Children's Mercy

Framework for Problem Solving: Asking the Right Questions

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Focus:	Owner:	Date:	Approved:
A3 Team:		Sponsor:	Coach:

1. Clarify the Problem: Critical to understand the problem in order to solve it

- What is the actual problem?
- What is the desired state or target condition?
- What is the current state or condition?

Describe the gap between the current performance and what you hope to achieve by understanding the perspective of all involved in the problem. Identify one or more key measures in order to quantify the gap.

Tools: Complete set of Measures, Data Collection, Best Practice, Voice of the Customer

2. Break Down the Problem: To focus efforts on largest contributor of the problem

- What factors contribute to the identified gap?
- What barriers are encountered?
- Which factors or barriers contribute more than others?
- What characteristics of the population might relate?
- What subpopulations are impacted?
- Which steps in the process are creating waste?
- Who? What? When? Where? How much?

Narrow the problem by identifying and quantifying each factor that contributes. Focus on the problem from a systems perspective. Go and observe the process, people, and place.

Tools: Process Flow Map, Fault Tree, Pareto Diagram

3. Set a Target: Critical to help the team focus on a reasonable and attainable goal

- What are we trying to accomplish? How much? By when?
- What drivers are associated with a successful outcome/target?

Create an aim statement that is specific, measurable, actionable, relevant, and time bound. Incorporate the perspective of the patient or customer. Consider realistic and inspirational targets. Understand the rationale for the target.

4. Identify Root Cause: To identify, understand, and prioritize the underlying factor(s) that are contributing or causing the gap

- What happened?
- Why did it happen?
- Can the causes be drilled down by asking why 5 times?
- What factors contribute to the problem more than others?
- What can be done so it doesn't happen again?

Graphically display the factors contributing to the problem. Look for proximate and root causes. Identify correlations and possible causation. Eliminate unlikely causes. Observe.

Tools: Fishbone Diagram, 5 Whys, Pareto Diagram

5. Develop and Implement Countermeasures: To focus change efforts on the things most likely to yield improvement

- What changes can we make that will result in improvement?
- How can we prioritize the ideas?
- Will the countermeasure address the root cause(s)?
- Can / should we test it on a small scale?
- How will we implement?
- What actions are needed? (what, when, who?)

Brainstorm system-level ideas and rank by feasibility and reliability. Recognize the alignment between the countermeasure and the performance mode it will address. Test the countermeasures in iterative PDSA cycles. Consider short term and long term countermeasures. Visually display the drivers and countermeasures in a diagram.

Tools: Brainstorming, Affinity Diagram, Driver Diagram, PDSA

6. Check Results and Process: To determine if the countermeasures were implemented as intended and produced the expected results

- Did the countermeasure lead to improvement?
- How do we know if it's normal variation or improvement?
- How do we confirm that the process is still working?
- Has the root of the problem been resolved?
- Are there any new problems/unintended consequences to address?

Confirm the countermeasure resulted in improvement. Display data in time series. Understand the difference between common cause and special cause variation.

Tools: Run Chart, Control Chart, Confirmation Checklist, Rounding to Influence

7. Standardize and Follow Up: To ensure that an improvement has been embedded into practice and that any abnormalities are made visible when they occur

- Why do we need to standardize?
- Is the Target the new standard?
- Is it clear when things are normal versus abnormal?
- How do we ensure sustainable improvement?
- How can we impact other areas by sharing what we learned?

Utilize the daily management system to confirm sustainability of the improvement. Replicate or spread to other areas. Share what you learned.

Tools: Standard Work, Confirmation Checklist, Confirmation Rounds, Rounding to Influence, Leader Standard Work, Huddle Boards, Methods, Control Plan

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