

A Quick Guide to Starting Your Quality Improvement Projects



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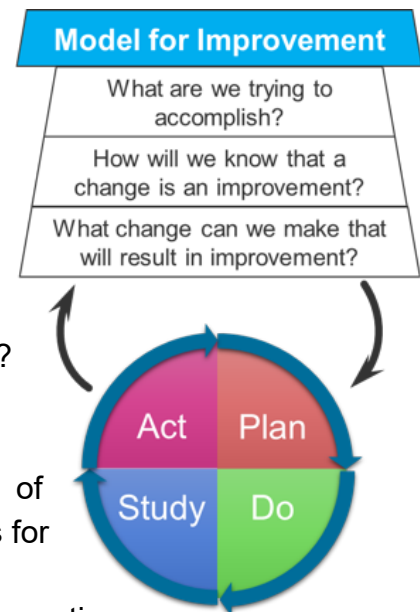
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THE MODEL FOR IMPROVEMENT

Partnership HealthPlan of California (PHC) uses the *Model for Improvement* as the framework to guide improvement work. The Model for Improvement, developed by Associates in Process Improvement, is a simple yet powerful tool for accelerating improvement. The model provides a framework for developing, testing and implementing changes leading to improvement.

The model has two parts:

1. Three fundamental questions
 - What are we trying to accomplish?
 - How will we know that a change is an improvement?
 - What change can we make that will result in improvement?
2. The PDSA cycle facilitates learning through an iteration of cycle spurred by prediction. The three most common ways for using the cycle:
 - To build knowledge to help answer any of the three questions
 - To test a change idea
 - To implement a change



Step 1. Meet With The Project Sponsor

Meeting with the project sponsor, often an executive or senior leader, is important to gain insight on background and the reason why the project is being implemented. A project sponsor's role is to provide the business context, expertise, and guidance to the project lead. They act as an escalation point for decisions and issues that are beyond the authority of the project lead.

Sample questions to consider when meeting with the sponsor:

- Why should we do this? Why should we do it now?
- How does the project align with organization strategies?
- What is the issue and how is it impacting the organization?
- What impact do gaps in performance have on stakeholders and customers?
- Where in the organization will the improvement take place?
- What is the timeline?
- Who will be part of the team?

In meeting with the sponsor, it can be helpful to present recommendations for each of these questions and to be prepared for further inquiry and dialogue.

Step 2. The Project Team

Including the right people on a process improvement team is vital to the success of your improvement efforts. It is essential to include staff who are familiar with the day-to-day workflows and he/she is able to provide details on areas that are going well and opportunities for improvement. Teams should include a diverse group of individuals who have different roles and perspective on the process under consideration. It is also important to have access to staff who understand data systems and are able to support the team in displaying and analyzing data for the improvement projects. Teams vary in size and composition.

Suggested team composition:

- **Project Lead** – Ensures meetings are coordinated and team members are invited; facilitates team members through change process; ensures opportunities are available for team members to communicate with stakeholders/leaders
- **Process Expert** – Front-line staff member familiar with the day-to-day process/system being improved
- **Subject Matter Experts** – Provides information/expertise necessary to improve process/system
- **Data Analyst** – Understands data systems and can generate, display and analyze data for improvement project.
- **Project Champion** – Helps build capacity in the practice for ongoing improvement and implementing effective “processes” that will enable improvement. The role of the champion is to ensure the team functions effectively and fulfills its charter for the organization
- **Project Sponsor** – The individual outside the team the gives approval to conduct the project, provides support and directions, serves as a link to senior management, provides needed resources, and reduces barriers on behalf of the team.

Step 3. Schedule Kick-off Meeting - Prep

- Pre-meeting preparation
 - When working on a measure, work with your assigned Data Analyst to determine baseline data – what is your current organizational performance? (Baseline data should be a look back of 6 months – 1 year)
 - Prepare agenda with the following focus areas:
 - Introduction: get to know the team members
 - From Step 1. explain the Why, What, Where, Who and How
 - Review baseline data
 - Explain and develop Aim Statement
 - Team logistics
 - Ground rules
 - Team roles and responsibilities
 - Meeting frequency

Aim Statement

- **Aim Statement** – What are we trying to accomplish?
 - An aim statement answers the question “Why are we doing this”?
 - Sets realistic vision for the quality work
 - Clearly states a purpose or direction
 - Makes sure everyone is on the same page.
- In developing an aim statement, we recommend using the SMART characteristics:
 - Specific
 - Measurable
 - Ambitious
 - Relevant
 - Time-bound

Downloadable Documents: [Agenda Template](#); [AIM Statement Worksheet](#)

Step 4. Launch Kick-off Meeting

- Ensure key stakeholders and team members are able to attend
- Assign time keeper and note taker
- Review / facilitate meeting according to the agenda

Step 5. Logistics for Project Lead

- Schedule reoccurring team meetings
- Develop agenda for follow-up meeting with the following focus areas:
 - Review notes from kick-off meeting
 - Develop Project Charter
- The Project Charter provides teams with a working agreement and structure on why, what, when and how the project will move forward.

Step 6. Develop Project Charter

Project Charters are important for the success of a project. The Project Charter builds a foundation for the project. It is a great communication tool for the stakeholders and provides direction on the project. A Project Charter is important because:

- It ensures the project team understands the sponsor's needs and requirements
- It provides vital information needed to get the project started
- It acts as a reference document to make sure everyone on the team is on the same page

DOWNLOADABLE DOCUMENTS: [Project Charter Template](#)

EXAMPLES AND SAMPLE DOCUMENTS: [Appendix 1: Charter Sample](#)

Project Lead Notes:

- For the follow-up meeting, select from step seven to develop the agenda.
- Typically QI projects begin with a Driver Diagram or Processing Mapping to develop change ideas however, any of the sources are a valid starting point.
- Continue to follow steps in this guide to facilitate scheduled meetings with the project team.

Step 7. Generate Change Ideas

While all changes do not lead to improvement, all improvement requires change. An organization's ability to develop, test and implement change is essential for improvement. Ideas for tests of change are generated by subject-specific experts on the team who creatively combine change concepts. Listed below are a few techniques for an organization to consider when developing a test of change:

Sources for Change Ideas – What changes can we make that will result in improvement?

