Health Facility Quality Improvement

Health Facility In-Charge Training

SPRING/Ghana

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USAID FROM THE AMERICAN PEOPLE

SPRING Strengthening Partnerships, Results, and Innovations in Nutrition Globally

Course Goals

1. Provide technical support to QI team.
2. Improve the quality of GMP services at the CWC (at both static and out-of-reach points).
3. Improve the optimal growth of all children under 2 years of age.
4. For coaches: To develop a pool of coaches at the district to assist the health facility QI team to improve the quality of health services.

Objective of Health Facility In-Charge Training

To improve the knowledge and skills of HF managers/in-charges in implementing quality improvement approaches at the health facility, which will improve the quality of health services.

Specific objectives: Assist health facility to—

- Form QI team:
  - Select appropriate team members.
- Establish well-functioning QI team:
  - Manage stages of team development.
- Develop well-functioning QI meeting:
  - Find gap/problem, cause of problem, root cause of problem, brainstorm possible solutions (change ideas), prepare action plan, test change idea, measure improvement.
- Conduct continuous implementation (PDSA cycle) of testing change idea and measure improvement.
- Document lesson learned from testing change ideas and measure improvement.

Course Objectives II

For QI team members: Support the health facility to—

1. Attend QI team meetings regularly.
2. Support a well-functioning QI team.
3. Participate in well-functioning QI meeting:
   - Find gap/problem, cause of problem, root cause of problem, brainstorm possible solutions (change ideas), prepare action plan, test change idea, measure improvement.
4. Conduct continuous implementation (PDSA cycle) of testing change idea and measure improvement.
5. Document lesson learned from testing change ideas and measure improvement.

What Is Quality? What Is Improvement?

Quality: In pairs—

Think of a time when you bought something of high quality—what made it high quality?

Think of a time you had a high quality service—what made it high quality?

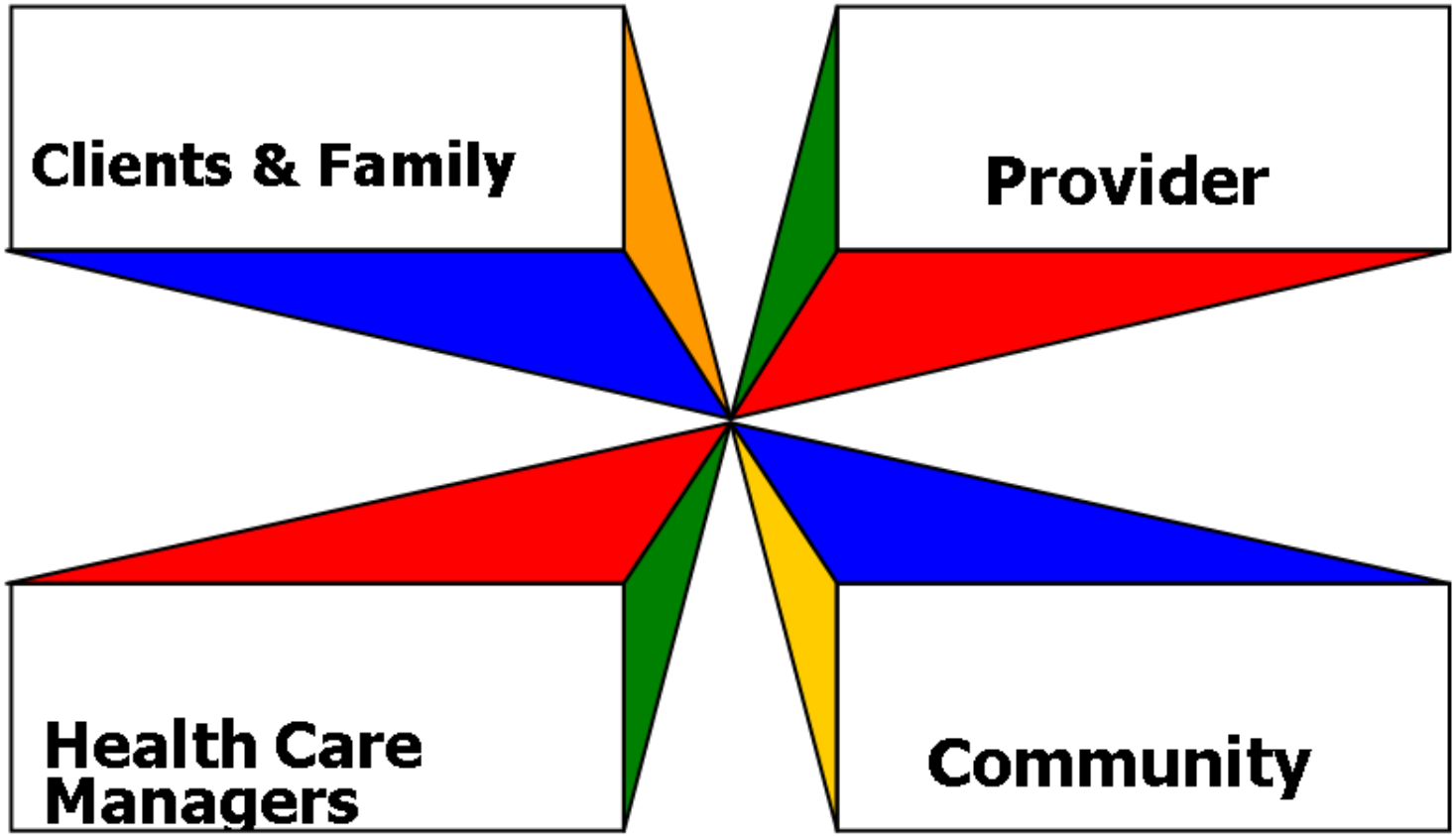
Scenario 1: Quality of Care?

- Being one of the model families in her village, Fatima went to Kumbungu HC for her ANC checkup. The midwife did not speak Fatima's language; she held Fatima until she could find a translator. Fatima waited for two hours.
  - Did Fatima receive quality care from the midwife?
  - Explain why or why not.

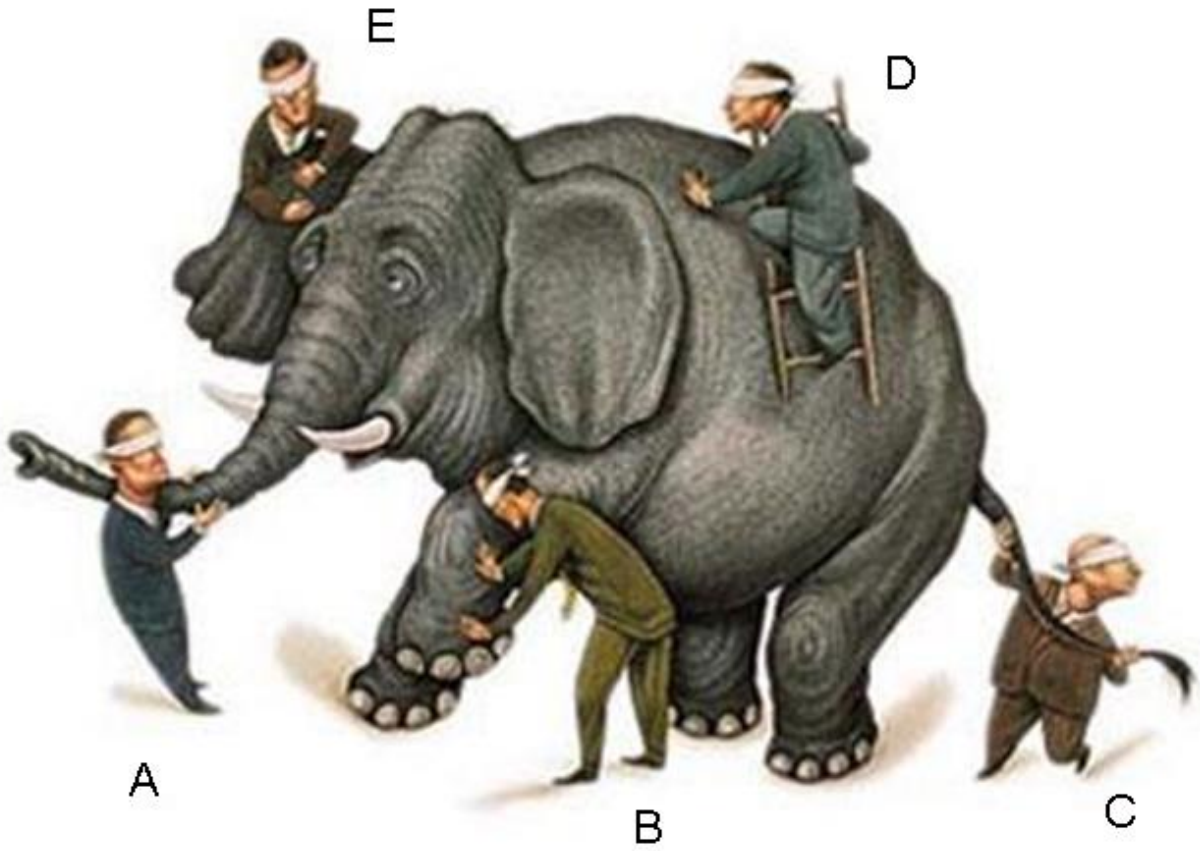
Scenario 2: Quality of care?

