

Quality Improvement along the Patient Journey

Tools, Examples and Panel discussion

Moderated by Dr. Justine Turner

Panelists:

- Jessica Quarterman, Family Member
- Lisa McIsaac, QI Consultant – South Zone
- Shauna Langenberger, QI Consultant – Calgary Zone



Poll question: What is Quality?



Disclosures

Dr. Justine Turner, MD PhD

- Receives a salary from University of Alberta
- Receives a speaking fee from Nutricia North America
- Receives grants from Baxter Cooperation and VectivBio

Lisa McIsaac, R.Psych

- No relationships to disclose

Shauna Langenberger, RN MN

- No relationships to disclose

Acknowledgments

Content contribution

- AHS AIW
 - PLC CQI
-

Welcome & Objectives

Participants will be able to:

- Describe basic elements of a quality improvement approach
- Know who/where to access improvement tools and resources
- Describe the various types of mapping that can be done to understand 'current state'
- Understand the steps to executing a successful PDSA test cycle



Pediatric GI, Stollery Hospital

Dr. Justine Turner

The image shows a Zoom Webinar Chat window. The window title is "Zoom Webinar Chat". The chat content area is empty. Below the chat area, there is a "To:" dropdown menu set to "All panelists and attendees" and a note that says "Your text can be seen by panelists and other attendees". At the bottom of the Zoom interface, there are three icons: "Chat", "Raise Hand", and "Q&A".

For Comments
Use the **Chat** and select "All panelists and attendees" for public comments.

For Questions
Use the **Q&A or Raise Hand**. We will address them at the end of the presentation

Audio Settings ^

Chat Raise Hand Q&A



CERTIFICATE OF ATTENDANCE

Name

Attended the 1 hour webinar
Quality Improvement along the Patient Journey:
Tools, Examples and Panel discussion
offered on June 16, 2021

Dr. Justine Turner, MD PhD
On behalf of the PEAS Project



Project Scope

The Pediatric Eating And Swallowing (PEAS) Project is a provincial **quality improvement** initiative with the purpose of developing a provincial eating, feeding, and swallowing **clinical pathway** to standardize and improve care for children with a **pediatric feeding disorder**.¹

Target population: Patients receiving care from provincial Outpatient Clinics, Home Care, or Community Rehabilitation

¹ Goday PS et al. *Pediatric Feeding Disorder: Consensus Definition and Conceptual Framework*. J Pediatr Gastroenterol Nutr. 2019 Jan;68(1):124-129.

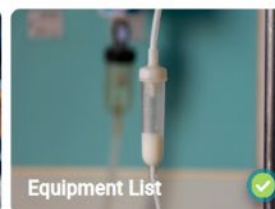
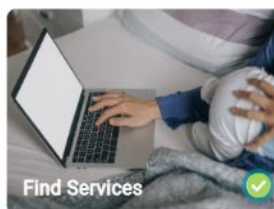
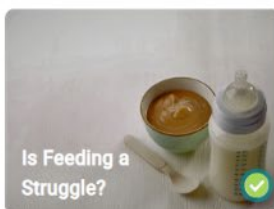
Find relevant information

For families and care providers of children with an eating, feeding and swallowing disorder

FOR FAMILIES

FOR PROVIDERS

Popular Resources for Families



peas.ahs.ca

Family Story

Jessica Quarterman







100 Days & Counting
Brooke
April 6, 2020
39 weeks
2770 grams



We are the Quarterman Family.
We've stayed at the House for 185 nights



...and we are going home!



#KeepingFamiliesClose
Get involved at rmhcalberta.org











Let's talk about Quality Improvement



What is Quality Improvement?

- *“In Health care, quality improvement is a framework that is used to systematically improve the ways care is delivered to patients” P.1*
- Patient/family focused
- Systems thinking: It’s about the processes, not the people
- Processes can be measured, analyzed and improved
- Aim is to reduce variation and improve efficiency & safety
- Evidence informed/best practice solutions are applied
- Commitment to continuous improvement

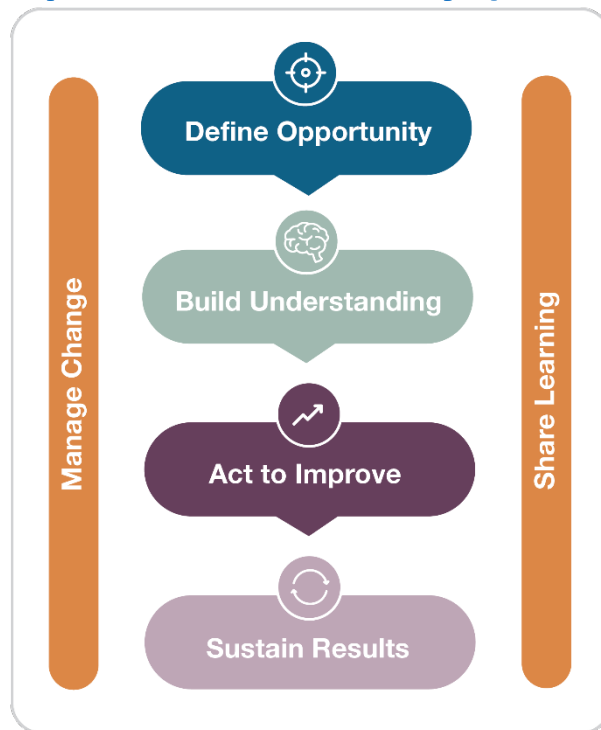
Quality Improvement along
the Patient Journey |
June 16, 2021

Health care improvement: Patient Engagement



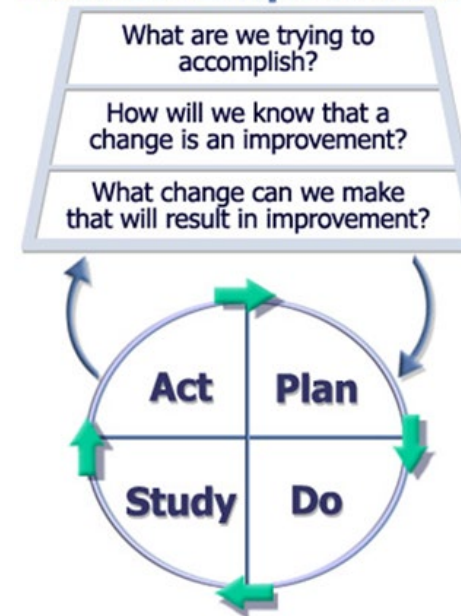
Improvement Models

Alberta Health Services Improvement Way (AIW)



Incorporates

Model for Improvement



Associates in Process Improvement (API) / Institute for Healthcare Improvement (IHI)

AHS AIW Steps & Questions



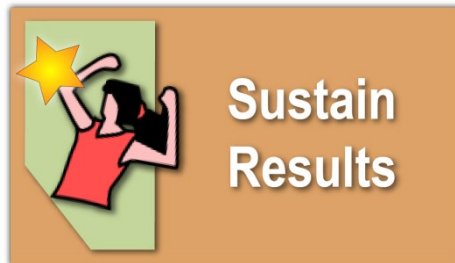
- *What's the issue or problem?*
- *How serious is it? Should we take action?*
- *What do we want/need to achieve?*



- *What facts will clarify what's happening?*
- *Which are the main obstacles or causes?*
- *Can we really make a difference?*



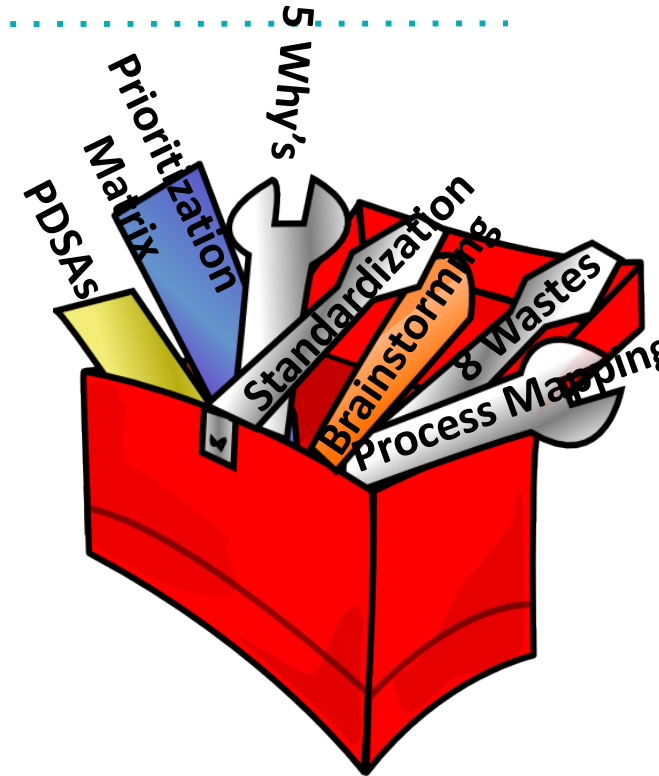
- *What actions will fix the problem?*
- *How can we test/confirm the improvement?*
- *Did the improvement work? How well?*



- *How do we make this permanent?*
- *Who will keep an eye on the improvement?*
- *Where else could this be used?*

Quality Improvement Tools

- Each Phase has specific tools that support the improvement process
- Patient safety and efficiency must be considered