1. **Driver Diagrams** – A driver diagram is a team brainstorming tool that is used to visually display what “drives” the topic area of a project (i.e. your Aim Statement), in order to identify potential change ideas to use in your PDSA cycle(s).
Purpose
 - Translates a high-level improvement goal into sub-projects
 - Helps organize change concepts and ideas
 - Tests theories about cause and effect
 - Serves as a communication tool
2. **Process Mapping** – Also called a flowchart, process mapping helps us understand the current state, the positions and people involved, and the desired output.
Purpose
 - Process Mapping helps us understand how work currently happens, which is essential before trying to fix it! Clinical process mapping can help staff identify process through the “eyes of your patients.” Process Mapping identifies the “work around” that we often create to accommodate a poor existing process.
3. **5 Whys** – This is a technique used to explore root cause analysis – you figure out something that went wrong and ask why. To further understand the reason provided, ask why again and so on four more times. Coupled with critical thinking questions, this can be a powerful tool to get to the root of the problem.
4. **Benchmarking** – Comparing your own process to “best practice” can help you identify opportunities in your system. Based on the analysis, you can develop ideas for improving your organization's performance.
5. **Technology** – Think about opportunities in which technology – such as automation, new equipment, or new information system – can lead to improvement.
6. **Other Sources for Changes**
 - Published research, change packages
 - Experts
 - Peers
 - Patients – surveys, focus groups

DOWNLOADABLE DOCUMENTS: [Driver Diagrams Worksheet](#); [Process Mapping Template](#)

EXAMPLES AND SAMPLE DOCUMENTS: [Appendix 2: Driver Diagram Information](#); [Appendix 3: Process Mapping 101](#); [Appendix 4: 5 Whys](#)

Project Lead Notes:

How to use a Driver Diagram:

Use brainstorm activity to develop Driver Diagram (Change Theories)

Pose question: “why aren’t we currently meeting the target?”

Use Driver Diagram to identify areas of focus and to prioritize change ideas

Step 8. Measurement & Tracking

Measurement – How Do We Know That a Change is an Improvement?

Measurement is an essential part of testing and implementing changes. The data collected via measurement help tell a team whether the changes being tested are making an improvement.

The Role of Measurement in QI

Understand	• How does the current system perform?
Predict	• What interventions might improve the performance of the current system?
Evaluate	• Did our interventions result in improvement?
Monitor	• Are our improvements sustained over time?
Engage	• Are we considering what is important for others to know?

In improvement work, the team should develop a set of measures and plot the data using a run chart. When defining your measure:

- Be Specific
- Define numerator and denominator¹
- Create operational definitions – conceptual definition of what and how something is measured.
- Examples of operational definitions:

Example 1:

- **What** - Patient wait time
- **How** - Time elapsed from the patient appointment time until time patient enters exam room, in minutes

Example 2:

- **What** - No show rate
- **How** - The percent of patients who did not complete their scheduled appointment.

¹ Example: equation - $\frac{20}{50}$, numerator = 20, 50 = denominator. 50 people are your entire population, 20 people are compliant and the difference of 30 is out of compliance.

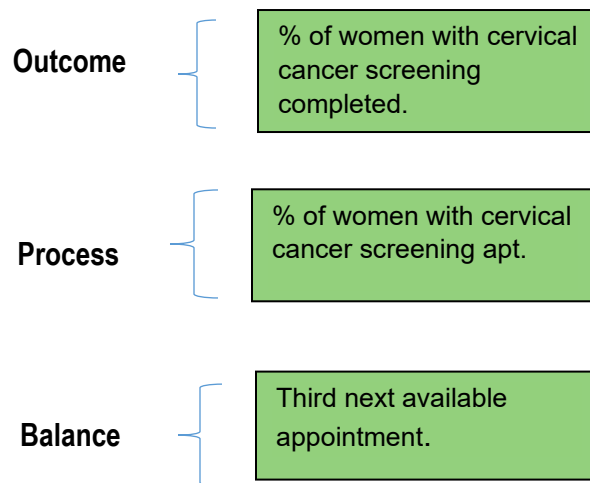
QI Measures Set

Measures are essential in order to effectively understand the effects of the changes your quality team will be testing. All QI projects must have at minimum, an Outcome and a Process Measure.

1. Outcome measure – focuses on the results of the change taken place.
 - Relates directly to the aim
 - Answers question – did we achieve our aim?
2. Process measure – focuses on the steps that should be followed to achieve successful outcomes.
 - Measures whether a change has been accomplished.
 - Helps us understand why we did or did not achieve our aim
3. Balance measure – changes made to one part of the system that causes changes in another part.
 - Unintended impact
 - Can be positive or negative

Example:

Aim Statement – We will improve the cervical cancer screening rate for women ages 24-64 from 45% to 65% by September 30, 2019



DOWNLOADABLE DOCUMENTS: [Measure Worksheet](#)

