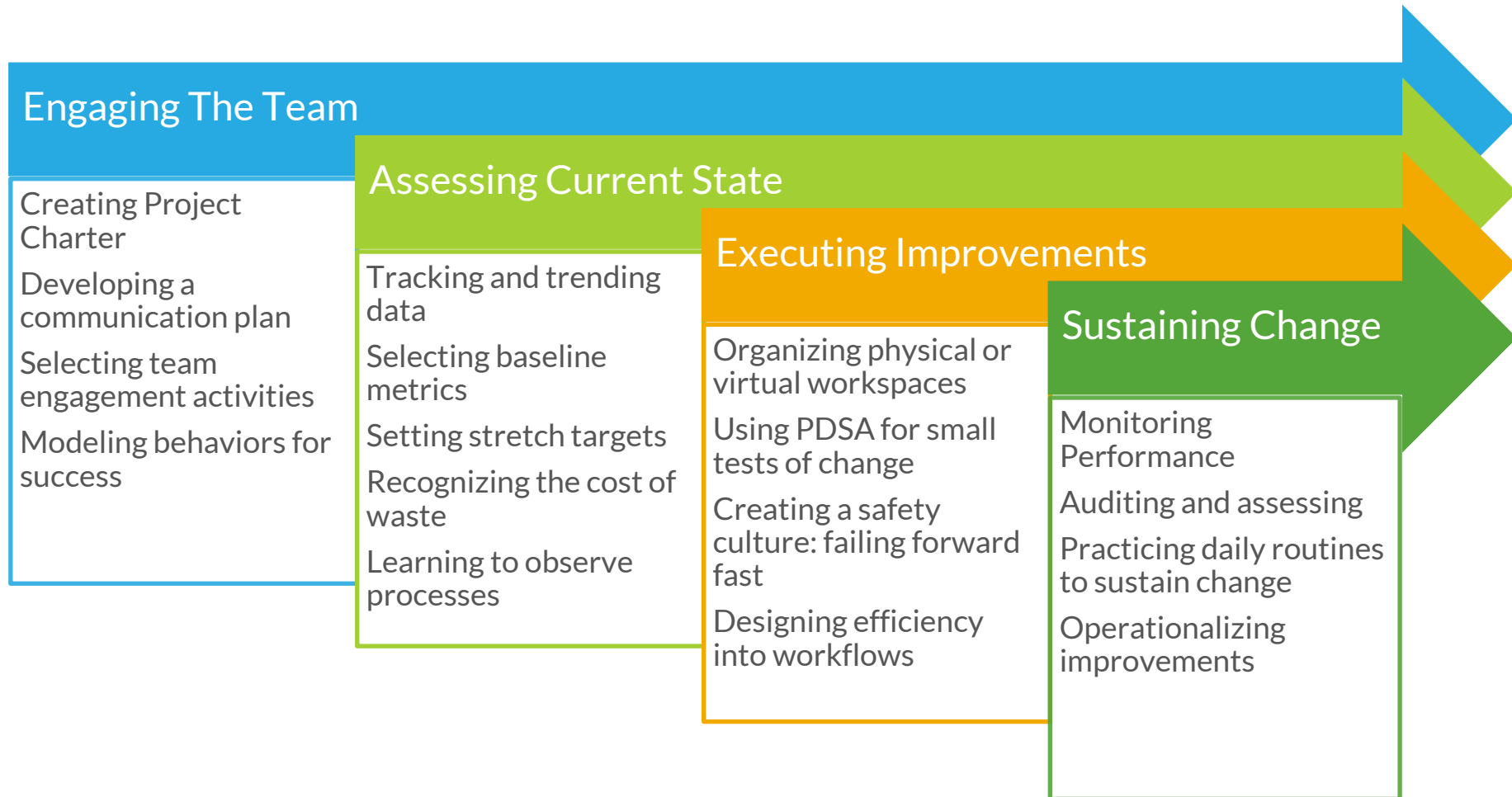


# Executing Improvements

Session 4



# Course Overview



# Agenda for Session 4

| Topic/Subject                             | Duration | Method   |
|---|----------|--|
| Welcome and sharing                       | 5 min    | Personal Sharing                                 |
| Organizing Physical or Virtual Workspaces | 40 min   | PowerPoint presentation<br>Group Discussion      |
| Using PDSA for Small Tests of Change      | 40 min   | PowerPoint presentation<br>Group Activity        |
| Wrap-up and Next Steps                    | 5 min    | PowerPoint presentation<br>Questions and Answers |

# Organizing physical or virtual workspaces

# During your waste walk, what did you see that needs organizing or simplifying?

*Use the chat to share*

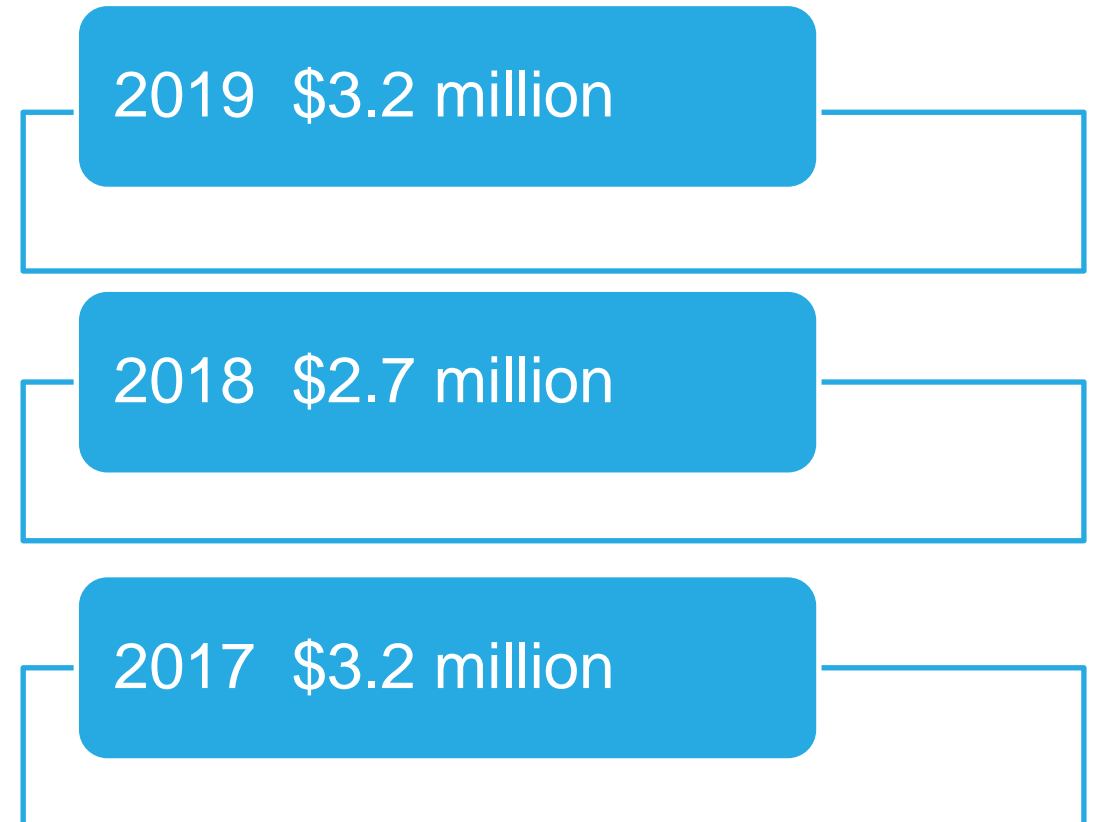


# Waste: Inventory

## What to look for

- High inventory levels
  - Par levels
  - Kanban
  - Out of stock
  - Managing inventory and counting, barcoding
- Low inventory turns
  - FIFO
  - Expired items
- Location
  - Walking and searching for supplies
  - Supplies not kept at point of use
- Standards
  - Pricing, new supplies, implants, instruments
  - Rigid yet flexible
  - Supply chain principles

