$567M**

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Xcelerating Learning & Spread (XLS) 2.0 Model

XLS 2.0 is a framework that defines standard work to assess, design, test, spread, and sustain effective practices across Kaiser Permanente. It includes standard work, defined roles, tools and templates, and clear accountabilities and pathways for efficient decision making.
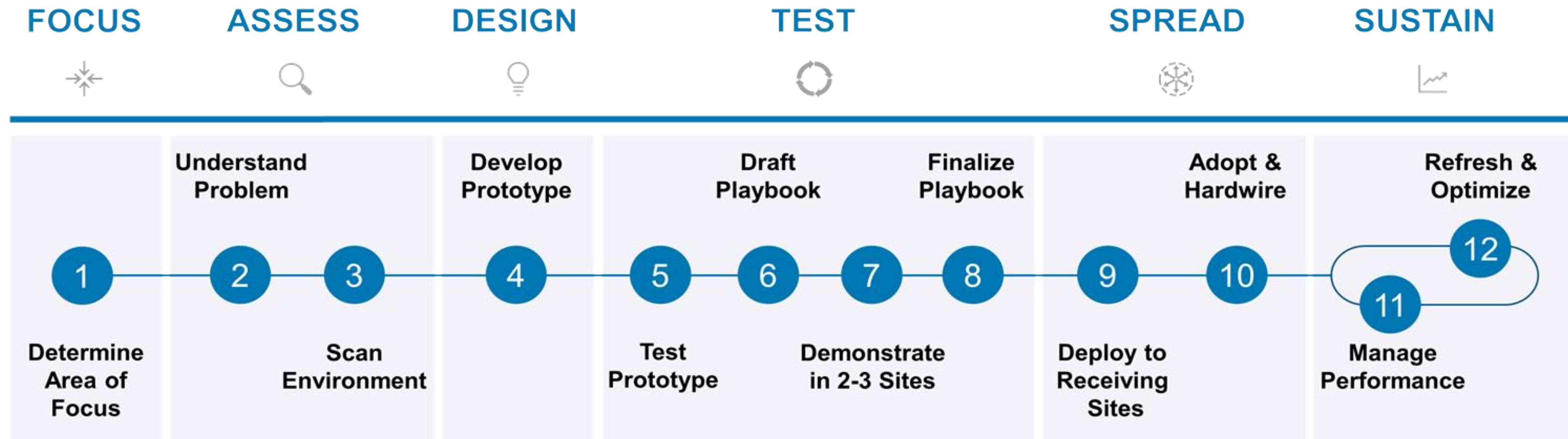
- Builds on current PI framework to leverage organizational capability
- Defines key roles and responsibilities to clarify accountabilities and escalation pathways
- Reduces variation in developing and testing playbooks and spreading practices across regions
- Promotes consistent measurement and data to demonstrate improvement and results

12 Standard Work Steps, Easy to Follow Instructions, Job Aids, and Tools / Resources

High level description, accountable role, key questions, inputs & outputs / deliverables

