



UCSF Malaria Elimination Initiative (MEI)

Module 2: Challenge and Opportunity Identification Techniques

Group Task

- Identify key challenges and opportunities in your group
- Write the key challenges and opportunities on flipchart paper
- Appoint someone who can give brief feedback in the plenary

Guidelines for Key Issues:

- If you are in doubt, include rather than exclude an issue
- Be specific about the issue (e.g. case management is too vague; be more specific: case management – people not reporting on time)



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Root Cause Analysis

Traditional Problem Solving

- Many health care workers and leaders face the same challenge. Individuals believe their own views of the problem are correct.
- The tendency is to jump in and make improvements.
- This increases the risk of a mismatch between the improvement intervention and true cause of the quality problem.

Define "Root Causes"



Symptom of the problem
Above the surface
Relatively obvious

Underlying cause of problem
Below the surface
Not obvious
If not fixed, problem is likely to continue

Direct, Contributing, and Root Causes

The Problem

Poor patient
outcomes



Direct Cause

Directly results in the problem

Contributing Cause

Part of the problem, but not enough to
cause the problem on its own

Root Cause

If fixed, would prevent the problem
from happening

Root Cause Definition

“The most basic cause (or causes) that can be identified, that management has control to fix and, when fixed, will prevent the problem’s recurrence”

Examples of Root Causes

- A process that is not working
- A behavior that is adjustable
- Gaps in knowledge
- Lack of established standards
- Lack of guidelines
- Others?

Example: Direct and Root Cause

- The patient was late for the operating theatre because there was a long wait for a stretcher

Direct Cause: There was a long wait for a stretcher because the original stretcher was broken, and a replacement had to be found

- The stretcher was broken because it has not been regularly checked for wear

Root Cause: It had not been regularly checked because there is no maintenance schedule.

Root Cause Analysis Techniques

To uncover the ***causes*** of identified problems:

- Brainstorming
- Fishbone (cause and effect diagram)
- Five whys
- Flow chart (process map)
- Pareto analysis

Cause and Effect Diagram

- Also called:
 - Ishikawa diagram
 - Fishbone diagram
- Helpful in process investigation
- Used to map variables that may influence:
 - Problem
 - Outcome
 - Effect
- Can use the 5 Whys to fully understand the cause

Brainstorming: A Quality Improvement Technique

Helps teams:

- Generate a large volume of ideas
- Investigate a process
- Identify potential causes

Brainstorming Rules

- Go for quantity of ideas
- Do not censor your ideas or others' ideas
- Build on previous ideas
- Record ideas: do not edit and only clarify if necessary, not detailed
- Do not discuss or debate the merit of individual ideas or which are likely to be correct
- When discussing causes, do not discuss solutions

What Can Be Done to Reduce IRS Refusals?

Ask:

- Spray operators
- Vector control officers
- Entomologists
- Community members
- Politicians
- Religious leaders
- Traditional leaders
- Surveillance officers

Reverse Brainstorming

- Reverse brainstorming is a good technique to try when it is difficult to identify solutions to the problem directly
- To use this technique, you start with one of two "reverse" questions:
 - Instead of asking, "How do I solve or prevent this problem?" ask, "How could I possibly cause the problem?"
 - Instead of asking "How do I achieve these results?" ask, "How could I possibly achieve the opposite effect?"

Examples

- What should we do if we didn't want any of the people diagnosed with malaria to take the full course of ACTs?
- What should we do if we didn't want anyone to use a LLIN?
- What can we do to ensure that no child <5 years with malaria is correctly assessed and treated?
- What should we do to ensure that no malaria cases are investigated within 3 days?
- How do we make patients more dissatisfied with our services?