- Last Saturday, Rafia gave birth to a beautiful baby, with a TBA's assistance. However, the TBA could not expel the placenta from Rafia's womb. Rafia was rushed to a nearby health center when the bleeding did not stop. The midwife at the health center had no sterile gloves. After keeping Rafia for one hour, the midwife realized that she needed to send Rafia to a district hospital.
  - Did the midwife give Rafia quality care?
  - Explain why or why not.

Quality from Which Perspective?



What is Quality?



Dimensions of Quality

- Care must be safe.
- Care must be effective and reliable.
- Care must be patient centered.
- Care must be timely.
- Care must be efficient.
- Care must be equitable.

Quality from a Systems View

Inputs (Resources)	Processes (Activities)	Outcomes (Results)
• People • Equipment • Supplies • Infrastructure • Information • Technology	• What is done? • How is it done?	• Health services delivered • Change in health behaviour • Change in health status • Client satisfaction

Main Points

- Definition of quality of services is different for different people.
- People become dissatisfied with the health services they receive at a health facility because it is not their standard of quality.
- It is important for patients to be aware of the quality of health care services, when defining quality of services.
- If you want to improve the quality of service you have to look at the system (inputs, processes, and outputs) of health services.
- Patients should understand the different levels of health care services provided at different health facility levels (hospital, health center, and CHPS compound).

What Do We Mean by Improvement?

- Faster?
- Better?
- Safer?
- Less expensive?
- More efficient?

Think of a time when you changed a way of doing something that led to an improvement. How did this improvement happen?

What Would Be an Improvement at a CWC?

Think about this:

What would be an improvement in services at the CWC?

What Is and Should Be the Situation at the Facility?

What is the ***desired situation*** at the facility?

Desired Performance

90% of pregnant women receiving ANC services

Gap

Reducing gap = Improvement

What is the ***current situation*** at the facility?

Current Performance

20% of pregnant women receiving ANC services

Case Study 1

Scenario: Joyce is the in-charge at an RCH unit in Karaga district. She was just transferred from Bongo district. She has worked in the RCH clinic in Karaga for more than four months. According to the CHV's records, there are more than 200 pregnant women in the community. But, the ANC register shows only 15 pregnant women received ANC services last month. Joyce does not know what to do. Her colleagues are fine with providing ANC services to only 15 pregnant women.

- Answer the following questions:
  - What do you think the staff should do?
  - Why should they do that?
  - How can they do that?
  - Can you show this using an improvement diagram?

Case Study 2

Scenario: Robert learned that no growth charts were filled out completely and correctly. He trained and assigned a volunteer to help the nurse fill out the charts. The following month, he found 20% of growth charts filled out completely and correctly. He shared this result with staff and discussed how they could increase to having 50% of growth charts filled out correctly. Staff promised to do their best. After three months, Robert found that the 20% of correctly filled growth charts had increased to 70%.

- Use an improvement diagram to show the percentage of growth charts correctly filled out.
- What change idea could have been used for the first improvement?
- Propose a change idea staff might have used for the second improvement.

Case Study 2 (continued)

- Robert planned to fix the problem of filling out growth chart completely and correctly.
- <u>First month</u>
- He found 1% of growth charts filled out completely:
  - He pointed out this problem to the nurse and asked to fix this problem.
- <u>Second month</u>
- He found 1% of growth charts were filled out completely:
  - He called a staff meeting and asked all staff to fix this problem.
- <u>Third month</u>
- He found that 3% of growth charts were filled out completely.
- <u>Fourth month</u>
- He found that 50% of growth chart filled out completely.

Exercises: What Is Improvement? How Does It Happen?

Goal: To pass the ball around the whole group in the fastest time.

- First attempt: No talking. Last person starts passing ball. Each person will pass the ball to another person.
- Timekeeper records the time.
- After first attempt, the group discuss and use **four different approaches** to pass the ball in the least time.
- Record time taken each time.
- Plot a run chart of number of attempts vs. time taken to pass the ball.

- First attempt: Follow the rule: Baseline.
- From second attempts: Brainstorm ideas with the team and allow different ideas to come out.
- Test four different strategies (attempts); try to improve on each attempt.
- Measure time taken to pass the ball, so that they know which one was the most effective.
- Draw a run chart and present improvement.

Attempt	Initial/Change Idea	Time
1st		
2nd		
3rd		
4th		

How to Make Improvements

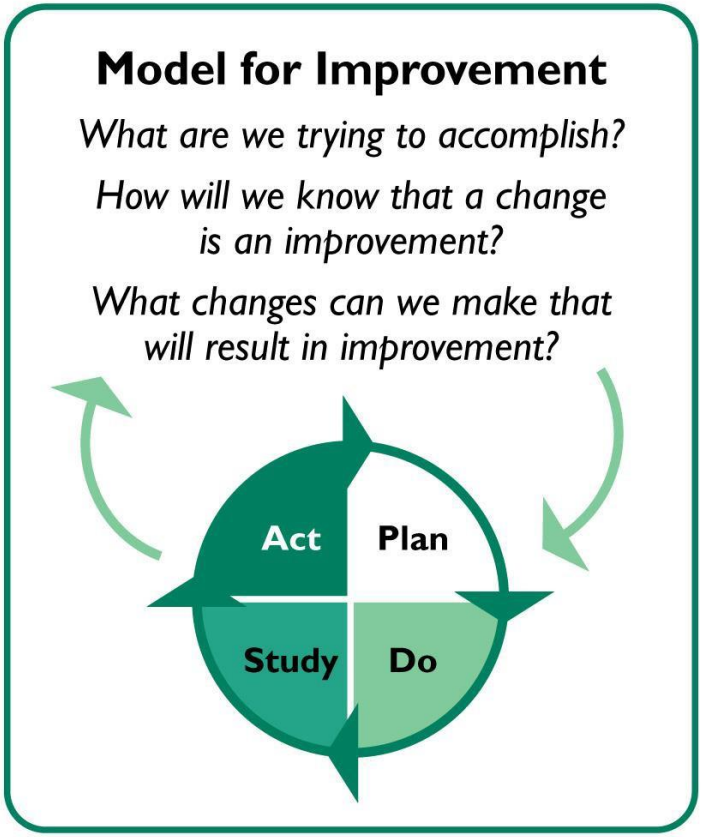
Improvement requires the following steps:

- Determine the gap: Between your coverage now and the coverage you would like to achieve.
- Brainstorm interventions (change ideas).
- Select one intervention or change idea to test.
- Test the change ideas for a period of time.
- Measure the improvement.
- Plot improvement.

If you cannot measure it, you cannot improve it.

“The first step toward getting somewhere is to decide that you are not going to stay where you are.” – Anonymous

Model for Improvement



Model for Quality of Improvement

Asks three questions before testing change ideas:

1. What are we trying to accomplish?
   - Develop improvement aim.
2. How will we know that a change is an improvement?
   - Measure improvement (to identify appropriate **measures** that **track improvement**).
3. What change can we make that will result in an improvement?
   - Change Idea to test (identify key change ideas to test).

- Plan: Plan how to test change ideas.
- Do: Implement change idea.
- Study: Measure improvement (collect data).
- Act: Make a decision: Based on improvement result: adopt, adapt, or abandon the change idea.
- Use the process of the ball game, change idea tested and data measured to explain modern model for improvement.