Visual process map with decision points including standard work
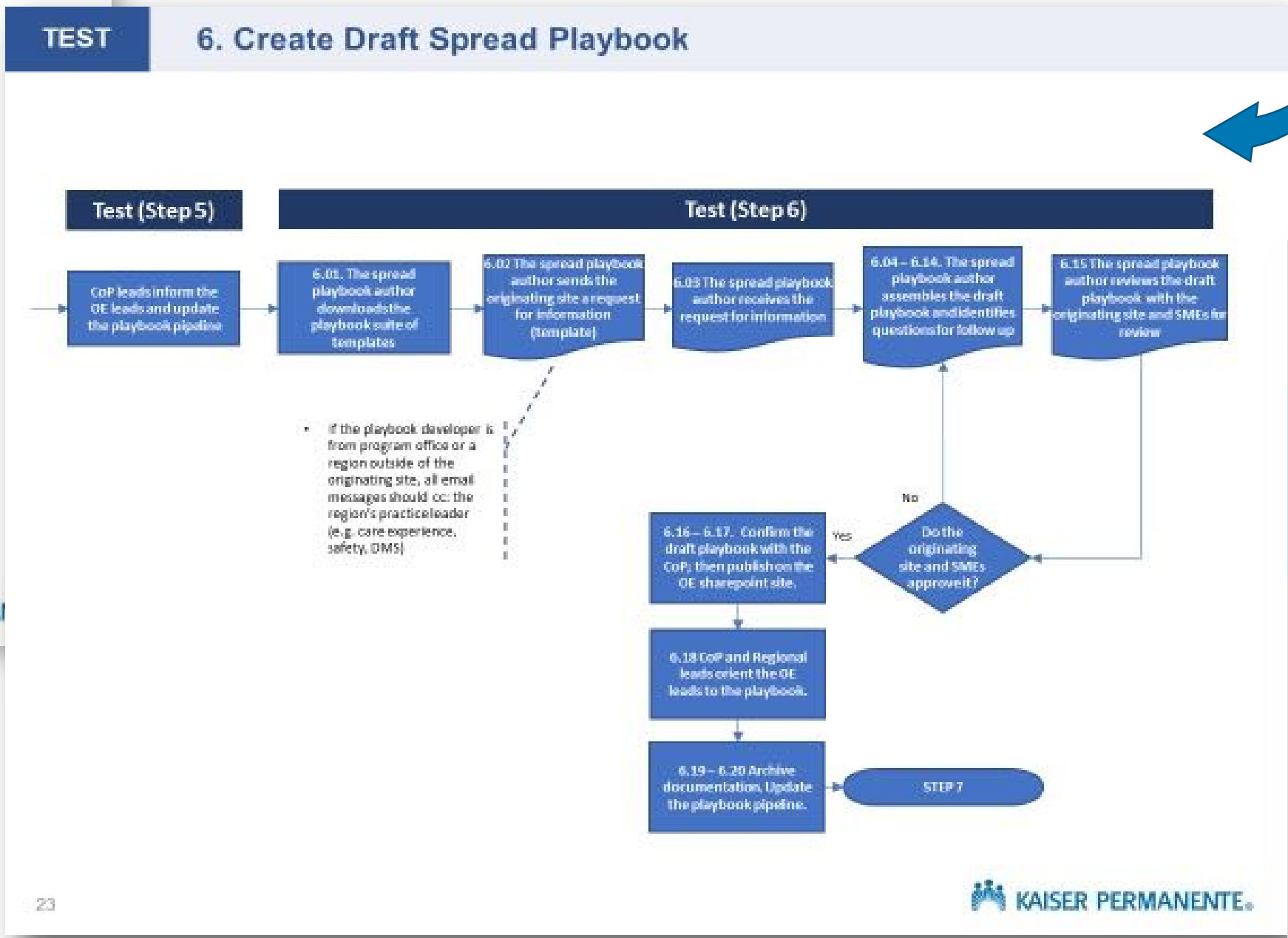
SharePoint Program repository that includes files, tools, and videos
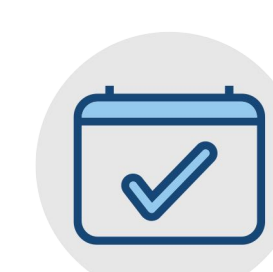
Determine Areas of Focus

KEY QUESTIONS

- Where do we need to make strategic progress?
- What are our clinical, operational and breakthrough strategies?
- Are we willing to commit resources?

2X2 Matrix
Driver Diagram
SWOT Analysis

DELIVERABLES

- Focus area and key priorities linked to Strategic Plan/Operating Plan
- Project Sponsor and decision-making body defined
- Criteria to prioritize portfolio of work

STANDARD WORK

- Determine areas of focus.

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Cost of Harm

- Surgical site infections (SSIs) are the most common hospital-acquired infection in surgical patients.

- Annual cost of SSI in the United States is **$3.5 to $10 Billion**

- SSIs on average increase the hospital length of stay by 9.7 days

- SSIs resulted in approximately 90,000 readmissions adding an additional $700 million in annual costs.

- SSI reduction efforts are a major quality-improvement priority for surgeons, and healthcare organizations.