How to Use Reverse Brainstorming

- Clearly identify the problem or challenge, and write it down
- Reverse the problem or challenge by asking, "How could I possibly cause the problem?" or "How could I possibly achieve the opposite effect?"
- Brainstorm the reverse problem to generate reverse solution ideas. Allow the brainstorm ideas to flow freely. Do not reject anything at this stage
- Once you have brainstormed all the ideas to solve the reverse problem, reverse these into solution ideas for the original problem or challenge
- Evaluate these solution ideas. Can you see a potential solution? Can you see attributes of a potential solution?

Comments That Reduce Brainstorming to Braindrizzling

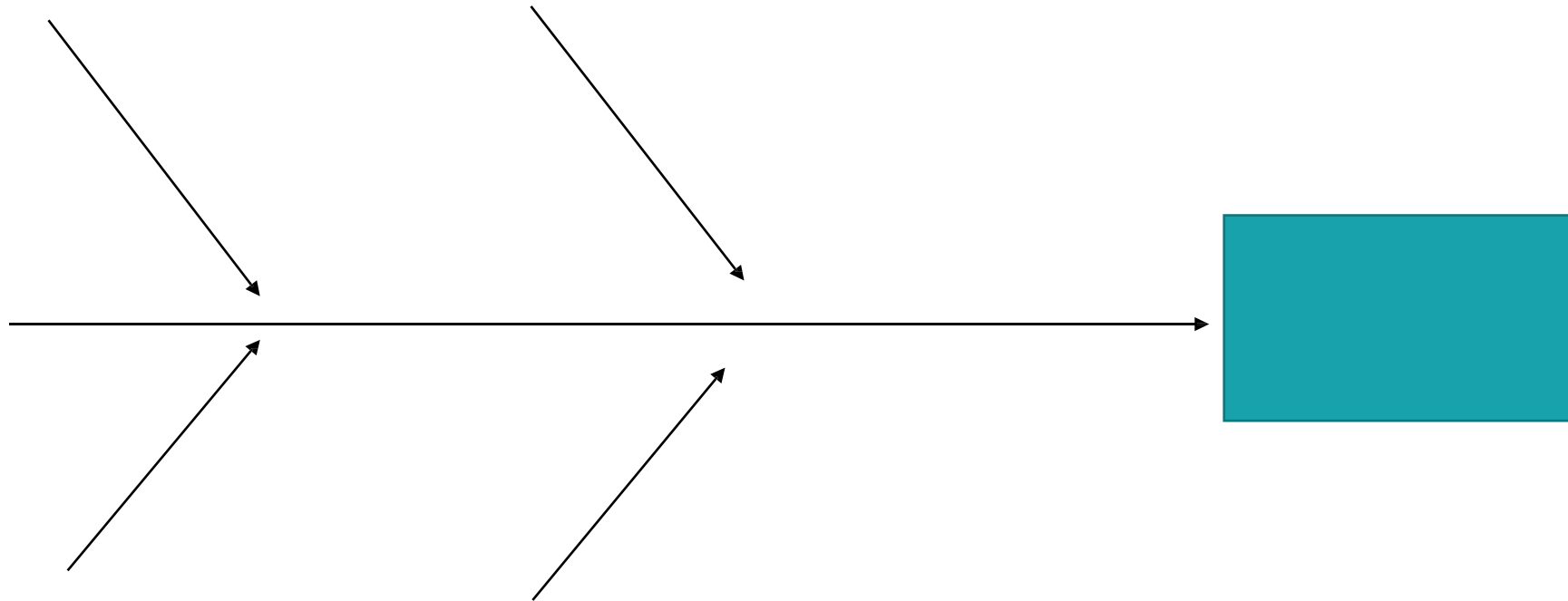
- That won't work
- That's too radical
- It's not our job
- We don't have enough time
- That's too much hassle



- It's against our policy
- We haven't done it that way before
- That's too expensive
- That's not practical
- We can't solve this problem

