NICHQ National Institute for Children's Health Quality

Insights

How to Avoid the Most Common Pitfalls in Planning PDSA Cycles

Plan-Do-Study-Act (PDSA) cycles are literally learning processes. Every cycle is a test of a change idea to learn if the change will bring about improvement. Sequential test results provide learning, insights and feedback to inform your next test. After nearly 20 years of guiding teams in constructing PDSA cycles we've identified three common pitfalls. The good news is you can easily avoid them.

Confusing Aim with Objective

"Aim" and "objective" feel like synonyms so some teams tend to use them interchangeably. However, this isn't the case with quality improvement (QI) and PDSA cycles. In our experience, it is useful for teams to differentiate a global aim statement for the life of a project from the objective of a specific PDSA cycle. They are discrete elements. The aim is the overall purpose of an improvement project, a specific and measurable statement of what you want to accomplish over the course of your QI project. This is the statement you use to guide your tests and changes; and data collection strategy through an initiative. Objectives for PDSA cycles are the specific goal and learning that you want to achieve through that one specific test.

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Forgetting to Ask Learning Questions

Each PDSA cycle should start with a hypothesis or question that you answer with the test, such as: What will happen if we try this? Does this change influence this improvement? How much improvement will we get if we try this?

"A common mistake we see is teams forget to create a question for each PDSA cycle," says NICHQ Associate Director of Improvement, Tricia Finnerty, MSc. "Remember, the goal of PDSA cycles is learning and informed action so each PDSA cycle needs to have learning questions that the cycle attempts to answer. This helps to keep the test focused and sets the stage for the data collection plan and predictions a team makes."

Plan Data Collection Early

Before you start testing a change you should think about what data you need to answer your questions, increase your confidence in your predictions and how you will collect data. It's important to have a process for gathering and documenting test results and organizing them, as well as a good understanding of what data to collect to know if your test was effective. Identifying these before testing ensures that you will be prepared to record and won't lose any important information between cycles.

Avoiding these common pitfalls in planning PDSA cycles creates a good path forward, but that's just the beginning. Check back for more tips for maximizing learning during PDSAs or take our [Quality Improvement 101](#) course to learn more.