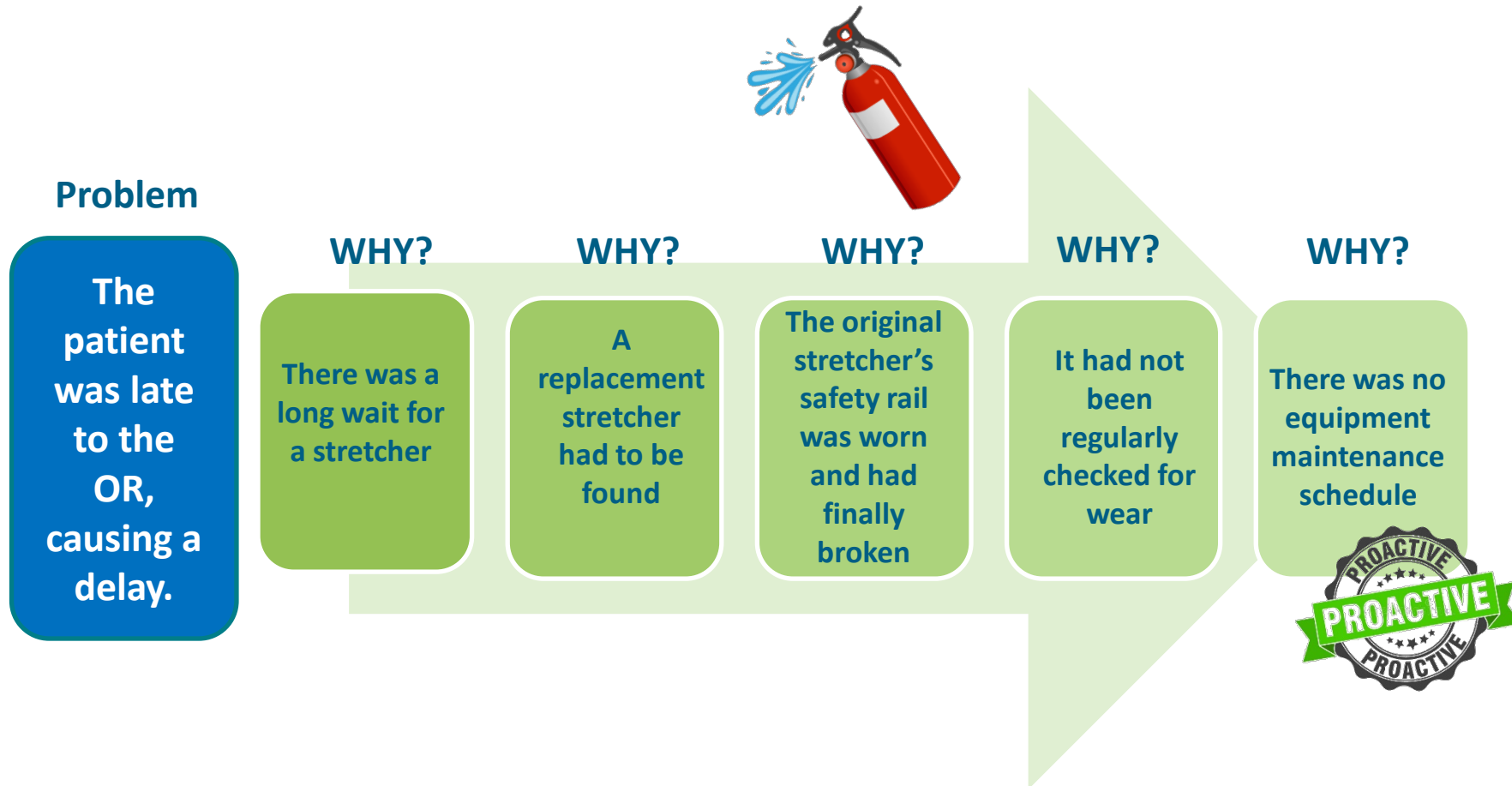
Root Cause Analysis

- **FIRST, you must** truly understand the problem
 - Health care professionals are problems solvers... however, we can often shift too quickly from problems identification to solution.
 - “Why are we still having problems?”
 - Sometimes what we think is the cause.....may be another symptom and not a root cause
-



Define Opportunity

5 Whys Exercise





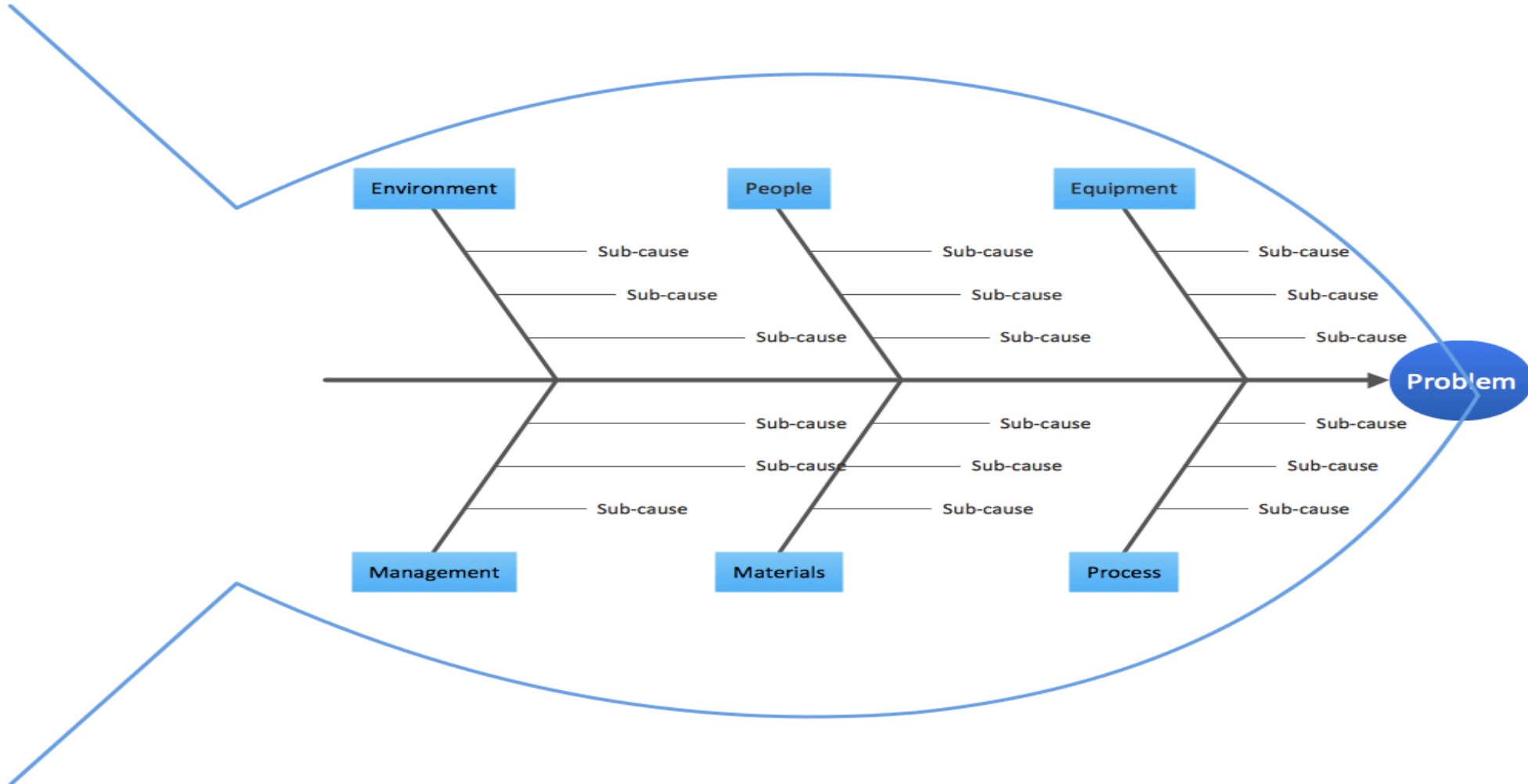
Define
Opportunity



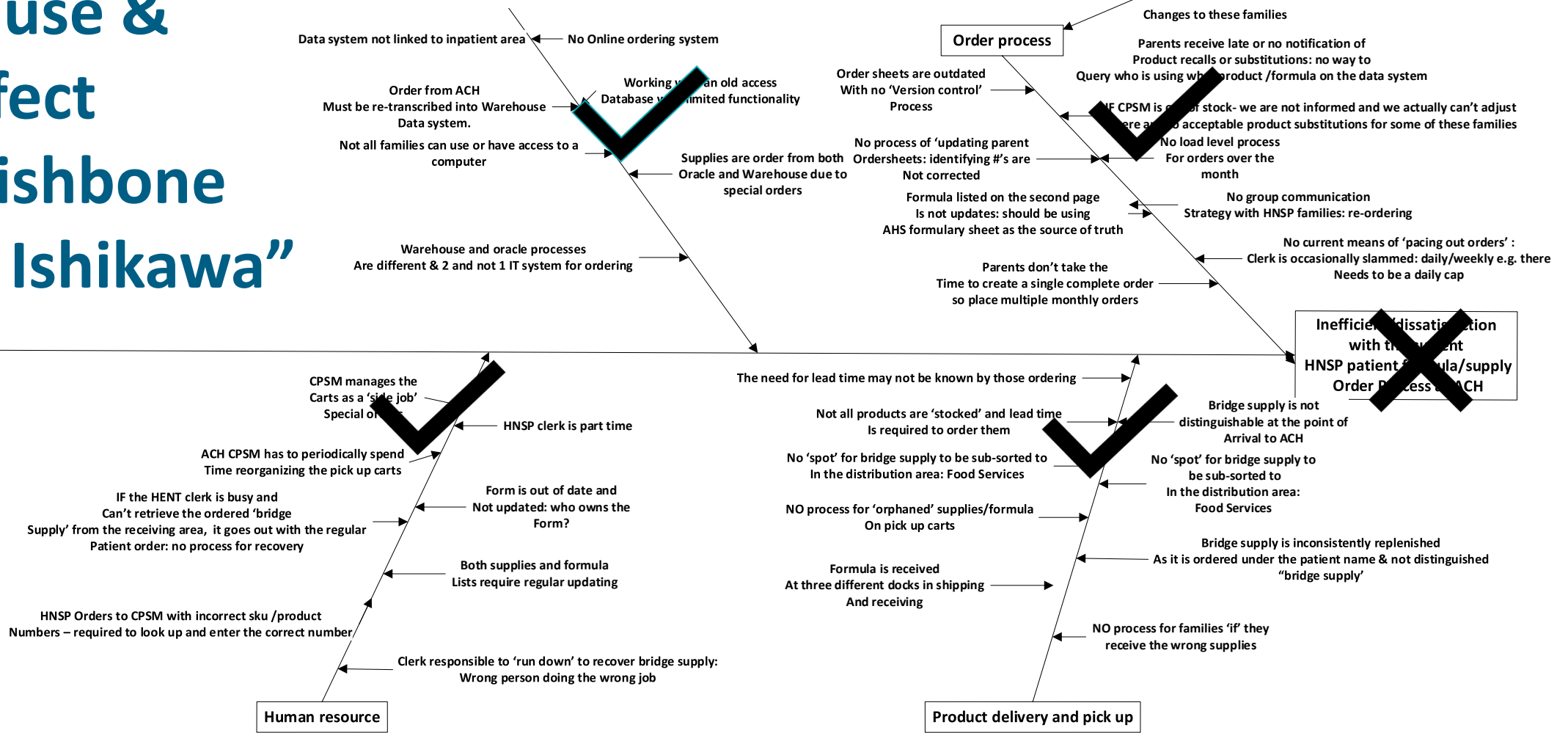
Jefferson Memorial: <https://youtu.be/N7cR2gArCFE>



