

Continuous Quality Improvement Made Possible

3 METHODS THAT CAN WORK WHEN YOU HAVE LIMITED TIME AND RESOURCES

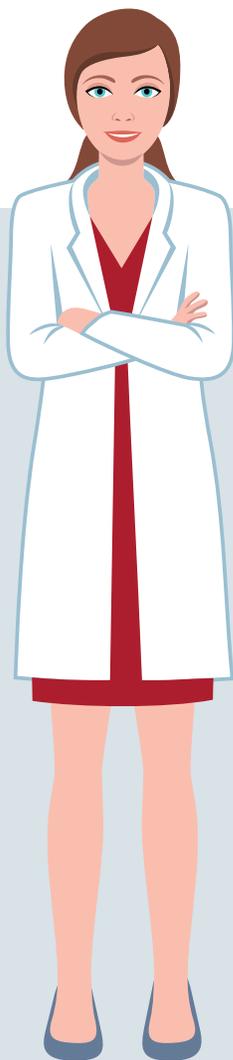


TABLE OF CONTENTS

INTRODUCTION: SMALL CHANGES. BIG EFFECTS.	Page 03
METHOD ONE: PLAN-DO-STUDY-ACT (PDSA)	Page 04
LEARN PLAN-DO-STUDY-ACT (PDSA) METHOD	Page 05
SAMPLE CASE PDSA IN ACTION	Page 06
METHOD TWO: ROOT CAUSE ANALYSIS (RCA)	Page 09
LEARN ROOT CAUSE ANALYSIS (RCA) METHOD	Page 10
SAMPLE CASE RCA IN ACTION	Page 11
METHOD THREE: LEAN METHOD	Page 13
LEARN LEAN PRINCIPLES	Page 14
SAMPLE CASE LEAN IN ACTION	Page 16
TIPS FOR SUCCESS	Page 20
ABOUT POLICYSAT: PASSIONATE FROM THE START	Page 21

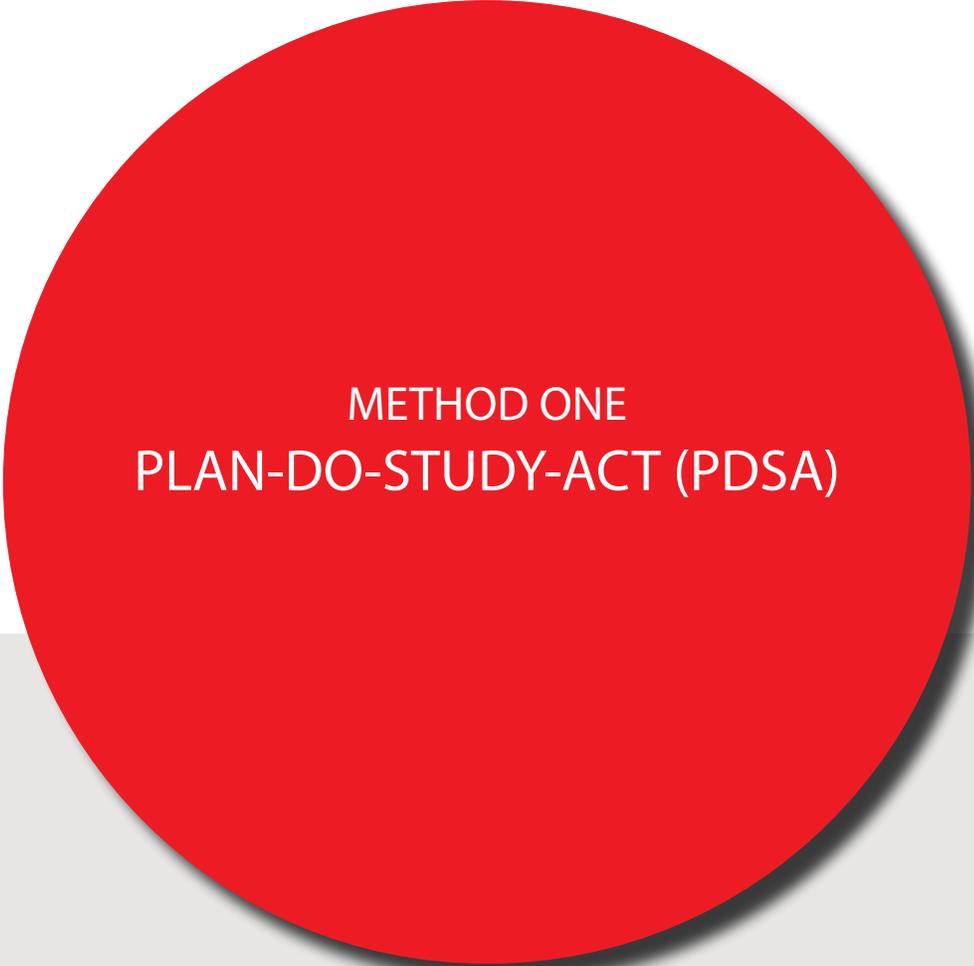
SMALL CHANGES. BIG EFFECTS.

Healthcare associations and government agencies highly recommend implementing a Continuous Quality Improvement (CQI) program. With several methods to choose from, it can be difficult to know what will work.