- An estimated **60 %** of SSI's are projected to be preventable with the use of evidence-based measures

Kristen A. Ban, Joseph P. Minei, Christine Laronga, Brian G. Harbrecht, Eric H. Jensen, Donald E. Fry, Kamal M.F. Itani, E Patchen Dellinger, Clifford Y. Ko, Therese M. Duane, American College of Surgeons and Surgical Infection Society: Surgical Site Infection Guidelines, 2016 Update, *Journal of the American College of Surgeons, Volume 224, Issue 1, January 2017, Pages 59-74, ISSN 1072-7515.*

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Margaret's Story

- Margaret is a nurse, single mom of two girls

- Original Left Hip Replacement Surgery December 2013, 2 ½ weeks later dislocated the left hip

- 6-8 weeks later had increasing pain was sent to PT

- Aug 2014 c/o excruciating pain was sent to pain clinic and PT

- By Jan 2015 could not bear weight after 8 different providers was finally diagnosed with loose hardware caused by infection

- Return to the OR to remove hardware and PICC line placed for 6 weeks of antibiotics

- Aug 2015 Return to the OR for left hip replacement

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Understand the Problem

KEY QUESTIONS

- What is the problem?
- What is the customer/user experience?
- What are the drivers and effective practices that lead to high performance?

DELIVERABLES

- Problem definition
- Resource plan
- Prioritized opportunity list
- Customer and stakeholder perspectives
- Draft project charter

STANDARD WORK

- Understand the problem
- Scan the environment

Project Charter
Process Map/Fishbone Diagram
Stakeholder Analysis
Literature Review Template

PI Toolbox

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"If you define the problem correctly, you almost have the solution."
– Steve Jobs

KEY QUESTIONS

- Which solutions might delight patients and members?
- How does this change the current process?
- What can we stop doing?

DELIVERABLES

- Practice prototype (workflows, tool kits, measurement, staffing and support plans)
- Draft plan for testing
- Stakeholder and communications plan

STANDARD WORK

- Design the prototype

PI Toolbox

Update Project Charter
Voice of the Customer
SMART Goal Guidance
Draft Playbook

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Hand Hygiene	• Accurately apply hand hygiene techniques during the preoperative encounter
Weight & Temp	• Collect patient weight and temps on all patients
Glucose Monitoring	• Assess glucose levels (finger stick) on all patients
CO Monitoring	• Assess CO levels when orders are written
CHG Wipes	• RN to apply CHG wipes and perform skin assessment
Hair Clipping	• Perform hair clipping only when required
Warming Device	• Apply a warming device to all patients

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Make sure your staff understand the "WHY"

Preop

Hair Clipping

🎯 **GOAL:** Remove hair by clippers only when necessary and outside of the OR

Stakeholders
- Preop RN
- PCT
- CNA
- PA
- Surgeon
- Patient

Process Metrics
- % clipped in Preop
- % clipped in OR

Resources
- Clipping Check List
- Clipping Competency
- Clipping Binder
- Clipping guide & Carefusion instructions

Who?
- The RN, PCT, CNA, PA, and Surgeon can perform the activity

When?
- Hair at the surgical site should be left in place unless it interferes with the surgical procedure.
- Clipping is performed after patient admission to the pre-op unit and before application of CHG wipes

Where?
- Clipping should only take place in the pre-op unit
- Exclusions to this rule include:
  - Emergent cases/situations
  - Patients with extreme anxiety
  - Special procedures (e.g. neurosurgery or urogynecology)

Why?
- Hair clipping is conducted to decrease the risk of SSI in patients where hair is likely to enter the surgical field without clipping

How?
- See clipping guide and binder

Where and How to Document?
- In the Preop Checklist
- Under the "Pre Op Hair Removal section
- Select "clippers" or "vacuum assisted clippers"
- Only document hair clipping in optime when clipping is performed in the OR

19

Draw a Pig

Pick up the blank sheet of paper that was handed out to you.

Draw a pig
You have 40 seconds….

GO!

- This time use the paper with the grid on it and follow the instructions on the screen.