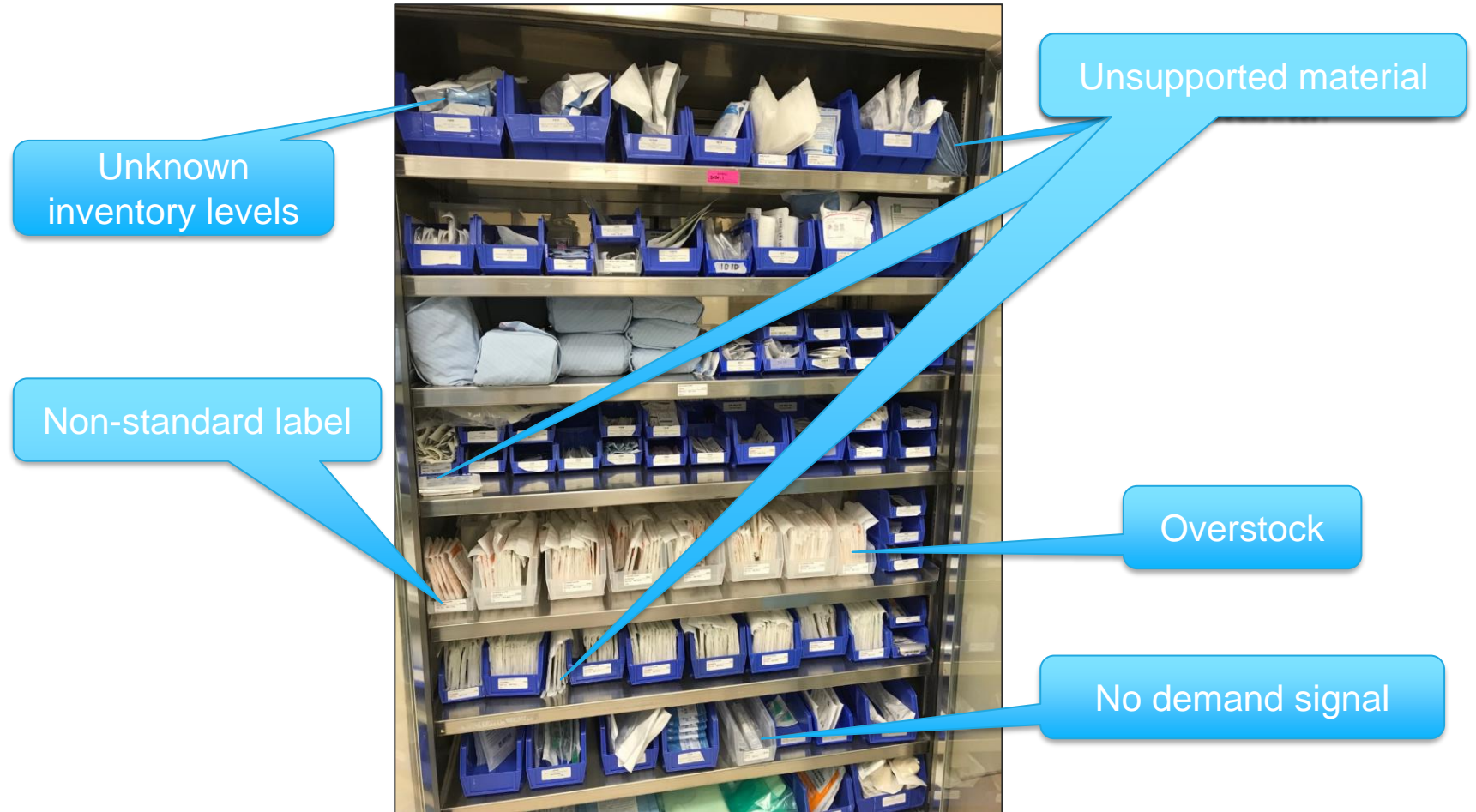
## Example: VM Supply Chain Cost Savings



# ASC Pass Through Optimization

## OR21 Previous State

- High risk inventory:
- Exp., Out of stock





# ASC Pass Through Optimization

## OR21 Current State

- Known Status

Pulled 1044 items of overstock



Known inventory levels



No Unsupported material

Standard label

Demand based inv.

Demand signal



# Waste: Inventory, Overproduction, Defects

## ASC Pass through optimization example

### Focus

- Inventory in our ASC operating rooms and pass-through locations were uncontrolled, resulting in unclear inventory levels.
- Reduce the manual inventory management process.
- Establish par levels.
- Ensure labeling.
- Establish Supply Chain Principles

### Results

- Updated and implemented supply list and layout.
- Ensured all stakeholders have provided feedback for supply list and layout.
- Established Supply Chain Principles of:
  - Fixed Quantity
  - Fixed Location
  - FIFO
  - No Counting

