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**Ministry of Health, Community Development,
Gender, Elderly and Children**

**Training on Quality Improvement
of the HIV and AIDS Services**

Participant Manual

January 2017

**Training on Quality Improvement
of the HIV and AIDS Services**

**Ministry of Health, Community Development, Gender, Elderly, and Children
(MoHCDGEC)**

National AIDS Control Programme
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Acronyms and Abbreviations

AIDS	- Acquired Immune Deficiency Syndrome
ANCs	- Antenatal Clinics
ART	- Anti-Retroviral Therapy
ARVs	- Antiretroviral drugs
CBOs	- Community Based Organisations
CCHPs	- Comprehensive Council Health Plans
CD4	- Cluster of Differentiation 4
CHMT	- Council Health Management Team
CQI	- Continuous Quality Improvement
CQIT	- Council Quality Improvement Team
CQI-TQM	- Continuous Quality Improvement -Total Quality Management
CRHPs	- Comprehensive Regional Health Plans
DACC	- District AIDS Control Coordinator
DMO	- District Medical Officer
EPI	- Expanded Program on Immunization
FBOs	- Faith Based Organisations
GPA	- Global Program on AIDS
HBC	- Home Based Care
HBCT	- Home Based Counselling and Testing
HF	- Health Facility
HIV	- Human Immunodeficiency Virus
HSHAS	- Health Sector HIV and AIDS Strategy for Tanzania
HSHSP	- Health Sector HIV AIDS Strategic Plan
HTC	- HIV Testing and Counselling
IEC	- Information Education and Communication
IPOs	- Implementing Partner Organisations
IPs	- Implementing Partners
I-TECH	- International Training and Education Centre for Health
LGA	- Local Government Authority
LGAs	- Local Government Authorities
M&E	- Monitoring and Evaluation
MOHCDGEC	- Ministry of Health, Community Development, Gender, Edlerly & Children
MOHSW	- Ministry of Health and Social Welfare
MTP	- Medium Term Plan
NACP	- National AIDS Control Program
NCTP	- National Care and Treatment Plan
NEHSHIP	- National Essential Health Sector HIV Intervention Package
NGO	- Non-Governmental Organisation
NMSF	- National Multi-sectoral Strategic Framework
NQIT	- National Quality Improvement Team
OIs	- Opportunistic Infections
PDSA	- Plan Do Study Act
PITC	- Provider Initiated Testing and Counselling
PLHIV	- People Living with HIV

PMTCT	- Prevention of Mather To Child Transmission
QA	- Quality Assurance
QI	- Quality Improvement
RACC	- Regional AIDS Control Coordinator
RDHS	- Reproductive and Child Health Service
RHMTs	- Regional Health Management Teams
RIP	- Regional Implementing Partner
RMO	- Regional Medical Officer
RQIT	- Regional Quality Improvement Team
STIs	- Sexually Transmitted Infections
TACAIDS	- Tanzania Commission for AIDS
TB	- Tuberculosis
TQIF	- Tanzania Quality Improvement Framework
TQM	- Total Quality Management
TWG	- Technical Working Group
URC	- University Research Company
VCT	- Voluntary Counselling and Testing
WHO	- World Health Organisation
ZHRCs	- Zonal Health Resource Centres

Acknowledgments

Following the development of the National Guidelines for Quality Improvement of HIV and AIDS Services, November 2010, there was a need for a training package to facilitate and harmonize the training of health service providers at all levels of the health system to enable them to follow the Guidelines to implement and sustain Quality Improvement activities at health facility level country-wide. This training package that consists of a Facilitators Guide and Participants Manual is intended to serve as a guide for trainers with or without prior quality improvement experience in enabling trainees to acquire appropriate knowledge and skills in the implementation of Quality Improvement activities at the respective level of health service delivery.