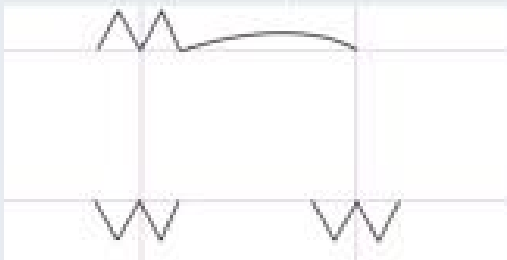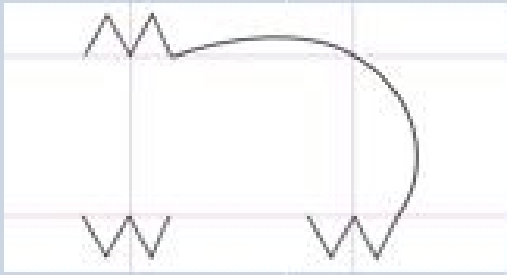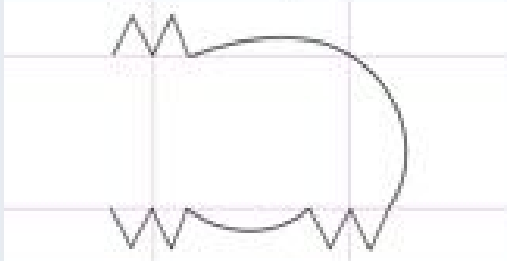- You have 3 minutes total (1 ½ minutes per slide).

Operation: Pig Picture Drawing   Staff Requirements: 1 Artist   Tools: 1 Blue or Black Pen Materials: 1 Blank Sheet of Paper with Tic-Tac-Toe Grid
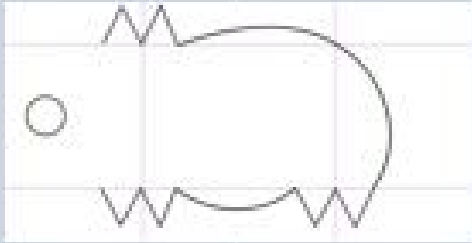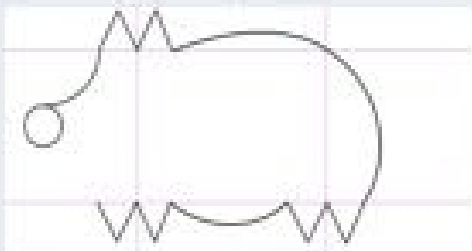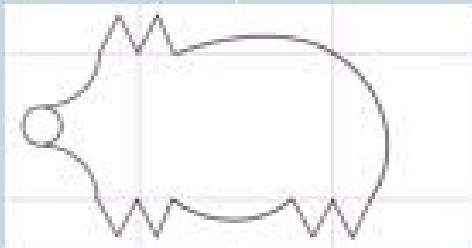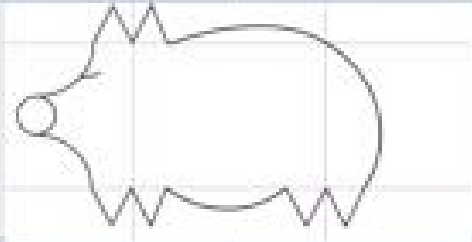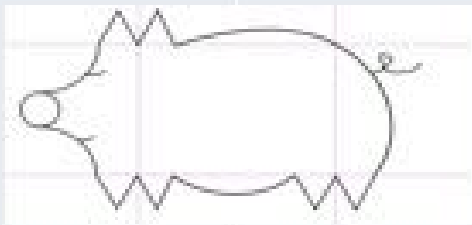
| #	Instruction
1	Ears- Draw a letter M at the top left grid intersection. The bottom center of M touches the intersection.
2	Front Legs- Draw the letter W at the bottom left grid intersection. The top center of W touches the intersection.
3	Hind Legs- Draw the letter W at the bottom right grid intersection. The top center of W touches the intersection.
4	Back- Draw an arc (Rounded side up) from the letter M to the top right grid intersection.
5	Rump- Draw another arc (Rounded side Right) from the top right grid intersection to the right side of the bottom right W.
6	Belly- From the right corner of the W on the left, draw an arc (Rounded Side Down) to the top left corner of the W on the Right.

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Step	Instruction
7	Nose- Draw the letter O in the center left box with a diameter about ¼ the height of the left box
8	Forehead- Draw an arc (Rounded side Down and Right) from the bottom left corner of the letter M to the top of the circle.
9	Chin- Draw an arc (rounded side up and right) from the left side of the left W to the bottom of the circle.
10	Eyes- Draw an arc for the eye halfway between the M and the circle.
11	Mouth- Draw an arc for the mouth halfway between W and circle. (It must be a happy pig!!)
12	Tail- Draw the tail using a cursive letter e near the top of arc on the right.
13	Nostrils- And finally, draw two dots in the middle of the circle for the pig's nose.