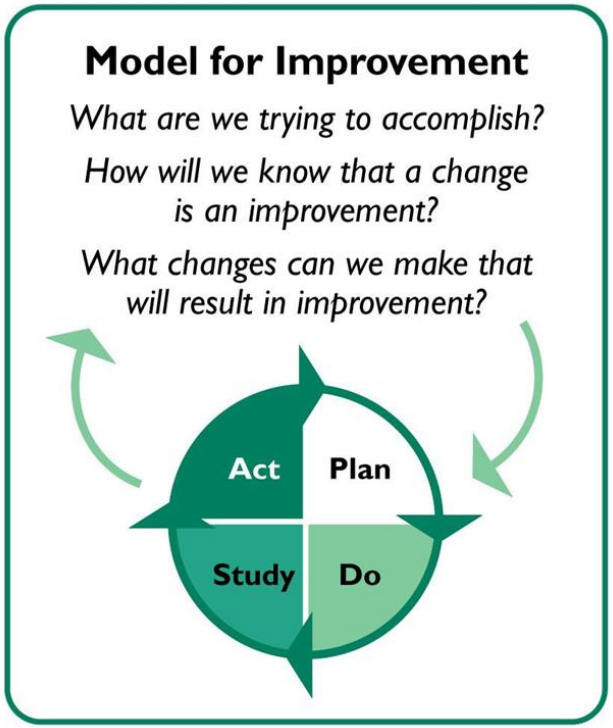
The “PDSA” Cycle

Act:

- Take action based on results.
- What changes are to be made?
- Next cycle?

Study:

- Complete the analysis of the data (impact of intervention?).
- Compare data to predictions.
- Summarize what was learned.



Plan:

- Objectives.
- Questions and predictions (why?).
- Planning (who?, what?, where?, when?).
- Plan for data collection.
- Communicate the change, engage stakeholders.

Do:

- Carry out the plan.
- Document problems and unexpected observations.
- Begin data analysis.

Quality Improvement Must Be Data Driven.

Principles of QI

Robert visited a QI health facility in Karaga district. The first thing Robert did was ask the health facility manager to draw the process/steps a client goes through when attending CWC. The manager, Latifa, told him that she would like to improve the filling out of growth charts completely and correctly during the GMP services. She found that most of the growth charts were not filled completely and correctly.

Robert asked Latifa how she knew the charts were not filled completely and correctly. Did she have any data? Latifa showed him the record of growth charts filled out completely; it showed that only 20 growth charts were completely and correctly filled out. Using the process map she had recently made, Robert asked which staff were directly involved in filling out the growth chart, and who kept the record of filled growth chart. After writing down the names Latifa mentioned, Robert told her to establish a team with these people.

Robert also told the manager to educate caregivers about why filling out the chart correctly and completely was important; that being able to see the growth curve on the chart will tell mothers if their child is growing well.

- **What was the main information Robert needed to help Latifa implement quality improvement and improve the quality of GMP services?**

Principles of QI - 2

1. Understanding systems and processes
2. Teamwork
3. Focus on patients
4. Use of data

QI Team Meeting

Have you ever conducted a meeting before?

What were the steps?

Role Play – How to Conduct a QI Team Meeting

At Voggu CHPS facility, the QI team identified that staff were not plotting the growth charts completely and correctly. Data was collected during the month, showing that only 60 growth charts out of 100 were filled completely and correctly.

Action Plan

Gap/Problem?	Purpose?	How?	Who?	When?	Remarks
Only 60% of growth charts are filled out completely and correctly.	To increase the filling of growth charts completely and correctly from 60% to 70%.	Continue working with CHV to support the CHN filling out the charts completely and correctly.	CHN	By the end of the week.	Continue to collect data.

QI Team Meeting Steps

1. Determine the gaps.
2. Ask, why are these gaps happening?
- List the reasons why this gap is happening.
- Select ONE—where can your facility make an impact?
3. Find the root cause of that gap:
- List the root causes.
- Select ONE.
4. What are solutions to that cause?
- List the solutions.
- Select ONE—this is your change idea.
5. Create an action plan.

Case Study to Practice in a Small Group

Scenario 1:

Attendance at Kumbungu HF RCH has been low, compared to previous months.

The QI team discussed expanding the number of outreach points and selected this as the chief change idea to implement. Conduct a QI team meeting where this change idea is examined for the next course of action.

Scenario 2:

Attendance at Kumbungu HF RCH has been low compared to previous months.

The QI team discussed expanding the number of outreach points and they selected this as the chief change idea to implement. In the team's action plan, it was decided that two of the community health nurses would lead this change; however, one CHN did not attend any outreach clinic that months. Conduct a QI team meeting where the team responds to this challenge.

Scenario 3:

Attendance at the Kumbungu HF RCH has been low, compared to previous months. The QI team identified this problem. Act out the QI team as it discussed this problem, brainstorm possible change ideas, and develop an action plan.

Case Study – Midwife Mary

Mary is a midwife who has worked in Sakogu Health Center for 10 years. Last month, she attended a five-day IYCF training in Tamale. She was impressed with the training, which taught her how simple activities can solve most of the IYCF problems that she was unable to do before. During the training, she practiced filling out growth charts correctly and completely and conducting targeted counselling. Now, she is confident in filling out growth charts and conducting counselling. After returning from the training, she tried to improve the quality of the above services in her health facility, but she has not been successful. She realized that she needs a team to improve quality of services. She went to meet her coach to get advice on how she can form a QI team.

Case Study – Hazia's Story

Hazia attended a three-day HF in-charge QI training in Kumbungu. After returning from training, she wanted to form a QI team. She has 9 staff in her health facility. She was advised to form a QI team of 5 to 7 members, but not wanting to upset her staff, she decided to include all 9 staff as QI team members.

Stages	Meaning	Member Reaction
Team formation	• Identify the members. • Assign roles. • Prepare workplan.	• Enthusiasm • Optimism • Politeness • Effort to identify tasks.
Storming	Conflict of all types.	• Resistance • Changing attitude • Disputes • Defensive behavior • Competition • Doubts about the goals
Norm acceptance	• Everyone accepts the working norm. • Conflicts are settled.	• Acceptance • Relief • Commitment to overcome differences • Happy interactions
Performance	Team productivity.	• Satisfaction • Trust • Commitment to continue

Summary of Establishing QI Team – 1

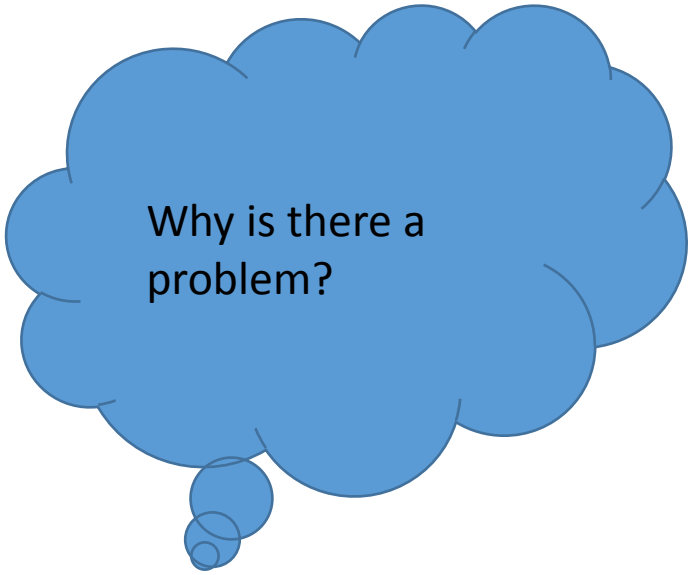
- Every team goes through the stages of development:
  - Forming
  - Storming
  - Norming
  - Performing
- Each stage is a critical part of ensuring the team is well functioning and reaching its goals.
- Coach and QI team leader should understand these stages and the team development process. The QI team should assess the stages of their team and be prepared to tackle the problems of that stage.
- Coach and team leader should also remind team members of the stages of team development.