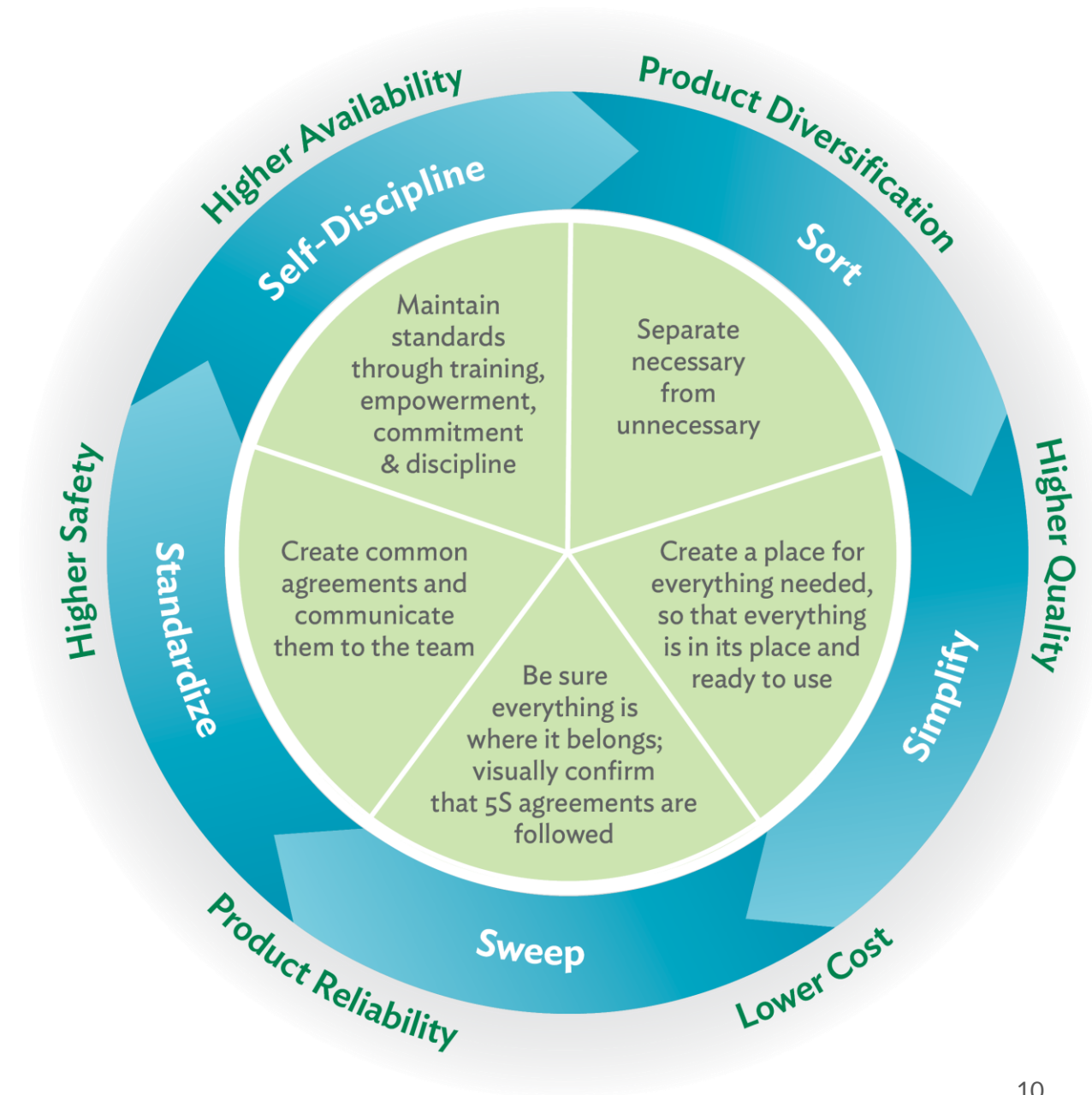
# 5S

**5S** is a foundational element of the Virginia Mason Production System® (VMPS).

**5S** allows us to have

- What we need
- Where we need it
- When we need it
- Each and every time we need it

**5S** is a strategy that helps to keep our work and workplace safe and organized.



# Sort and Simplify

## 5S is more than organization

Supplies are neat, but are par levels connected to use?

What do you do when there is excess inventory?





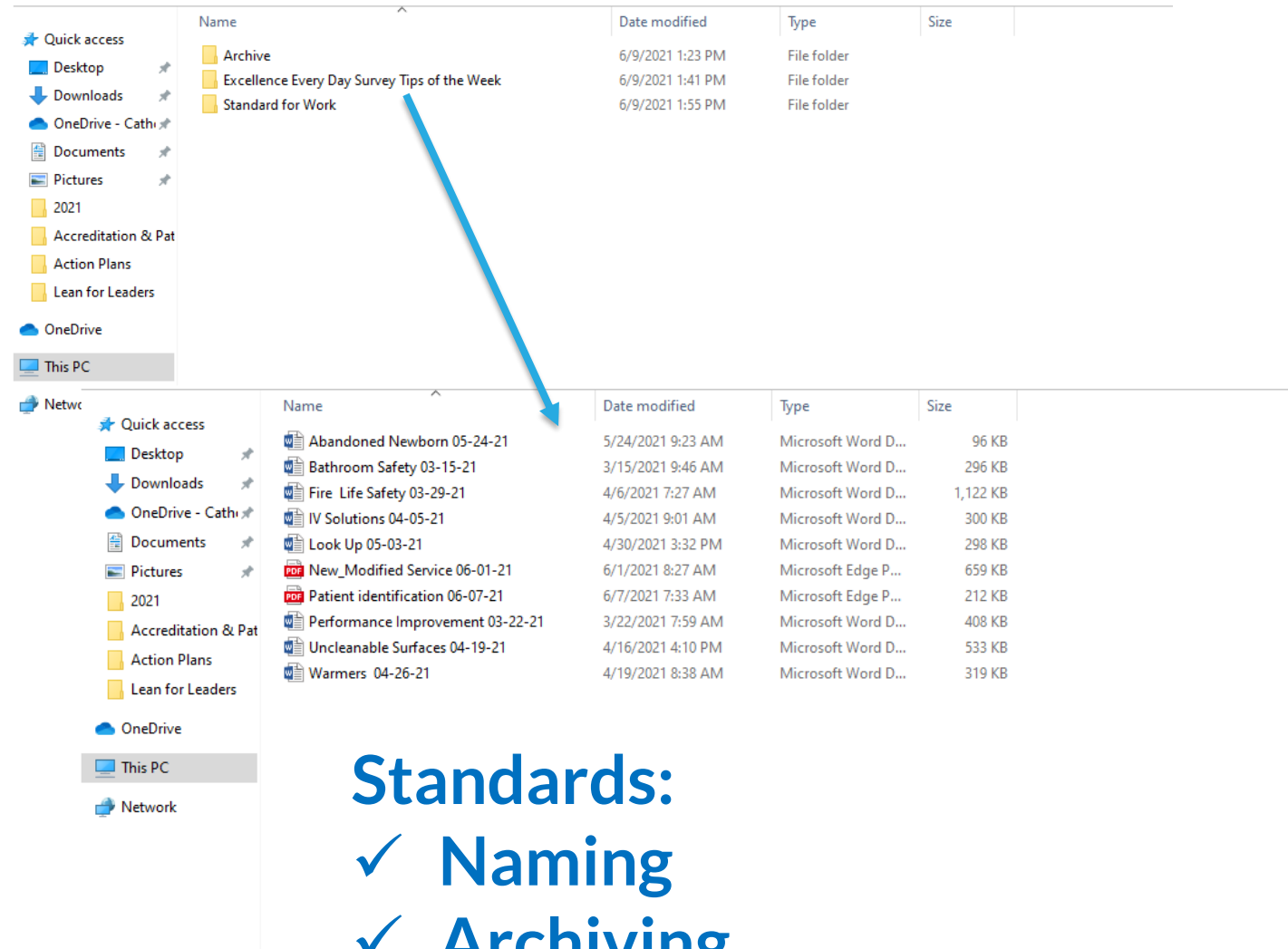
[illegible]

# Workplace Standardization

## 5S includes:

- Work surfaces
- Supply closets/supply inventory
- Virtual scheduling and appointment setting
- Appointment types
- Physical spaces
- Virtual file storage
- Email

...and just about everything!