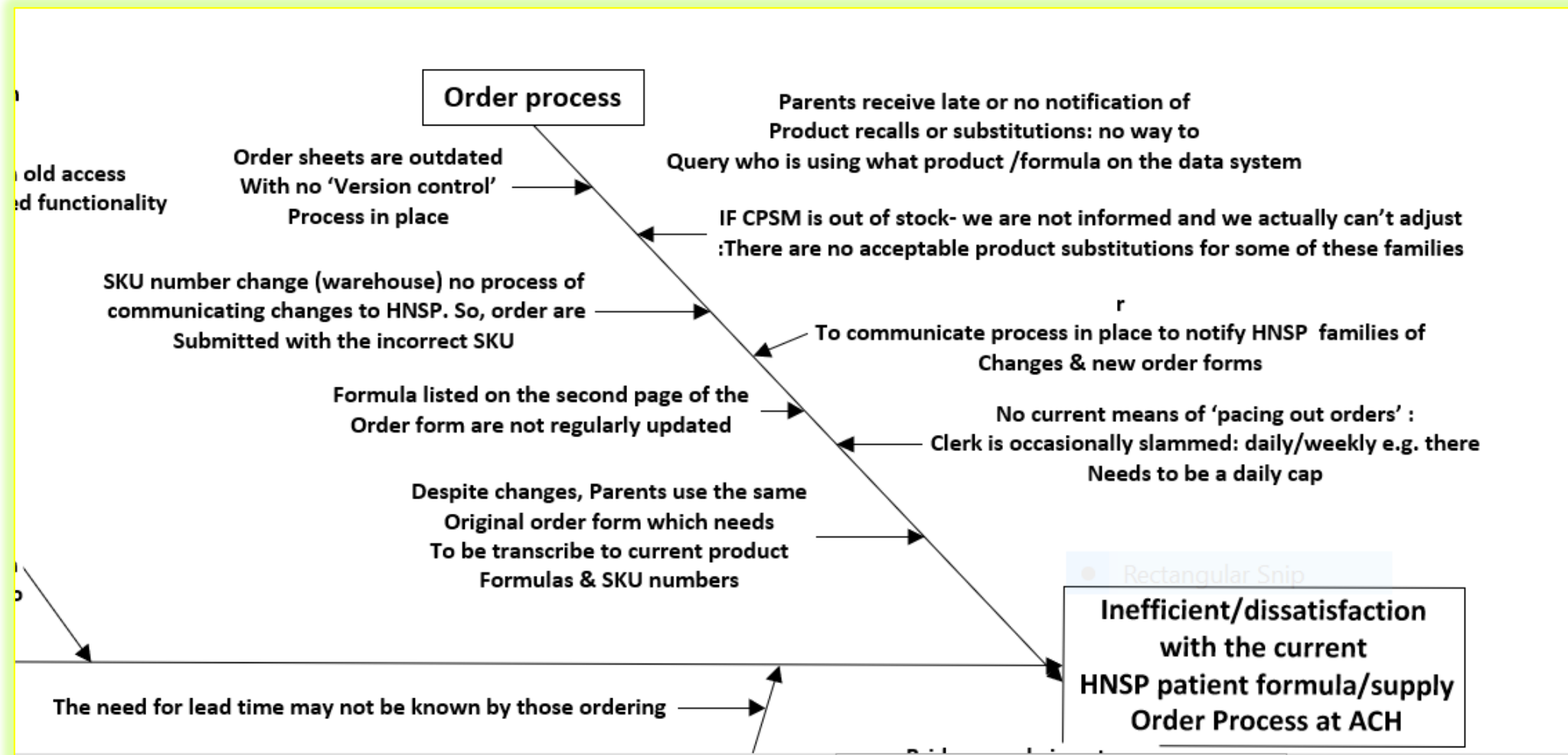
FISH DIAGRAM: Cause and Effect diagram



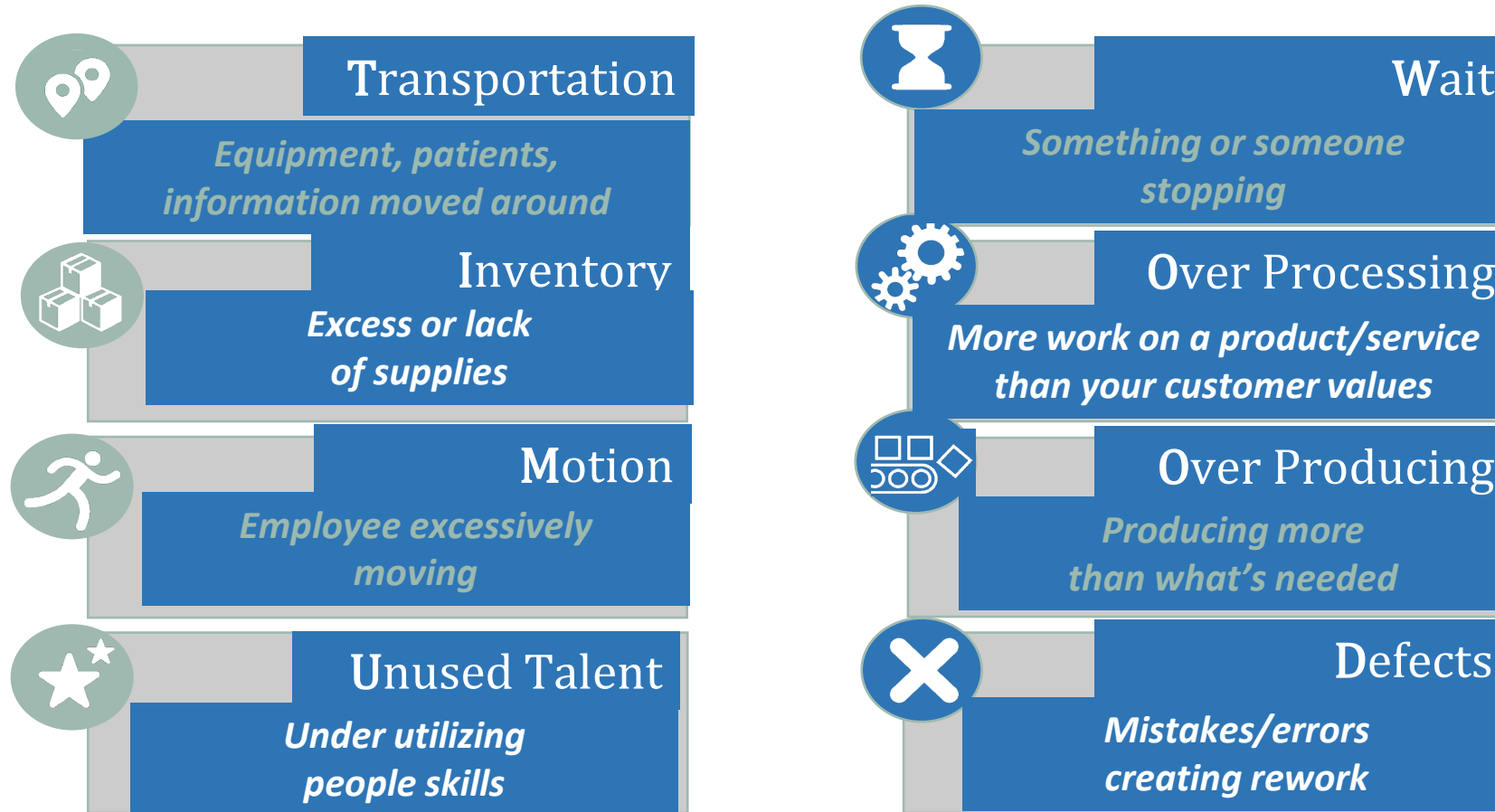
Cause & Effect "Fishbone or Ishikawa"



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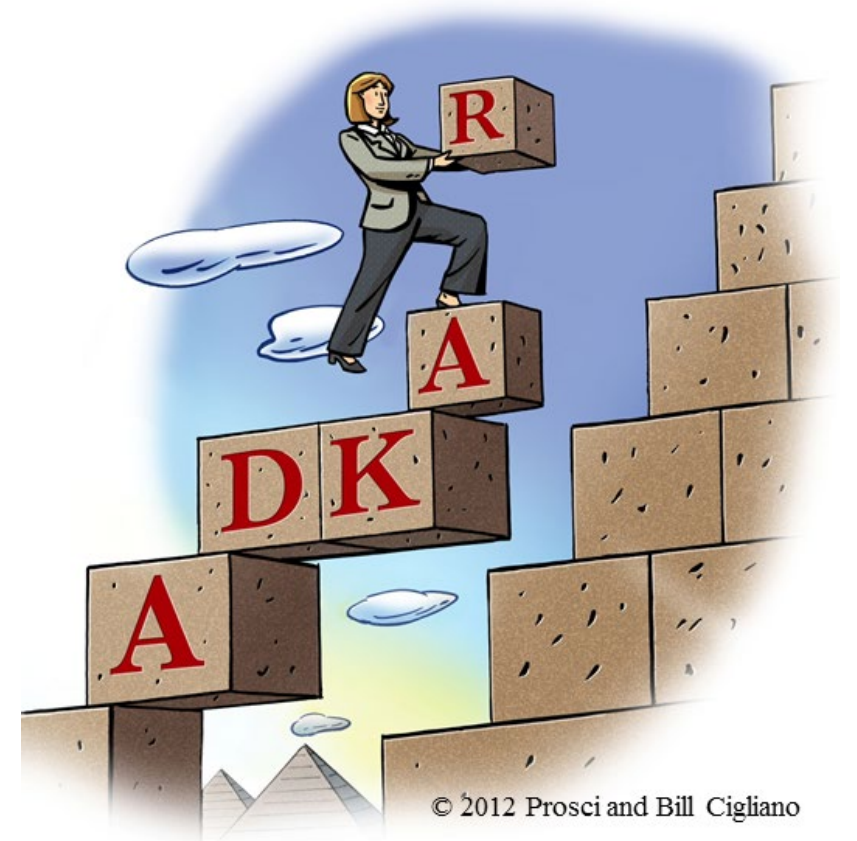
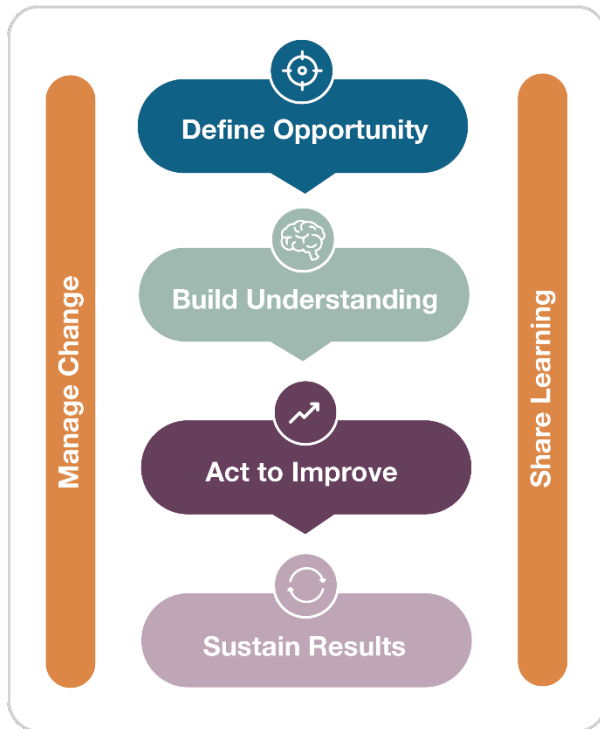
The 8 Wastes