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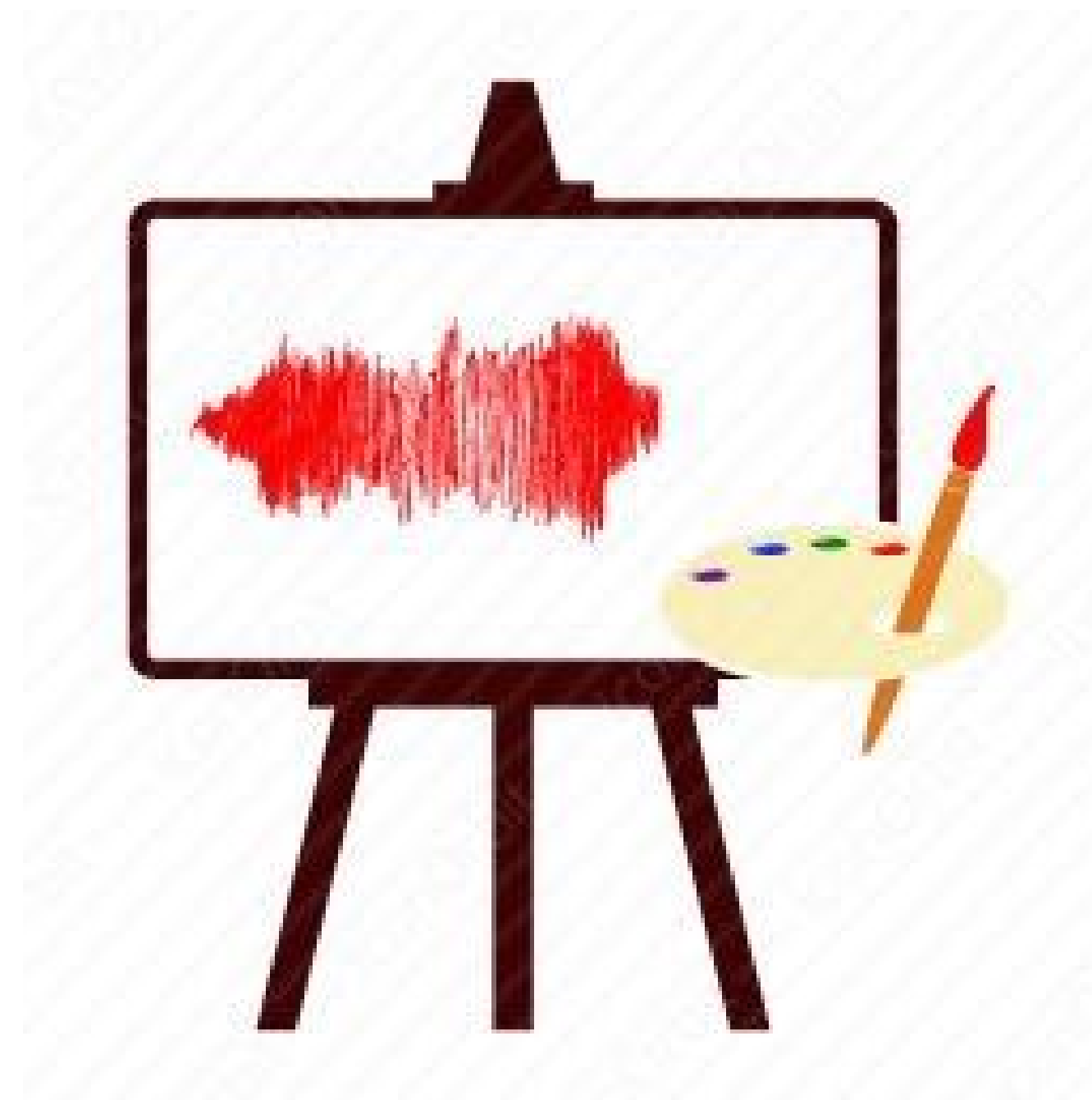| Step	Instruction		
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13	**Nostrils**- And finally, draw two dots in the middle of the circle for the pig's nose.		