Summary of Establishing QI Team – 2

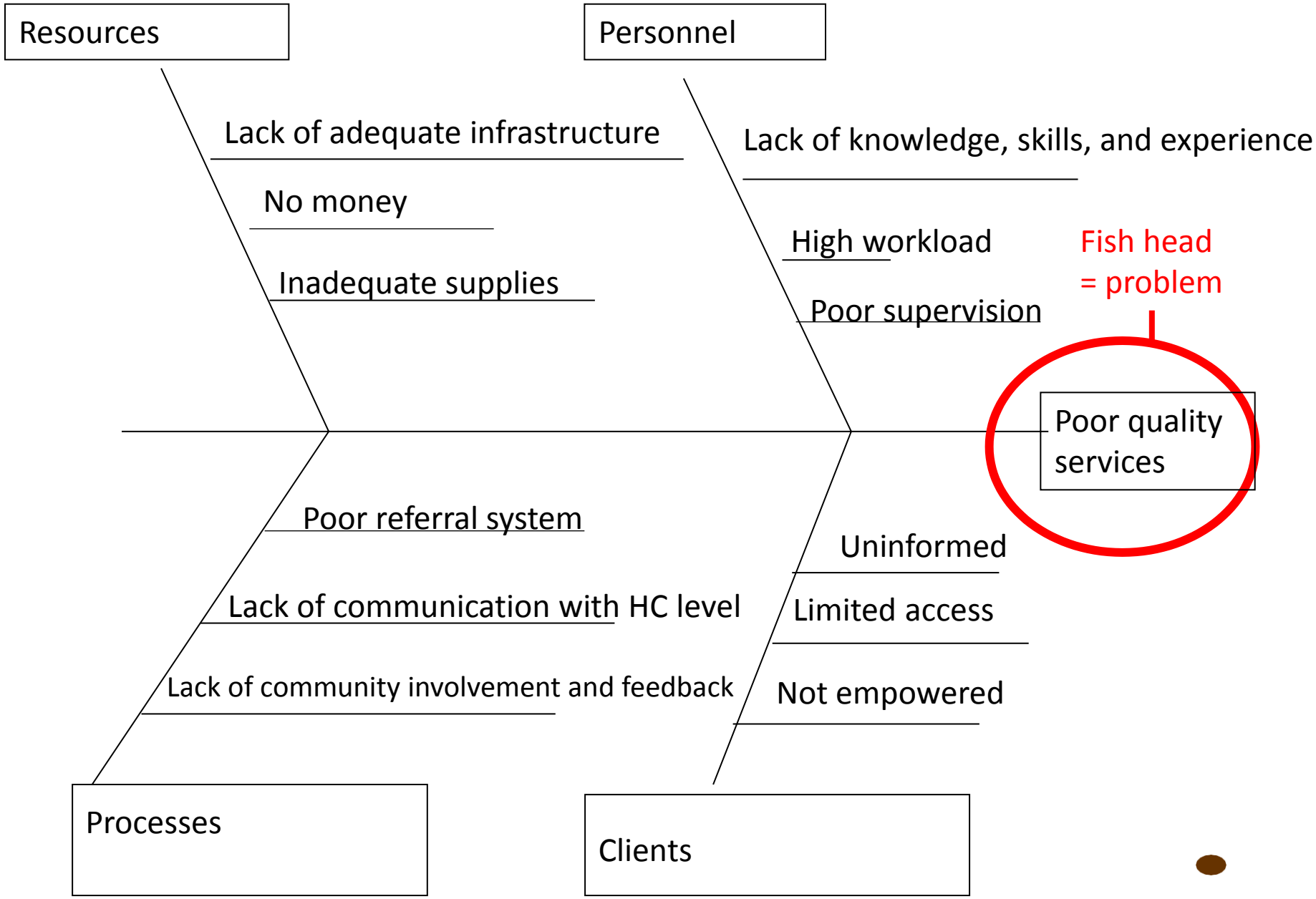
- Health care consists of interdependent steps that different people execute.
- Quality gaps occur in services when information does not communicate clearly in hand-over between people.
- Staff knows system and process of health facility services well, so they are right people to find out the problems and generate ideas for local solutions that will be doable and affordable.
- Each team member's confidence increases when they achieve results working together.

Fishbone (Cause–Effect Diagram)

- A tool used to collect and organize all the possible causes for a particular problem.
- A first step in problem solving by generating a comprehensive list of possible causes.
- Leads to greater understanding of the problem.

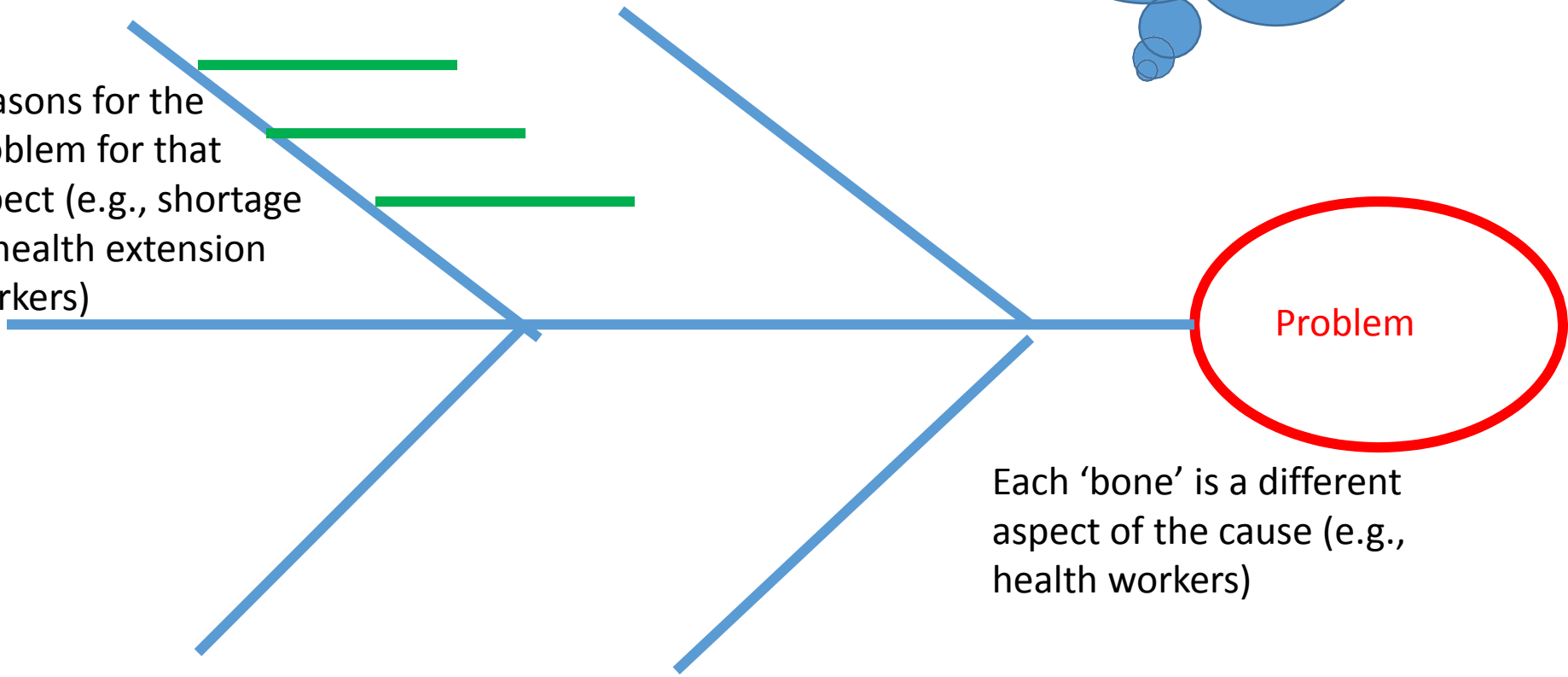


The fishbone analysis answers the question “Why?”


Resources
Lack of adequate infrastructure
No money
Inadequate supplies
Personnel
Lack of knowledge, skills, and experience
High workload
Poor supervision
Fish head
= problem
Poor quality services
Poor referral system
Lack of communication with HC level
Lack of community involvement and feedback
Processes
Uninformed
Limited access
Not empowered
Clients

Brief Exercise: Fishbone Diagram

Identify a problem. What are the different possible causes? (30 min.)



USAID Health Care Improvement Project

Coaches Roles and Responsibilites

Demonstration:

- An interactive learning technique in which the facilitator explains and shows the stages and their sequence for carrying out a procedure or activity.

Steps:

1. Demonstrate the entire procedure from beginning to end.
2. Divide the procedure into parts and allow the participants to work on the individual stages of the procedure.
3. Demonstrate the entire procedure again and allow the providers to practice the entire procedure from beginning to end.

Coaches' Role

- Facilitator
- Trainer
- QI expert

- **Communication skills**
  - Encouraging all team members to share relevant information.
- **Facilitation skills**
  - Promoting decision making by consensus.

- **Training skills**
  - Coaching is not synonymous with training. Training can be one component of a larger coaching initiative.
- **Quality improvement skills**
  - Increase the performance for the task for which they receive coaching or mentoring.

Coaches' Responsibilities – 1

- Promote QI principles.
- Help the team learn how to give positive feedback and respect the opinions of others.
- Provide coaching/mentoring session after observing QI team meeting.
- Provide coaching on technical and problem solving skills.
- Provide feedback to the team.
- Support the team leader.
- Remain objective and neutral.
- Enable the team and the team leader to make their own decisions.
- Establish a climate of cooperation and openness
- Promote the problem solving process.
- Encourage team work.
- Concentrate the group's energy on the common tasks.