Studies suggest that healthcare improvement methods should focus on changing processes and not blaming the people involved in creating errors. Process-oriented methods result in **increased voluntary error reporting** and lead to improvements that increase patient safety while reducing provider costs associated with errors and inefficiencies.

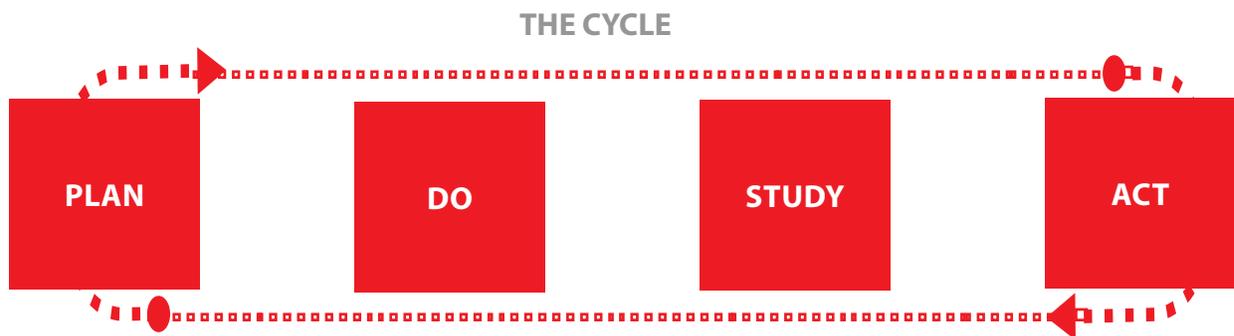
However, despite recognizing the benefits of a CQI program, many organizations report not having the time or resources (staff, money, etc.) required to start and maintain such a program.

Scientific theory has proven that small changes can create a big impact, so please read on to explore **three methods of continuous improvement that can work with limited time and resources.**



METHOD ONE
PLAN-DO-STUDY-ACT (PDSA)

LEARN: PLAN-DO-STUDY-ACT (PDSA) METHOD



HOW IT WORKS

The PDSA quality improvement method is a way to test an idea by planning and implementing the change, analyzing the results, and acting on what is learned. The cycle can be repeated with different changes until you reach your goal. It's a quick way to check if your proposed changes will work without spending the time and resources on a full roll-out that might fail.

UNDERSTANDING THE CYCLE

- 1 **Plan.** What is your goal? How is the process done now? What are the assumptions? How can you test the assumptions? What small change can you apply that might help you meet your goal? It can be helpful to create instructional documentation for your change such as a new policy and procedure document, flowchart, poster, brochure or other collateral to help patients and/or staff follow your new plan.
- 2 **Do.** Implement your plan with a limited sample. It will be easier to study a smaller, but representative sample.
- 3 **Study.** What are the initial results? Does the change appear to be working? Did the change reveal any new factors?
- 4 **Act.** Based on your study, what should you do? Should you get a larger sample? Or continue the method for a determined period longer? Can you build on this plan, or do you need to completely start over based on what you have learned?

Next, as you read through the sample case on pages 6-8, notice how small changes and limited samples make this process more manageable.

SAMPLE CASE: PDSA IN ACTION

CYCLE 1	
PLAN	What is your goal? To increase flu immunization rates so that 90 percent of patients between ages 50 and 64 (if clinically appropriate) receive immunization from the seasonal flu.
	How is it done now? Medical assistants are supposed to ask patients if they have received their seasonal flu vaccine. If not, they offer it to the patients.
	What are the assumption(s)? The assumption is that medical assistants are forgetting to ask and offer vaccination.
	How can you test the assumption(s)? Ask patients if medical assistants offered them the vaccine during their last visit.
	What process(es) can you try to meet your goal? Do a phone survey on a small, random sample of patients in the target age group.
DO	Implement your plan with a limited sample. Each staff member called three patients.
STUDY	Examine effects of change on limited sample. Results on the limited sample showed that medical assistants were not forgetting, but that patients who were not getting the vaccine thought they didn't need one.
ACT	Decide what to do next. Educate reluctant patients on the importance of the flu vaccine. Start another PDSA cycle.

