

Root Cause Analysis Process

Root cause analysis (RCA) seeks to identify the primary cause(s) of a problem and implement system-level changes.

Three Steps

1 Gather Information, Define the Problem and Fill in the Gaps: **Determine What Happened**

- Who, what, when, where, how?
- What are you trying to modify or correct? (reach consensus)
- Keep it simple!
- What are all the sources with data regarding the problem? (interviews, documentations, observation, etc.)
- What sequence of events led to the problem?

Process Mapping

Gather data from documentation, interviews, etc., to get a complete picture. **Process mapping** is a particularly powerful tool for identifying all the steps and people involved in an activity.

2 Analyze/Identify Root Cause: **Determine Why**

- What conditions allowed the problem to occur?
- Determine whether you can impact the contributing factor(s).
- Identify underlying reasons each contributing factor exists. Use the “5 Whys” method for each factor.
- Prioritize which ones are likely to have the biggest impact based on probability of repeating and severity of outcome.

Use the 5 Whys

A question-asking method used to get to the root cause(s) of the problem. Continue asking “why” until you’ve identified the true source of the problem — this must be understood before you can act. Remember, there can be more than one root cause.

3 Develop an Action Plan – **What to Do So It Doesn’t Happen Again**

- Address system-level factors and causes instead of people.
- Design a plan that will keep the problem from happening again.

Recommend and Implement Solutions

- How will the plan be implemented?
- Who will be responsible for it?
- Test potential solutions.
- Follow up to determine whether the solution was effective.

Use the PDSA Cycle

Plan: Create a specific action plan based on your established goal.

Do: Carry out your action plan.

Study: Describe how measured results compared with the predictions.

Act: Determine next steps; modify idea and retest (**Adapt**), spread idea (**Adopt**) or test a new idea (**Abandon** this idea).

Root Cause Analysis Worksheet

Describe an event you would like to investigate using root cause analysis.

- What happened?
- Who was involved?
- When did it happen? (date, day of week and time of day)
- Where did it happen?
- How did it happen?

Brainstorm ideas about what you think the actual “problem” is.

- Separate your problem ideas into two categories:
 - Those that can be impacted or changed.
 - Those that cannot be easily impacted.
- Identify the one problem that when you improve it, will have the greatest impact.

List as many possible internal and external contributing factors you can think of.
(e.g., communication, policies and procedures, physical environment, staff education, equipment, individual needs, supervision, events leading up, etc.)

Fill in the gaps. Identify other sources that might have additional information regarding the problem.

Walk through your problem using the 5 Whys method. (Repeat for each main factor)

Main Factor or Problem in Outcome
Why
Why
Why
Why
Why
Why

Main Factor or Problem in Outcome
Why
Why
Why
Why
Why
Why

Develop an action plan: Recommend and implement solutions

- Design a plan that will keep the problem from happening again. Test potential solutions.
- Utilize internal action plan template, including accountability and deadlines.
Consider using the PDSA worksheet template.

Root Cause Analysis Worksheet *Example*

Describe an event you would like to investigate using root cause analysis.

- What happened? Mrs. Smith fell and bruised her hip
- Who was involved? Mrs. Smith
- When did it happen? (date, day of week and time of day) Dec. 16, 2020, Monday, 2 a.m.
- Where did it happen? In her room
- How did it happen? Per Mrs. Smith, she got up to go to the restroom and tripped over the side chair in her room.

Brainstorm ideas about what you think the actual “problem” is.

- Separate your problem ideas into two categories.
 - Those that can be impacted or changed. Have aide accompany the resident to the toilet.
 - Those that cannot be easily impacted. Layout of room, have family member stay overnight.
- Identify the one problem that when you improve it, will have the greatest impact.
The resident fell in her room.

List as many possible internal and external contributing factors you can think of. (e.g., communication, policies and procedures, physical environment, staff education, equipment, individual needs, supervision, events leading up, etc.)

Tripped over a chair, resident is confused, wearing non-grip socks, did not use the call light, not enough staff, hasn't been eating or drinking, medication?

Fill in the gaps. Identify other sources that might have additional information regarding the problem.

Medical record, interview the resident, staff, roommate and family

Walk through your problem using the 5 Whys method. (Repeat for each main factor)



Develop an action plan: Recommend and implement solutions

- Design a plan that will keep the problem from happening again. Test potential solutions.
 - Utilize internal action plan template, including accountability and deadlines. Consider using the PDSA worksheet template.
- 1) Aide team and supervisor new plan for turnover solutions and staff assignment – DON responsible – develop working plan by February 2021 (see PDSA worksheets for tests of change).
 - 2) Implement new iPad connection with resident and family process as part of new telehealth initiative – Administrator responsible – by March 15, 2021 – testing on west wing first.