The importance of managing change

$$R = Q \times A$$

Results = Quality solution x Acceptance



Change Management: ADKAR

A

Awareness of the need for change

D

Desire to participate and support the change

K

Knowledge on how to change

A

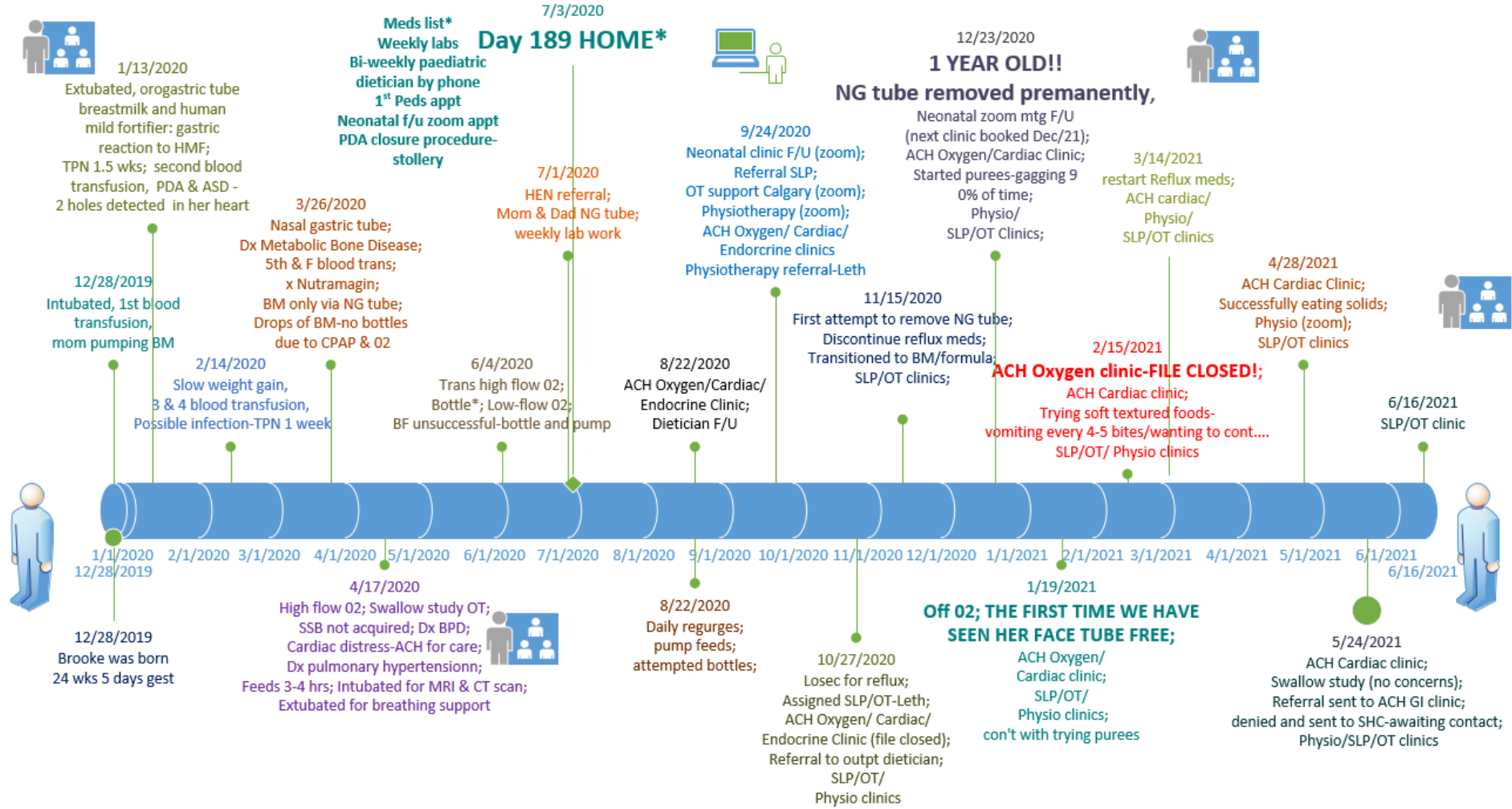
Ability to implement required skills and behaviors

R

Reinforcement to sustain the change

Mapping the Patient Journey using swim lane

Lisa McIsaac & Jessica Quarterman



Our frustration and struggles come being unaware of what we needed to do next as many ppl are connecting with us regarding what they think should be a priority

Mixed signals and pressure to reach goals have increased stress-we have no medical experience and are coping with the trauma of NICU and pressures of being new parents

"Dietician had no experience with preemies"

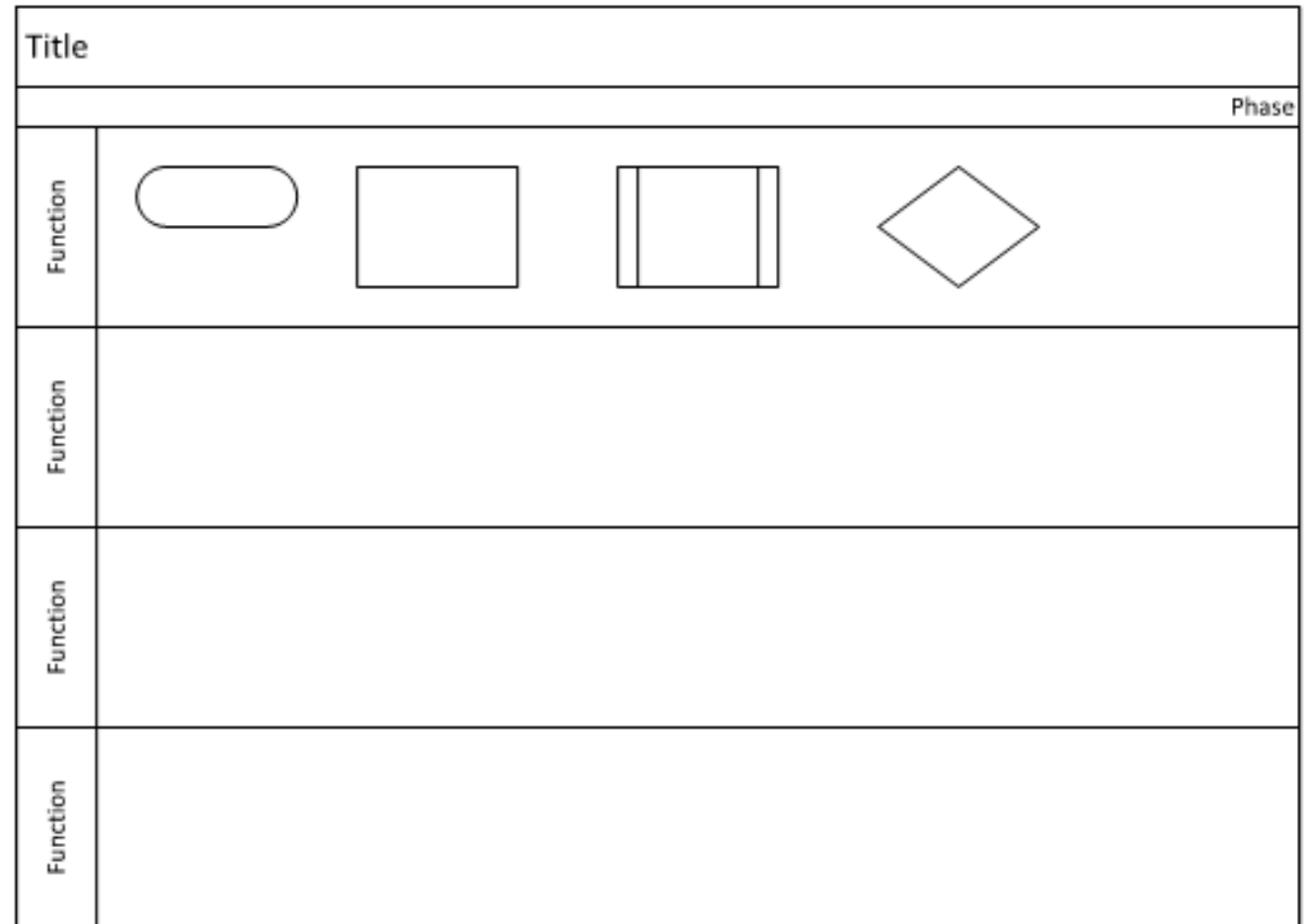
In Nov/20 our family got COVID and NG tube had to be reinserted while ill

"our journey has felt like a game of hopscotch, except the next space only appears in mid-jump and we hope we land on the right space"

Swim Lane Map

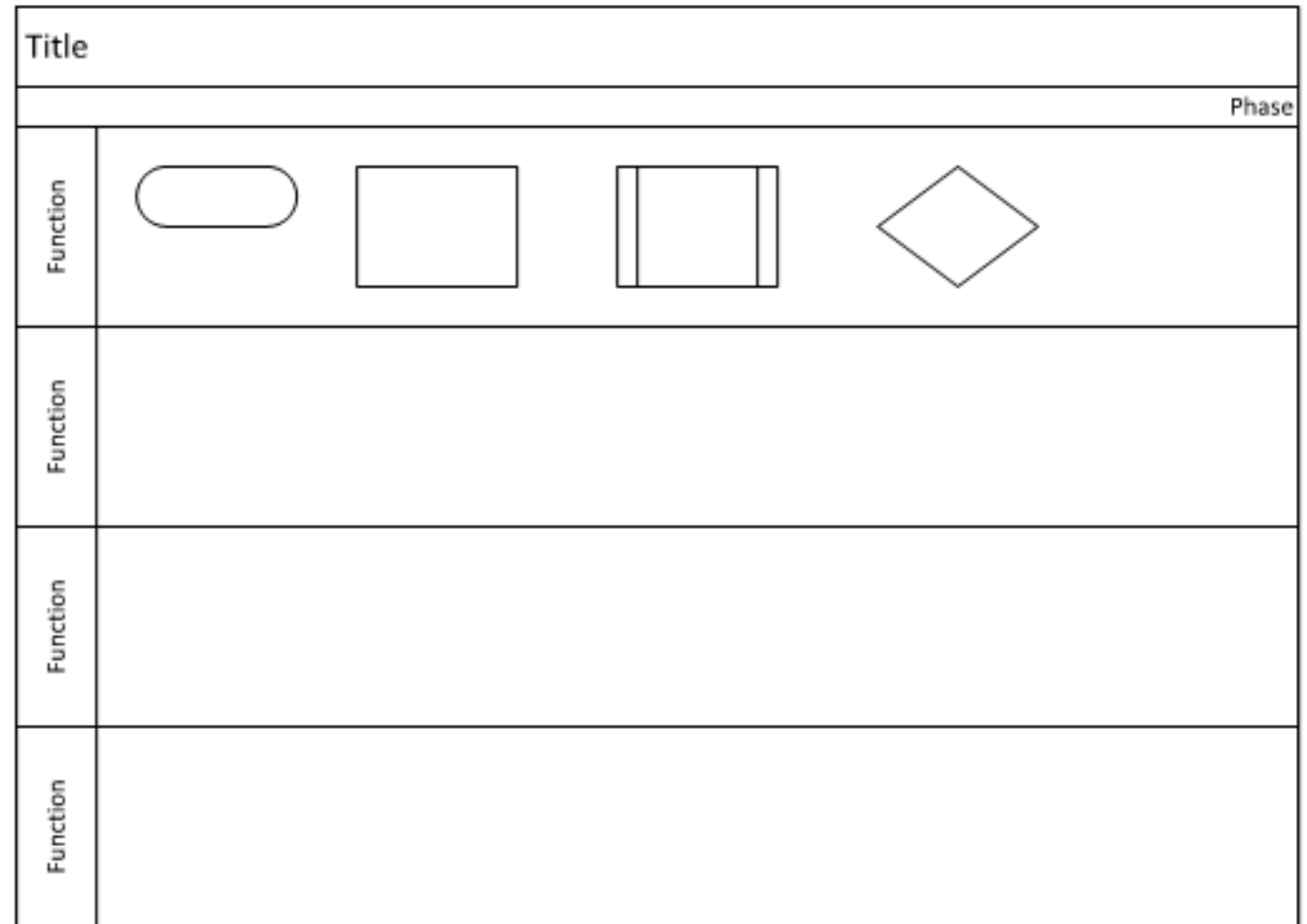
“Swim Lane Map” also known as a cross functional map is used to build understanding