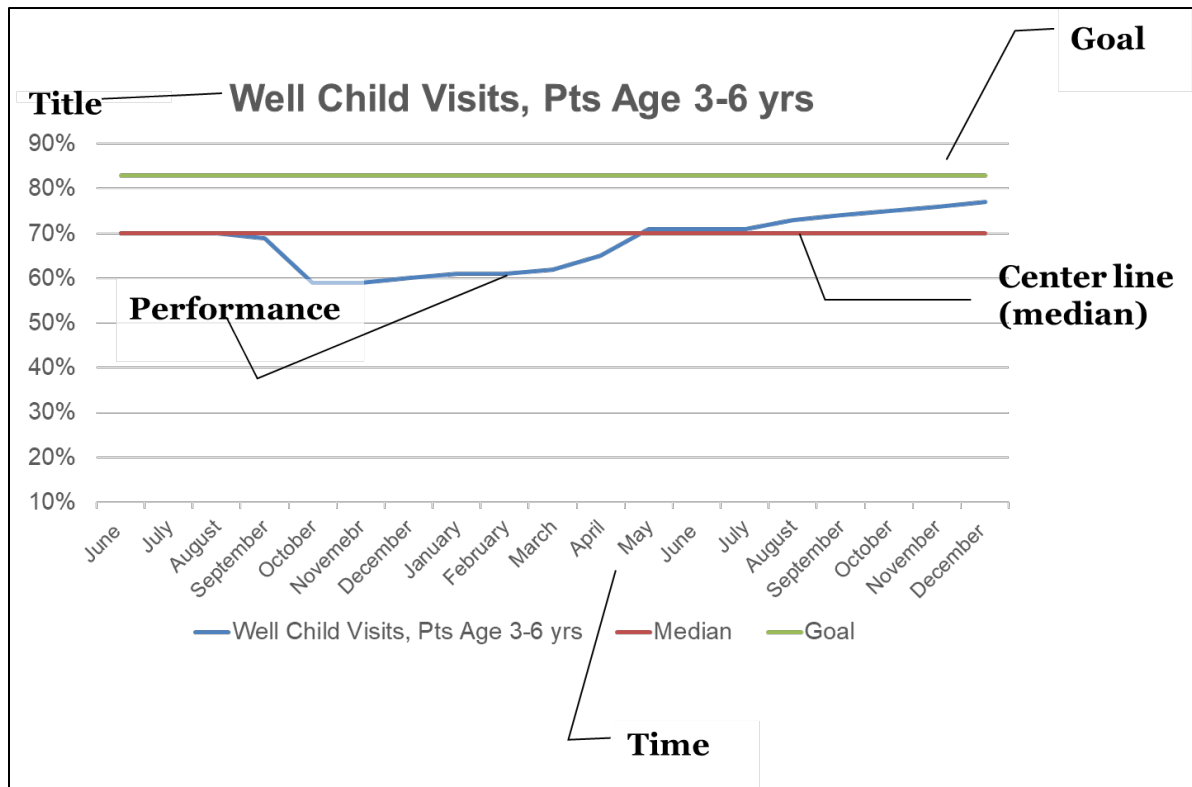
EXAMPLE AND SAMPLE DOCUMENTS: [Appendix 5: Sample Measures Worksheet](#)

Project Lead Notes:

- Create one/two Measures for each of the above measures, at a minimum one Outcome Measure and one Process measure.
- Define details regarding measurement (see Measures Worksheet)

Run Charts

Run charts show changes in data over time, are easy to interpret, and provide a picture of how a process is performing. They can be annotated to indicate when a particular change is tested or implemented, which may explain a marked improvement or decrease in performance.



DOWNLOADABLE DOCUMENTS: [Run Chart Template](#)

EXAMPLE AND SAMPLE DOCUMENTS: [Appendix 7: Run Charts 101](#)

Project Lead Notes:

- Continue to use run charts to track progress and annotate when small test of change occur.
- Identify methods for sharing progress (use data to engage)

Step 9. PDSA Cycle

One of the most common tools for improvement is the PDSA Cycle. The PDSA Cycle is shorthand for testing a change by planning it, trying it, observing the results and acting on what is learned. The PDSA Cycle is used to test small changes for a few reasons:

- It's easier to try a new idea when people know it won't be a permanent change.
- Enables those at the front line to contribute to the change and to by doing so, to become more engaged stakeholders and potential champions
- Helps increase the belief and confidence in a change (or not) to decide which of several proposed changes will lead to the desired improvement
- Is a low-risk way to try out a new idea compared to projects that roll out a new change for everyone at once

PDSA Cycle – facilitates learning through an iteration of cycles spurred by prediction

Three common ways for using the cycle:

- To build knowledge to help answer any of the three questions
- To test a change idea
- To implement a change

PDSA – Plan

- Provides the details of who will do it, when will it be done
- Hypotheses – make a prediction, what do you think is going to happen
- Collect data – who will collect the data and what data will you collect

PDSA – Do

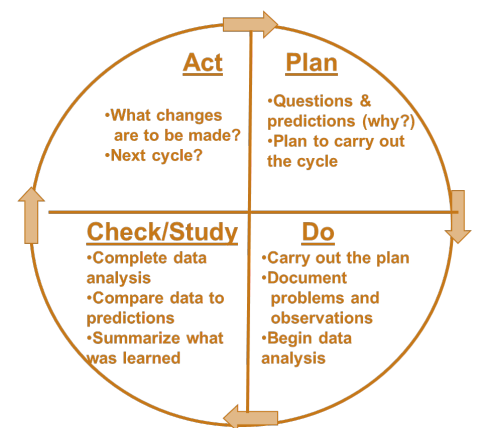
- Carry out the plan
- Collect data – document activity and observation

PDSA – Study

- Complete data analysis
- Compare data to prediction – what happened?
- Summarize learnings.

PDSA – Act

- Refine the change, based on what was learned from the test
 - Adapt – keep/expand the intervention (i.e. expand from a sample of 5 to a sample of 10 patients)
 - Adapt – modify your last plan
 - Abandon – learn from your PDSA and move on to the next change idea.



DOWNLOADABLE DOCUMENTS: [PDSA Worksheet](#); [PDSA Tracker](#)

EXAMPLE & SAMPLE DOCUMENTS: [Appendix 7: PDSA Information](#); [Appendix 8: PDSA Tracker](#)

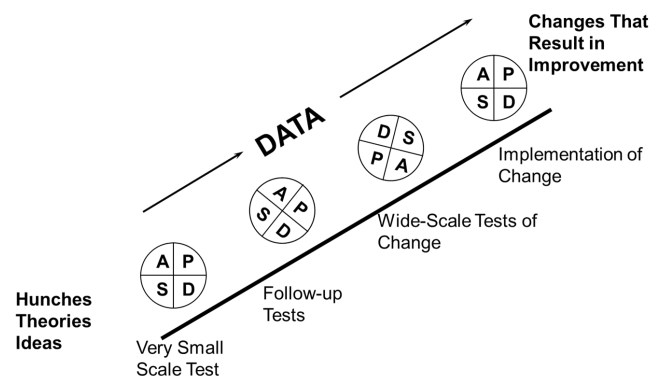
Project Lead Notes:

- Prepare a detailed document of your planned test (PDSA Worksheet)
- Make a SPECIFIC plan
- Document prediction
- Create data collection tool (what do you want to know? Be specific)
- Test your ideas – keep it SMALL (1 provider, 1 MA, 1 patient)
- Analyze test learnings
- Determine next steps: Adopt, Adapt, Abandon
- Keep track of test iterations to understand which test worked (PDSA Worksheets)

Step 10 – Spread and Sustainability

Knowing When You're Ready to Implement Changes

The diagram on the right illustrates how a change idea starts with small scale tests, ramp up to test under a variety of conditions, widening the scope of tests until you have a high-degree of belief that the process/system produces the same, high-quality result every time.