SAMPLE CASE: PDSA IN ACTION

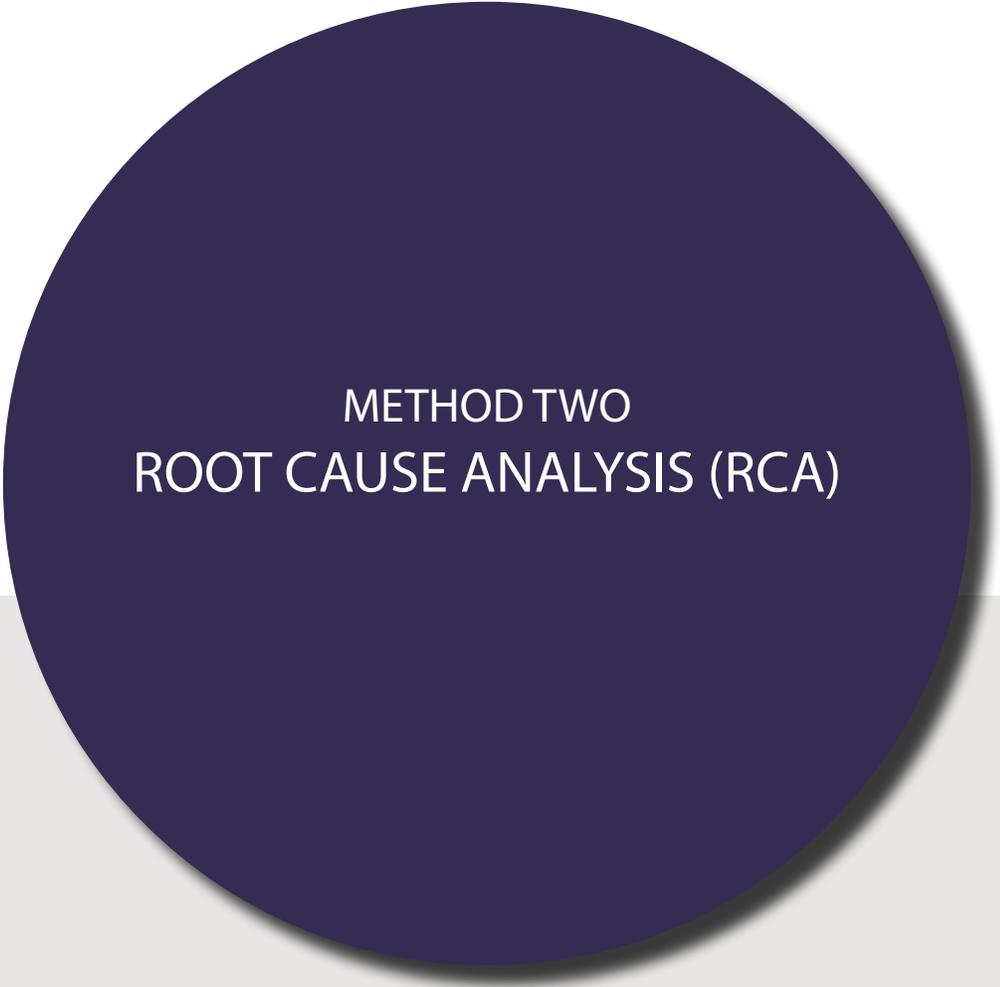
CYCLE 2

PLAN	What is your goal? To increase flu immunization rates so that 90 percent of patients between ages 50 and 64 (if clinically appropriate) receive immunization from the seasonal flu.
	How is it done now? Medical assistants ask patients if they have received their seasonal flu vaccine. If not, they offer it, but the last cycle found that some patients don't think they need it.
	What are the assumption(s)? The assumption is that patients need more information to educate them on the importance of the vaccine.
	How can you test the assumption(s)? Have the medical assistants offer educational material to reluctant patients.
	What process(es) can you try to meet your goal? Have the medical assistants offer an informational handout to every patient declining immunization and report feedback.
DO	Implement your plan with a limited sample. During the morning shift, medical assistants tried the new plan and found that patients were open to verbal education, but didn't want to read the handout.
STUDY	Examine effects of change on limited sample. Results on the morning shift patients found no significant difference from offering a handout. It was discovered that patients wanted to be verbally educated. This stopped the process because medical assistants didn't know what to do next.
ACT	Decide what to do next. Continue testing the change for the rest of the week to see if any other obstacles arise. Meanwhile, start the PDSA cycle again to address how the medical assistants should handle communicating with patients.

SAMPLE CASE: PDSA IN ACTION

CYCLE 3	
PLAN	<p>What is your goal? To increase flu immunization rates so that 90 percent of patients between ages 50 and 64 (if clinically appropriate) receive immunization from the seasonal flu.</p>
	<p>How is it done now? Medical assistants ask patients if they have received their seasonal flu vaccine. If not, they offer it. When patients refuse, medical assistants offer instructional handout. If patients don't want handout, the medical assistants aren't sure what to do.</p>
	<p>What are the assumption(s)? The assumption is that medical assistants need well-defined protocol to help them determine what to do when patients want more information.</p>
	<p>How can you test the assumption(s)? Give the medical assistants a written process flowchart to follow.</p>
	<p>What process(es) can you try to meet your goal? Create a flowchart for medical assistants that outlines what to do. Ultimately, if the patient is reluctant or wants more (verbal) information, the medical assistant will inform the provider who then discusses the importance of the immunization with the patient.</p>
DO	<p>Implement your plan with a limited sample. One provider was asked to volunteer testing the flowchart with the medical assistants.</p>
STUDY	<p>Examine effects of change on limited sample. The flowchart appeared to be working.</p>
ACT	<p>Decide what to do next. Educate all the providers and medical assistants in the clinic, post flowcharts in their work areas and implement the change throughout the practice. Measure the results on a regular basis and use the PDSA method again if goals are not being met.</p>