- The purpose is to depict the functional responsibilities of each group involved in the process and to show the hand offs
- Include the customers or the suppliers
- In this case the swim lane would be the service providers and the customer would be the patient

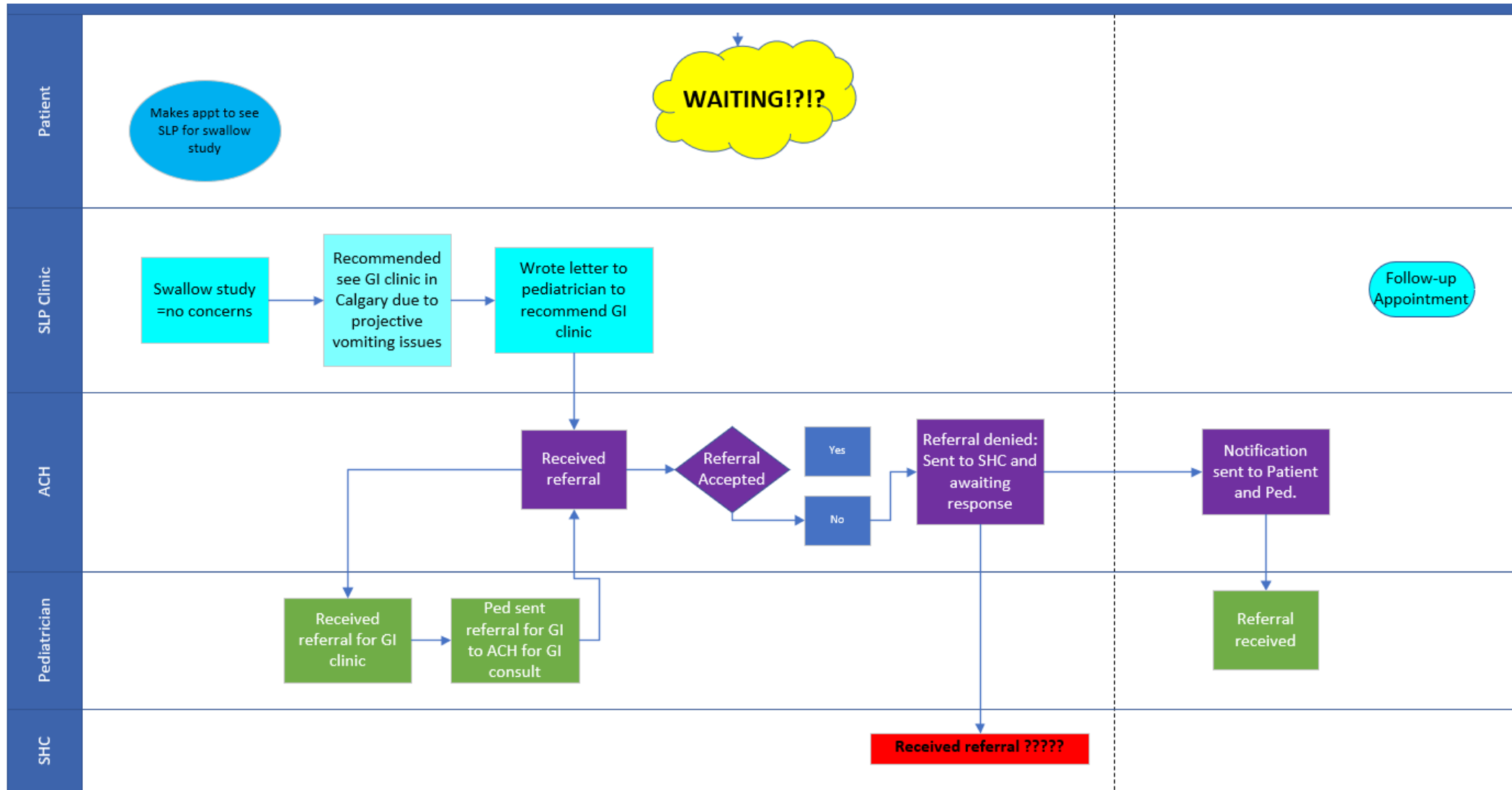


Swim Lane Map

- Establish the process steps
- Starting at far left in appropriate row (pertaining to service group) and in sequence
- Concurrent or shared steps should align vertically
- Connect the steps with aligned arrows
- Verify and validate the map



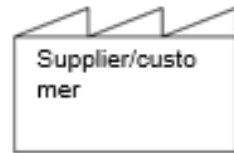
GI Referral Process



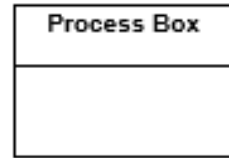
Value Stream Map (VSM)

- VSM documents the process (& flow) in a “Value Stream” starting with the customer and focusing on every step
 - It is an end-to-end collection of activities that create or achieve a result (end product and/or services) for a customer
 - It includes:
 - People involved at each step
 - Lead time- capacity compared to customer demand
 - Value Added (VA) vs Non-Value Added (NVA) activities/steps
 - Inventory and Work-In-Progress (WIP) levels
 - Information, scheduling and ordering flow controls
-

Value Stream symbols and their meaning



Supplier/Customer



Process Step Box

C/T = 15
C/O = 15
U/T = 480
No. Staff = 2

Data Table

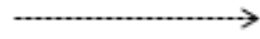
C/T = Cycle Time (in mins.)
 C/O = Change-over Time (in mins.)
 U/T = Up or available Time (in mins.)
 No. Staff = No. of staff performing step
 Any relevant data can be inserted



Inventory



Push Arrow



Pull Arrow



Manual Information



Electronic Information

Page 1



Storm Cloud (Issues)



Project Star Burst (Opportunities)



"Go See"



Staff/worker



Transportation

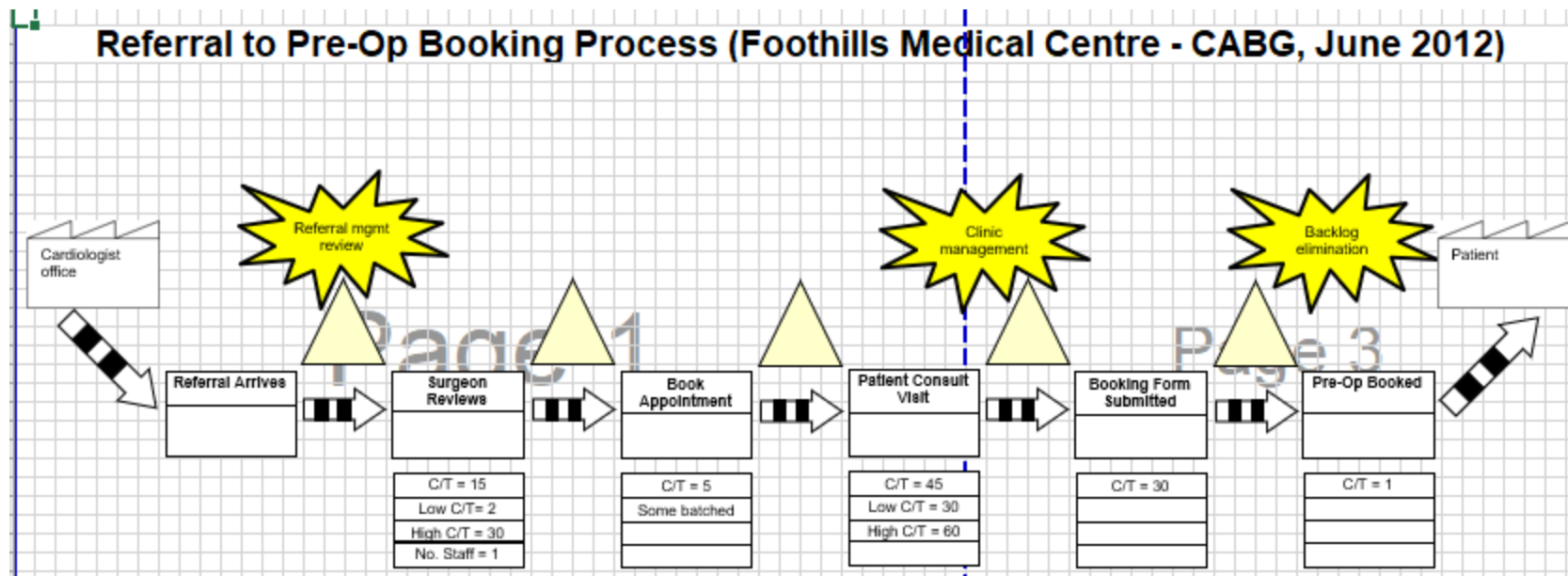


Process Time Line

The 'n' should encompass process step and the 'u' should encompass time between each

Basic Value Stream Map (VSM)

- Agree on the start and end points; note the customer and the supplier
- Start- what triggers the work?
- End-What is the final deliverable(s); to whom?