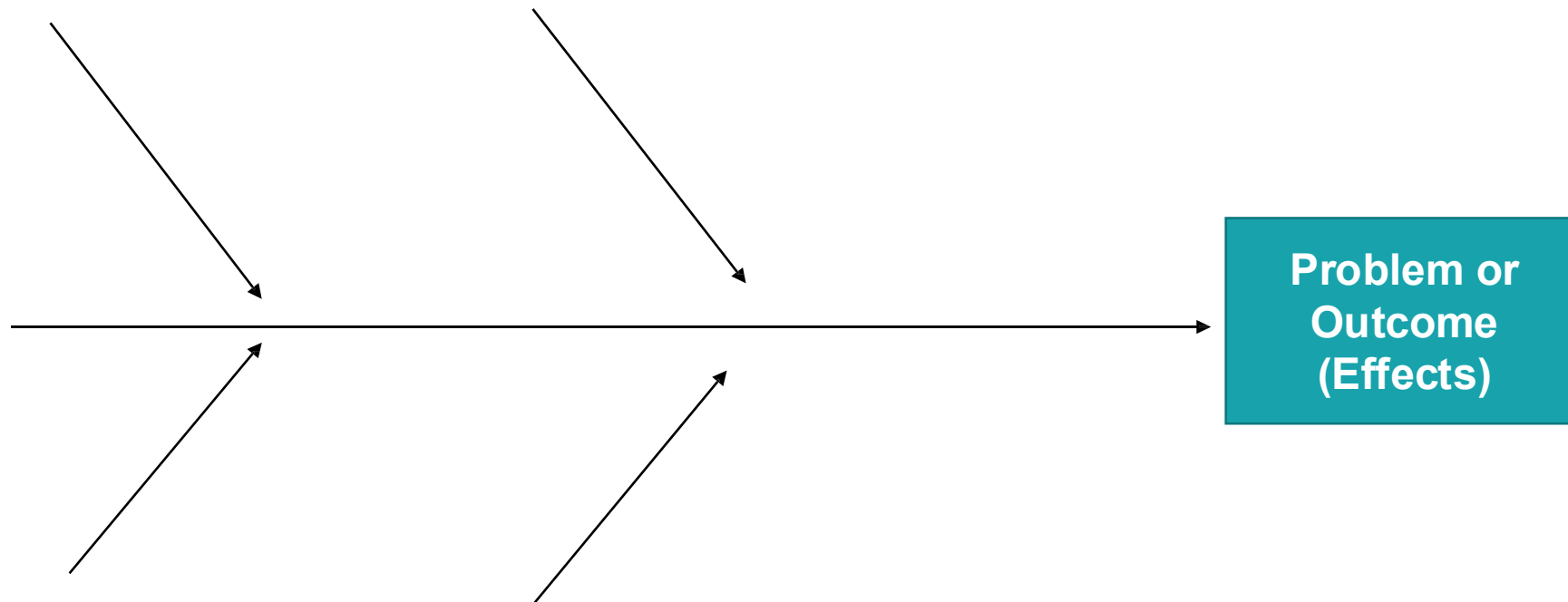
Steps in Designing a Cause and Effect Diagram

