Step 6.8 – Change and Measure

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

The PDSA Cycle Worksheet helps to plan, conduct, analyze and monitor progress with tests of change to help meet the aim or goal.

Introduction
Once a team has set an aim by clearly stating what they are trying to accomplish, identified interventions to make change and developed measures to determine whether changes lead to an improvement, the next step is to test a change in the real work setting. The Plan-Do-Study-Act (PDSA) cycle is shorthand for testing a change by planning it, trying it, observing the results, and acting on what is learned. This is the scientific method, used for action-oriented learning. For more information about PDSA, refer to 6.7 PDSA Webinar.

How to Use
- This tool should be completed by the project leader/manager/coordinator with input and review by the project team.
- Answer the first two questions for your corrective action plan.
- As you plan to test changes to meet your aim, answer question 3 and plan, conduct, and document your PDSA cycles.
- A corrective action plan will usually involve multiple PDSA cycles in order to achieve your aim. Use as many forms as you need to track your PDSA cycles.

Model for Improvement: Three questions for improvement

1. **What are we trying to accomplish (aim)?**
   State your aim. Review the root causes and contributing factors, and include your bold aim that will prevent recurrence of the event or incident.

2. **How will we know that change is an improvement (measures)?**
   Describe the measures that will show you the outcome(s) you want to see.

3. **What change can we make that will result in an improvement?**
   Define the processes currently in place; use process mapping or flow charting.
   Identify opportunities for improvement that exist
   - Points where breakdowns occur
   - “Work-a-rounds” that have been developed
   - Variation that occurs
- Duplicate or unnecessary steps

**Decide what you will change in the process; determine the interventions based on your analysis**
- Identify better ways to do things that address the root causes of the problem
- Learn what has worked at other organizations (copy)
- Review the best available evidence for what works (literature, studies, experts, guidelines)
- Remember that the solution doesn’t have to be perfect the first time

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What changes are we going to make based on our findings?

What were the results?

Act  | Plan
---  | ---
Study  | Do

When and how did we do it?

What exactly are we going to do?
<table>
<thead>
<tr>
<th>Plan</th>
<th>List your action steps along with person(s) responsible and time line.</th>
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</thead>
<tbody>
<tr>
<td>What change are you testing with the PDSA cycle(s)?</td>
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<tr>
<td>What do you predict will happen and why?</td>
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<tr>
<td>Who will be involved in this PDSA? (e.g., one staff member or resident, one shift?). Whenever feasible, it will be helpful to involve direct care staff.</td>
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<tr>
<td>Plan a small test of change. How long will the change take to implement?</td>
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<tr>
<td>What resources will be needed?</td>
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<tr>
<td>What data needs to be collected?</td>
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<tr>
<td><strong>Do</strong></td>
<td><strong>Describe what actually happened when you ran the test.</strong></td>
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<td>--------</td>
<td>--------------------------------------------------</td>
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<tr>
<td>Carry out the test on a small scale.</td>
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<tr>
<td>Document observations, including any problems and unexpected findings.</td>
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<tr>
<td>Collect data identified as needed during the “plan” stage.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Study</strong></th>
<th><strong>Describe the measured results and how they compared to the predictions.</strong></th>
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<tbody>
<tr>
<td>Study and analyze the data.</td>
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<tr>
<td>Determine if the change resulted in the expected outcome.</td>
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<tr>
<td>Were there implementation lessons?</td>
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<tr>
<td>Summarize what was learned. Look for: unintended consequences, surprises, successes, failures.</td>
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<thead>
<tr>
<th><strong>Act</strong></th>
<th><strong>Describe what modifications to the plan will be made for the next cycle from what you learned.</strong></th>
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<tbody>
<tr>
<td>Based on what was learned from the test:</td>
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<tr>
<td>Adapt – modify the changes and repeat PDSA cycle.</td>
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<tr>
<td>Adopt – consider expanding the changes in your organization to additional residents, staff, and units.</td>
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<tr>
<td>Abandon – change your approach and repeat PDSA cycle.</td>
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