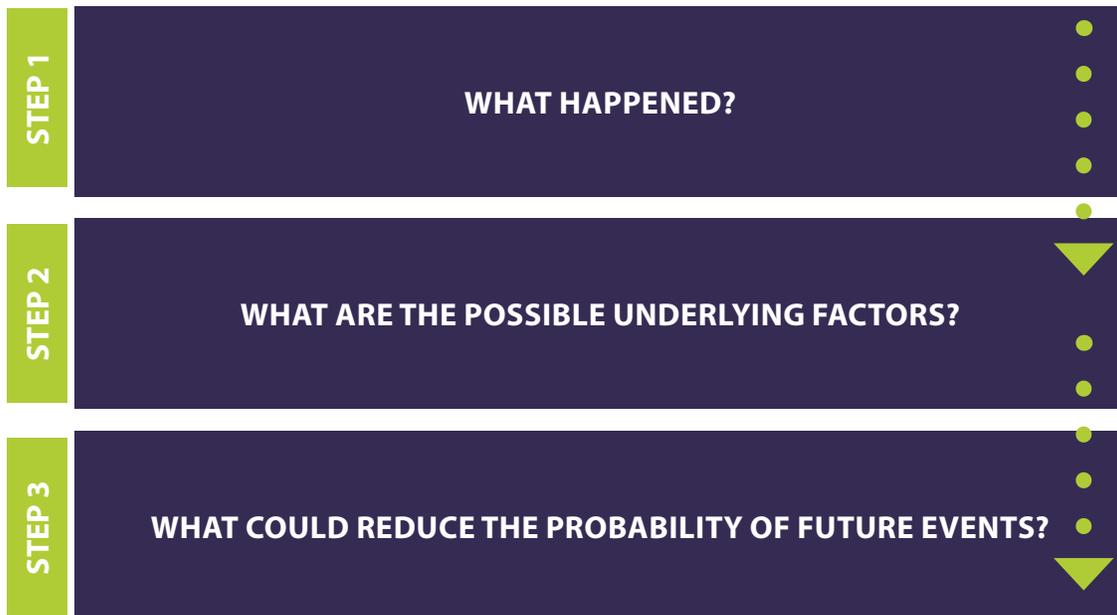
Adapted from a case study of Redline Health Clinic



METHOD TWO
ROOT CAUSE ANALYSIS (RCA)

LEARN: ROOT CAUSE ANALYSIS (RCA) METHOD

THE CYCLE



HOW IT WORKS

Instead of focusing on symptoms, the Root Cause Analysis (RCA) method analyzes the main causes of errors. This method is perhaps best known for its use to analyze sentinel events. However, a Root Cause Analysis can be more widely applied as a general error analysis tool.

UNDERSTANDING THE CYCLE

- 1 **What happened?** State the problem as an opportunity to improve, set a start and end date for your analysis and describe the event as it unfolded by mapping each detail in chronological order on a flowchart.
- 2 **What are the possible underlying factors?** Underlying factors tend to fall into the following six categories: Human Factors, Information Factors, Equipment Factors, Communication Factors, Environmental Factors and Policy, Procedure and Practice Factors (see the chart on page 12). Diagram the factors that contributed to the error/event.
- 3 **What could reduce the probability of future events?** Focusing on the top one to three main cause(s), develop an improvement plan.

SAMPLE CASE: RCA IN ACTION

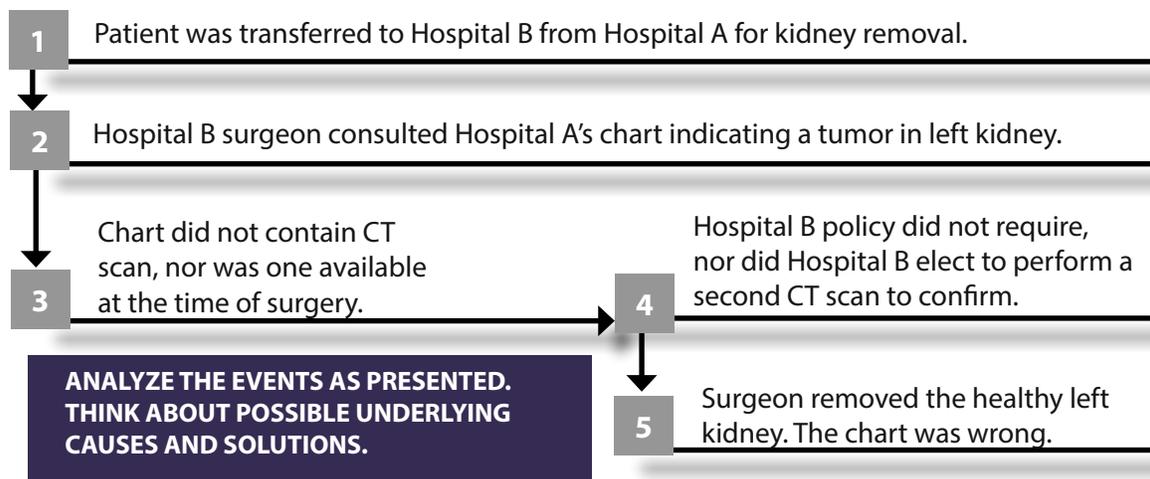
STEP 1: WHAT HAPPENED?

State The Problem/Opportunity.

We have the opportunity to improve surgery protocol within [45] days. Analysis will start on [June 1] and conclude with an improvement plan no later than [August 16].