| Name   | Date modified    | Type        | Size |
|--|------------------|-------------|------|
| Archive                                      | 6/9/2021 1:23 PM | File folder |      |
| Excellence Every Day Survey Tips of the Week | 6/9/2021 1:41 PM | File folder |      |
| Standard for Work                            | 6/9/2021 1:55 PM | File folder |      |

| Name                             | Date modified     | Type                | Size     |
|----------------------------------|-------------------|---------------------|----------|
| Abandoned Newborn 05-24-21       | 5/24/2021 9:23 AM | Microsoft Word D... | 96 KB    |
| Bathroom Safety 03-15-21         | 3/15/2021 9:46 AM | Microsoft Word D... | 296 KB   |
| Fire Life Safety 03-29-21        | 4/6/2021 7:27 AM  | Microsoft Word D... | 1,122 KB |
| IV Solutions 04-05-21            | 4/5/2021 9:01 AM  | Microsoft Word D... | 300 KB   |
| Look Up 05-03-21                 | 4/30/2021 3:32 PM | Microsoft Word D... | 298 KB   |
| New_Modified Service 06-01-21    | 6/1/2021 8:27 AM  | Microsoft Edge P... | 659 KB   |
| Patient identification 06-07-21  | 6/7/2021 7:33 AM  | Microsoft Edge P... | 212 KB   |
| Performance Improvement 03-22-21 | 3/22/2021 7:59 AM | Microsoft Word D... | 408 KB   |
| Uncleanable Surfaces 04-19-21    | 4/16/2021 4:10 PM | Microsoft Word D... | 533 KB   |
| Warmers 04-26-21                 | 4/19/2021 8:38 AM | Microsoft Word D... | 319 KB   |

## Standards:

- ✓ Naming
- ✓ Archiving
- ✓ Version control

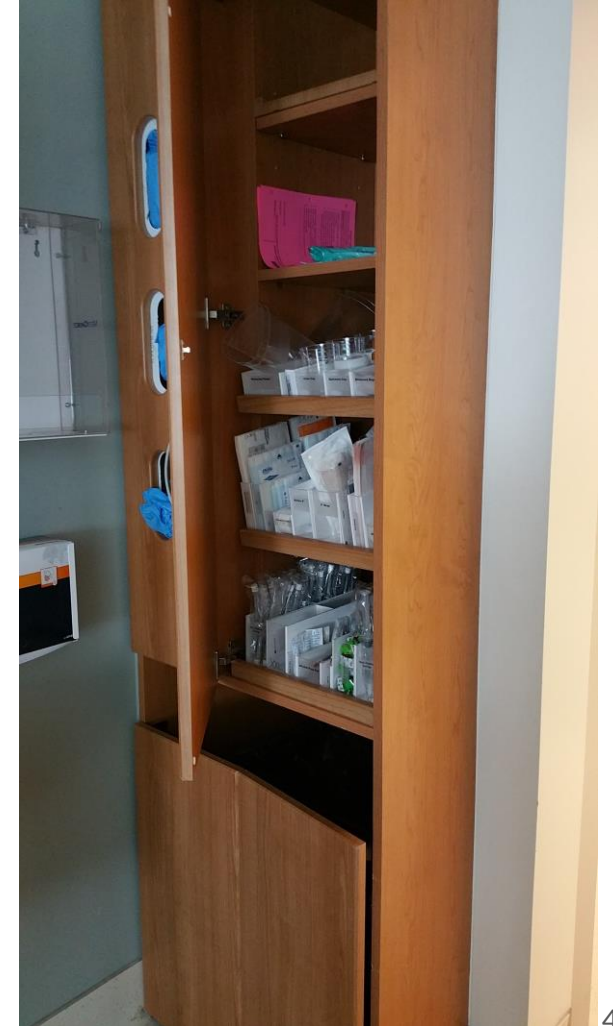


# Just-in-time Supplies

## Two-bin system



## Point-of-use



# Supply Replenishment System

## 2-bin System



**1**

When you remove  
the last supply,  
take out the  
empty bin



**2**

Pull the back bin  
forward



**3**

Place the  
used bin (kanban)  
in  
the collection area



# Kanbans

Kanbans are visual controls that help to manage inventory.

They display replenishment cycles and par levels

They reduce out of stock items.

You can use physical kanbans for office supplies.

Collecting kanbans can be performed by a water spider.



# Virtual Kanbans

## Instructions from one step to another in a process

**Virtual Kanban Board Columns:**

- To do**
  - AVMPS Cohort Presentations
  - Ortho - Ops needed- level loading people (02/15)
  - Hyperbarics- integrating an MA into the team (02/09)
  - Neurosurgery Models of Care (02/09)
  - Vaccine Clinic Build and Spread (02/09)
- Budding Stories**
  - VMPS Fundamentals pilot
  - R. Pong Morehouse College Project
  - Referral Management Workflows
  - Wound Care-Idea board
  - Antibiotic Management in Infectious Diseases
  - EFM-Creating a Culture of Kaizen
  - DM Evolution in Derm (09/30/2020)
- Ready to Share**
  - LGBTQ Competency Visioning (02/23)
  - IS: Creative Team Restructure (09/30/2020)
  - CTS/SH models of care- visioning & PDSA (02/08)
  - Aspiring Leaders Program: PDSA (January 13, 2021)
  - Hypertension Health Equity
- Ready to be Recycled**
  - Revenue Cycle Virtual PL
- Stalled Stories**

**VMPS® Story Headings:**

- To Do
- Building Phase
- Ready to Share
- Ready to be Recycled
- Stalled Stories

**Card Detail: Vaccine Clinic Build and Spread**

Last changed 01/11/2021 by Whipple, Shawna

Whipple, Shawna

Add label

Bucket: To do

Progress: Not started

Priority: Medium

Start date: Start anytime

Due date: Due anytime

Notes: Lynn, Jessica, and Dana- built a vaccine clinic from the ground up to deliver all the 1A COVID vaccines to our team members. Expanded to community 1A last week of DEC. Continued improvements in flow, daily management, visual controls and standard work evolution.

Checklist 0 / 2

- Agree on a date and presenters
- Add to schedule
- Add an item

Attachments: Add attachment

Comments: Type your message here

Whipple, Shawna

New Task "Vaccine Clinic Build and Spread" created

January 6, 2021 1:48 PM

# 5S Baseline Metrics

Before we begin our 5S of physical (and virtual) spaces, we can capture a baseline assessment,

After 5S we can re-assess and the audit tool can also be used as an action plan for the next level of improvement for the area.