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Does your pig now look like this?
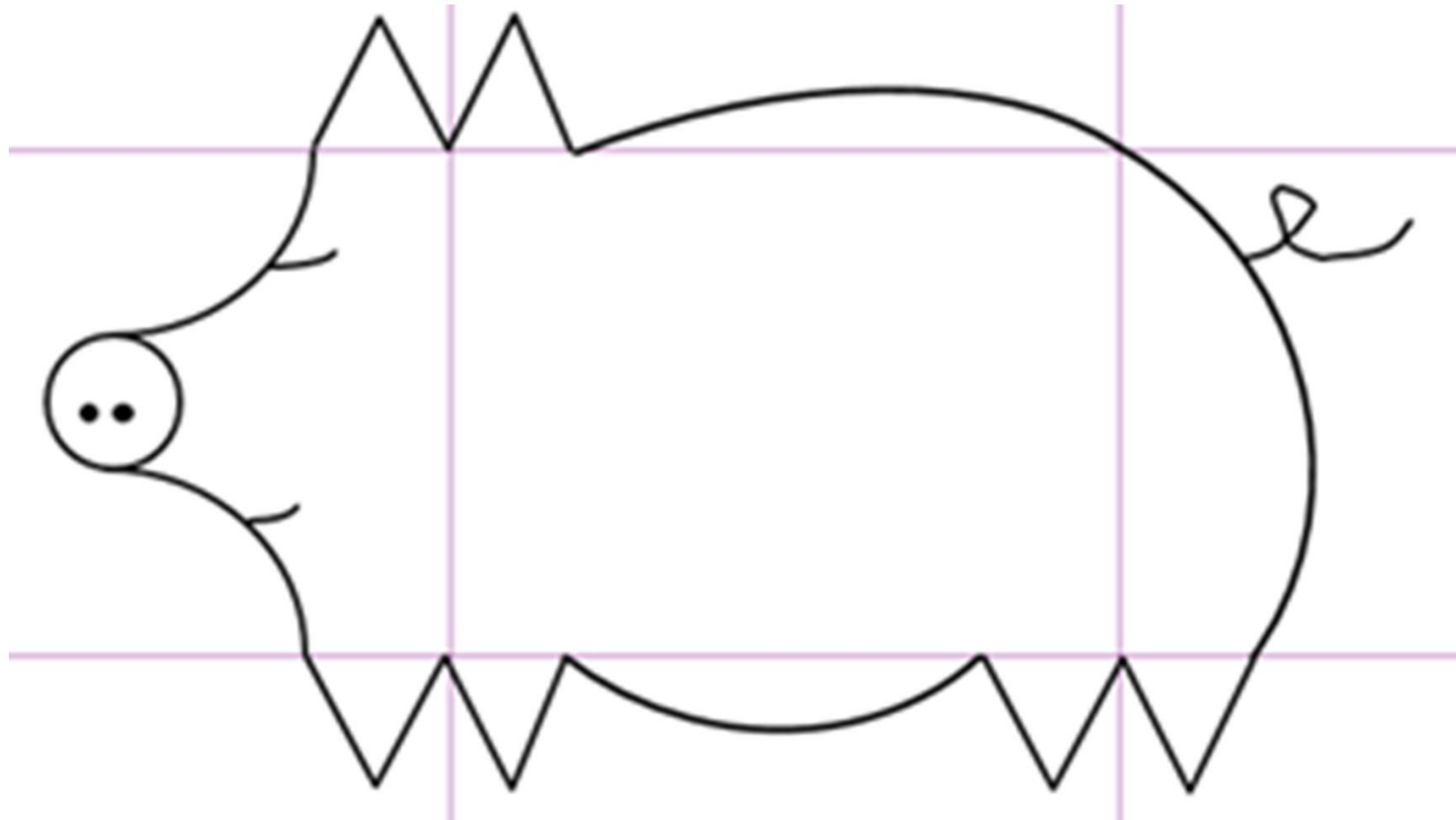
Adding visual management to your standard work will:

- Improve understanding of the best practices and the correct execution of each step
- Provide a clear picture of what the "end" is supposed to look like
- Decrease training time and reduce the learning curve for new staff
- Make the standard easy to see

Resources for Frontline Staff

HealthStream Modules

Resource Binder Guides

Checklists & Competencies

Test the Prototype

KEY QUESTIONS

- Does the practice produce the desired results?
- Is the practice ready for spread?
- What are the key elements of the practice to be included in the spread playbook?
- Does the practice produce desired results in other arenas?