Coaches' Responsibilities – 2

Assist to—

- Form QI team:
  - Understand current system and processes.
  - Conduct orientation to QI team.
- Establish well-functioning QI team:
  - Understand stages of developing well performing team:
    - Team forming
    - Team storming
    - Team norming
    - Team performing
- Develop well-functioning QI team meeting:
  - Understand (draw) processes of health delivery system (at CWC).
  - Find out the gap in steps—from documents (register, note book, tally sheet, forms, etc.); comparing denominator and numerator.
  - Develop indicator.
  - Steps to follow during the QI meeting:
    - Member present data (numerator and denominator)
    - Determine gap/problem (difference in denominator and numerator)
    - Determine the root cause of the problem
    - Brainstorm possible solution/change idea of the root cause
    - Select one change idea
    - Test selected change idea (at CWC)
    - Study/measure improvement (at CWC)
- Conduct continuous PDSA cycle to test change idea.
- Document lesson learned from testing change ideas and measuring improvement.

Process of Decision Making: Margaret's Decision

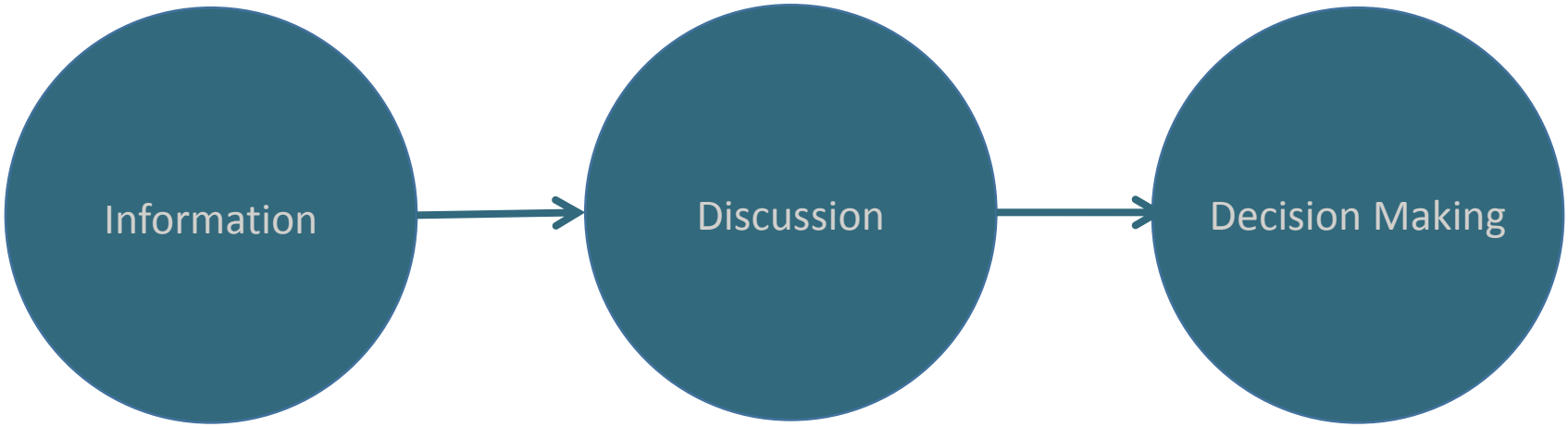
Margaret graduated from the University for Development Studies (UDS) this year. Now, she would like to join a master's program in nutrition, but she does not know which university offers a good international nutrition program. She has collected information about the university from the following sources:

1. university website
2. students who graduated from the nutrition department
3. faculty who teach in the nutrition department

She decided to go to the university in South Africa because—

1. It offers courses of her interest.
2. It is not expensive.
3. One of her relatives is now studying there so she can share living cost.

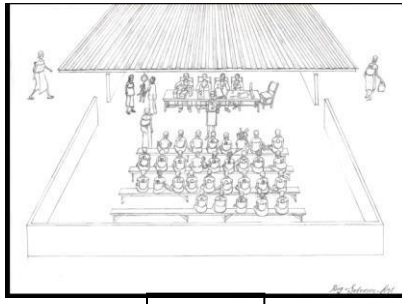
Decision-Making Process



QI Meetings

First QI Team Meeting

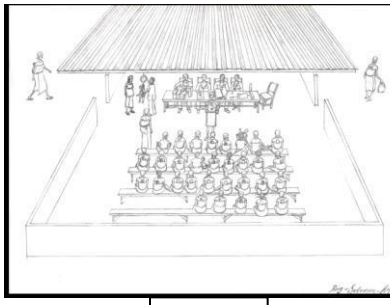
Identify gap + look at problems contributing to gap + analyze root causes of problems + brainstorm solutions to that problem + develop action plan + meeting adjourned.



DO

Second QI Team Meeting

Study improvement data + discuss and make decision; continue testing the same change idea; modify change idea and continue testing or reject change idea. **ACT.**
If change idea is rejected, then conduct root cause analysis (using problem tree or fishbone diagram, or barrier analysis, etc.) to find the main root cause of the gap/problem (which may have been missed last time).
Then, either select another change idea from the previous list or prepare a new change idea list by brainstorming + analyze root cause + develop action plan. **PLAN.**



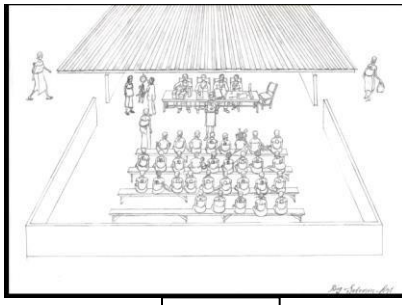
DO

Third QI Team Meeting

Study improvement data + discuss and make decision, continue testing the same change idea, modify change idea and continue testing or reject change idea.

If change idea is rejected, then conduct root cause analysis (using problem tree or fishbone diagram or barrier analysis, etc.) to find out the main root cause of the gap/problem (which may have been missed last time).

Then, either select another change idea from the previous list or prepare a new change idea list by brainstorming + analyze root cause + develop action plan.



DO

Principle: “Do not reinvent the wheel—steal shamelessly, share senselessly.”

Understanding the Current System

Inputs + Processes = Outcomes		
People	What is done?	Behaviour Change
Infrastructure		Patient Satisfaction
Materials	How is it done?	Services Delivered
Information		Change in Health Status

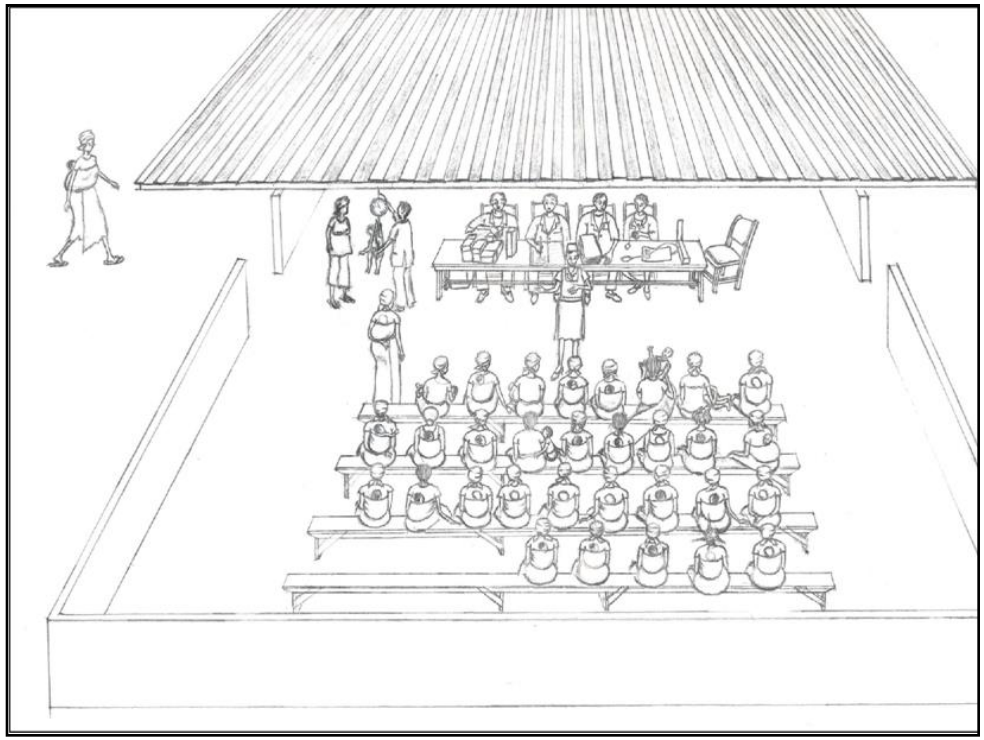
Understanding Work as Processes and Systems

Process: A sequence of steps through which inputs from supplies are converted into outputs for customers.