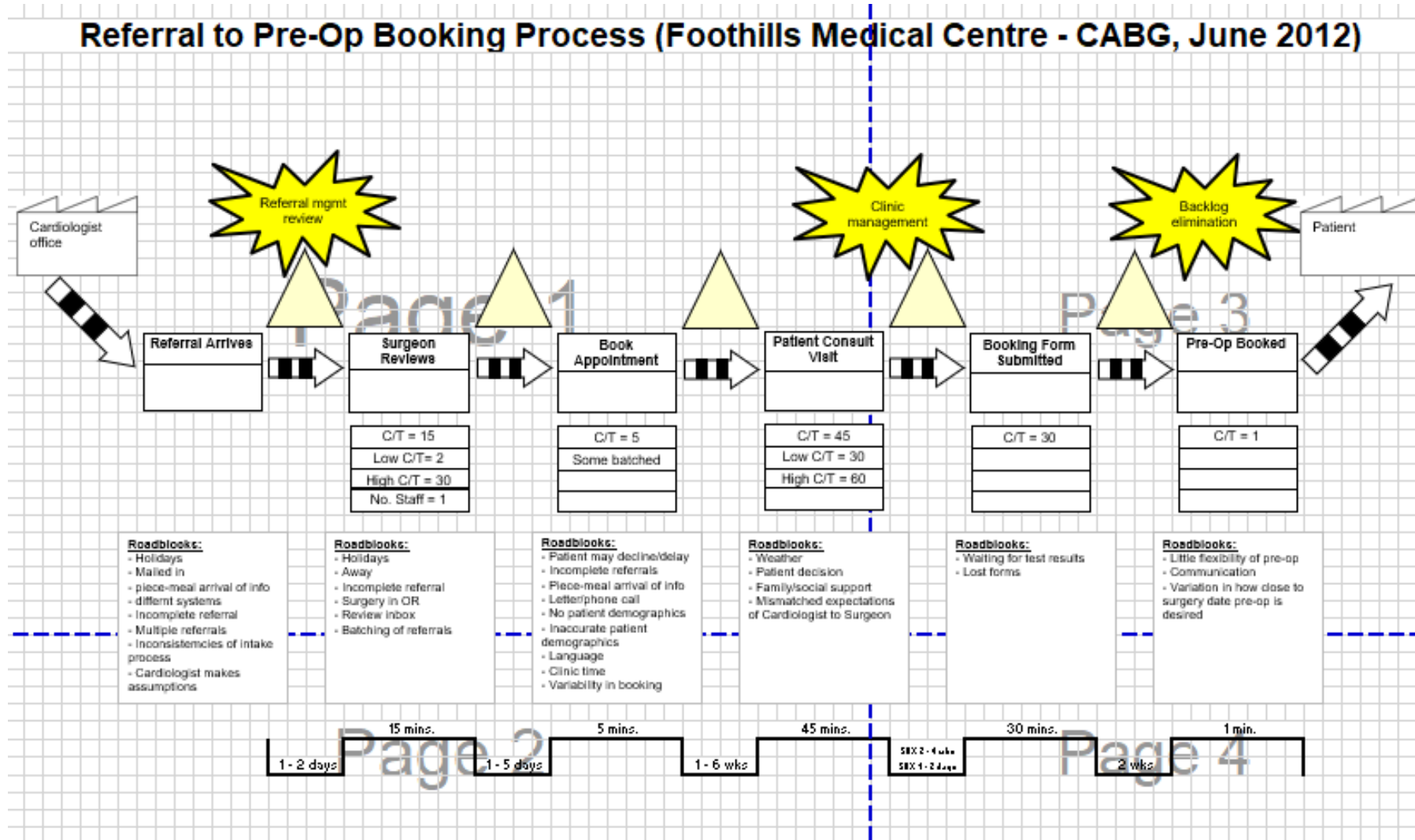


VSM steps - Mapping the patient journey

- Identify the key steps/tasks in the process
 - Follow the “unit” (in this case the patient) through the entire process/experience
 - Use team members knowledge, refer to existing process documentation, “go and see” the process
 - DO:
 - Copy and paste necessary VSM elements from the symbols onto the template map
 - Enter the start point, end point, supplier, customer and key steps/tasks associated VSM elements
 - Place the elements and flow the process from left to right; in sequential order
 - Insert inventory/WIP, transportation and flow lines (push or pull arrows)
 - Add in any storm clouds (issues) or Lightning Bursts (opportunities).
 - Calculate the VA/NVA steps and calculate the ratio
-

Value Stream Mapping

Referral to Pre-Op Booking Process (Foothills Medical Centre - CABG, June 2012)

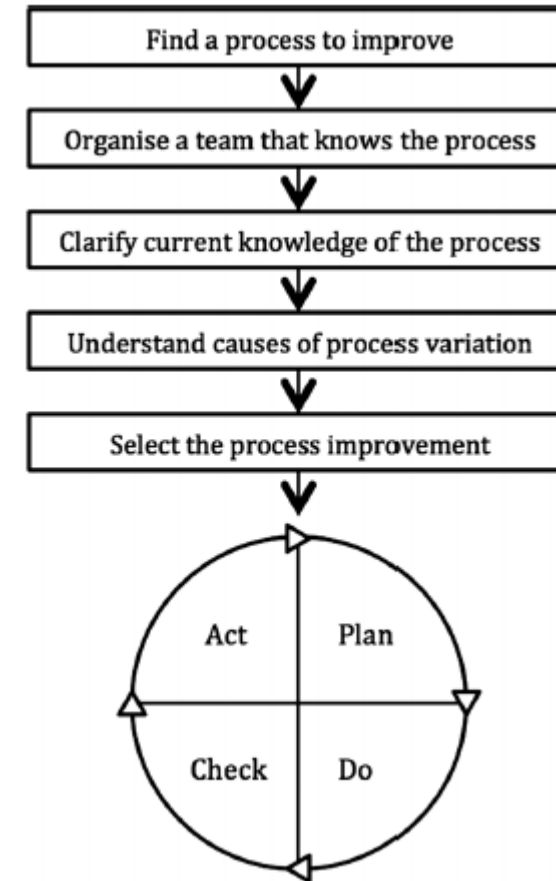
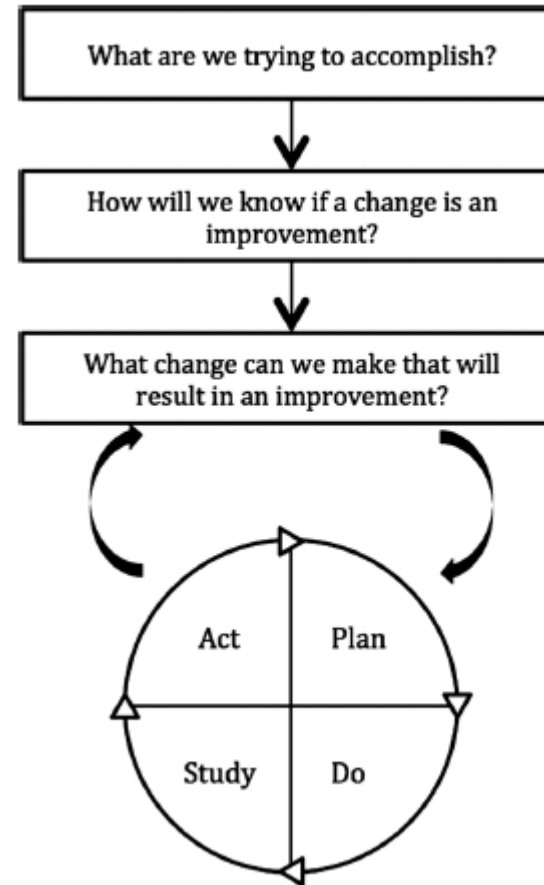


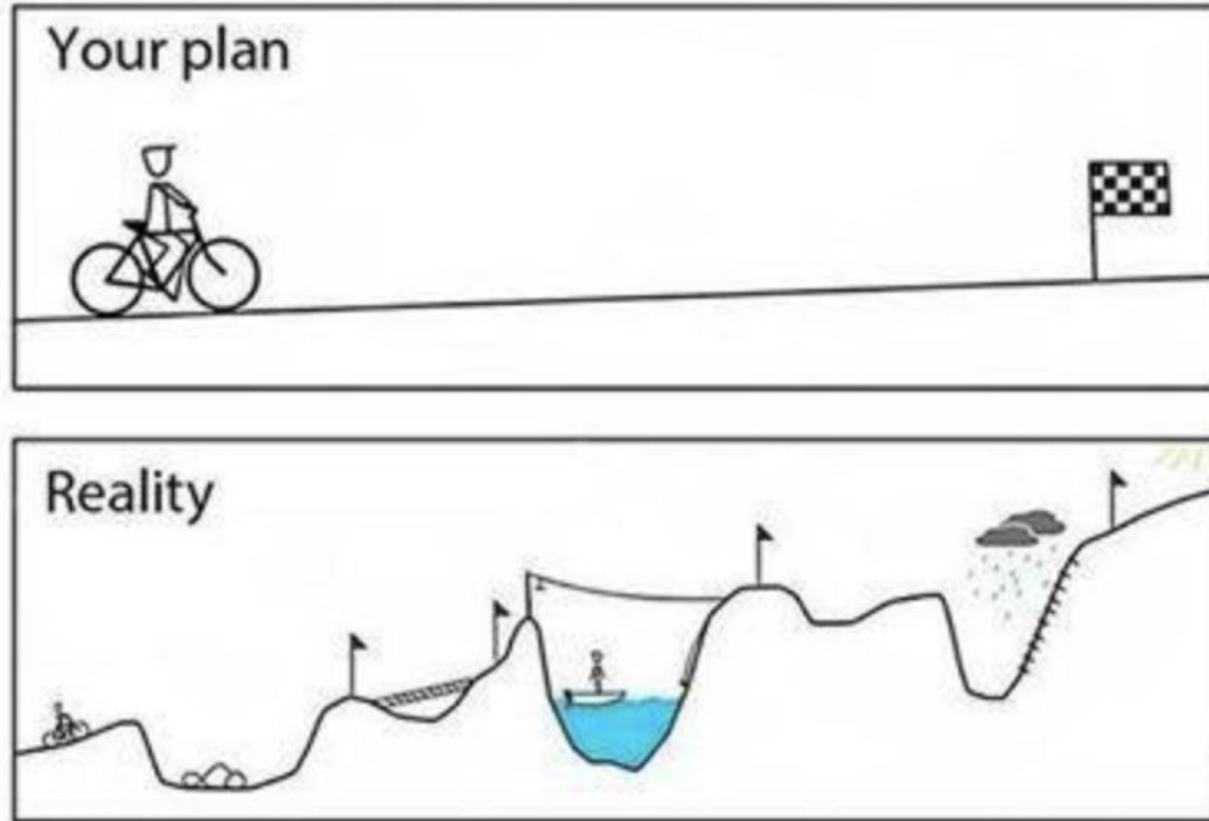
Summary

- **Defined the opportunity/problem:** created a problem statement
 - **Build understanding:** root causes, data, gathering process information (mapping)
 - **Creating Engagement/Addressing Change management** – included at every phase of the improvement journey
 - **Create a goal statement: SMART goal**
 - **Act to Improve:** Select and test a change & test it
-

Plan-Do-Study-Act and Plan-Do-Check-Act

- Developed by Walter Shewhart & Edward Deming
- Follows the scientific method
- Iteration, small tests of change is the path to effective, sustainable improvement
- Creates sustainable change





Fail early, fail often, but fail forward



PDSA Worksheet

Project Title: [Click here to enter text.](#)

PDSA Cycle No.: [Click here to enter text.](#)

Start Date: [Click here to enter text.](#)

End Date: [Click here to enter text.](#)

Aim/Objective: [Click here to enter text.](#)

Describe the Test of Change (ToC)	Who (responsible)	When (completion date)	Where (location)

Plan

List the tasks needed to set-up the ToC	Who (responsible)	When (completion date)	Where (location)

Predict what will happen when the ToC is carried out	Measures to determine if predictions succeed

Do – Describe what actually happened during the ToC. Capture data/measurements, document problems and unexpected observations.

