MODULE 4: Quality Improvement Tools and their Application in KQMH

Unit 4.3: Tools for Continuous Quality Improvement and their Application

Part 4: Root Cause Analysis (RCA) using the ‘5 Whys” approach
Objective

• Analyse the root cause of a problem using the 5-Why approach
Content

• The principle of root cause analysis (RCA)
• Types of RCA
• Steps in carrying out a RCA
• Tools used for RCA
• The ‘5 Whys method of RCA
Root cause analysis: What is it?

- Useful problem solving technique to identify the origin of a problem and solving it.

- Systematic approach to get to the true root causes of our process problems.
Principle of RCA

RCA assumes that systems and events are interrelated.

Action → Action → Action → Action

Tracing back the events gets us to the root cause.
Types of root causes

✓ Physical (e.g. materials, provisions, supplies, environment, place, machines)
✓ Human / Life (e.g. leadership / management, manpower / skills / knowledge)
✓ Organizational / systemic (e.g. process, methods, procedures, policies)
Root cause of problem helps us to:

• Determine what happened
• Why it happened
• Find out what can be done to reduce the chance of it occurring again
Symptom Approach vs. Root Cause

Root Cause Approach

• Errors are the result of defects in the system. People are only part of the process.
• We need to find out why this is happening, and implement mistake proofs so they won’t happen again.
• This is critical. We need to fix it for good or it will come back and burn us.
• If we do a poor job of identifying the root causes of our problems, we will waste time and resources putting bandaids on the symptoms of the problem.

Symptom Approach

• Errors are often a result of worker carelessness.
• We need to train and motivate workers to be more careful.
• We don’t have the time or resources to really get to the bottom of this problem.
5 Steps in RCA

1. Define the problem – specific symptoms
2. Have data – proof of existence of problem
3. Identify the possible causal factors (5 WHYs, etc.)
4. Identify the root causes
5. Recommend and implement solutions
Tools for Root Cause Analysis

• Pareto chart (useful for prioritizing problems)
• 5 Why technique
• Fish bone / cause-and-effect diagram
• Brainstorming
• Scatter diagram
• Process map / flow chart
• Tree diagram
5 WHYs

1. Write down the specific problem-symptom
2. Ask why the problem happens and write down the answer below the problem
3. If the answer in 2. is not the root cause, ask why again and write it down
4. Repeat 3. until you find the root cause
5. Usually, up to the 5th Why…NOT mandatory
5 WHYs method of finding root cause

- For each issue or gap, ask: “Why is this occurring?” For each answer ask “why?” again.
- Chart multiple answers if they come up. Keep asking “why?” until no more answers are available (perhaps up to 4–5 times) or until you discover the root cause.
- The root cause is the lowest-level cause you can do something about!
Why don’t pregnant women come early for ANC (example)?

• Because they don’t know they should come early?
• **Why** don’t they know they should come early?
• Because they have not received that information from any source?
• **Why** have they not received that information?
• People (providers, family members, community) have not disseminated the message that pregnant women should start ANC early.
• ROOT: There is no systematic dissemination of the importance of pregnant women seeking ANC early.
• Intervention: Develop system to disseminate the message about the importance of pregnant women seeking ANC care early.

Adapted from IHI
Why don’t pregnant women come early for ANC?

• They get tired of walking a long way to clinic.
  • Why do they get tired?
• The clinic is far, the women are pregnant and do not have local transportation.
  • Why is the clinic far?
• The clinic is not bringing services closer to the pregnant women.
  • Why isn’t the clinic bringing the services closer to the pregnant women?
• ROOT: There is lack of support to carry out regular and frequent ANC outreaches.
• Intervention: Develop support system to carry out regular and frequent ANC outreaches.
1. Only 30% of pregnant women deliver at a health facility (groups 1 & 2)
2. Less than 50% of HIV-positive pregnant women get appropriate PMTCT interventions (groups 3 & 4)
3. Only about a quarter of pregnant women complete at least 4 ANC visits (groups 5 & 6)

- Complete a root cause analysis using ‘5 Whys’
Have the Root Cause, now what?

Develop the theories (change ideas / countermeasure)

Test the theories / Ideas

On to your quality improvement work!

Adapted from IHI