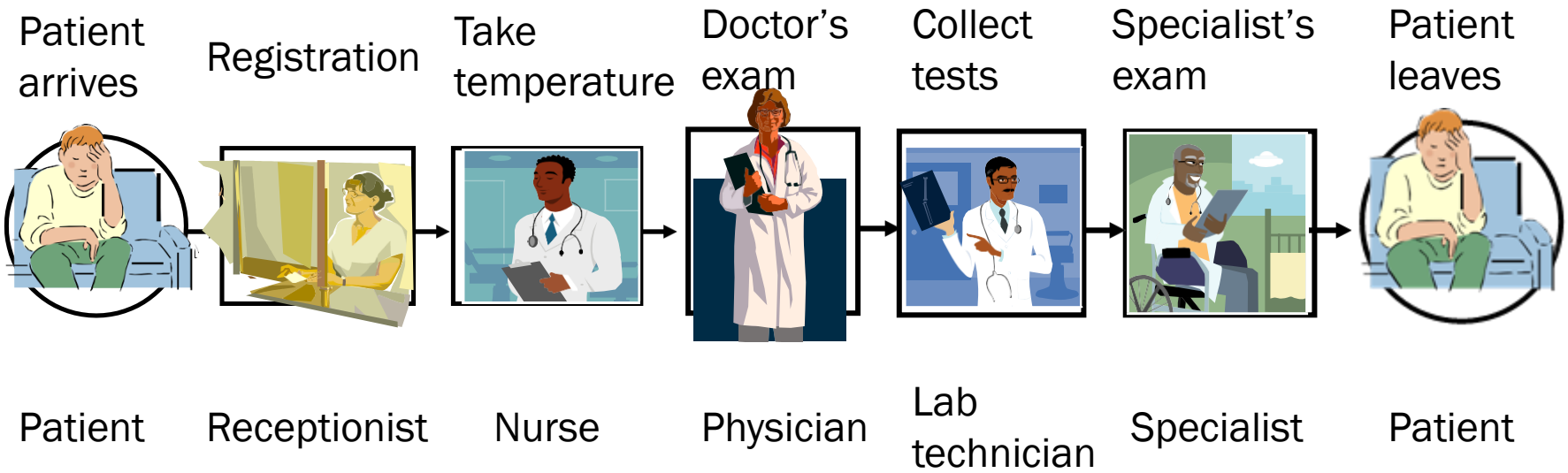
System: The sum of all the total elements (including processes) that interact to produce a common goal.

Examples of Processes

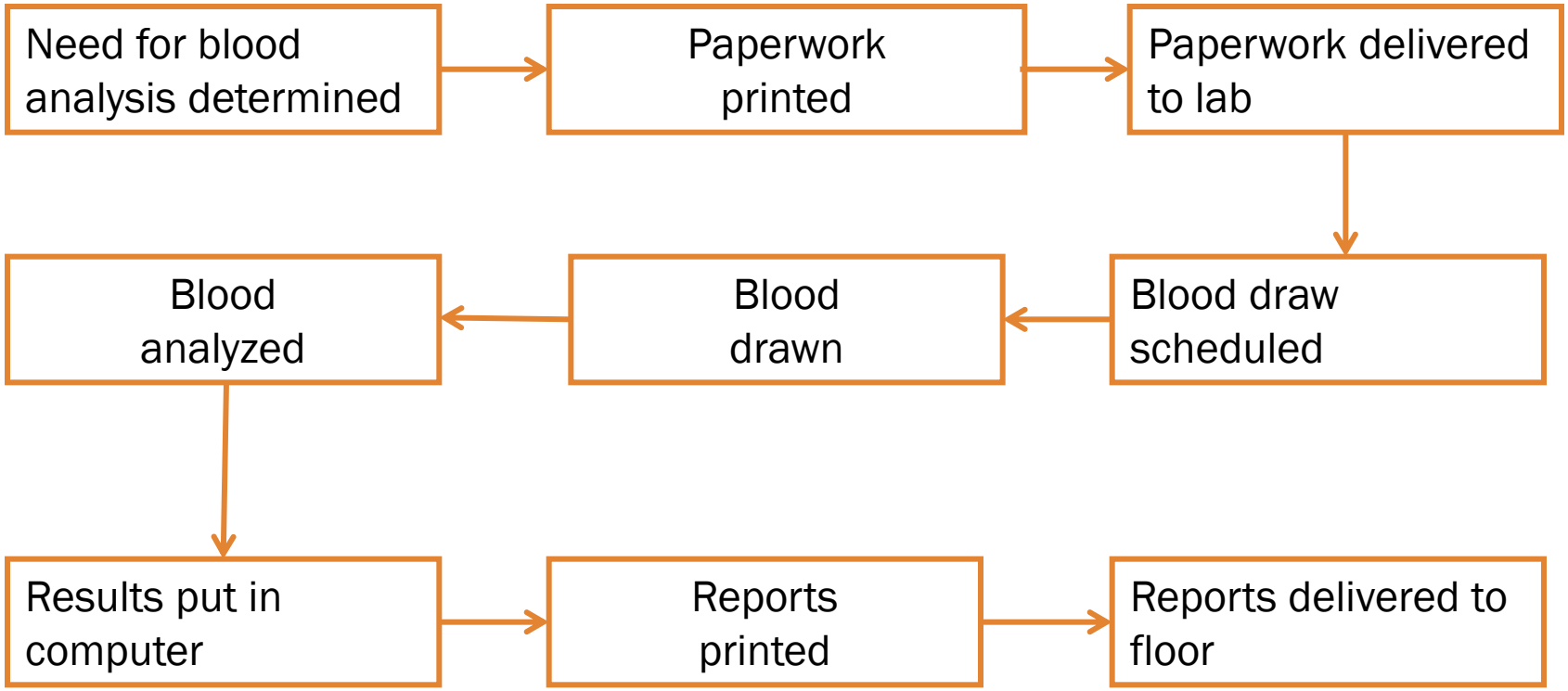
Child Welfare Clinic



Steps and Participants



Work as a Process



Adapted from Langley, et al., *The Improvement Guide: A Practical Approach to Enhancing Organizational Performance.* Jossey Bass, 1996.

Draw a process flow map of the CWC or ANC at your facility.