Sustaining Changes

- While the real work of sustainability begins after successful testing has been completed and the team has reached its aim, it is important to discuss sustainability of changes at the onset of your improvement project. While the tools used in the Model for Improvement encourages outside-the-box thinking, which we encourage, it is also necessary to consider changes that can be sustained in the long run.
- Testing is about learning if the changes will result in improvement, sustaining is about how to make changes an integral part of your system and part of normal operations.

Spread

- During implementation, teams learn valuable lessons necessary for successful spread, including key infrastructure issues, optimal sequencing of tasks and working with people to help them adopt and then adapt a change.
- Keep in mind that what worked in one area or environment may not work in another. As such, spread efforts will benefit from the continued use of the PDSA cycle. Units adopting the change need to plan how best to adapt the change to their unit and to determine if the change resulted in the desired and predicted improvement. Spread requires as much planning as your testing and implementation phases.

DOWNLOADABLE DOCUMENTS: [Work Plan for Sustaining Improvements](#); [Spread Aim Worksheet](#)

EXAMPLE AND SAMPLE DOCUMENTS: [Appendix 9: Sustaining Improvement](#); [Appendix 10: Spreading Specific Changes](#)

Project Lead Notes:

- ***For questions and guidance on Sustainability and Spread or any other sections in this guide please contact us at: ImprovementAcademy@partnershiphp.org***

Project Charter			
Date			
Project Name	Cervical Cancer Screening (CCS)	Business Unit	ABC Clinic - Women's Health Unit C
Project Lead	Joe Smith	Executive Sponsor	Linda Cruz
Background/Reason <ul style="list-style-type: none"> Cervical cancer is preventable through frequent screenings and appropriate interventions. Low-income/marginalized populations are less likely to complete cervical cancer screening and more likely to experience poor outcomes due to insufficient preventive care. The goal is to increase Pap smear rates in at-risk populations to decrease the risk of developing cervical cancer. These goals are aligned with Clinic ABC's organizational goals and Partnership's QIP goals. 			
AIM Statement <ul style="list-style-type: none"> ABC Clinic will increase cervical cancer screening rates in women ages 21-65 who were seen in the last 12 months from 63% to 70% by December 31st, 2020. 		Project Scope and Approach <ul style="list-style-type: none"> Women ages 21-65 with an intact cervix who have been seen at ABC clinic within the last 12 months (July 2019 – July 2020) 	
Expected Deliverables/Outcomes <ul style="list-style-type: none"> Determine opportunities in the system Create and test change ideas on a sample population To meet or exceed the goal of screening 70% of eligible women Decreased no-show rates, increased productivity, improved efficiency (i.e. minimize the number of inappropriately scheduled visits), improved documentation, financial incentives 		Assumptions/Risks <ul style="list-style-type: none"> Insufficient time/resources to implement outreach, staff buy-in/investment in the project, no-show rates, consistency of team implementation over time, sustainability, patient follow-up 	
Milestones (Timeline)		Dates	

Initiation	05-05-2020
Planning	07-01-2020
Testing	08-01-2020
Implementation	05-01-2021

Project Team

Role & Responsibility (see legend below)

Name	Title	Project Role	Name	Title	Project Role
Linda Cruz	COO	Sponsor	Emma Brown	Front Office	Process Expert
Lisa O'Leary	Director of Quality	Champion	Joe Smith	Back Office Supervisor	Project Lead
Dr. Wilson	Provider	Subject Matter Expert			
Jamie Moore	MA	Process Expert			
Alex White	MA	Process Expert			

Team Logistics

(Meeting frequency, ground rules, etc.)

Bi-weekly meeting, Tuesdays 10 - 11 am

Ground Rules:

Be present. Limit the use of electronics. Respect what's said in the room. Follow through on action items.

Project Sponsor – Senior leader with formal authority and ownership for the process being improved

Champion – Leads project identification and prioritization; generates the organizational support and resources to ensure project success

Project Lead – Ensures meetings are coordinated and team members are invited; facilitates team members through change process; ensures opportunities are available for team members to communicate with stakeholders/leaders

Process Expert – Front-line staff member familiar with the day-to-day process/system being improved

Subject Matter Expert – Provides information/expertise necessary to improve process/system

DRIVER DIAGRAMS

How to Develop a Driver

Purpose of a Driver Diagram



Translates a high-level improvement goal into sub-projects



Helps organize change concepts and ideas



Tests theories about cause and effect



Serves as a communication tool

Gather

Gather team members (subject matter experts)

Brainstorm

Brainstorm by asking “what do we need to improve to achieve our goal?”

Cluster

Cluster “like” ideas and identify “themes”

Add

Add any new drivers that have surfaced during brainstorming

Develop

Develop diagram – Primary/Secondary Drivers

Driver Diagram Sample

Aim Statement

We will improve asthma management by increasing the ratio of inhaled controller medications to inhaled rescue medications from 59% to 75% by January 1, 2015

Primary Drivers (Problems with the System)

Documentation

Treatment

Patient Engagement

Secondary Drivers (Areas for Improvement/Change Ideas)

Incorrect classification in EMR

Proper diagnosis of asthma in problem list

Evidence of asthma in progress notes

Inhaler medication not prescribed

Providers following standards

Follow-up and/or case management provided

Demonstrate proper use of inhaler

Picks up inhaler medication from pharmacy

Keeps appointments

Process Mapping 101

Objective: Create a high-level as-is process map from the customer's perspective

Step 1: Identify the Process You Need to Map

Decide where you want to start. Is it with a process that is underperforming? Is it with a process that is important to your new strategy? Or is it with a process that directly makes an impact on health care quality and/or customer satisfaction?

Then give it a name.

Step 2: Bring Together the Right Team

The input of everyone involved in the process is necessary to make sure that you cover every aspect of the process when mapping it. The right team should include those who do and manage the process to provide the input.

Step 3: Gather All the Necessary Information and Organize the Steps in a Sequential Order

Invite your team to brainstorm the steps in the process and arrange each step in a sequential order from the beginning to the end.

TIP: Use sticky notes to create the process map. They can easily be moved around; use this to encourage participation from everyone in the group. Use one sticky note for each step. It is also helpful to use different colors, such as one color for process steps and another to distinguish areas for improvement or change ideas.