1. Draw diagram's skeleton



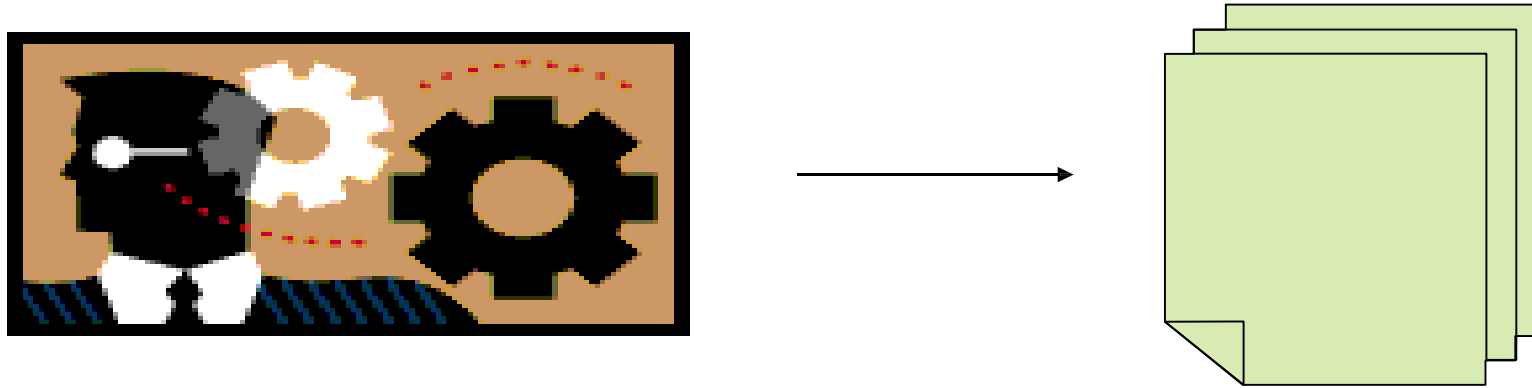
Cause and Effect

2. Write the problem or desired outcome (effects) in the box at the end of the arrow



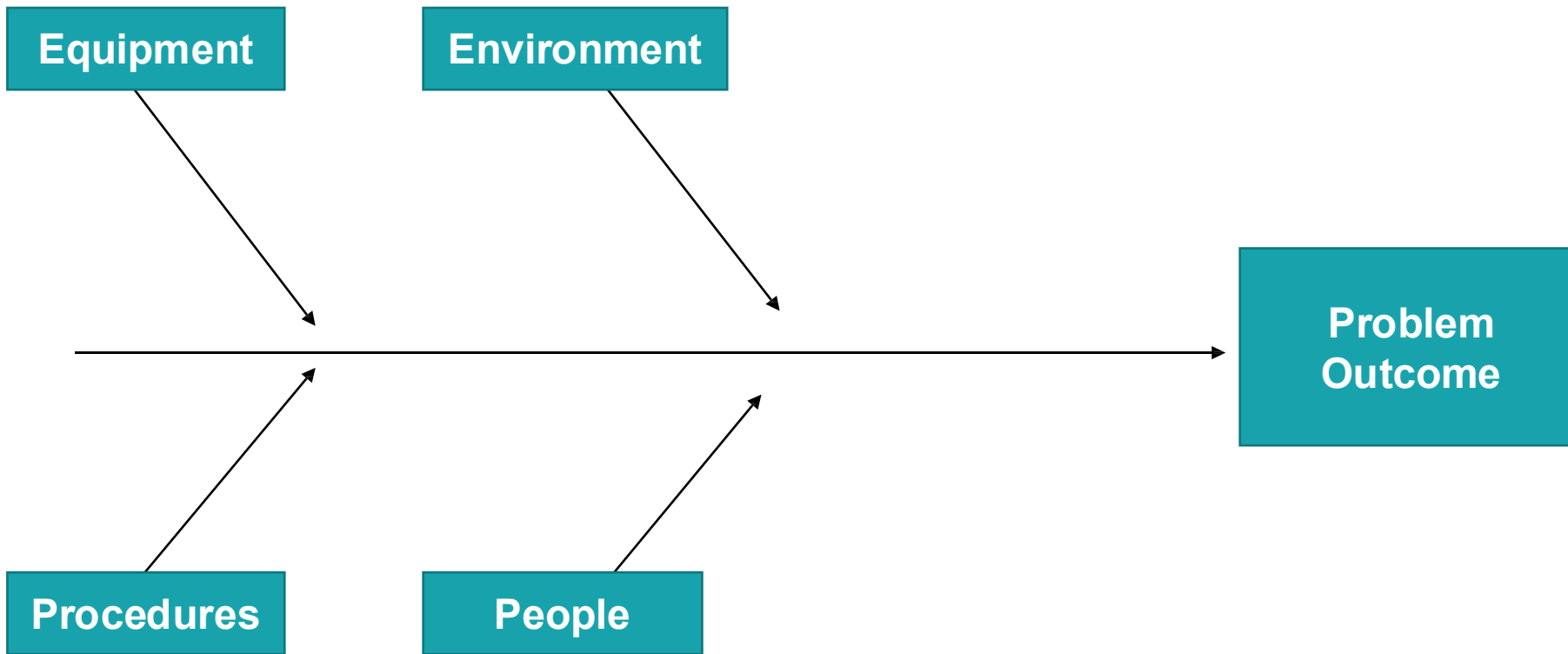
Cause and Effect Diagram

