Root Cause Analysis Series

A Resource for Providers and Partners Serving Children with Complex Needs (CWCN)

Introduction to Root Cause Analysis

Root cause analysis (RCA) consists of a group of problem-solving methods aiming to uncover the core causes of an identified problem. Once root causes are determined, teams then select appropriate, well-matched solutions based on a number of factors. Conducting a root cause analysis is ideally a collaborative effort among teams, where a variety of tools and strategies are used to facilitate the process of uncovering the root of the identified problem or challenge to be addressed.

While RCA originated in the field of manufacturing and became more familiar through Total Quality Management (TQM), it has since been utilized and applied across many sectors and industries to support problem-solving and continuous improvement efforts.[1] The field of child behavioral health, and specifically providers, organizations, and system partners serving youth and families with complex needs, can use RCA as a powerful tool to drive problem-solving and innovation efforts. Effective RCA practices can ensure that programs, policies, and practices being implemented are indeed appropriate and responsive to the identified root cause. In other words, rather than implementing various measures or "solutions" that only treat the symptoms or surface-level observations of a problem, RCA can enable teams and organizations to uncover, examine, and address the root causes so that they achieve desired outcomes with lasting impact.

Overview of Toolkit

This toolkit is designed to guide individuals and teams through four steps of the root cause analysis process. An overview of each step is provided below:

Step 1: Problem Definition
Develop and refine your problem statement using data and evidence. A clearly defined problem statement is the starting point for your root cause analysis.

Step 2: Problem Exploration
Once you have a clearly defined problem statement and supporting data, the next step is to fully examine the problem and identify causal factors and one or more root causes using the included tools (The Five Whys, a Cause-and-Effect Diagram (CED), and/or an Interrelationship Diagram (ID). Each of these tools, as well as criteria to guide the selection of an appropriate tool, are offered in Step 2.

Step 3: Implementing Solutions
Once root cause(s) have been identified, it is time to explore effective solutions and strategies that address core problems. Step 3 guides users through a series of questions to create a list of possible solutions that are well-aligned to the root cause definition. Well-applied strategies and solutions will help prevent problems from happening again and facilitate action planning to implement the selected solution (program, practice, policy, innovation).

Step 4: Testing Chosen Solutions & Strategies

As part of continuous learning and improvement, an implemented solution/strategy should be monitored and tested over time to ensure that the expected impact and outcomes are indeed occurring. Step 4 helps guide teams to examine if the selected efforts in Step 3 are both usable and making expected improvements.

Tips for Success

- ☑ Assemble a team of diverse perspectives and voices to walk through the RCA process collaboratively. RCA can be completed by an individual, but a team approach will foster collective learning and more effective problem-solving that pulls from a greater diversity of ideas. Best practices require that all key work partners and those most impacted by the problem(s) should be involved in helping articulate what the core issues are.
- ☑ Embed equity within each step along the way. An explicit focus on equity begins with creating an inclusive process with families and community members so that decisions are not being made *for* them *without* them. Oftentimes, partners within complex systems are striving to address problems historically contributing to disparate outcomes because of structural, implicit, and explicit systemic factors creating disparities and oppressive results. Those closest to the problem and most impacted also have the most insight to share regarding causes, effects, and solutions that meet the needs of their lives, families, and community. Authentic engagement alongside each other to uncover the root of the problem and to co-design solutions can help build trust, dismantle power structures, and lead to solutions that are more likely to succeed.
- ☑ Get curious! Curious questions and critical thinking drive the root cause analysis process, and it works best when participants can engage in meaningful, open dialogue together. Consider data from multiple perspectives and cultural, contextual lenses. Acknowledge and monitor for any personal biases or assumptions that could impact the analysis.
- ☑ Gather resources needed to carry out an effective root cause analysis. Resources may include educational materials (like this toolkit!), adequate time to dedicate to the process, collaborative workspace, or access to an assortment of data, to name a few. Remember that getting to the bottom of a core issue requires deep exploration, shared power and ownership of problem definition and solution-finding activities.

Glossary of Key Terms

Root cause: The underlying cause, or fundamental reason, why a problem or event occurs. Root causes are thought of as factors causing nonconformance or inhibiting optimal production of desired outcomes.

Causal factor: A major unplanned, unintended contributor to an incident (a negative event or undesirable condition) [2]

[1] *What is root cause analysis?* American Society for Quality. (n.d.) https://asq.org/quality-resources/root-cause-analysis

[2] *Causal factor (CF)*. AIChE. (2016, July 22). https://www.aiche.org/ccps/resources/glossary/process-safety-glossary/causal-factor-cf