The revision of the training package and participant manual on basic quality improvement of the HIV and AIDS services is based on the Tanzania Quality Improvement Framework (TQIF) as well the National Guidelines for Quality Improvement of HIV and AIDS Services. In addition, this training package has been customized to the Tanzanian situation by drawing lessons from experience gained during the field implementation of quality improvement for HIV and AIDS services, in collaboration with RHMT, CHMT and health facilities providing HIV and AIDS services.

The process of developing the training package for HIV and AIDS service has been coordinated by the National Aids Control Program (NACP), in collaboration with key stakeholders who provided technical and financial support to ensure successful completion of the package. The Ministry of Health, Community Development, Gender, Elderly and Children would like to register its appreciation to the University Research Company (URC) through USAID/ASSIST project under the support of the USAID's Bureau for Global Health, Office of Health Systems. Cooperative Agreement Number AID-OAA-A-12-00101 and the International Training and Education Center for Health (I- TECH) through the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under U91HA06801, International AIDS Education & Training Center for effectively covering the financial and technical support of the review of the package.

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Since it is not possible to mention everyone by name, the MoHCDGEC would also like to thank all those who contributed in one way or another in the preparation of this training package. A list of contributors has been provided in the Annexes.

Prof. Muhammad Bakari
CHIEF MEDICAL OFFICER

Introduction & Overview of the Course

This Participant Manual is intended to be one of the tools that will enable and guide participants in acquiring the appropriate knowledge and skills to implement Quality Improvement (QI) activities at different levels of the health care system. The Participants Manual contains all of the information presented in slides throughout the training workshop.

I. Course Objectives

By the end of this workshop, participants will be able to:

- Explain the concepts of quality in the health care setting
- Identify the principles of QI
- Explain roles and responsibilities of a leader in QI
- Describe the QI model

II. Course Background

This manual is intended to be one of the tools to guide trainees to acquire appropriate knowledge and skills in the implementation of Quality Improvement activities at the respective level of health care delivery.

This quality improvement training package was initially developed following the development of the National Guidelines for Quality Improvement of HIV and AIDS Services (November 2010). As the national guidelines have undergone updates, these training materials have been updated accordingly to their current version.

Health services in Tanzania are organized in four levels: national, regional, district and facility level. National and regional levels are involved in policy, coordination and guidance, while district and facility levels are responsible for direct implementation of the QI strategy. Each level has a critical role in ensuring efficient and effective running of the QI program.

1. National level

The MOHCDGEC aims at rapid rollout of Care and Treatment services hand in hand with ensuring quality services to those in need. As more implementing partners are introducing QI approaches for HIV and AIDS services, coordination becomes important to ensure uniformity, which calls for formulation of national policy guidelines.

2. Regional level

At the regional level, the RHMT and HIV and AIDS Implementing Partner Organizations (IPOs) will work together on QI activities in their Region. The RHMT, being the Government arm, will provide leadership to all stakeholders in QI activities connected to policy, coordination, advocacy and communication.

3. District level

Implementation of the health care policy has been decentralized to Local Government Authorities (LGAs). The day to day implementation of health services including QI is therefore the responsibility of CHMTs. In this regard, Councils have responsibility of ensuring availability of adequate resources for provision of quality health services.

4. Health Facility Level (Other Hospitals and Primary Health Facilities)

The roles and responsibilities of health facilities have been broadly described in intervention specific guidelines.

III. Course Evaluation

This course will be evaluated using daily evaluations and a written course evaluation completed by participants to provide feedback. Participants will also complete a pre-test and post-test, before and after the training.

IV. How can I learn most effectively in this course?

There are five important things that you can do as a participant to help create an effective learning atmosphere for yourself, all course participants, and trainers.

A. Help to build an atmosphere of trust and support

One of the best ways to help build an atmosphere of trust and support is to listen thoughtfully to the ideas of other participants and provide constructive feedback that will help improve the learning for everyone. Let someone know if they've said or done something that you like. You can also help a fellow participant or facilitator if you see he or she is having a challenging moment. The best learning takes place in a humane environment; help us to build one!