|   | Sorting   | Simplifying  | Sweeping  | Standardizing  | Self-Discipline  |
|---|---|--|---|--|--|
| <b>Level V</b><br>Continuously Improve  | Cleanliness problem areas are identified and mess-prevention actions are in place                                   | Map has been created for each item in storage room showing general location and layout of materials and can be retrieved quickly with minimal effort | Potential problems are identified and countermeasures are documented                                      | Reliable methods and standards are shared throughout similar work areas                    | Root causes are eliminated and improvement actions focus on developing preventive methods  |
| <b>Level IV</b><br>Focus on Reliability | Work area has documented housekeeping responsibilities and schedules, and the assignments are consistently followed | Items move from storage to use; visual control created to identify point of use  | Inspection of area occurs daily, and work areas and equipment are restocked and organized                 | Reliable methods and standards are adhered to by all members of the work group             | Sources and frequency of problems are documented as part of routine work, root causes of noncompliance are identified, and corrective action plans are developed |
| <b>Level III</b><br>Make it Visual      | Initial cleaning has been completed; items are disposed of according to auction disposition                         | Needed items are outlined, dedicated locations are properly labeled, and required quantities are determined  | Visual controls and indicators are established and marked for the work area equipment, files and supplies | Documentation for all visual controls exists   | Work group routinely checks area to maintain 5S agreements   |
| <b>Level II</b><br>Focus on Basics      | Needed and not-needed items are identified, and those not needed are removed from work area                         | Needed items are stored and organized according to frequency of use  | Work group has agreed on items to be checked, and acceptable performance levels documented                | Work group has documented agreements for needed items, organization and work area controls | Documentation of completed 5S is posted in work area; 5S is incorporated into new-staff orientation  |
| <b>Level I</b><br>Just Beginning        | Necessary and unnecessary items are mixed together throughout the work area   | Items needed are located in various places throughout the work area  | Key work items are missing and current location is not known  | Standards for work area organization are not followed or documented                        | Work area checks are not done regularly, and there is no visual measurement of 5S performance  |

# Practical Application

## Your Tasks:

- Select a physical or virtual space to organize.
- Keep it small and simple
- Use the concepts of 5S to sort, simplify and standardize.
- Create a sweep schedule and team agreements to ensure compliance and control inputs

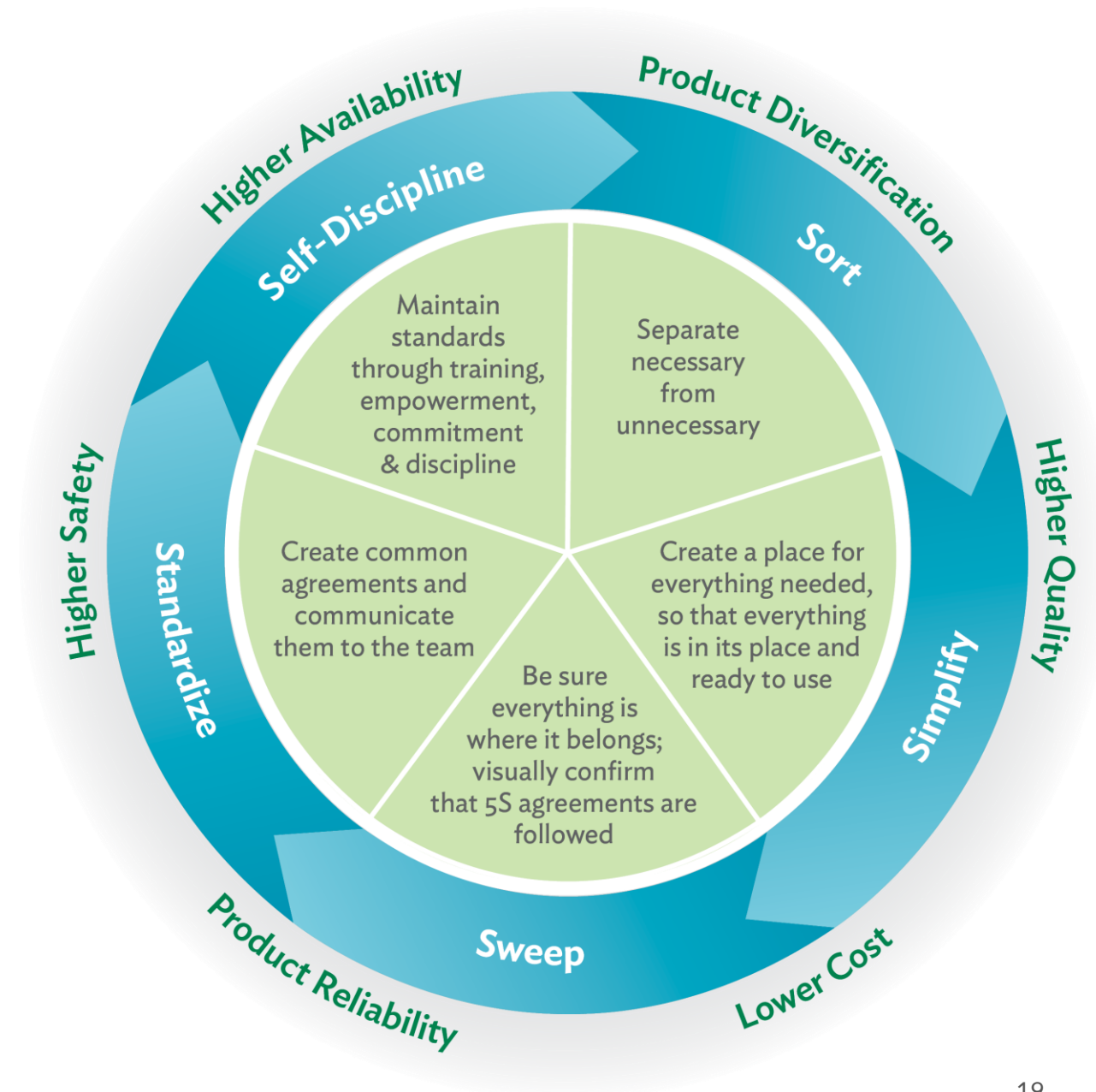
## Products:

- Photos or screenshots of your improvement

**Deadlines:** Estimated time for completion 60 minutes

- Document story on the *Assignment*

*Presentation\_Name template* and prepare to be selected to share at an upcoming huddle