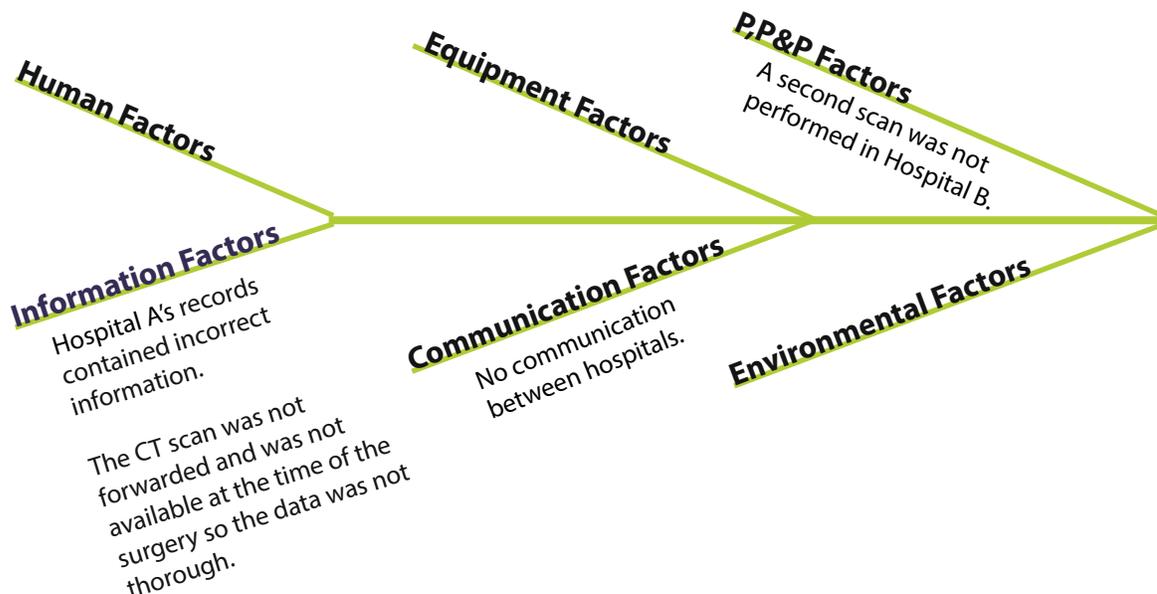
Map The Event. What happened?

Using a flowchart, map the events leading to the problem in chronological order.



STEP 2: WHAT ARE THE POSSIBLE UNDERLYING FACTORS?

Diagram possible root causes based on factors (see chart on page 12).



SAMPLE CASE: RCA IN ACTION

STEP 3: WHAT COULD REDUCE FUTURE ADVERSE EVENTS?

Propose changes for improvement.

Similar errors could be averted by implementing a policy requiring radiology images to be available to the surgeon prior to any surgery. Furthermore, it should be required that any and all radiology images be reviewed prior to the surgery to ensure the correct surgery site. Double-checking medical records for accuracy before any surgery and/or patient transfer is also recommended.

UNDERLYING FACTOR CHART FOR ROOT CAUSE ANALYSIS		
1	Human Factors	
	Staffing	
	Scheduling	
	Orientation/training	
	Competency assessment	
	Supervision	
2	Equipment Factors	
	Preventive maintenance	
	Equipment failure	
	Equipment availability	
	Defective equipment	
3	Environmental Factors	
	Physical	
	Cultural	
	Uncontrollable external	
	Environmental risks	
	Quality control	
4	Information Factors	
	Accurate data	
	Thorough and available data	
	Unclear data/information	
	Lack of Technology	
	5	Communication Factors
		Among staff
		Between staff and patient or family
		Between physician and staff
		Between physician and patient or family
6	Policy, Procedure and Practice Factors	
	Assessment, reassessment, monitoring	
	Care planning	
	Patient/family education	
	Care and treatment protocols and practices	
	Patient identification	
	Patient observation	



METHOD THREE
LEAN METHOD

LEARN: LEAN METHOD

PRINCIPLES OF LEAN

LEAN PRINCIPLES	<p>Determine value from the patient perspective</p> <p>Identify the value stream, looking for what adds value and eliminating anything that doesn't create value</p> <p>Make value flow by eliminating bottlenecks</p> <p>Pull value instead of pushing from the process</p> <p>Pursue perfection by continuously evaluating</p>
------------------------	---

HOW IT WORKS

Based on the manufacturing industry and the Toyota Production System, Lean relies on a set of principles to increase value and eliminate waste. This model lends itself to healthcare because patients and staff alike spend too much time on tasks not related to improving patient care.

UNDERSTANDING THE PRINCIPLES

Determine value from the patient perspective. This principle seeks to identify what adds value and eliminate what doesn't. It should be noted that some non-value added activities cannot be eliminated, but may be minimized. Refer to the chart below for more on determining value.