- Enter text here

Study – What were the results of the ToC. Analyze data/measurements, compare to predictions & summarize learnings.

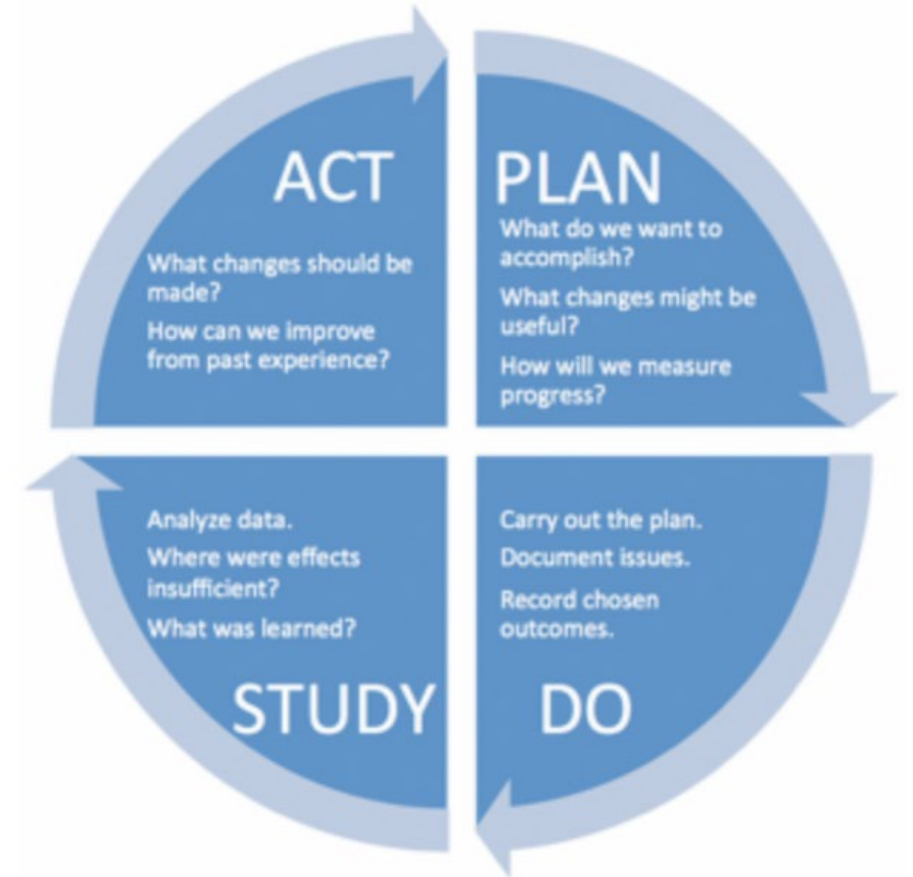
- Enter text here

Act – Describe what modifications to the plan will be made for the next cycle from what you learned. Are you going to adopt, adapt or abandon?

- Enter text here

Let's review an example.

- See presentation attachment.



4 hour Targeted AIW Workshop for PEAS: Fundamentals of Improvement

Send expression of interest to
PEAS.Project@ahs.ca

[FOR PROVIDERS](#)[CLINICAL PRACTICE GUIDE](#)[CLINICAL TOOLS & FORMS](#)[COLLABORATIVE PRACTICE](#)[PROFESSIONAL DEVELOPMENT](#)[COMMUNITY OF PRACTICE](#)[FAMILY RESOURCES](#)

QUICK LINKS

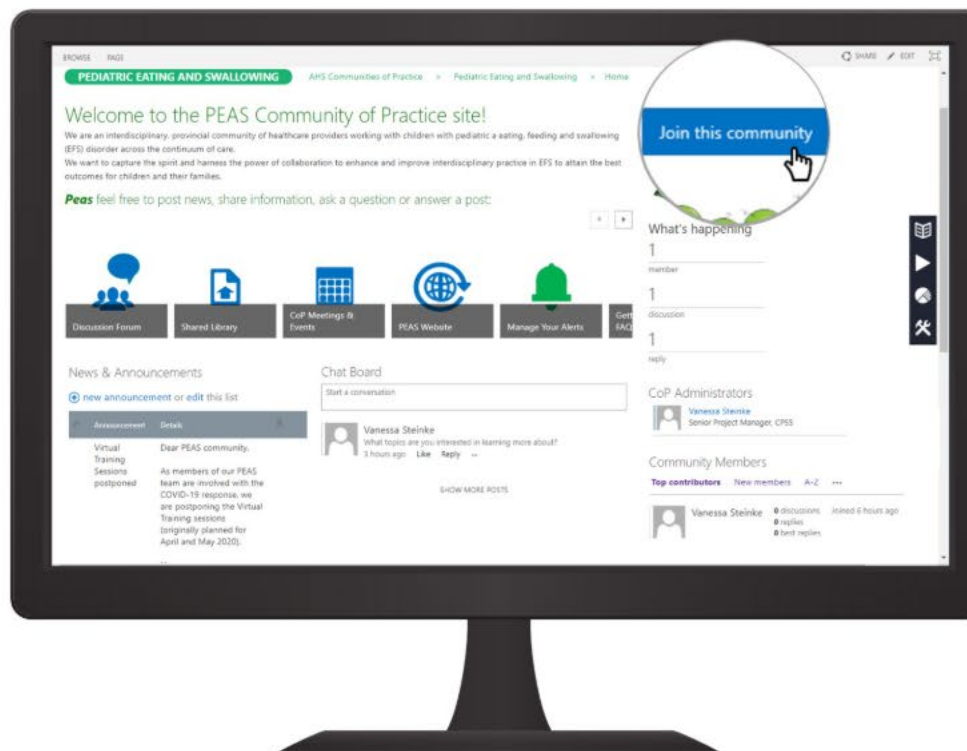
[✓ CPG QUICK REFERENCE](#)[✓ ORDER FORMS & HANDOUTS](#)[✓ FIND SERVICES](#)[✓ VIRTUAL HEALTH](#)[✓ EQUIPMENT & SUPPLIES](#)[✓ FUNDING INFORMATION](#)[✓ FOR FAMILIES](#)[✓ NEWS AND EVENTS](#)

Community of Practice

We have just launched the Pediatric Eating And Swallowing Community of Practice (CoP) for healthcare providers who work with children with a pediatric eating, feeding and swallowing (EFS) disorder. This virtual CoP is an interdisciplinary community of healthcare providers across the continuum of care in Alberta. The goal of this CoP is to capture the spirit and harness the power of collaboration to enhance and improve interdisciplinary practice in EFS to attain the best outcomes for children and their families.

To join the PEAS Community of Practice:

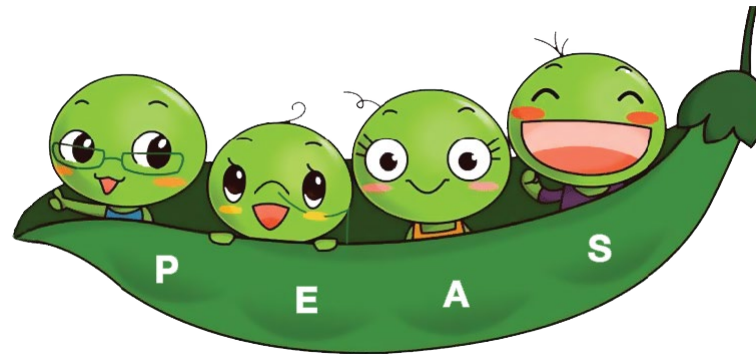
1. You must be a healthcare provider with an AHS account.
*See below for information on how to obtain an AHS account.
2. Go to the PEAS CoP website here: <https://extranet.ahsnet.ca/teams/CoP/PEAS/SitePages/Home.aspx>
If prompted, enter your AHS account name and password.
3. Click "Join this community" as shown below. That's it!





Questions & Comments?

Thank you!