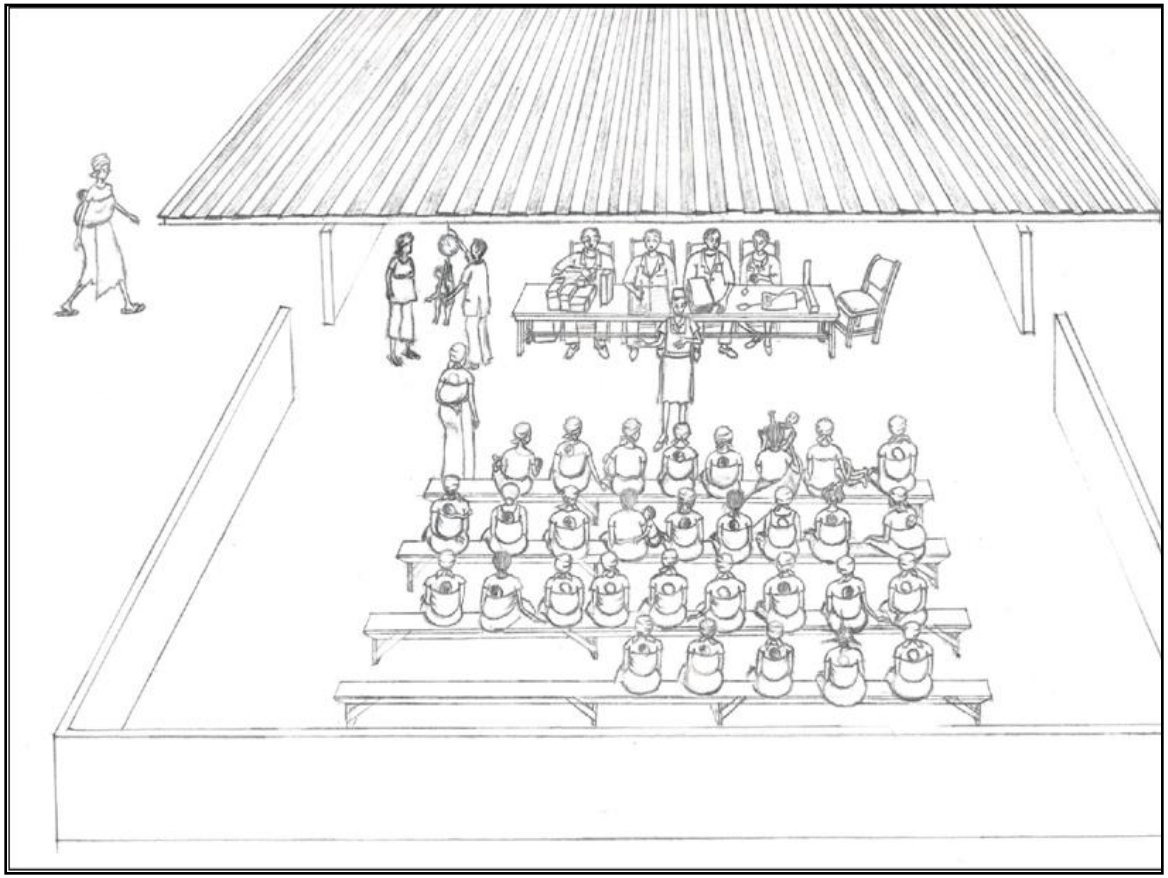
Drawing Flow Chart

What are the steps?	What happens at this step?	What are the possible outputs?
Weighing place		
Growth card filling place		
Triage step		
Counselling room		
Interactive education place		

Principle: “Most problems are found in processes and systems, not in people.”

Managed care means managing the processes of care, not managing physicians and nurses.

Child Welfare Clinic



“Every system is perfectly designed to achieve the results it gets.” – Paul Batalden

“Insanity: doing the same thing over and over again and expecting different results.” – Albert Einstein

Indicators

Purpose of indicators:

- Indicator is a measurement of level of performance/achievements/outcome.
- Indicator indicates the position/state/level of program achievement (position where you are—indicated in number).
- Indicator also helps to show measurement of progress/improvement.

Case Study

Margaret is a midwife working in a health center that has a very low attendance of pregnant women for ANC services. The record from home visits by CHVs shows there are 100 pregnant women in the community, but only 20 attended ANC services. She plans to increase the number of pregnant women attending her clinic—from 20 to 50. She started collecting data on pregnant women attending the ANC clinic every month.

- What is the indicator?
- What is the numerator?
- What is the denominator?
- What is the percentage of women attending the ANC clinic?
- What is the frequency of data collection?

Activities at a CWC

What main GMP activities happen at the CWC?

- Register child.
- Weigh child.
- Plot weight of child on the growth chart.
- Triage caregivers for counselling.
- Provide targeted counselling to caregivers.
- Measure growth of child.

Key Information About Indicators

- Numerator
- Denominator
- Source of data
- Frequency

Creating Indicator from GMP Processes/Steps/Activities

Main GMP activities during the CWC:

1. Register child.
2. Weigh child.
3. Plot weight of child on the growth chart.
4. Triage caregivers for counselling.
5. Provide targeted counselling to caregivers.
6. Measure growth of child.

Indicators:

1. Percentage of children registered for GMP.
2. Percentage of children weighed.
3. Percentage of children's weight plotted on the growth chart.
4. Percentage of caregivers triaging for counselling.
5. Percentage of caregivers received targeted counselling.
6. Percentage of children with improved growth.

Indicators of ANC Services

- Pregnant women (<14 weeks) registered.
- Pregnant women received ANC services.
- Pregnant women received iron tablet.
- Pregnant women received folic acid tablet.
- Pregnant women received counseling.

- Percentage of pregnant women (<14 weeks) registered.
- Percentage of pregnant women received ANC services.
- Percentage of pregnant women received iron tablet.
- Percentage of pregnant women received folic acid tablet.
- Percentage of pregnant women received counselling.

Source of Data

- Total number of children <2 years old.
- Total number of children weighed.
- Total number of children with growth chart completely filled out.
- Total number of children with weight plotted.
- Total number of children with weight plotted and joined.
- Total number of caregivers counselled.
- Total number of caregivers triaged.
- Total number of caregivers given interactive education.
- Total number of children with growth not faltering.

Percentage of Women Attending ANC Services

Month	J	F	M	A	M
Numerator	5	8	12	20	25
Denominator	30	45	48	50	50
Percentage					
Change Idea					

Percentage of Children Correctly Weighed

Month	J	F	M	A	M
Numerator	6	25	56	91	127
Denominator	120	125	140	130	150
Percentage					
Change Idea					

Percentage of Growth Chart Completely and Correctly Filled Out

Month	J	F	M	A	M
Numerator	3	8	6	20	25
Denominator	30	60	40	50	50
Percentage					
Change Idea					

Percentage of Caregivers Receiving Targeted Counselling

Month	J	F	M	A	M
Numerator	13	44	70	126	168
Denominator	130	220	140	180	210
Percentage					
Change Idea					

Including Change Ideas on Your Graph

10 % of pregnant women participate in HIV test. 100% of pregnant women should participate in HIV test.
QI team met and discussed— Change idea proposed- Awareness- Radio Spots One Month Later: Measured—10% women tested No Improvement.
QI team met and discussed— Change idea proposed—Awareness—TV spots one month later: Measured—20% women tested improvement but not 100%.
QI team met and discussed— Change idea proposed—Awareness—TV Spots and religious groups One month later: Measured—50% women tested improvement but not 100%.
QI team met and discussed— Change idea proposed—Awareness—radio spots, religious and women group one month later: Measured—80% women tested improvement but not 100%.
QI team met and discussed— Change idea proposed—Awareness—TV spots and religious and religious group one month later: Measured—80% women tested improvement but not 100%.

Graph this data, and include the change idea implemented for each point on the graph.

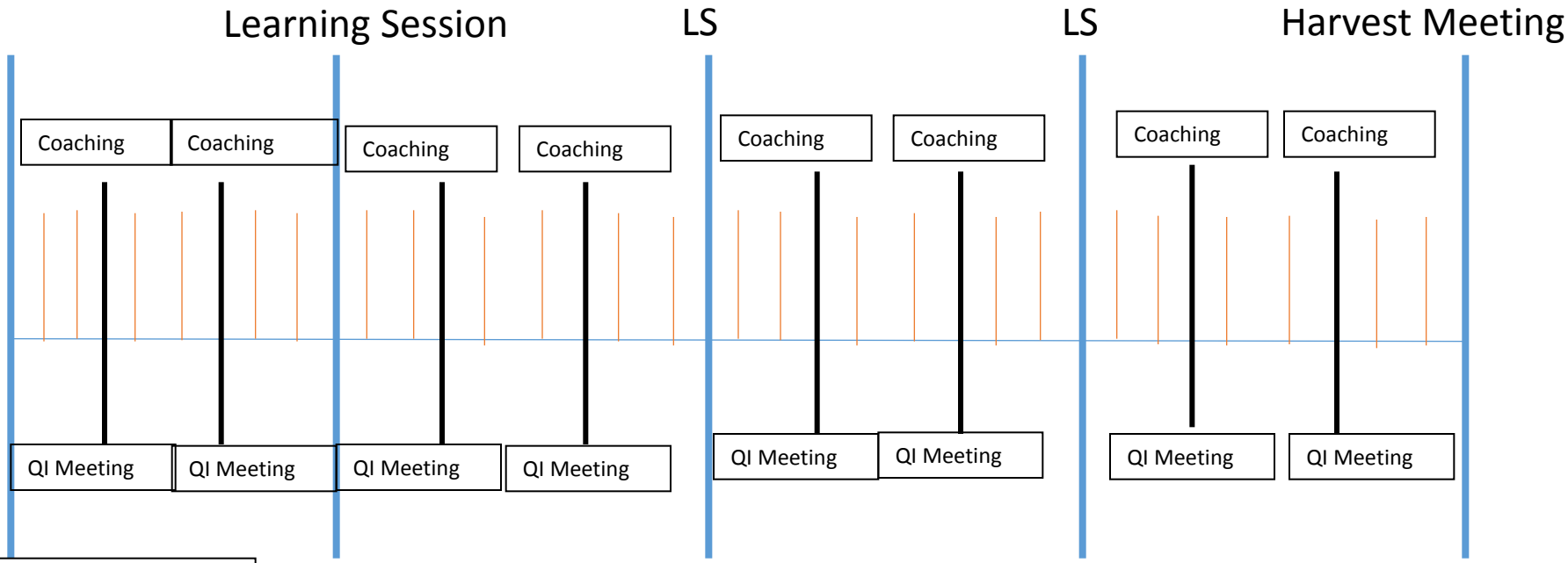
“Quality improvement is a journey of many small steps.”

