## **PURPOSE:**

A Root Cause Analysis assists in the development of a quality improvement plan for specific areas of service delivery.

#### WHAT IS A ROOT CAUSE?

- Root causes are underlying causes.
- Root causes are those that can reasonably be identified.
- Root causes are those management has control to fix.
- Root causes are those for which effective recommendations for preventing recurrences can be generated.

**Root causes are underlying causes.** The goal should be to identify specific underlying causes. The more specific the team can be about why an event occurred, the easier it will be to arrive at recommendations that will prevent recurrence.

Root causes are those that can reasonably be identified. Occurrence investigations must be cost beneficial. It is not practical to keep valuable staff members occupied indefinitely searching for the root causes of occurrences. Structured Root Cause Analysis (RCA) helps the team get the most out of the time they have invested in the investigation.

Root causes are those over which management has control. The team should avoid using general cause classifications such as operator error, equipment failure or external factor. Such causes are not specific enough to allow management to make effective changes. Management needs to know exactly why a failure occurred before action can be taken to prevent recurrence. We must also identify a root cause that management can influence. For example, identifying "severe weather" as the root cause of medications not being delivered on time to the consumer is not appropriate. Severe weather is not controlled by management.

Root causes are those for which effective recommendations can be generated. Recommendations should directly address the root causes identified during the investigation. If the team arrives at vague recommendations such as, "Improve adherence to written policies and procedures," then they probably have not found a basic and specific enough cause and need to expend more effort in the analysis process.

### **INSTRUCTIONS:**

The following template is designed to assist in determining the underlying cause(s) of an operational failure. Asking "why" something happened, or did not happen, is the best place to start. In many cases, the most obvious cause is the "direct cause". To determine contributing factors, ask "why" the direct cause occurred. For example, the boat sank because it had a hole in the bottom. In this example, the hole in the boat is the direct cause. In a root cause analysis, asking why is the next step. In this example, the boat had a hole because the repairperson did not know the boat had a hole that needed to be fixed. This would be a contributing factor. Asking why the repairperson did not know the boat had a hole to be fixed, we learn the root cause of the problem. The boat repair company does not have a system to track required repairs and the need to repair the hole was forgotten.

Fill in the blank sections below for each category. In some cases, an individual category may not be involved. If that occurs, leave the section blank and move to the next set of questions. When complete, review your work to identify the root cause(s) for the event. The root cause(s) will become the basis for your Quality Improvement Plan.

## **Contributing Factor - Departments**

Level of Analysis	Questions/Factors Involved	Findings and Opportunities to Improve
What happened?	What departments were involved?	
	Describe events(s)	
Why did it happen?	What was the missing or weak step in the process?	
Why did that happen?	What caused the missing or weak step in the process?	
Why did that happen?	What is currently done to prevent failure at this step?	

**Contributing Factor - Documentation** 

Level of Analysis	Questions/Factors	Findings and Opportunities to Improve
	Involved	
Why did it happen?	Was the documentation	
	available?	
	Was the documentation	
	appropriate according to	
	the established standard?	
Why did that happen?	Did staff reference the	
	available documentation?	
	Does staff training	
	address appropriate	
	documentation and its	
	utilization?	
Why did that happen?	Is the documentation	
	lacking in necessary	
	information?	
	Is the documentation too	
	cumbersome for staff to	
	follow?	

# **Contributing Factor – Staffing Levels**

Level of Analysis	Questions/Factors	Findings and Opportunities to Improve
	Involved	
Why did it happen?	Was the staffing level	
	appropriate? If no, did	
	staffing issues contribute	
	to the event?	
Why did that happen?	Did actual staffing deviate	
	from planned staff levels	
	at the time of the event or	
	during times leading up to	
	the event?	
Why did that happen?	Were there any	
	unexpected	
	issues or incidents that	
	occurred at the time of	
	the event or during key	
	times that led up to the	
	event? If yes, did the	
	unexpected issue impact	
	staffing or workload for	
	staff? If yes, did staff	
	believe this change in	
	staffing or workload	
	contribute to the event?	

**Contributing Factor - Communications** 

Level of Analysis	Questions/Factors	Findings and Opportunities to Improve
	Involved	
Why did it happen?	Was all necessary	
	information	
	available: when needed,	
	accurate, and complete?	
Why did that happen?	Is communication among	
	participants adequate?	
Why did that happen?	Are there barriers to	
	communication?	
	Is prevention of adverse	
	outcomes considered a	
	high priority?	

**Contributing Factor - Equipment** 

Level of Analysis	Questions/Factors Involved	Findings and Opportunities to Improve
Why did it happen?	How did the equipment fail? What broke?	
Why did that happen?	What is currently being done to prevent an equipment failure?	
Why did that happen?	What is currently being done to protect against a bad outcome if an equipment failure does occur?	

# **Contributing Factor - Environmental**

Level of Analysis	Questions/Factors Involved	Findings and Opportunities to Improve
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Why did it happen?	What environmental	
	factors directly affected	
	the outcome?	
Why did that happen?	Was the physical	
	environment appropriate	
	for the process to be	
	carried out?	
Why did that happen?	Are systems in place to	
	identify environmental	
	risks?	
	Are responses to	
	environmental risks	
	planned and tested?	

## **Contributing Factor – Human Factors**

Level of Analysis	Questions/Factors Involved	Findings and Opportunities to Improve
Why did it happen?	What was the human factor?	
Why did that happen?	Was staff performance in the process addressed? What is being done to prevent future occurrences?	
Why did that happen?	Can orientation and training be improved?	

# **Contributing Factor – External Causes**

Level of Analysis	Questions/Factors Involved	Findings and Opportunities to Improve
Why did it happen?	Were there any uncontrollable external factors?	
Why did that happen?	Are they truly beyond the organization's control?	
Why did that happen?	In what ways can your organization protect the consumer from these types of external factors?	

**Contributing Factor - Uncategorized** 

Level of Analysis	Questions/Factors Involved	Findings and Opportunities to Improve
Why did it happen?	Were there any other	
	factors that directly	
	influenced the outcome?	

At the conclusion of the root cause analysis, the organization should develop a Comprehensive Quality Improvement Plan that addresses one or more of the identified root causes. Below, indicate the root causes that have been identified through this process:

	Root Cause(s)	
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# **SOURCE:**

Adapted from: Root Cause Analysis Summary Form. (2014, April 7). Retrieved September 15, 2015, from <a href="http://www.health.state.mn.us/patientsafety/toolkit/">http://www.health.state.mn.us/patientsafety/toolkit/</a>