Questions to ask to help facilitate process mapping brainstorming:

- Where does the process begin and end?
- What are the steps in between these two points?
- Who does what? When, where and how?

Step 4: Analyze the Map to Find Areas for Improvement

Identify inefficiencies and bottlenecks within the processes. What are the steps that should be eliminated? Where can you make improvements?

Thought-Starters for Analyzing Processes

Purpose	What?	What is done?	Eliminate
	Why?	What is the purpose? Is the purpose accomplished? Why is it necessary? What if it were eliminated? What would make it unnecessary?	
Place	Where?	Where is it performed? What alternate locations are viable? Can the departments be reorganized?	Combine Rearrange
Sequence	When?	What other sequences would work? Can it be combined with another event? What are the implications of other sequences?	
Person	Who?	Who performs the task? Who else could perform it?	
Means	How?	What other methods are available? What other process technologies exist? Can smaller scale processes be used?	Simplify

Process Mapping Best Practices

- Before identifying the process steps, start with identifying the start and end points of the process. This helps with setting limits.
- Make your process maps easy and simple to read and understand by anyone in your company.
- Keep only the necessary details on your map, not less or more than needed to identify areas for improvements.
- Include all the key stakeholders when mapping the process to avoid missing out on important information or steps.

Process Mapping Symbols



- **Start and End:** Oval used to show inputs (materials, information or action) that starts a process and outputs (the results) at the end of a process



- **Activity:** Rectangle represents one task/activity/step in the process (from perspective of patient or customer)



- **Decision:** Diamond represents a decision point in the process



- **Break:** A circle identifies a break in the process

Determining the Root Cause: 5 Whys

5 Whys is a simple tool used for root cause analysis. It is an interactive question-asking technique, used to explore the cause and effect relationships underlying a particular problem or issue in an organization, department or process. The primary goal of the technique is to determine the root cause of a defect or problem by repeating the question “Why?” five times. The answer to each question forms the basis of the next question. The “5” in the name derives from the average number of “Whys” typically required to reach the root cause. The actual number for a specific problem might be greater or less than five.

Benefits of 5 Whys

- Helps identify the root cause of a problem.
- Determines the relationship between different root causes of a problem.
- One of the simplest tools; easy to complete without statistical analysis.
- Can be used for complex incidents and/or simpler issues.
- Used in conjunction with other tools - prior to your PDSA’s (Plan Do Study Act).

When Is 5 Whys Most Useful?

- When problems involve human factors or interactions.
- In day-to-day business life in any environment; can be used within or outside of a Lean project.
- When there has been a deviation or change in procedure or protocol that has impacted the patient/client/consumer.

How to Complete the 5 Whys

1. **Define the problem:** Write down the specific problem at the top of a piece of paper or white board. This helps formalize the problem and describes it completely. It also helps the team focus on the same problem.
2. **Ask Why:** The facilitator will ask “Why” the problem happens and write the answer down below the problem.
3. If the response provided doesn’t identify the root cause of the problem that you wrote down in Step 1, re-phrase the answer as a question and ask “Why” again and write the answer down.
4. The facilitator should ask “Why” as many times as needed until the team is able to identify the root cause of the problem.

Example 1²:

The problem: The van will not start.

1. **Why?** The battery is dead.
2. **Why?** The alternator is not working.
3. **Why?** The alternator belt is broken.
4. **Why?** The alternator belt was well beyond its useful service life and not replaced.
5. **Why?** The van was not maintained according to the recommended services schedule.

ROOT CAUSE

Example 2:

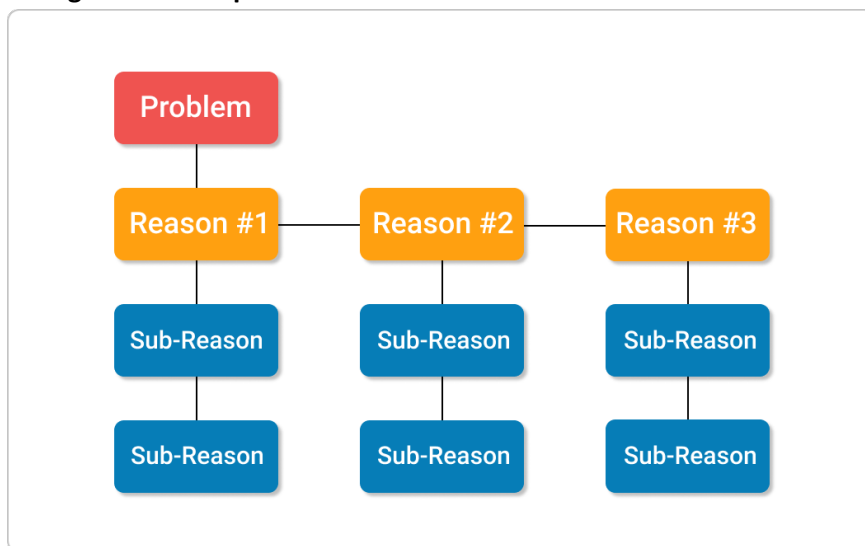
The problem: There are delays in performing x-rays.

1. **Why?** Because the exam takes longer than scheduled.
2. **Why?** Because the radiology techs are busy with other things.
3. **Why?** Because they have to answer the phones.
4. **Why?** Because there is a phone that rings in their area.
5. **Why?** Because it has not been programmed to ring in the clerk's station.