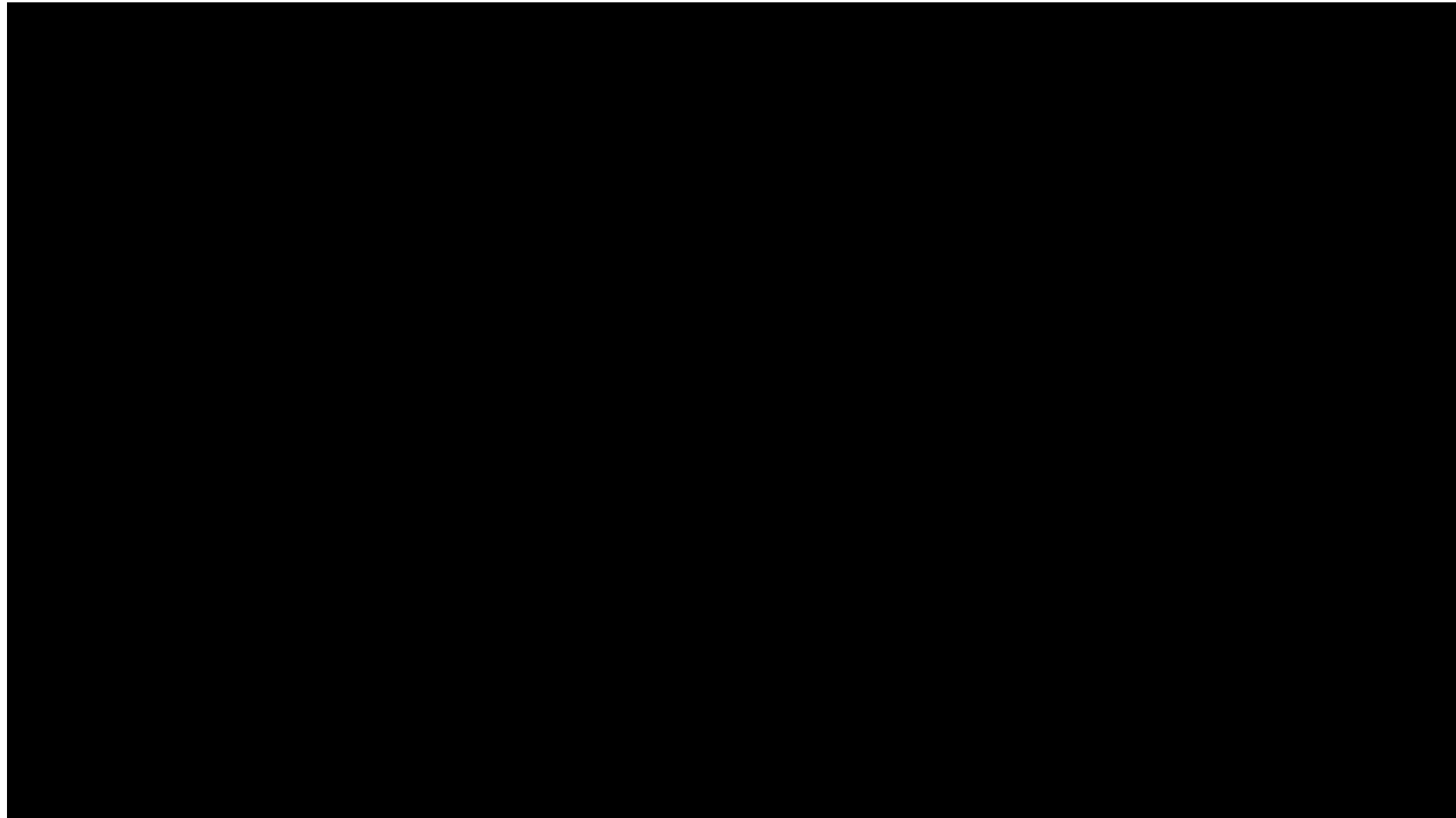
PEAS.Project@ahs.ca

<https://survey.ahs.ca/peas.qi.journey>

Resources

- Example of swim lane mapping: <https://www.youtube.com/watch?v=Y7g8vWv11Vk&t=91s>
 - PDSA templates <https://insite.albertahealthservices.ca/tools/aiw/Page3244.aspx>
 - PDSA templates: search PDSA IHI or NHS PDSA
 - [PDSA and change management: https://www.cardiff.ac.uk/data/assets/pdf_file/0004/1164991/How to Use the PDSA Model for Effective Change Management.pdf](https://www.cardiff.ac.uk/data/assets/pdf_file/0004/1164991/How_to_Use_the_PDSA_Model_for_Effective_Change_Management.pdf)
 - [IHI White paper: Comparing Lean and Quality Improvement IHI: insititue for Healthcare Improvement](https://www.institute-for-healthcare-improvement.org/white-papers/comparing-lean-and-quality-improvement)
 - [A primer on PDSA: https://qi.elft.nhs.uk/wp-content/uploads/2017/07/A-primer-on-PDSA.pdf](https://qi.elft.nhs.uk/wp-content/uploads/2017/07/A-primer-on-PDSA.pdf)
 - [Articles:](#)
 - [Systematic review of the application of the plan-do-study-act method to improve quality in healthcare. https://qualitysafety.bmj.com/content/23/4/290](https://qualitysafety.bmj.com/content/23/4/290)
 - [A primer on PDSA: executing plan-do-study-act cycles in practice, not just in name. https://pubmed.ncbi.nlm.nih.gov/27986900/](https://pubmed.ncbi.nlm.nih.gov/27986900/)
-

Quality Improvement



AHS Improvement Way (AIW)

[Home](#)[Improvement Stories](#)[Method](#)[Education & Training](#)[FAQ](#)[Tools & Templates](#)

Education & Training

We each have a role to play in improving processes and problem-solving in our work. The AHS Improvement Way (AIW) provides the principles, knowledge, and tools necessary to help you and your team make changes for the better – from quick, easy process changes in your area to larger, more complex improvement work (including site, zone, or provincial projects).

Contact

Connect with the [Process Improvement Team](#) or email aiw@ahs.ca

Online Courses

AIW for Everyone

This course is an engaging orientation on Quality Improvement (QI) and AHS Improvement Way (AIW) methodology.

- [Request a Targeted Session](#)

[More >](#)

AIW Fundamentals Plus

This engaging course provides the knowledge foundations to start applying AHS Improvement Way (AIW) methodology.

- [Request a Targeted Session](#)

[More >](#)

Green Belt

Green Belt is a significantly more advanced course, broken down into key concepts including readings, videos, practice questions and reference materials.

[More >](#)

AIW Core Improvement Workshop

This is a practical and engaging workshop guiding teams through important AHS improvement initiatives.

- [Request a Workshop](#)

[More >](#)

AHS Improvement Way (AIW)

[Home](#)[Improvement Stories](#)[Method](#)[Education & Training](#)[FAQ](#)[Tools & Templates](#)

Tools & Templates

The AHS Improvement Way (AIW) tools and templates below are available in either Microsoft Word or Excel format.

A majority of the templates have been formatted to letter size (8.5" x 11"), while others have been formatted to legal size (8.5" x 14") or tabloid size (11" x 17"). When printing, please ensure the printer can print to the applicable paper size. Re-formatting of the templates to suit your needs is possible and permissible.

Microsoft Visio and QI Macros (a Microsoft Excel add-on) contain many of these tools and templates. Please contact the [IT service desk](#) for any required software upgrades.

Define Opportunity

- [Solution Parking Lot](#)
- [Plus/Delta Tool](#)
- [Affinity Analysis](#)
- [In & Out of Scope](#)
- [SIPOC](#)
- [Improvement Charter](#)
- [Measurement & Data Collection Worksheet](#)

Build Understanding

- [Swim Lane Map](#)
- [Fishbone Diagram](#)
- [Standard Flow \(Chart\) Map](#)
- [Value Stream Map](#)
- [Circle of Work \(CoW\)/Time Motion Study](#)
- [Time & Motion Study Template](#)
- [Cost of Quality Worksheet](#)
- [Pareto Chart](#)

Contact

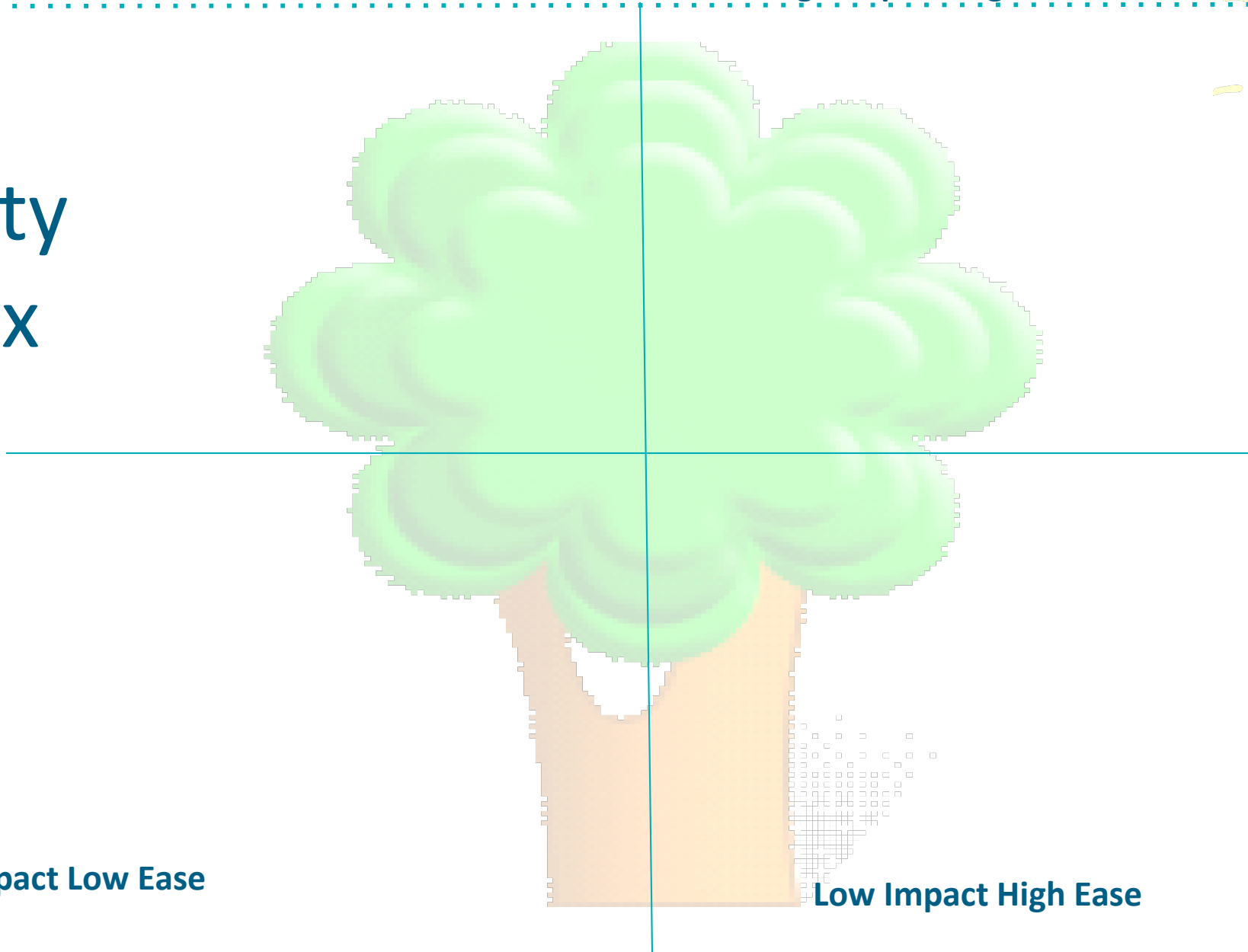
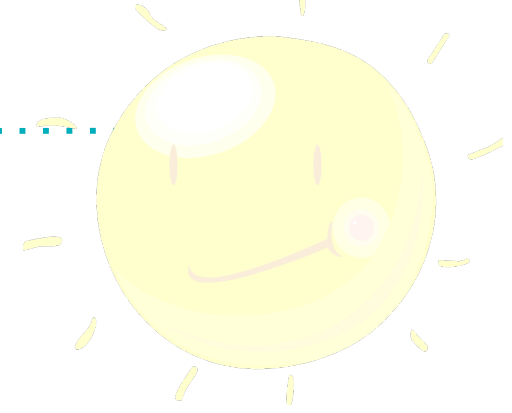
Connect with the [Process Improvement Team](#) or email aiw@ahs.ca



High Impact Low Ease

High Impact High Ease

Priority Matrix



Low Impact Low Ease

Low Impact High Ease