B. Maintain a positive attitude

There will be times during the course when you might say to yourself, "I'm so tired!" That's okay to say because you will be working hard and expending a lot of energy learning new things. But try to stay positive and productive as you participate in each session. Negativity does not support a quality learning environment.

C. Contribute to the learning of others

Participants are the most valuable resource in a training course. They help each other learn through sharing relevant work experiences and providing different perspectives. If you see yourself and your fellow participants as resources, you will learn so much more than if you rely solely on the course facilitators for learning the course content. Ask other participants questions, engage them in conversation, and consider sharing relevant examples from your own work experience.

D. Participate actively

A common assumption is that an active participant in a training course is someone who talks a lot. Not true! Participating actively actually requires more listening than talking. Looking at an individual as they are speaking, nodding your understanding, or using facial expressions that indicate "I'm listening" are active forms of listening.

Another way to actively participate in this training course is to contribute ideas during group exercises, answer questions posed by the trainers and ask your own questions of participants and trainers. In short, participating actively means that it is apparent to others that your brain is on and attentive to each session's activities.

E. Provide useful feedback at the end of the day

Because we believe that your perspective about how this course is progressing is crucial, we will ask you to give us feedback on each day's session. Your enjoyment, learning and understanding of the day's content will be the focus of this feedback and should not take you long to complete. Please do provide us with this feedback so that we can monitor and evaluate the progress of the course. Thank you!

Timetable for the Training on QI of the HIV & AIDS Services

DAY 1: MC _____

Time	Topic/Content	Facilitator(s)
08:00 – 09:00	Registration and Welcome Remarks	
09:00 – 09:45	Session 0: Introduction, Expectations, Goals and Agenda, Course Overview	
09:45 – 10:15	Pre-Test	
10:15 – 10:45	TEA	ALL
10:45 – 11:45	Session 1.1: Managing Change	
11:45 – 13:15	Session 1.2: Concepts of Quality in Health Care	
13:15 – 14:15	LUNCH	ALL
14:15 – 16:30	Session 1.3: Dimensions of Quality	
16:30-16:15	Daily Evaluation	PARTICIPANTS
16:15 – 16:30	TEA BREAK	ALL
16:30 – 17:00	Facilitators Meeting	FACILITATORS

DAY 2: MC _____

Time	Topic/Content	Facilitator(s)
08:00 – 08:45	Recap of Day 1: <ul style="list-style-type: none"> Respond to issues/questions from daily evaluation Secretariat Report of Day 1 	MC
08:45-09:00	Session 2.0: Introduction to Quality Improvement Principles	
09:00-10:30	Session 2.1: Principles of Quality Improvement 1: Client Needs and Expectations	
10:30 -11:00	TEA	ALL
11:00-12:15	Session 2.2: Principles of Quality Improvement 2: Communication & Feedback	
12:15-13:15	Session 2.3: Principles of Quality Improvement 3: Focus on Team & Team Work, Steps 1-2 (continues after lunch)	
13:15 – 14:15	LUNCH	ALL
14:15-15:15	Session 2.3: Principles of Quality Improvement 3: Focus on Team & Team Work, Steps 3-7 (continued from before lunch)	
15:15-16:15	Session 2.4: Principles of Quality Improvement 4: Focus on Measurements of Quality in Health Care, Steps 1-5 (continues on next day)	
16:15 – 16:30	Daily Evaluation	PARTICIPANTS
16:30 – 16:45	TEA BREAK	ALL
16:45– 17:15	Facilitators Meeting	FACILITATORS