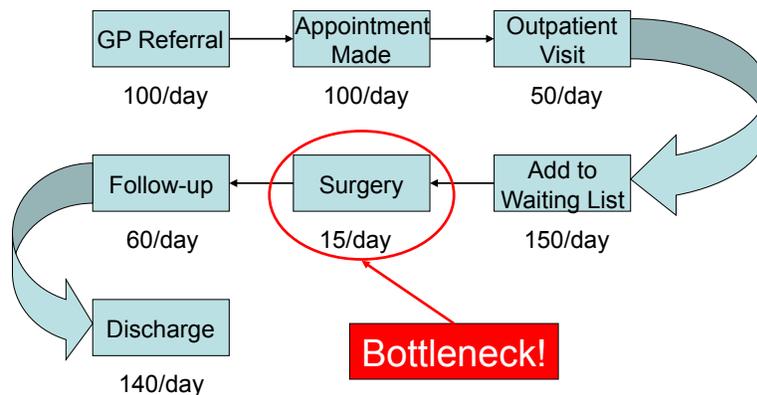
DETERMINING VALUE			
Type of activity	Value-Added Activity	Non-Value Added, Necessary	Non-Value Added, Waste
Definition	Transformation of service from an initial state to an outcome desired by the patient. Either paid by insurance or patient.	Requirements, policy, technology or thinking prevent eliminating these activities.	If removed, the process can go on.
Some Examples	Triage, disease management, lab tests, preventative care	Required record-keeping, lack of EHR-Paper records, slow computers	Redundant information gathering, excess supplies, waiting (for appointments, tests, patient records), searching (for people, charts, supplies)
Action to take	Optimize	Minimize	Eliminate

LEARN: LEAN METHOD

UNDERSTANDING THE PRINCIPLES

Identify the value stream. A value stream maps the flow of a process in steps and describes what takes place, who is involved, the length of time to complete each step, the wait time between, problems and waste that occurs. Analyzing the value stream map will allow you to see the whole picture and pinpoint areas needing improvement. After analyzing your current value stream map, create a future value state map to show what the process should look like without problems and waste.

Make value flow by eliminating bottlenecks. Anything that restricts the throughput of your value streams is a bottleneck. Use the RCA and/or the PDSA cycle to troubleshoot bottlenecks that you identify.



McManus – Lean Healthcare – March 2012 – © LAI EdNet 17

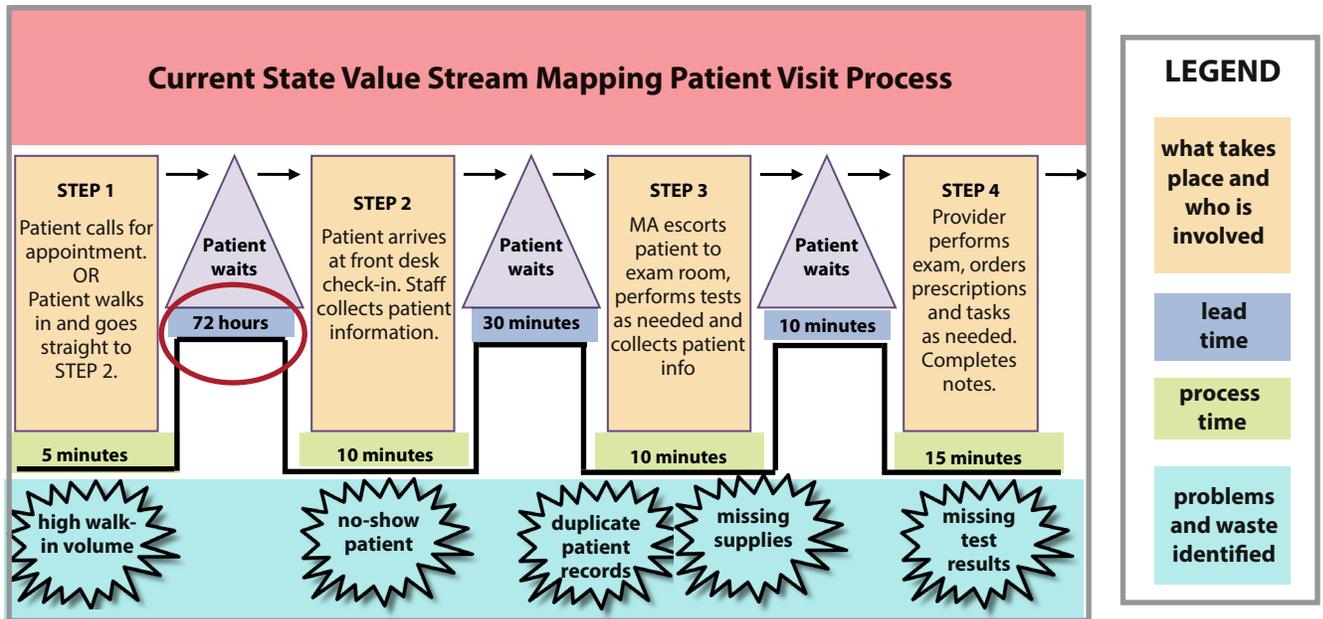
Pull value instead of pushing them. If every step in a process delivers its output just as the next step needs its input, waste is eliminated. Using visual signals when new supplies or services are needed saves time and expense. Making sure supplies are well-organized and labeled will make inventory management more efficient.

Pursue perfection. Continuous improvement results from repeatedly looking for ways to increase value and reduce waste. Encourage the entire staff to regularly look for and report gaps in processes and waste.