# Using PDSA for small tests of change



# During your waste walk, what were opportunities for improvement?

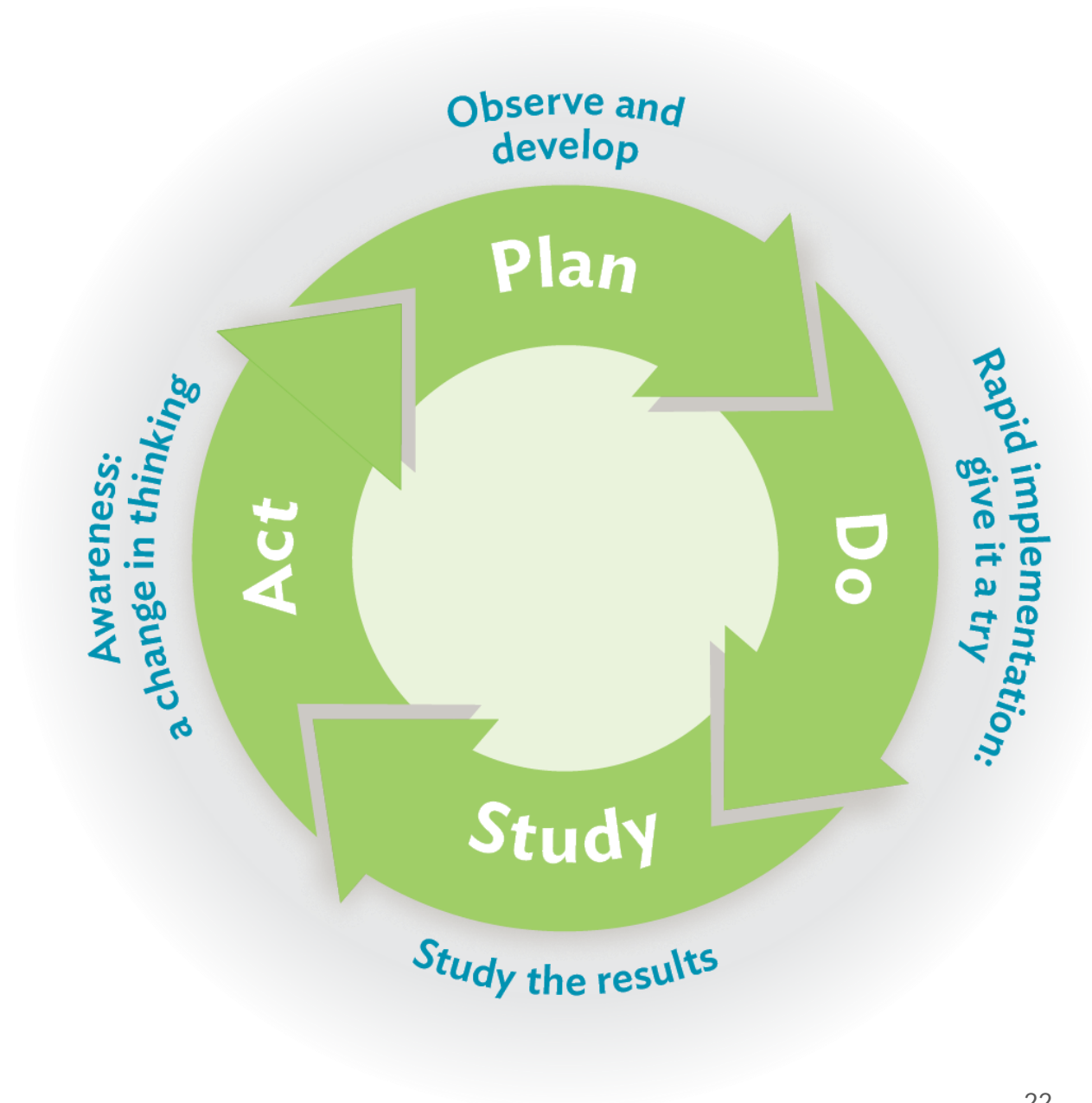
*Use the chat to share*



# PDSA for Improvement

## Plan, do, study, act

- Plan the test or observation, including a plan for collecting data
- Try out the test on a small scale
- Set aside time to analyze the data and study the results
- Refine the change, based on what was learned from the test





# Eight Key Leadership Behaviors

## 1. Become a Problem Framer

- Identify the right problem to fix,  
(without having all the answers or solutions)
- Let the workers who do the work generate ideas.



# Problem Solving vs Problem Framing

## Leaders as “Problem Solvers”

- Telling
- Directing
- Knowing
- Planning

## Leaders as “Problem Framers”

- Listening
- Coaching
- Discovering
- Testing

# 9 ways to Effectively Frame a Problem

1. Rephrase the problem (assume there are multiple solutions)
2. Expose & Challenge Assumptions
3. Make it Bigger (Hypernym)
4. Make it Smaller (Hyponym)
5. Use Multiple Perspectives (IE: Patients, Visitors, Staff)
6. Use Positive Effective Language Constructs (Rephrase the problem as a question  
“In What Ways Might I?” – Action; Object; Qualifier; Result”
7. Make it Engaging
8. Reverse It
9. Gather Facts (RCA)

# Let's Practice Problem Framing

Take 5 minutes working individually

## 9 Ways to Effectively Rephrase a Problem

1. Rephrase the problem (assume there are multiple solutions)
2. Expose & Challenge Assumptions
3. Make it Bigger (Hypernym)
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5. Use Multiple Perspectives (IE: Patients, Visitors, Staff)
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“In What Ways Might I?” – Action; Object; Qualifier; Result”)
7. Make it Engaging
8. Reverse It
9. Gather Facts (RCA)

State an original problem or complaint as identified by your team (from waste walk):

---

Use three of the ways listed on the left to reframe the problem:

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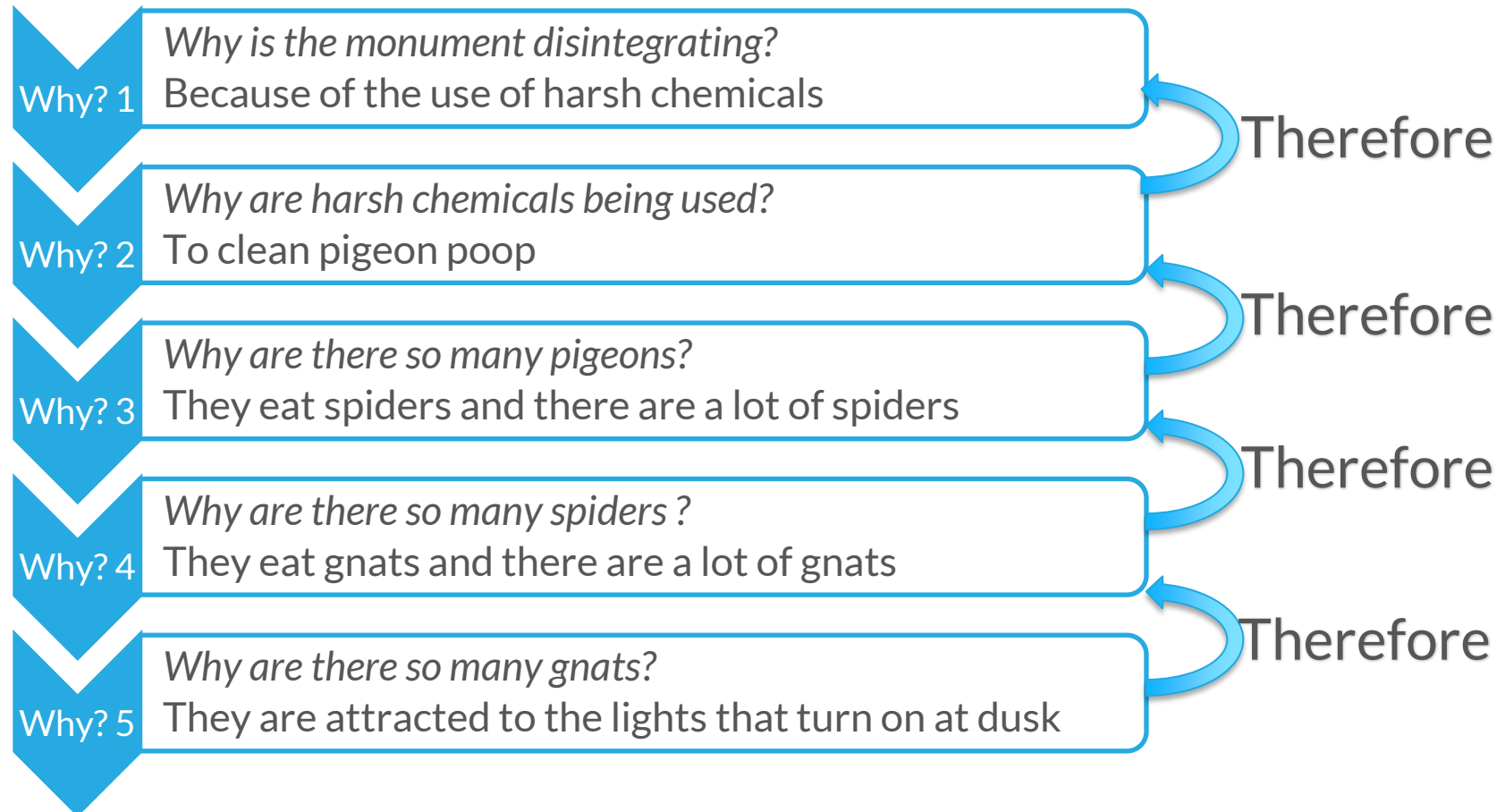
- Be ready to discuss how the problem was reframed and how this might change the focus for solutions.