DELIVERABLES

- Learning cycles and test plans
- Draft plan to go from 1 to 2-3 sites
- Measurement, staffing and support plans
- Playbook and implementation plans finalized
- Toolkits and supporting materials updated
- Spread readiness evaluation

STANDARD WORK

- Test the prototype
- Evaluate for Spread readiness
- Create draft spread playbook
- Test draft playbook in 2-3 sites
- Finalize Playbook

PI Toolbox

PDSA planning Template
Spread Readiness Assessment
Finalize Playbook

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Results

22% Reduction in SSI

KEY QUESTIONS

- What must we do to fully integrate into operations?
- Is system performance improved?

DELIVERABLES

- Regional spread plan
- Change Management and communications plans
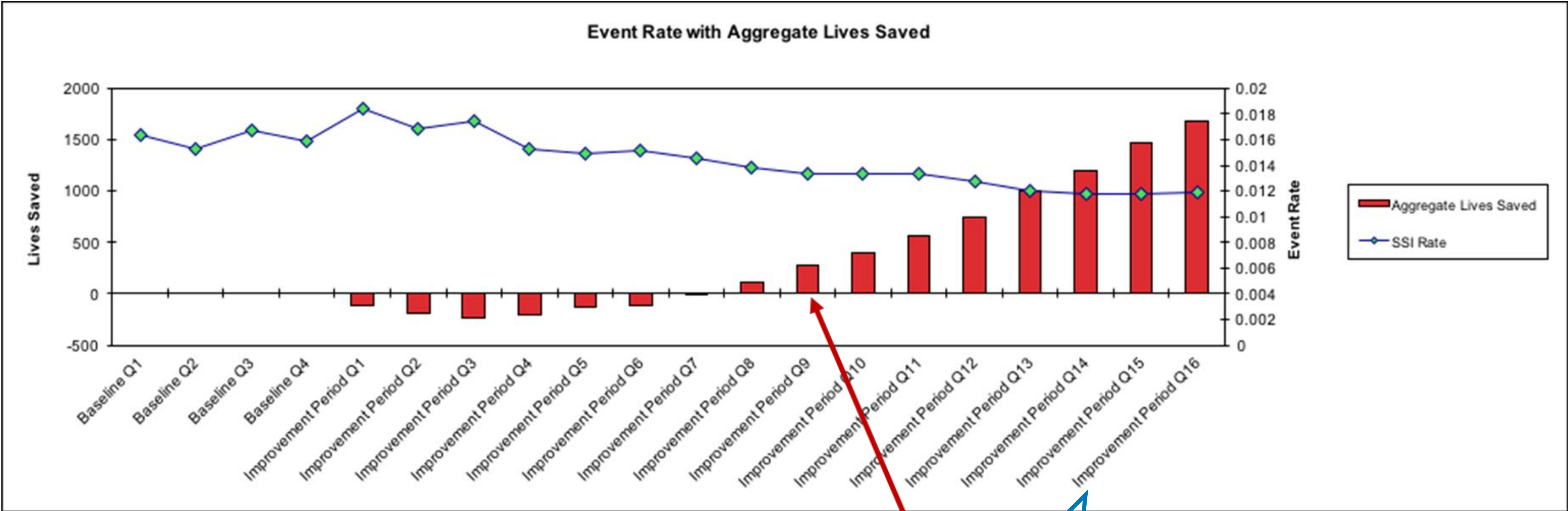- Standardized technology, products, staffing models

STANDARD WORK

- Deploy to receiving sites
- Adopt the practice
- Hardwire changes into daily operations

PI Toolbox

Receiving Site Readiness Assessment
Spread Approach Reference Guide
Control Chart Rules

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Return on Investment isn't always $$

Event Rate with Aggregate Lives Saved

Current Status
250 Lives
Saved

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The Role of the DNP

Publish

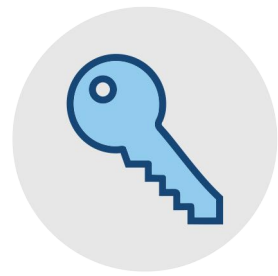Publish

Publish

Publish

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Manage Performance

KEY QUESTIONS

- What is needed to regularly manage performance and detect drift from the process?
- Is there a plan to respond to drift?
- Is there new evidence in the literature or an effective practice to support a refresh?

