Welcome to the second of a two part training -- Root Cause Analysis.

In Part 2 we will demonstrate how a root cause analysis can help you to identify the underlying causes of a serious incident by working through an example using a simple but effective approach called the “5 Whys.”.
Let's use an example of a house fire that results in the hospitalization of three residents and the ultimate death of one of the residents. You are the manager of the home in this example.
The first thing you need to ask yourself, is what do we know? What was documented? Chances are that nothing was documented, so that’s where you begin. You always begin with documentation.
Before you even make the decision to conduct a root cause analysis, you must make sure that you and both staff on duty document everything that happened. The best way to do this is by completing a detailed incident report.

That wasn’t possible on the night of the fire when everyone was focused on keeping the residents safe and finding alternate housing for the residents.

The next day staff were prevented from entering the home until it was deemed safe and an investigation was conducted by the Fire Marshall.

Don’t let those delays stop you. As soon as possible after the event, have everyone involved in the event complete an incident report, including you. If you can’t meet in the home, find another location.

Everyone needs to complete and submit their own incident report. This is not something that should be done in a group.
Once you’ve reviewed the incident reports you decide you need to conduct a root cause analysis.

You also decide that a team approach is the best way to proceed and that team will be you and the two staff on duty the night of the incident. The team could be anyone, but it should include at least some of the people involved in the incident, if not everyone.

You will meet with your team to tell them your plan to conduct a root cause analysis, why you think it’s important to conduct a root cause analysis, and the approach to the root cause analysis that you plan to take.

This is a good time to interview each individual staff member. Just like the incident reports, do this separately with each staff person. You want to make sure you get the most accurate account of the events of the night. Don’t wait any longer to conduct the interviews. The longer you wait, the harder it is for everyone to remember exactly what happened.

If you’re unable to meet right after the interviews, you need to schedule a time for the team to get together to analyze the incident.
The Team in Action

1. Review documentation of the incident and actions taken in response to the event
2. Review interviews
3. Establish date, time and conditions
4. List who was involved
5. Compare what happened to policies and procedures

Your team is convened, whether it is on the same day you conducted your interviews or later and they are ready to start working.

Begin by reviewing all the information you have about the incident, including your own documentation.

Compare what was done, including your actions, to what should have been done per policies and procedures, accreditation standards, laws, regulations and other applicable requirements – internal and external.
Once you’ve completed that step, you should have a more detailed picture of the incident.

• You know the date and that it was close to a holiday.
• You know who was working and where each of the staff members were.
• You know where the residents of the home were.
• You know the event that triggered the incident – a lightening strike.
• You know the sequence of events and you know when each event took place.
Now that you know what did happen, you need to compare that to what should have happened based on policies, procedures, regulations, laws and applicable regulatory requirements. What you find is that staff responded appropriately except that they did not evacuate the residents to the van as specified in your operating procedures.

You need to find out why.
But before you do, take a minute to state the problem to make sure everyone understands why you are conducting the root cause analysis. Here the problem is that during a fire, the residents were evacuated to the street and not the van and as a result, three residents were hospitalized for exposure and one died.

State the Problem

The problem is not that lightning struck the house or that there was a fire or that staff didn’t follow policies and procedures.

The problem was:
The residents of the home were evacuated to the street and not the van, as specified in procedures and as a result, three residents were hospitalized for exposure and one died.
The first question should come directly from the problem statement, which is that the residents were evacuated to the street and not the van. Why?

The Answer: The van was in the shop being repaired and wouldn’t be returned until the following day. That answer should lead you to your next question.
Why was there no backup vehicle in the event of an emergency.

If the answer to the first question had been different, your second question may have been different as well. For example, if someone had borrowed the van for the evening or if a third staff person had taken someone to the emergency room in the van, your second question would need to address those actions. But in this example, the van was scheduled to be away, which raises the question of why there is no back-up vehicle for any kind of emergency that may take place.
Again, the answer to the second question leads you to the third question. In this example, you ask why there are no procedures for an emergency evacuation when the van is not available.

The answer: It never came up. There was never a real emergency and evacuation drills are only conducted in good weather.
The follow-up question to the last answer should be obvious – why are evacuation drills only conducted on nice days.

The answer? Management doesn’t want residents or staff to get sick.

Now you’re getting close to the root cause, but you still have questions. You don’t have the root cause. You need at least one more question.
Why are there no drills that simulate special emergency conditions, like bad weather?

Answer: We do conduct drills for different situation like earthquakes and tornados to meet regulatory requirements. It’s just that so many different things went wrong this time.

Why are there no drills that simulate special emergency conditions, like bad weather. In our example, the home had drills for earthquakes and tornados as required by regulations but the drills always assumed that nothing was out of the ordinary when the evacuation took place – a missing van, rain, cold, and other possible problem situation.