3. Brainstorm and write down potential causes



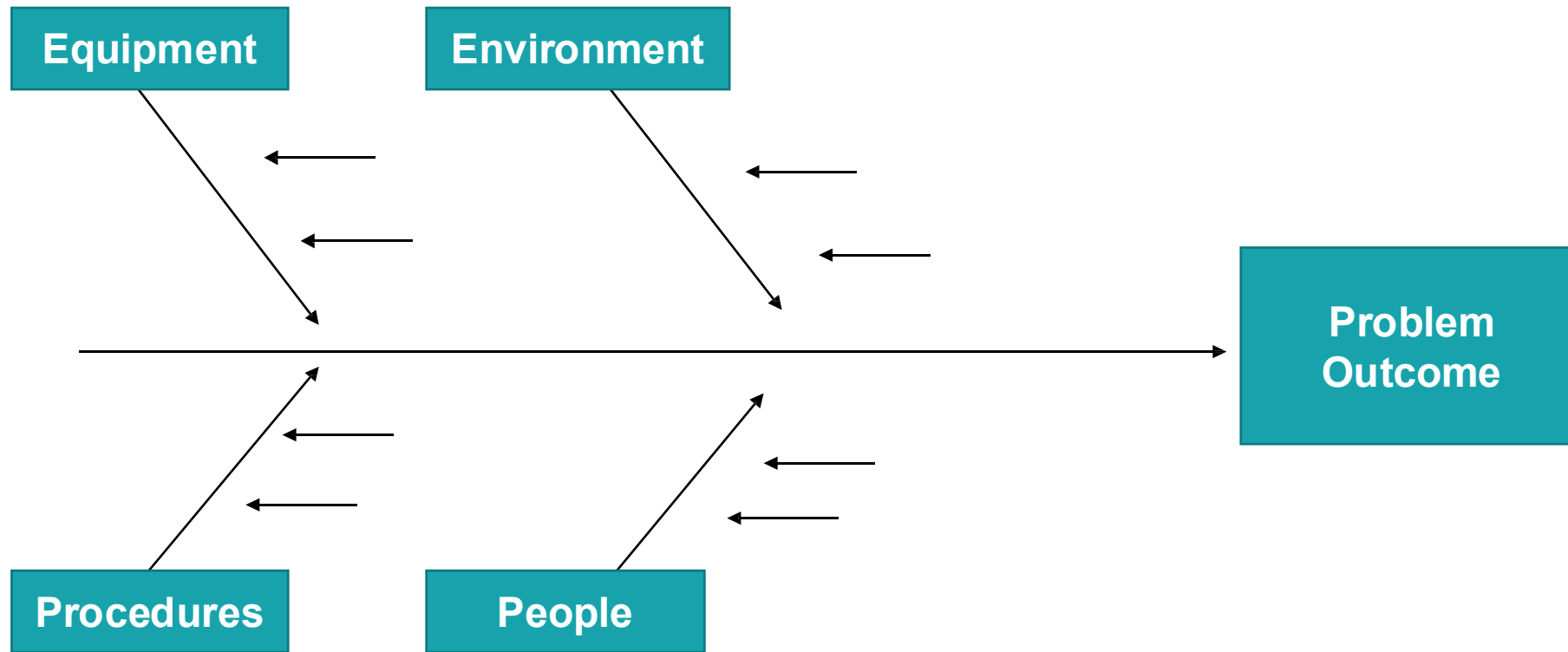
Cause and Effect

4. Categorize the causes

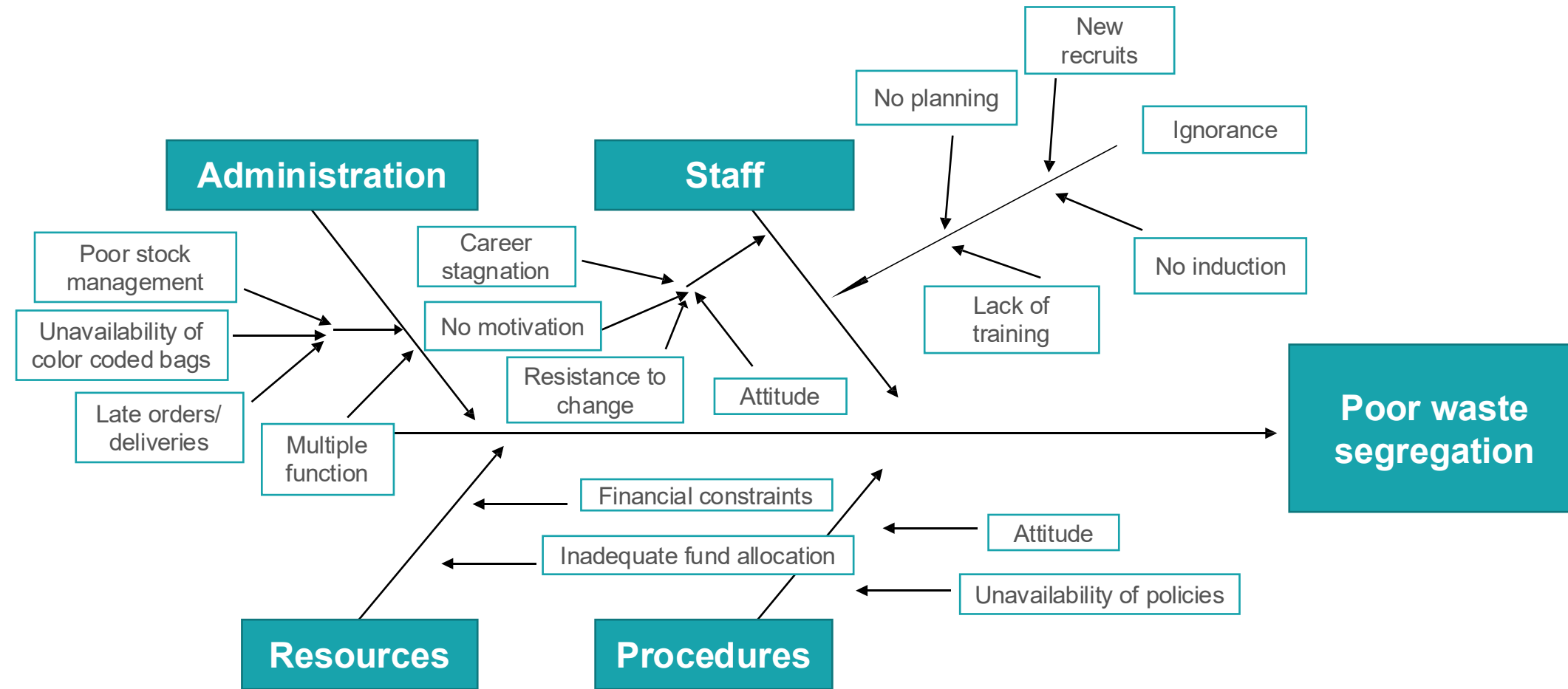


Cause and Effect Diagram

5. Review and refine causes