DAY 3: MC _____

Time	Topic/Content	Facilitator(s)
08:00 – 08:45	Recap of Day 2: <ul style="list-style-type: none"> Respond to issues/questions from daily evaluation Secretariat Report of Day 2 Cabbage Ball Review 	MC
08:45-10:35	Session 2.4: Principles of Quality Improvement 4: Focus on Measurements of Quality in Health Care, Steps 6-10 (continued from Day 2)	
10:35– :11:05	TEA	ALL
11:05 -13:05	Session 2.5: Principles of QI : 5: Focus on Systems and Processes, Steps 1-4 (continues after lunch)	
13:05– 14:05	LUNCH	ALL
14:05-15:50	Session 2.5: Principles of QI : 5: Focus on Systems and Processes, Steps 5-6 (continued from before lunch)	
15:50-16:05	Daily Evaluation	PARTICIPANTS
16:05-16:20	TEA BREAK	ALL
16:20-16:50	Facilitators Meeting	FACILITATORS

DAY 4: MC _____

Time	Topic/Content	Facilitator(s)
08:00 – 08:45	Recap of Day 3: <ul style="list-style-type: none"> Respond to issues/questions from daily evaluation Secretariat Report of Day 3 Post-It Review 	MC
08:45-11:00	Session 3.1.1: Quality Improvement Model	
11:00 – 11:30	TEA	ALL
11:30-12:30	Session 3.1.2: Quality Improvement Approaches	
12:30-13:15	Session 3.1.3: QI Documentation: Standard Evaluation System (SES)	
13:15– 14:15	LUNCH	ALL
14:15-15:30	Session 3.1.4: Leadership, Roles & Responsibilities of QI Teams at Different Levels	
15:30 – 16:30	Session 3.2.1: Preparations & Implementation of the practicum	
16:30-16:45	Daily Evaluation	PARTICIPANTS
16:45-17:00	TEA BREAK	ALL
17:00-17:30	Facilitators Meeting	FACILITATORS

DAY 5: MC _____

Time	Topic/Content	Facilitator(s)
08:00 – 08:15	Recap of Day 5: <ul style="list-style-type: none">• Respond to issues/questions from daily evaluation	MC
08:15 – 08:45	TEA	ALL
08:45 – 13:30	Practicum: Visit to the Health Facility for Practical Session Location: Health Facility	
13:30 – 14:30	LUNCH	ALL
14:30 – 15:00	Practicum Debrief: Summaries the problem identification and analysis and provide feedback to facility Location: Health Facility	
15:00 – 15:30	Post-Test	
15:30 – 16:00	Final Course Evaluation & Facilitators mark post-tests	PARTICIPANTS
16:00 – 16:15	Discussion of Post-Test Results	
16:15 – 16:45	Workshop Closing	
16:45 – 17:00	TEA BREAK	ALL
17:00 – 17:30	Facilitators Meeting	FACILITATORS

Training on Quality Improvement of the HIV and AIDS Services

Session 0: Welcome and Overview Training on QI of the HIV and AIDS Services



Total Session Time: 45 minutes (plus 30 minutes for pre-test)

Session Aim

To provide overview of the of the quality improvement training and create a positive learning environment. Participants will also take the pre-training assessment during this session.

Session Learning Objectives

By the end of this session, you will be able to:

- Explain the goals, objectives, purpose, process and logistics of the training

Overall Training Goal

The goal is to enable the service providers to plan, conduct, monitor and evaluate the HIV and AIDS services in accordance with the National Quality Improvement Guidelines. The training aim at improving knowledge, skills and altitude of services providers to plan and implement improvement interventions.