Facilitator Notes:

- Don't ask too many whys. If you keep going, you may end up receiving a lot of unreasonable suggestions, which is not the purpose. Focus on finding the root cause.
- Sometimes there could be more than one root cause. In these cases, the 5 Whys analysis will look more like a matrix with different branches. This may even help you detect and eliminate organizational issues that have permanent negative effects on the overall performance. (Example: Diagram 1)

Diagram 1. Multiple Root Causes



² This example condensed from <http://www.issixsigma.com/tools-templatecause-effect/determine-rootcause—5whys> and <http://en.wikipedia.org/wiki/5Whys>

SAMPLE MEASURES WORKSHEET

MEASURES WORKSHEET

Project Name: Increasing colorectal cancer screening									
Measure	Measure Type (Outcome, Process, Balance)	Description/Specs (include definition of numerator/denominator where appropriate)	Data Source	Measur. Frequ.	Reporting Frequ.	How will data be presented	Responsible Person(s)	Baseline	Target
Percentage of patients 50-75 with colorectal cancer screening	Outcome	<p>Numerator: Include any of the following</p> <ul style="list-style-type: none"> ○ Fecal occult blood test during the measurement year. ○ Flexible sigmoidoscopy during the measurement year or the four years prior to the measurement year. ○ Colonoscopy during the measurement year or the nine years prior to the measurement year. <p>Denominator: Patients 51–75 years of age at end of measurement year.</p> <p>Exclusions: patients with a diagnosis of colorectal cancer or total colectomy</p>	Registry	Monthly	Monthly	Run chart at team meetings and QI committee	<p>Data collection: MA</p> <p>Data presentation: PCP champion and/or QI Manager</p>	40%	65% by 6/30/16

Run Chart Rules

Run charts are used to determine if time-series data displays signal special cause variation or common-cause variation.

- **A run** = one or more data points on same side of median line
- **Median line** = straight line across the chart at the median value for that set of numbers

Rule 1: Astronomical point = an obviously different value

Every set of numbers has a highest and lowest value. Note: Just being highest or lowest does not make a data point astronomical.

Rule 2: Shift = 6 points on a row on same side of median line (aka center line)

Points on the centerline do not cancel, nor do they contribute to, the count towards a shift.

Rule 3: Trend = 5 points in a row headed in the same direction

Consecutive points with the same value do not stop the count towards a trend, nor do they add to the count.

Sources:

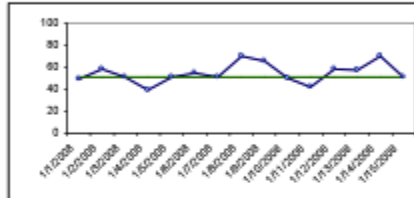
<http://www.ihi.org/resources/pages/tools/runchart.aspx>

<https://learn.nes.nhs.scot/543/quality-improvement-zone/improvement-journey/run-chart>

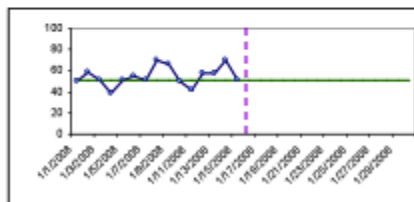
This version of the run chart rules is brought to you by the California Improvement Network.

Testing a Change with a Run Chart

1. Plot the baseline



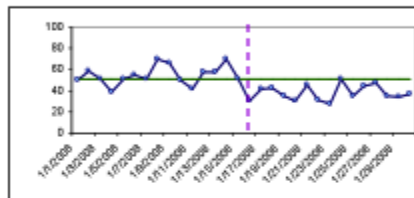
2. Extend the median & begin the test



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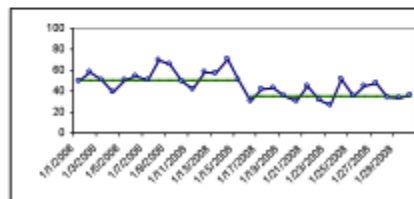
Testing a Change with a Run Chart