DELIVERABLES

- A system is in place to measure, monitor and manage performance, detect and respond to drift (Control & Sustain plans)
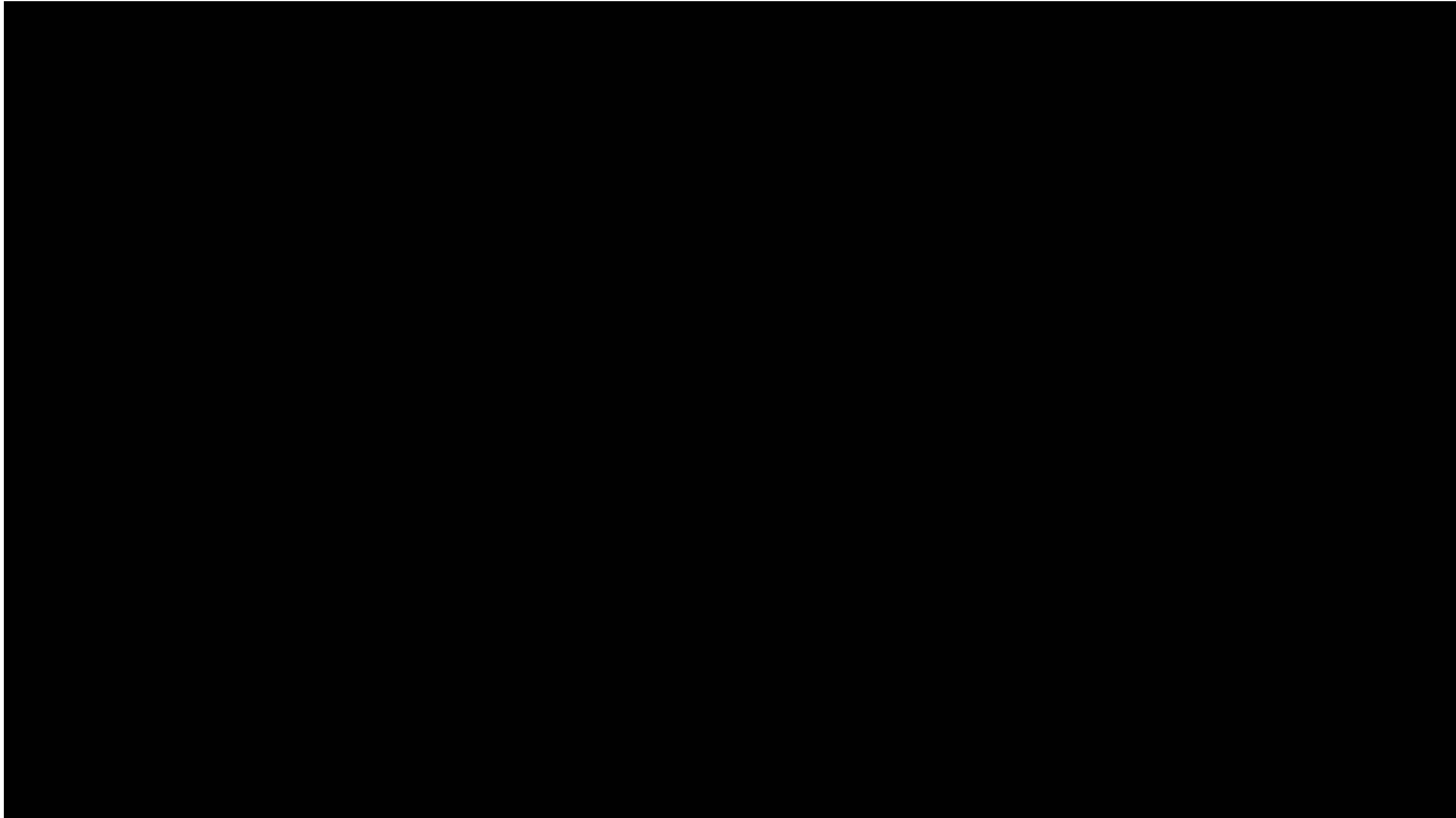
STANDARD WORK

- Manage Performance
- Respond to drift
- Refresh and optimize

PI Toolbox

Control Chart Rules
Drift Plan
Literature Review

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Xcelerating Learning & Spread (XLS) 2.0 Model

"It's more important that you do it the ***same way*** than what ***you think*** is the right way."

Brent James M.D.

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Thank you!

Email: Tammy.S.Peacock@kp.org

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