Overall Training Objectives

By the end of this training, participants will be able to:

- Explain the change concept and change management principles
- Explain the concepts and dimensions of quality in Tanzania health care setting
- Describe roles and responsibilities of a leader in quality improvement
- Describe roles and responsibilities of the national, regional, district and health facility in quality improvement
- Explain the principles of quality improvement
- Describe the quality improvement model
- Identify the national essential health sector HIV and AIDS interventions indicators
- Develop a QI work plan for implementation of QI activities at respective work places

Training Structure:

The training will last five (5) days, structured as follows:

- Theory 32 hours (4 days)
- Practical 08 hours (1 day)
- Total 40 hours (5 days)

Training Content

The training programme is organised into 3 units which will cover the following units with sub-sessions:

- Unit 1: Overview of Quality Improvement in Tanzania
- Unit 2: Quality Improvement and its Principles
- Unit 3: Quality Improvement Model and Approaches

Teaching Methods and Materials

The training will incorporate a number of teaching methods that are designed to appeal to a variety of learning styles which align with adult learning principles. Methods include many interactive activities designed to build QI skills. They include:

- Brainstorming
- Lecture discussion
- Small and large group discussion
- Case studies
- Individual assignments
- Role plays
- Buzzing
- Practicum

Practicum Objectives

During practicum training, trainees will be guided to perform procedures following objectives:

- Identify problems for HIV and AIDS services
- Analyse problems
- Develop and document changes
- Test and implement changes, as guided by the Standard Evaluation System (SES)
- Complete a matrix with tested changes
- Provide feedback for tested changes

Training Outcomes

The training output will include the following:

- Increased knowledge of QI principles and approaches
- Increased knowledge on establishing of QI teams at national, regional, districts and facility level to implement Quality Improvement activities.
- Developed feasible work plan for implementation of Quality Improvement activities in their workplace

Parking Lot

The “parking lot” is a way of acknowledging and recording discussion themes or ideas that might take too much time to fully address during the training or are related to but are not critical to the training goal/objectives. In other words, the parking lot is a place to put or “park” items such as questions, concerns, topics that:

- Require extra time
- Require follow-up
- Are related to the training but not critical
- Could be addressed in a later session
- Can be dealt with during health breaks, in the evening or at the end of the training

A piece of flip-chart paper will be posted at the front of the room. Participants may write interesting topics or questions on the flipchart paper, which will sit “in the parking lot” until time is available to discuss them. Once a “parking lot” topic has been addressed, it will be crossed off the list. Depending on the topics/questions posted and training schedule, some topics may not be fully addressed.

Ground Rules

Ground rules for the training will be suggested and agreed upon by the participants to ensure a positive learning environment. Ground rules are expectations of both the participants and trainers on how everyone can help the training go smoothly and meet the course objectives.

Leadership

A chairperson, secretariat and time keeper will be selected by the group. The chairperson will represent the group to trainers and organisers. The secretariat will take brief notes on important elements such as questions and responses. The timekeeper will be responsible for alerting the trainers and/or organisers at agreed upon intervals throughout the sessions to ensure that the timetable is adhered to.

Timetable and Materials

A timetable is included in Annex 5 in the participant manual. The participant manual includes all of the course material presented in the slides, activities, handouts, learning objectives and key points. These manuals are yours to keep, so you may write in it if you wish. Participants are encouraged to take notes.

Assessment

Participants will have the opportunity to provide feedback on the training daily and at the end of the training. Daily feedback will be requested using a daily evaluation form, and overall feedback will be requested using an end of training evaluation form.

Participants will also take pre- and post-training assessments to measure knowledge gained from participating in the training. The pre-test is a set of questions given to participants before the training begins in order to determine their knowledge level of the course content. After completion of the course, participants are given a post-test to answer the same set of questions, or a set of questions of comparable difficulty. Comparing participants' post-test scores to their pre-test scores enables us to see whether the training was successful in increasing knowledge of the training content.