3. Continue to plot data following the change



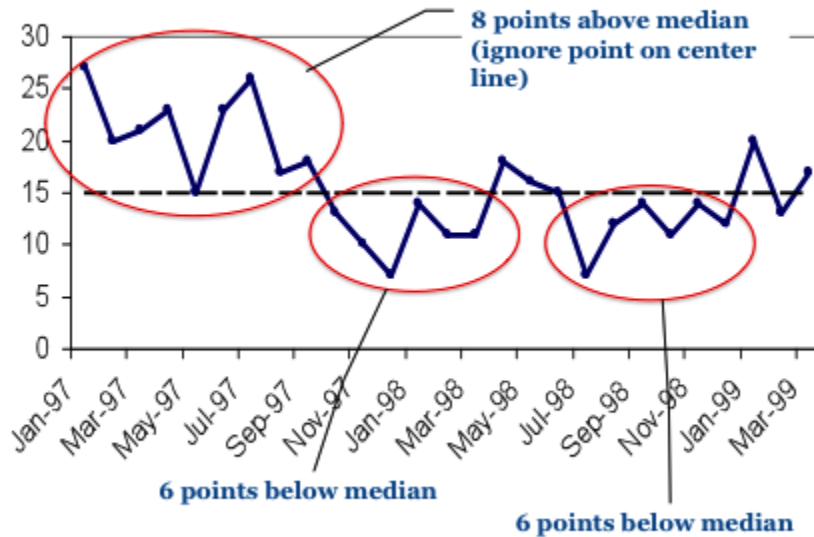
4. Apply the rules

5. If there was a signal, re-plot with new median



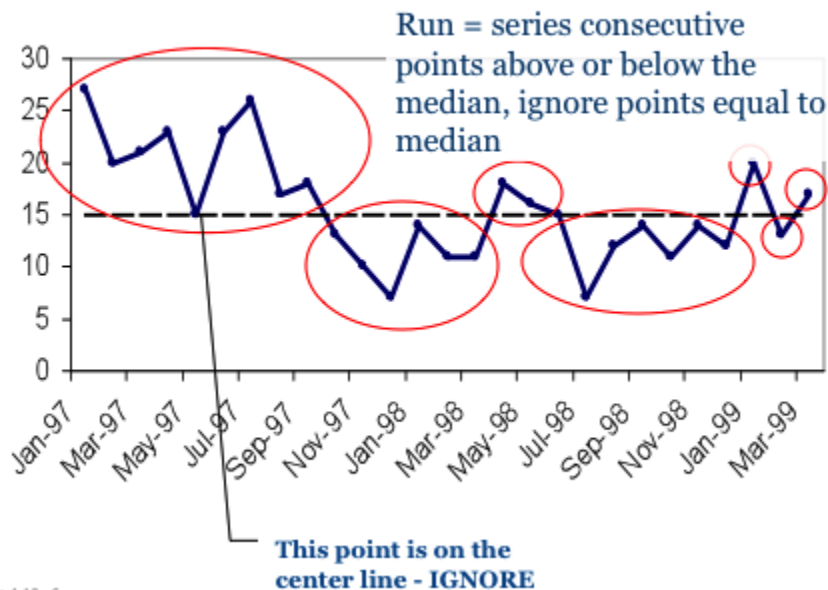
Aug-4-10 • 2

Signals



Aug-4-10 • 4

Counting Runs



Aug-4-10 • 6

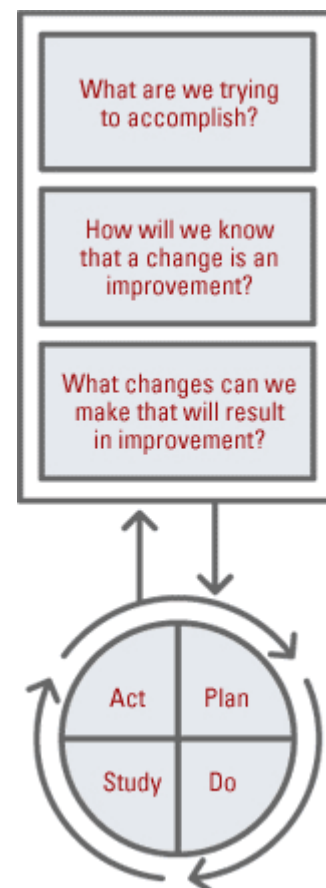
PDSA Directions and Examples

The Plan-Do-Study-Act method is a way to test a change that is implemented. By going through the prescribed four steps, it guides the thinking process into breaking down the task into steps and then evaluating the outcome, improving on it, and testing again. Most of us go through some or all of these steps when we implement change in our lives, and we don't even think about it. Having them written down often helps people focus and learn more.

For more information on the Plan-Do-Study-Act, go to the [IHI \(Institute for Healthcare Improvement\) Web site](#) or this PowerPoint presentation on [Model for Improvement](#).

Keep the following in mind when using the PDSA cycles to implement the health literacy tools:

- **Single Step** – Each PDSA often contains only a segment or single step of the entire tool implementation.
- **Short Duration** – Each PDSA cycle should be as brief as possible for you to gain knowledge that it is working or not (some can be as short as 1 hour). – A PDSA will likely involve only a portion of the practice (maybe 1 or 2 doctors). Once that feedback is obtained and the process refined, the implementation can be broadened to include the whole practice.



Filling out the worksheet

Tool: Fill in the tool name you are implementing.

Step: Fill in the smaller step within that tool you are trying to implement.

Cycle: Fill in the cycle number of this PDSA. As you work through a strategy for implementation, you will often go back and adjust something and want to test if the change you made is better or not. Each time you make an adjustment and test it again, you will do another cycle.

PLAN

I plan to: Here you will write a concise statement of what you plan to do in this testing. This will be much more focused and smaller than the implementation of the tool. It will be a small portion of the implementation of the tool.

I hope this produces (predictions): Here you can put a measurement or an outcome that you hope to achieve. You may have quantitative data like a certain number of doctors performed teach-back, or qualitative data such as nurses noticed less congestion in the lobby.

Steps to execute: Here is where you will write the steps that you are going to take in this cycle. You will want to include the following:

- The population you are working with – are you going to study the doctors' behavior or the patients' or the nurses'?
- The time limit that you are going to do this study – remember, it does not have to be long, just long enough to get your results. And, you may set a time limit of 1 week but find out after 4 hours that it doesn't work. You can terminate the cycle at that point because you got your results.

DO

After you have your plan, you will execute it or set it in motion. During this implementation, you will be keen to watch what happens once you do this.

What did you observe? Here you will write down observations you have during your implementation. This may include how the patients react, how the doctors react, how the nurses react, how it fit in with your system or flow of the patient visit. You will ask, "Did everything go as planned?" "Did I have to modify the plan?"

STUDY

After implementation you will study the results.

What did you learn? Did you meet your measurement goal? Here you will record how well it worked, if you meet your goal.

ACT

What did you conclude from this cycle? Here you will write what you came away with for this implementation, if it worked or not. And if it did not work, what can you do differently in your next cycle to address that. If it did work, are you ready to spread it across your entire practice?

On the next page is an example of how to fill out the PDSA worksheet.

Sample PDSA (plan-do-study-act) Worksheet

TOOL: Patient Feedback

STEP: Dissemination of surveys

CYCLE: First Try

PLAN

I plan to: We are going to test a process of giving out satisfaction surveys and getting them filled out and back to us.

I hope this produces (predictions): We hope to get at least 25 completed surveys per week during this campaign.

Steps to execute:

1. We will display the surveys at the checkout desk.
2. The checkout attendant will encourage the patient to fill out a survey and put it in the box next to the surveys.
3. We will try this for 1 week.

DO

What did you observe?

- We noticed that patients often had other things to attend to at this time, like making an appointment or paying for services and did not feel they could take on another task at this time.
- The checkout area can get busy and backed up at times.
- The checkout attendant often remembered to ask the patient if they would like to fill out a survey.

STUDY

What did you learn? Did you meet your measurement goal?

We only had 8 surveys returned at the end of the week. This process did not work well.

ACT

What did you conclude from this cycle?

- Patients did not want to stay to fill out the survey once their visit was over. We need to give patients a way to fill out the survey when they have time.
- We will encourage them to fill it out when they get home and offer a stamped envelope to mail the survey back to us.

PDSA Tracker Worksheet – Work Plan for Sustaining Improvements Using the Framework for Sustainability

Part 1: Measure, monitor, and communicate progress.

Key Indicators Most important measures from project	Frequency of measurement	Out-of-bounds value at which we leap into action
<i>Example: First visit start on time? (Y/N)</i>	<i>Daily for first month, then weekly if we are doing well</i>	<i>Started late more than 1 day/week</i>

Communication Plan

Everyone must know why these numbers matter to patients and staff, and know how well you are doing.

Plan for repetition. When you get tired of saying it, you are *almost* doing it enough.

Note in spaces below **what** you will communicate, to **whom**, and **how** you will communicate.

WHAT: Key messages specific to your clinic, for regular use

Why is prompt access to the care team and to provider visits important to your clinic and your patients? Why now? Why look at numbers so often?

TO WHOM: Audiences (main options: staff, leadership, patients, community, funders)

HOW: Communication Channels (specific meetings, newsletters, email updates, 1:1 with staff/leaders, etc.) Who on your leadership team will do the communicating to keep these messages top of mind?