The sample case on pages 16-19 focuses on one process and uncovers several areas needing improvement at the same time. Once identified, each problem or waste may be addressed separately.

SAMPLE CASE: LEAN IN ACTION

Choose and map a current value stream. In the example below, the patient's flow through an office visit is mapped. See the color-coded legend for an explanation of each dimension of the map.



Wait times: 72 hours 40 minutes

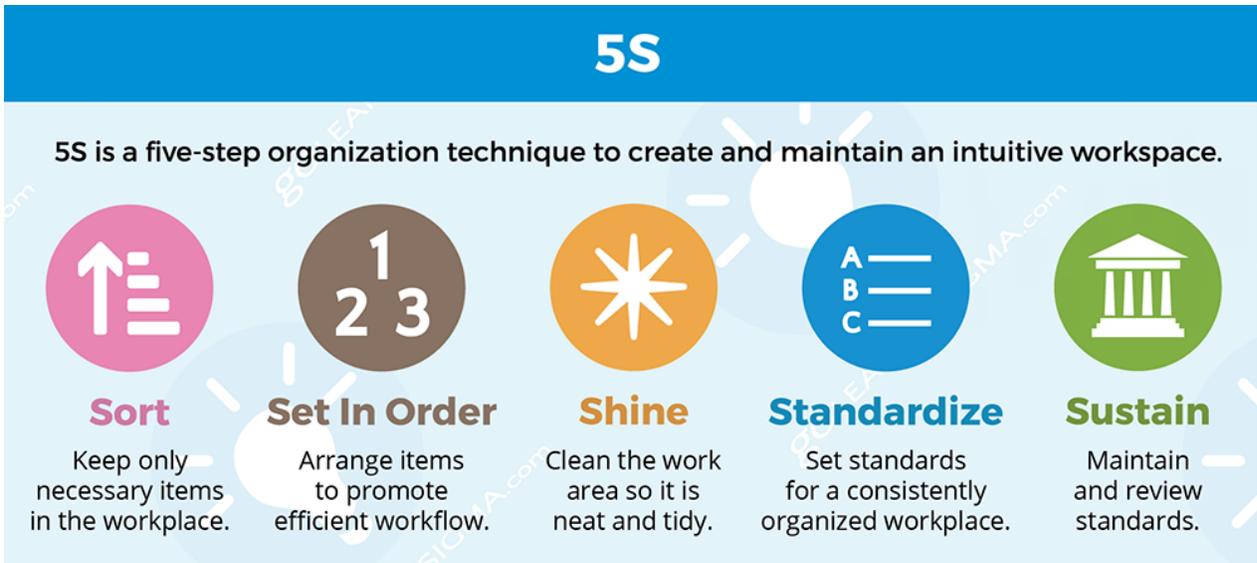
Determine value from the patient perspective. Value added and non-value added activities are noted.

DETERMINING VALUE			
Type of activity	Value-Added Activity	Non-Value Added, Necessary	Non-Value Added, Waste
Patient Visit Activity	<ul style="list-style-type: none"> 1st collection of patient information Medical assistant tasks as needed Provider exams Prescription ordering 	<ul style="list-style-type: none"> Provider notes 	<ul style="list-style-type: none"> Missing supplies in room Storage areas disorganized with expired and depleted supplies Late patient "no-show" Lab did not share results. High volume of walk-ins. Duplicating patient information.
Action to take	Optimize	Minimize	Eliminate

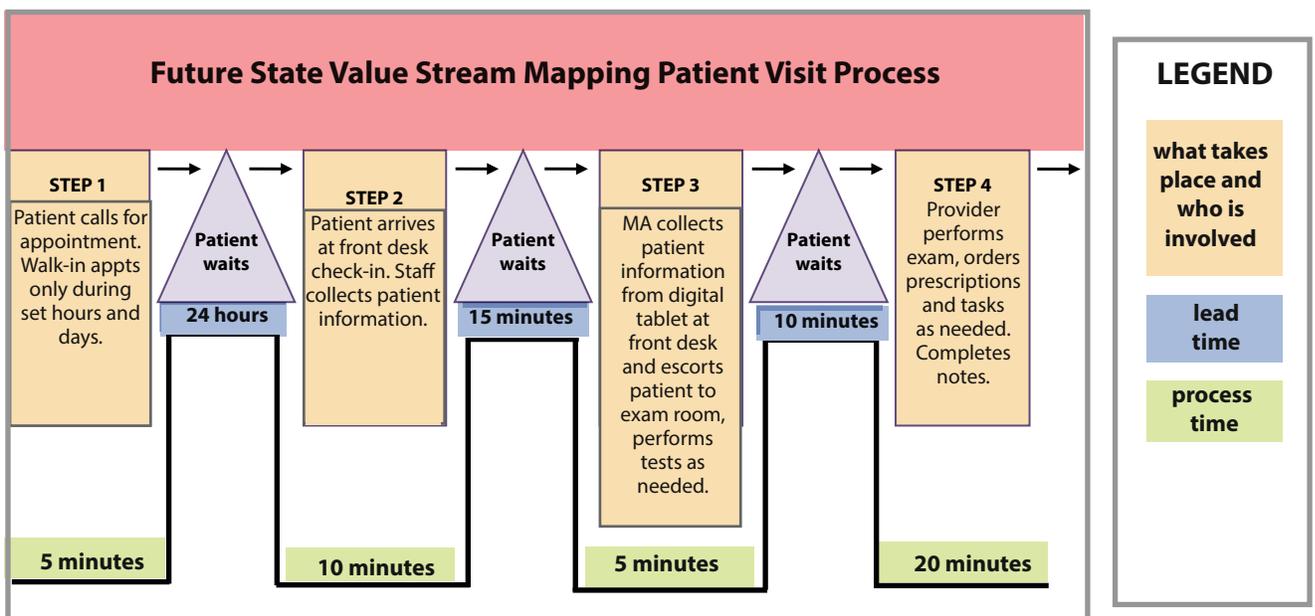
Identify bottlenecks. Patient waits 72 hours before being able to get in to the clinic. Walk-ins are the suspected cause. A root cause analysis will determine the cause and an action plan will be put into place to reduce the waste.