Principle: Achieve continual improvement through small, incremental changes.

QI Implementation Activities Timeline

Coaches' training

Health facility in-charge training



Form QI team.

Train QI team.

Important QI Team Next Steps

- Go back to facility and debrief the facility.
  - On which day will this happen?
  - Date: ___
- Form the QI team. Who are the members? Send the names of the members to your sub-district head.
  - On which day will this happen?
  - Date: ___
- Only after the QI team members' names have been submitted to the sub-district, can the date for the QI team orientation be set.
  - This training is ONLY for QI team members.

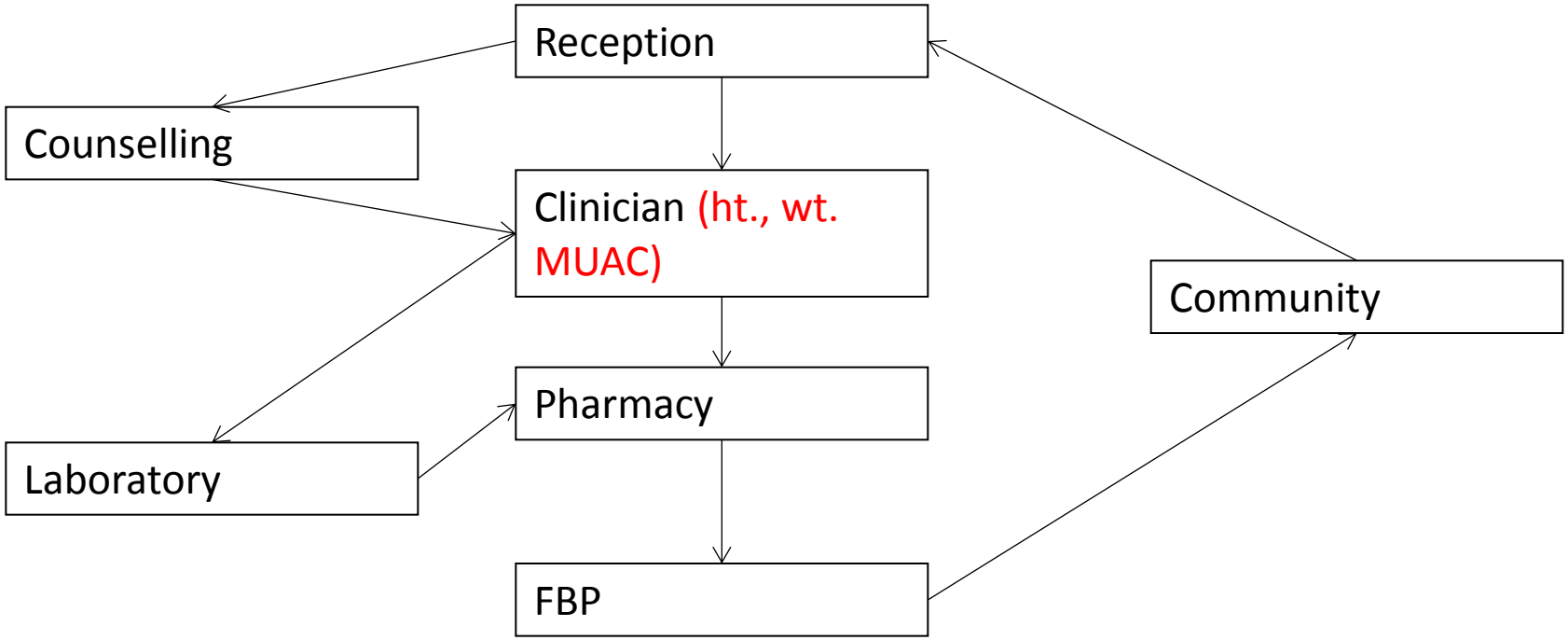
Elements of QI

- QI teams
- Coaches
- Monthly QI team meetings
- Testing improvements (PDSA cycle)
- Participate in learning sessions
- Documentation
- Develop change idea package

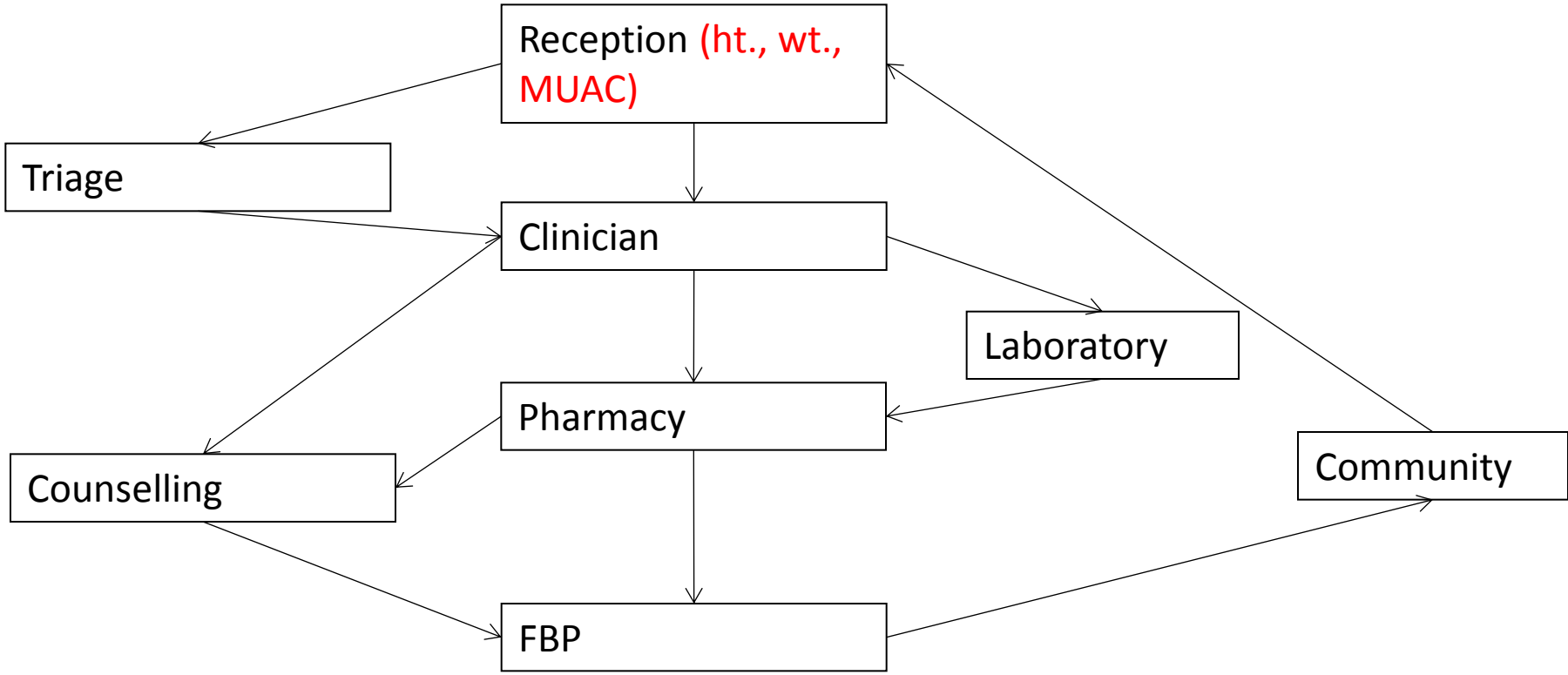
"Every system is perfectly designed to achieve exactly the results that it achieves."

- Performance is a *characteristic of a system.*
- To ***achieve a different level*** of performance, it is essential to ***make changes*** to that ***system*** in ways that permit it to ***produce better*** results.
- Poorly designed systems lend themselves to ***inefficiency*** and ***poor quality.***
- ***QI*** approaches ***identify unnecessary, redundant, or missing parts of processes*** and attempt to ***improve quality*** by ***clarifying*** and/or ***simplifying procedures***.
- Because not ***every change*** is necessarily ***an improvement,*** changes must be **tested** and ***studied*** to determine ***whether*** the change ***improves*** the quality of care.

PLHIV Flow Mapping Before QI Intervention



PLHIV Patients Flow after QI Intervention



Thank you!

For more information, please contact:

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