# Problem Framing Pitfalls

- Solutions disguised as a problem statement  
“we need a \_\_\_\_\_” or “we don’t have enough \_\_\_\_\_”, or “we should \_\_\_\_\_”  
*Reframe with the impact to patients or staff, instead of a need for something specific.  
Or Use 5 whys to get to the real problem.*
- Problem that only exists for 1 or 2 team members when many are doing the same job.  
*This could be a result of many ways to do the job, or not having a common understanding of quality outcomes. Root Cause Analysis such as 5 whys can usually surface the real problem.*

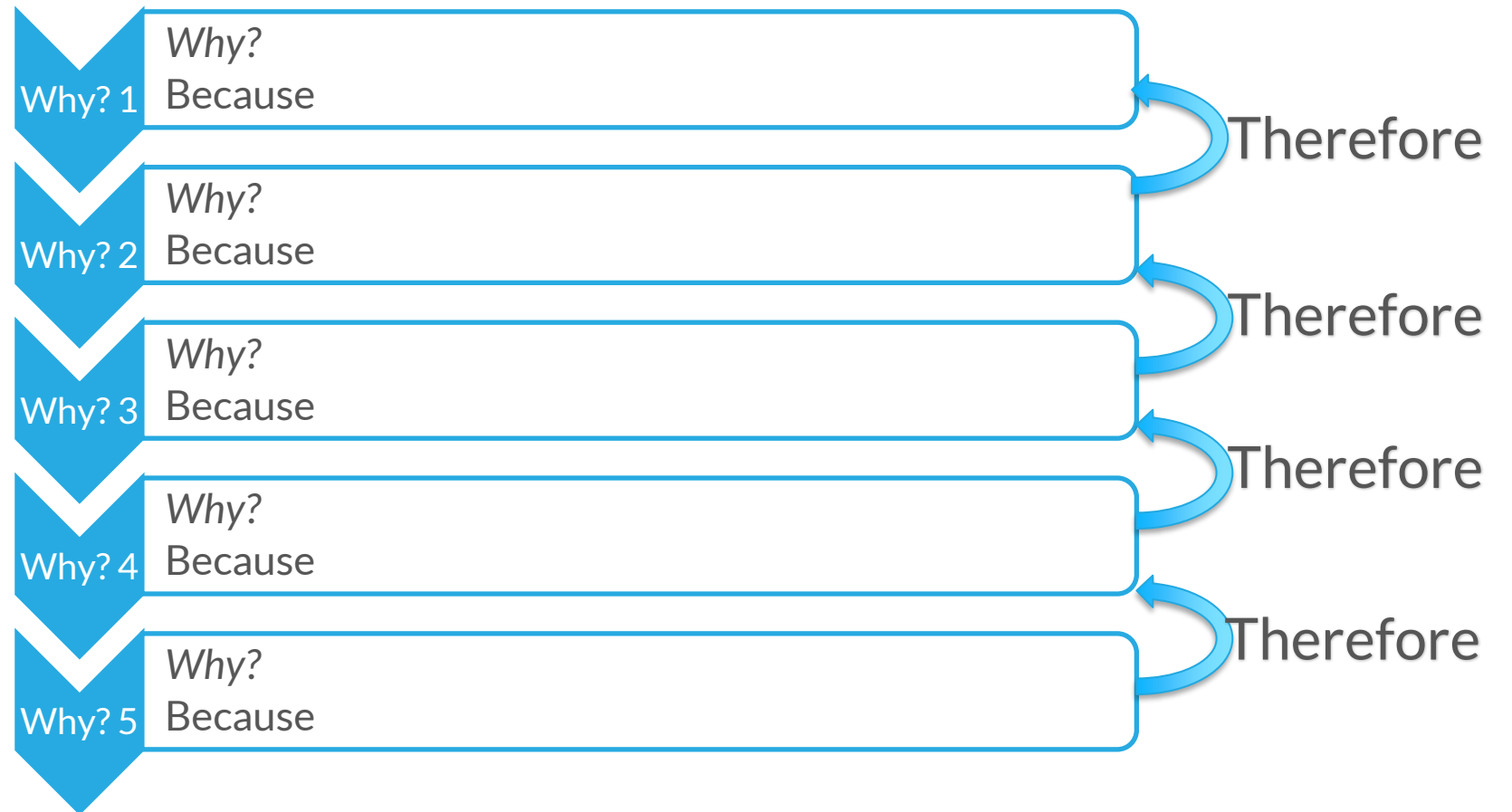
# Root Cause Analysis: 5 Whys example

Problem Statement: The Washington Monument is disintegrating



# Getting to Root Cause

- Identify a problem. \_\_\_\_\_
- Are we at root cause?





# Generating Ideas Using 7 Ways

## Key Steps

- Problem Statement (root cause). \_\_\_\_\_
- Work individually to generate at least seven different ways the problem could be solved. Practical isn't needed, just a variety of ways to do things differently.
- Normally we write one idea per sticky note – use the chat to list your ideas

We will take 3-5 minutes to do this

- Normally we post ideas on a wall, group similar ones together, look for themes. Put duplicates on top of each other, don't throw any away – we will do this virtually

# 7 Ways Debrief

## 7 Ways Debrief

- How did that feel having to generate 7 ways?
- How could you set this up with your team?
- What will you be sure to include when you do this with your team?
- Any other feedback?