Now we have the root cause of the event. The root cause is not that staff didn’t do what they were supposed to do or that there were no procedures, or that management doesn’t want people to get sick. The root cause is that the home’s management believed that everything that should have been done was being done, based on regulatory requirements but, as it turns out, it wasn’t enough.

The emergency drills did not simulate worst case scenarios. Had the home identified worst case scenarios and conducted emergency drills where staff had to pretend that the evacuation took place on a cold rainy night when the van was not available, the death and hospitalizations might have been averted.
It’s important at this point to establish a good statement of cause that everyone agrees to. The causal statement should focus on systems and processes and what caused this event.

The root cause you uncovered is that emergency evacuation procedures were designed to meet external regulatory requirements and did not take into consideration worst case scenarios.
Before we develop our causal statement, let's look at some bad statements of cause.

“No root cause.” There is always a root cause. You may not need to dig deep to find it, but there will be a root cause.

“Everything that should have been done, was done.” “Procedures for . . . were violated.” “Staff failed to act.” The intent of the root cause analysis is not to find out what was done or whether procedures were violated or if staff acted or failed to act, the purpose of the root cause analysis is to identify systems issues.
These are examples of good causal statements because they recognize the immediate issue –

• instructions were misread,
• evacuation was delayed,
• the wrong dose was given

But a good statement also identifies the systems issue –
• staff must work double shifts,
• fire alarms don’t have their batteries routinely changed,
• staff are required to answer the phone by the third ring.
Now let's take a look at our statement of cause. Staff did what they could. They followed policies and procedures. The home also followed regulatory requirements by holding all the required emergency drills. But in this case, it wasn't enough. Those drills needed to take into consideration worse case scenarios to identify what needed to be done in each situation to keep both the residents and the staff safe.
It’s not enough to identify the root cause of an incident, you now need to take action to prevent the incident from happening again.
There are several things that the home in our example can do to ensure that a similar incident doesn’t happen again.

While it is not the root cause, the analysis did identify the need to keep a vehicle on site at all times. If you have a policy that requires the availability of a vehicle, you need to have a vehicle available.

But there is more the home needs to do. The home’s Manager should meet with staff after each drill to ask, “What if?” to generate ideas for worst case scenarios and to have evacuation drills for those scenarios. For example:

What if there’s a fire and it is summer, in the middle of the afternoon and the temperature is 103 degrees and the rescue squad is on another call?

What if there’s a fire and it has been snowing for the past 8 hours and the roads are impassible?

This was a wake-up call for this home and it should result the recognition of the need for a comprehensive evacuation program in the event of an emergency. The root cause analysis brought this issue to light.
As part of your root cause analysis you uncovered the immediate problem that led to this incident. But you also uncovered a more far-reaching problem – that the safety program is based on what is required by regulatory agencies. It is important to address the larger issues as well as the immediate issue.

What other safety issues are there in the home that may require more in-depth analysis? A hot water emergency? An epidemic? A power outage? What are the risks for each of these? Think beyond what regulatory agencies require of you and ask:

- Is there a way to prevent this risk?
- What are the worst case scenarios if it does happen?
- What do you need to do to be prepared?
Making changes is an important step but making sure those changes are effective and that you sustain those changes is equally important. It’s not enough to identify worst case scenarios and conduct drills, you need to make sure that everyone performs well.

It’s not enough to say that you’re going to improve the resident safety program – you need to take action, make changes and monitor those changes to make sure they are implemented, effective, and sustained. And if something doesn’t go right, then change it and keep monitoring to make sure it is working.
In the coming months, the home in our example works with staff – those who were on duty the night of our emergency situation and others who were later informed of the outcome of the root cause analysis. Together they identify several worst case scenarios and develop plans for how best to evacuate everyone during such an emergency.

As a result of these new evacuation drills, everyone is better prepared for the next emergency and everyone is safer, in large part because you conducted a root cause analysis and identified a problem that needed to be fixed.
Root Cause Analysis

What we learned:
• What a root cause analysis is and is not
• Why it’s important
• A simple approach for conducting a root cause analysis, and
• How to conduct a root cause analysis
Too many organizations shy away from conducting root cause analyses because they consider them to be complex and time consuming. A root cause analysis can be complex and it can be time consuming, if you make it that way but it doesn’t have to be.

A root cause analysis can be a simple and efficient.

If the ‘5 Whys’ approach doesn’t lead you to a root cause, you may need to go beyond that approach and conduct a more in-depth root cause analysis, but many root causes can be identified using this simple approach.

The next time you have a serious and unexpected event, try it. You may be surprised at what you uncover.

You may be surprised to learn that it wasn’t at all complex or time consuming.

It was exactly what you needed to uncover and solve a problem.
There are many resources on the web for how to conduct a root cause analysis. Here are but a few.

Thank you for viewing this webinar.

We hope you will take the time to view other webinars in our Risk and Quality Management Webinar Series