At which meetings will you tell deliver key messages and regular data updates?

Who will need 1-to-1 updates for buy-in and accountability?

Part 2: Get clear on changes to sustain. Document these expectations everywhere.

Refer to the **Sustainability Framework** one-page document for more recommendations on how to use your documented list of changes.

The Changes to sustain	Responsible staff Whose job is this Change	Documentation for sustainability
Example: Daily Huddle at 8 a.m.	<i>All staff each a.m. session except security, medical records</i>	<i>Documented: Policies/procedures, New staff orientation, Performance evals</i>
		<input type="checkbox"/> Workflow documentation <input type="checkbox"/> Core competencies, annual re-training <input type="checkbox"/> Job descriptions <input type="checkbox"/> Policies and procedures <input type="checkbox"/> New staff orientation training <input type="checkbox"/> Performance evaluations <input type="checkbox"/> Other _____
		<input type="checkbox"/> Workflow documentation <input type="checkbox"/> Core competencies, annual re-training <input type="checkbox"/> Job descriptions <input type="checkbox"/> Policies and procedures <input type="checkbox"/> New staff orientation training <input type="checkbox"/> Performance evaluations <input type="checkbox"/> Other _____
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Add more rows as needed to capture each Change you have implemented in your new model

Part 3: Manage for learning and improvement

Manage for Learning and Improvement, a monthly checklist		
Management action	Management team ideas for what to do	Did I/we do it?
<i>Example: Rewards and recognition</i>	<i>Each team selects 1 member each month contributing to good performance, for</i>	
Celebrate successes as a whole clinic		<input type="checkbox"/> September <input type="checkbox"/> October <input type="checkbox"/> November <input type="checkbox"/> December <input type="checkbox"/> January <input type="checkbox"/> February <input type="checkbox"/> March <input type="checkbox"/> April <input type="checkbox"/> May <input type="checkbox"/> June
Rewards and recognition for individuals and teams		<input type="checkbox"/> September <input type="checkbox"/> October <input type="checkbox"/> November <input type="checkbox"/> December <input type="checkbox"/> January <input type="checkbox"/> February <input type="checkbox"/> March <input type="checkbox"/> April <input type="checkbox"/> May <input type="checkbox"/> June
Use of patient voices.		<input type="checkbox"/> September <input type="checkbox"/> October <input type="checkbox"/> November <input type="checkbox"/> December <input type="checkbox"/> January <input type="checkbox"/> February <input type="checkbox"/> March <input type="checkbox"/> April <input type="checkbox"/> May <input type="checkbox"/> June
Catch people working well in new model. Shadow and coach those who struggle with the changes.		<input type="checkbox"/> September <input type="checkbox"/> October <input type="checkbox"/> November <input type="checkbox"/> December <input type="checkbox"/> January <input type="checkbox"/> February <input type="checkbox"/> March <input type="checkbox"/> April <input type="checkbox"/> May <input type="checkbox"/> June
Shadow and coach people who need help to sustain changes.		<input type="checkbox"/> September <input type="checkbox"/> October <input type="checkbox"/> November <input type="checkbox"/> December <input type="checkbox"/> January <input type="checkbox"/> February <input type="checkbox"/> March <input type="checkbox"/> April <input type="checkbox"/> May <input type="checkbox"/> June

Sustaining Improvements

Three Anchor Habits to fit effective new work from improvement projects into your regular work

1. Get clear on the changes to sustain. Document these expectations everywhere.
 - a. Make a list of the specific tasks and activities to sustain. What specific, observable, measureable changes got your numbers where you wanted them?
 - b. Document the individual staff role/s whose job it is to keep doing these new things.
 - c. Share list and allow people to add to it, if appropriate. Refine and finalize the list.
 - d. Identify or develop champions for each change. (Example: the lead registration clerk could be a champion for confirmation calls if it's their assigned role)
 - e. Document the new responsibilities for use in supervision and performance management. Be clear about these new expectations, so people know what to do.

Some places to document:

 - Core competencies and other annual re-training
 - Job descriptions
 - Policies and procedures
 - Process map workflows (use those swim lanes)
 - New staff orientation training
 - Performance evaluations
2. Measure, monitor, and communicate progress.
 - a. Pick the most important measures used in the intensive project.
 - b. Set an out-of-bounds value for each of these key indicators, the point at which you need to take action to get good performance back.
 - c. Monitor these measures diligently, to quickly identify when your hard work is eroding.
 - d. When a key indicator slips out-of-bounds, swarm the problem with the original project team. Learn what's going wrong and how to get back on track.
 - e. Communicate the status and progress for key indicators regularly. Everyone needs to know how well you are doing. Everyone must know why these numbers matter to patients and staff.
3. Manage for learning and improvement.
 - a. Celebrate team and individual successes. This includes strong effort as well as goal achievement.
 - b. Use patient voices, gather quotes and comment cards to share why these changes matter.
 - c. Catch people doing well. Observe staff in action during the workday, on the floor.
 - d. Shadow and coach people who need more help to sustain their changes.
 - e. As in #1 "communicate progress," communicate for accountability.
 - One-to-one with frontline staff and supervisors
 - Management meetings
 - Staff meetings (Try "10 minutes for measures," and/or staff recognition)
 - Newsletters
 - Dedicated email updates

Spreading Specific Changes

Two kinds of Spread: Project team to rest of their site; or one site to another

Step 1: Draft a specific Spread Aim. Iterate and gain commitment from targets.

- Meet to explain the goals of the changes, get input to your Spread Aim, adjust.
- Start when ready. Use peer-to-peer coaches, like a champion MA for other MAs.

Step 2: New teams test the changes in their environment, with their patients.

- New teams use PDSAs to try out the changes you hope they adopt. Their managers and original project team provide coaching to make it safe to try things differently.
- Spread targets don't start all over with any change they can imagine.

Step 3: Managers decide what to standardize, and where variation may be desired.

- Some effective changes may not make sense to standardize across all teams or sites.
- Decide what works best across all teams/sites. Move to Three Anchors of Sustainability.



The status quo feels like your favorite cozy sweater. Even when you know the current way of doing things isn't working, the familiarity is easier than the change.

Even after you have started doing things the new way, it is easy to slide back into that cozy sweater.

Spread is the responsibility of supervisors.

Manager diligence makes changes to daily work stick.