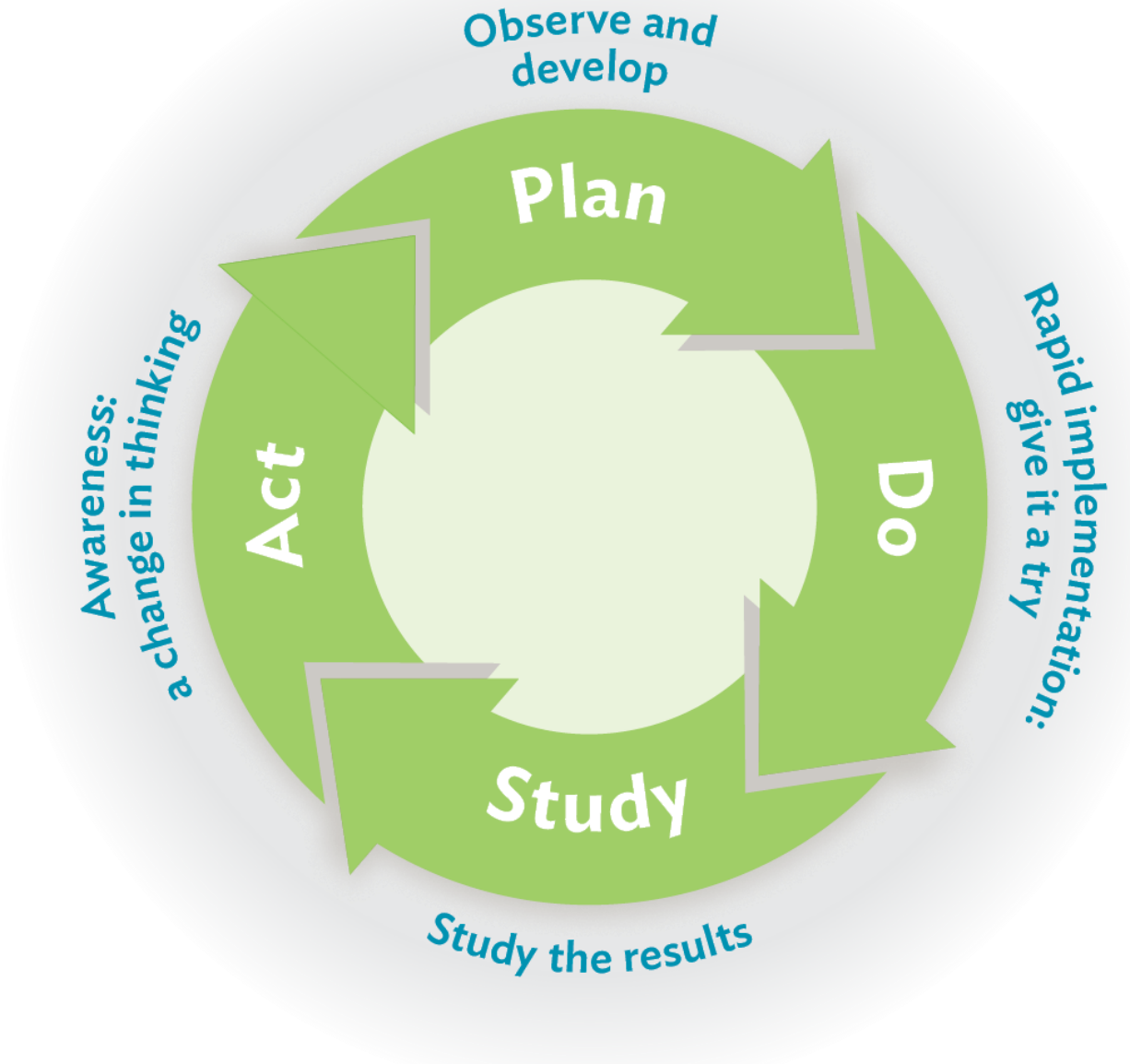
# Themes

|  |  |  |  |
|--|--|--|--|
|  |  |  |  |
|--|--|--|--|

# Coach Ideas Through PDSA

## Use the PDSA process:

1. Articulate the problem (plan)
2. Describe the idea (plan)
3. Test the idea (do)
4. Evaluate the results (study)
5. Share the idea (act)



# Group Exercise

## Let's work through the PDSA Worksheet as a group.

Exercise 10 minutes

Let's use the top idea each team selected as a result of our multi-voting Exercise:

---

## Plan-Do-Study-Act (PDSA) Worksheet

### Plan

Date:

|   |   |
|---|---|
| What problem are you trying to solve?           | How will you know an improvement has been made? |
| <input type="text"/>                            | <input type="text"/>                            |
| What measures will you use to determine change? | What is your hypothesis?                        |
| <input type="text"/>                            | <input type="text"/>                            |

|   |                      |                      |                      |
|---|----------------------|----------------------|----------------------|
| List the tasks needed to set up this test of change | Person responsible   | When to be done      | Where to be done     |
| <input type="text"/>                                | <input type="text"/> | <input type="text"/> | <input type="text"/> |

### Do

Describe what actually happened when you ran the test.

### Study

Describe the measured results and how they compared to the predictions.

### Act

Describe what modifications to the plan will be made for the next cycle from what you learned.

# Practical Application

# Project Charter

| 8. Key Activities and Milestones / Action Plan         |  | Shade intensity of work: <span>high</span> , <span>medium</span> , <span>low</span> |        |        |        |        |            |
|--|--|---|--------|--------|--------|--------|------------|
| Focus Area   | Activity <small>List activities in support of the focus areas.</small> | Responsibility  | Wk 1-2 | Wk 3-4 | Wk 5-6 | Wk 7-8 | Completion |
| Engaging the Team<br>Plan/Communicate                  |  |   |        |        |        |        |            |
|  |  |   |        |        |        |        |            |
|  |  |   |        |        |        |        |            |
|  |  |   |        |        |        |        |            |
| Assessing Current State<br>Observations/Baseline Data  |  |   |        |        |        |        |            |
|  |  |   |        |        |        |        |            |
|  |  |   |        |        |        |        |            |
|  |  |   |        |        |        |        |            |
| Assessing Current State<br>Root Cause Analysis         |  |   |        |        |        |        |            |
|  |  |   |        |        |        |        |            |
|  |  |   |        |        |        |        |            |
|  |  |   |        |        |        |        |            |
| Executing Improvements<br>Test of Change               |  |   |        |        |        |        |            |
|  |  |   |        |        |        |        |            |
|  |  |   |        |        |        |        |            |
|  |  |   |        |        |        |        |            |
| Sustaining Chnage<br>Analyze Results / Embed standards |  |   |        |        |        |        |            |
|  |  |   |        |        |        |        |            |
|  |  |   |        |        |        |        |            |
|  |  |   |        |        |        |        |            |



# Practical Application

## PDSA

### Your Tasks:

- Select a problem within your project
- You can use opportunities from your waste walk
- Do a 5 whys and get to root cause
- Generate team ideas
- Create a plan for a PDSA

### Products:

- 5 Whys worksheet
- Plan (for PDSA)

**Deadlines:** Estimated time for completion 60 minutes

- Document story on the *Assignment Presentation\_Name template* and prepare to be selected to share at an upcoming huddle



## Plan-Do-Study-Act (PDSA) Worksheet

### Plan

Date:

| What problem are you trying to solve?           | How will you know an improvement has been made? |
|---|---|
| <input type="text"/>                            | <input type="text"/>                            |
| What measures will you use to determine change? | What is your hypothesis?                        |
| <input type="text"/>                            | <input type="text"/>                            |

| List the tasks needed to set up this test of change | Person responsible   | When to be done      | Where to be done     |
|---|----------------------|----------------------|----------------------|
| <input type="text"/>                                | <input type="text"/> | <input type="text"/> | <input type="text"/> |

### Do

Describe what actually happened when you ran the test.

### Study

Describe the measured results and how they compared to the predictions.

### Act

Describe what modifications to the plan will be made for the next cycle from what you learned.

# Questions?