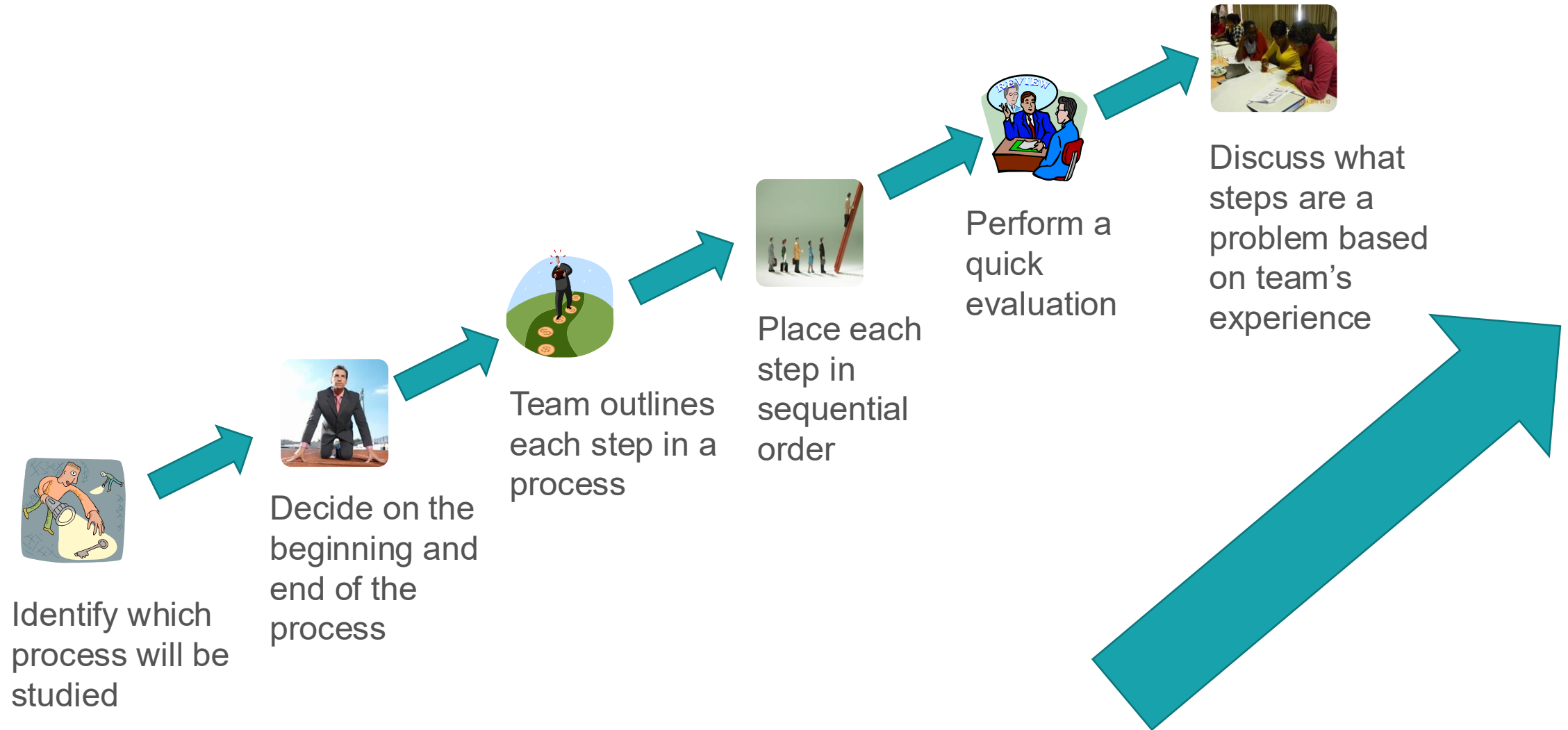
Cause and Effect Diagram



Group Exercise: Cause and Effect Diagram

- Examine key challenges in each cluster using this QI root cause analysis method

Steps for Creating a Flowchart or Process Map





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Group Exercise to Create a Process Map

Refer to Annex IV for handout



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Active Listening Exercise

Refer to Annex IV for handout