Key Points

- Your effort and input into this process are crucial to achieving the overall goal of the training
- You have much to share with others
- Commitment to this work is very important
- Facilitators and organisers are available to assist and respond to questions at every step of the process

Unit 1: Overview of Quality Improvement in Tanzania

Session 1.1: Managing Change



Total Session Time: 1 hour

1.1.1 Learning Objectives

By the end of this session, participants will be able to:

- Define change, change concept and change management
- Explain the benefits and principles of change management
- Describe reasons for resistance to change
- Explain possible responses to change
- Describe different approaches to introduce and manage change successfully

Introduction

As this is a training on Quality Improvement, it is important to note that the word “improvement” implies change, and change can be difficult or challenging for many reasons. In order to make improvements, therefore, it is important for all involved to understand change, peoples’ reactions to change, and how to help people accept change gracefully. The ability to develop, test, and implement changes is essential for any individual, group, or organisation that wants to continuously improve.

1.1.2 Change, Change Concepts and Change Management

Definition of Change:

Change is when something stops being what it is and becomes something different.

Change is a process, not a single event and it occurs naturally in organisations and in our personal lives. It is normal, inevitable, constant, and can be managed so as to achieve desirable results. We must participate in change, or we will become a victim of it.

How Change Occurs

- **Change by exception:** This is where we allow exceptions to our beliefs but do not change our beliefs. For example, when we meet someone who does not fit our stereotypes, we classify them as being an exception to the rule.
- **Incremental change:** Introduction of small gradual changes that occur before we become aware of it: usually, a collection of small changes that ultimately alter our belief systems. For example, a teacher may have started using technology with an attitude of resistance and disregard, but gradually changes to a point where technology becomes an indispensable tool in her practice.
- **Pendulum Change:** This is when an extreme point of view is exchanged for its opposite. An example is the change from Analogue to Digital (from TV to Cellphones and from paper base to the computer).
- **Paradigm Shift:** This is a fundamental change in the basic of experimental practices of scientific discipline. An example is the shift from use of Landline phones to mobile phones.

Change concepts are general approaches to change used to stimulate ideas and steps that may lead to improvement. Ideas are then tested on a small scale to see if they result in improvement. If they do, tests are then expanded and larger samples are gradually incorporated until you are confident that the changes should be adopted more widely.

Examples of change concepts and ideas on how to change/improve

- **Manage Time:** focus on reducing patient waiting time (introduce block system, triage)
- **Eliminate Waste using 5s:** waste is considered as any activity or resource that does not add value to an external client
- **Improve Work Flow:** ensuring processes are optimally planned and prioritised
- **Error Proofing:** redesigning the system to make errors less likely

Change Management

Change Management is a process that aims to ensure changes are thoroughly and smoothly implemented and the benefits of change are sustained. It is a sequence of activities focusing on the wider impacts of change on people and how they, as individuals and teams, move from the current situation to a new one.

Successful change involves ensuring employees’ capacity to adapt to and work effectively and efficiently in the new environment. The underlying basis of change management is that people’s capacity for change can be influenced by how change is presented to them. Their capacity to adapt to change can shrink if they misunderstand or resist the change, causing barriers and ongoing issues. The rationale is that if people understand the benefits of change, they are more likely to participate in the change and see that it is successfully carried out, which in turn means minimal disruption to the organisation.

1.1.3 Benefits and Principles of Change Management

Benefits of Change Management

The change management is that it provides conceptual framework for people, the process, and the organisation implementing change. The benefits of change management are categorized as individual and organisational.

Benefits of Change Management for <u>Individuals</u>:	Benefits of Change Management for the <u>Organisation</u>:
<ul style="list-style-type: none"> • Effective change management supports a smooth transition from the old to the new while maintaining morale, productivity, and even company image • Provides management and staff support for concerns regarding changes • An efficient change management process creates the correct perception of the change for staff and public • Helps to plan efficient communication strategies • One of the benefits of change management is that it minimizes resistance to change • Improves morale, productivity and quality of work 	<ul style="list-style-type: none"> • Change is a planned and managed process. The benefits of the change are known before implementation and serve as motivators and assessment of progress • The organisation can respond faster to customer demands • Helps to align existing resources within the organisation • Change management allows the organisation to assess the overall impact of a change • Change can be implemented without negatively effecting the day to day running of business • Organisational effectiveness and efficiency is maintained or even improved by acknowledging the concerns of staff