SAMPLE CASE: LEAN IN ACTION

Pull value. To pull value, when supplies are diminished in the patient room, there should be a signal to replenish them. Furthermore, a disorganized supply area is a huge waste. Refer to the 5S process below to organize all workspaces.



Create a future state value stream map. What should the value map ideally look like without problems and waste? The patient waits less and doesn't have to repeat information. The doctor has more time to complete notes. No one is looking for supplies or lab results.



Wait times: 24 hours 25 minutes (cut waiting time by 66%)

SAMPLE CASE: LEAN IN ACTION

Action plan. What can be done to cut problems and waste? What tool(s) can you use? Summarize the specifics.

ACTION PLAN OUTLINE		
Problem/Waste	Tool	Specifics
Missing supplies in patient room	Policy & Procedure Change, Visual signal, PDSA	Test flagging room when a supply is depleted and employ a checklist to note what is needed
Storage areas disorganized, expired and depleted supplies	5S (Sort-Set in Order-Shine-Standardize-Sustain), Visual Signal	Use 5S to organize all work areas to provide quick access to needed supplies and visual signal to indicate when supplies run low or near expiration
Patients late (“no-show”)	Policy & Procedure Change, PDSA	Implement a no-show policy and test using an overbook column in scheduling to offset no-shows
Patient Information not available from lab	Policy & Procedure Change, Pull Concept	Instead of waiting for lab to push information, implement a standard release of information process across all departments to pull patient information
Large volume of walk-ins difficult to manage	Policy & Procedure Change, PDSA, and visual signal	Test a policy establishing set hours for walk-in patients and create time slots in provider schedules for walk-ins. Test a numbering system in wait area and install electronic numbering if successful.
Duplicate collection of patient information	Policy & Procedure Change	Use electronic tablet to record information at check-in so it does not have to be repeated by medical assistants

Case adapted from a [report](#) on FQHC by the Altarum Institute

SAMPLE CASE: LEAN IN ACTION

Pursue perfection. Continuous improvement results from repeatedly looking for ways to increase value and reduce waste. Encourage the entire staff to look for and report gaps in processes and waste regularly. For more resources, visit the [AMA STEPS Forward](#) website.

Go and see worksheet

Visit the front lines to understand how work is done

Leader:				
Practice:		Date:		
Observation of waste <i>Identify as many sources of waste as you can during your go and see rounds. Describe in the column below and check off what type of waste you've identified in the columns to the right.</i>		Transport: of people, materials, information	Inventory: team has required materials	Motion: walking, reaching, bending
1				
2				
3				

Source: AMA. Practice transformation series: starting lean healthcare. 2015.

TIPS FOR SUCCESS

- **Gain consensus.** It's hard to convince staff to try something new if they don't think anything is wrong with the current system. Find common ground with your staff. Identify what you agree upon and work on those items first.
- **Consult the front line.** Your staff is intimately knowledgeable about how processes are currently done, what most often goes right and what goes wrong. Ask them what they think will improve efficiency.
- **Convert unbelievers.** No matter how right you may be, there will always be employees rooting against your efforts in hopes that you will give up so they can go back to business as usual. Go for small, quick wins to make believers out of your staff.
- **Manage expectations.** Every initiative will not work. Continuous improvement is a learning process. Use failures as building blocks for future efforts, and don't be discouraged.
- **Use all your resources.** No one method of continuous improvement can address every problem. Depending on the issue and goal, you should choose a method or two to arrive at a proposed solution.

Often, implementing continuous improvement processes results in an increasing number of policies and procedures. PolicyStat is here to help you more easily and efficiently manage that. [Contact us](#), or go online to our [ROI calculator](#) to see how we can save you time and money.



We are PolicyStat ... Passionate from the Start

PolicyStat was founded by a group of successful tech entrepreneurs with the goal of delivering a world-class policy management platform that makes policies easy to update, manage and access.

With an above 99% renewal rate, it's clear that we are driven by a passion for what we do and what we can do for our customers — before, during and after implementation.

For more resources, or to discover more about our Software as a Service (SaaS), please visit us at **policystat.com**.