Benefits of Change Management for <u>Individuals</u>:	Benefits of Change Management for the <u>Organisation</u>:
<ul style="list-style-type: none"> • Improves cooperation, collaboration and communication • A carefully planned approach to change reduces stress and anxiety and encourages people to stay loyal to the organisation • Increased employee acceptance of the change • Personal loss/gain to individuals is acknowledged and addressed • Change management reduces disruptive aspects and emphasises positive opportunities in the change process • Promotes effective communication through collaboration and use bottom up and improve feedback mechanism. • Reduce conflict through well-defined job descriptions, using effective communication skills. 	<ul style="list-style-type: none"> • The time needed to implement change is reduced • The possibility of unsuccessful change is reduced • Employee performance increases when staff feel supported and understand the change process • Increased customer service and effective service to clients from confident and knowledgeable employees • Change management provides a way to anticipate challenges and respond to these efficiently • An effective change management process lowers the risk associated with change • Managed costs of change: change management helps to contain costs associated with the change • Increased return on investment (ROI) • Creates an opportunity for the development of "best practices", leadership development, and team development • Strengthen the team through effective change management supports a smooth transition from the old to the new while maintaining morale, productivity and even company image, • Improve cooperation, recognition, respect, efforts, Ideas from others and trust. • Improve decision making: by focusing on the facts instead of the personal deficiencies. • creates an opportunity for the development of best practices ,leadership and team work • Times needed to implement change is reduced

Other benefits of change management

- Careful planning helps to ensure that the change process is started and managed by the right people at the right time
- Planned change management allows you to include specific tasks and events that are appropriate for each stage in the change process
- Change management ensures that customers, suppliers and other stakeholders understand and support the change

Change Management Principles

1. Always involve and garner agreement and support from people within the system
2. Understand where the organisation or individual is at the moment
3. Understand where you want to be, when, why, and how to get there
4. Plan appropriate achievable measurable steps to get there

5. Communicate, involve, enable and facilitate involvement from people, as early, openly and as fully as is possible

1.1.4 Reasons for Resistance to Change

Factors affecting response to change

Responses to change can range from fear and panic to enthusiastic support, and understanding why people respond to change so differently can help in designing an appropriate change strategy:

- Method of introducing the change
- Personality factors
- Group factors
- Organisational factors

Why People Resist Change

There are typical barriers in every organization that inhibit implementation of change – even change brought about due to exposure to new theories, philosophies and concepts. As we seek to implement change, we must recognize and address these barriers.

There are three main factors:

1) **Background:**

When *background* is the primary factor, people:

- a. Do not believe there is a problem
- b. Believe and accept as true only what one has been taught
- c. Worry that things may get worse with change
- d. Based on what they know, people really believe the change is a BAD IDEA

2) **Experience**

When *experience* is the primary factor, people:

- a. Feel comfortable with how things have always been done
- b. Worry why the people wanting change are doing this
- c. Worry leadership will not support them

3) **Knowledge**

When *knowledge* is the primary factor, people:

- a. Fear they lack the knowledge and skills to make the change
- b. Do not understand what you are trying to do
- c. Don't have role models or teachers for the new activity

Other Reasons...

- Doubt-have tried to make changes in the past and nothing worked
- Fear-lose position, status or quality of working life
- Overwhelmed, overloaded, no time
- Lack of incentive
- It will take more resources and they really do not have them
- Conflict: resistance to person asking for change

What is going on in the illustrations below? Consider some possible explanations:



Things We Hide Behind . . .



Rather Than Change!

1.1.5 Managing Responses to Change

The Human Side of Change

It is important to:

- Understand how people interact with each other and within a system
- Predict how people will react to a specific change and how to gain commitment
- Understand the motivations of people and their behaviour

Managing Responses to Change

Responses to change vary from ready acceptance to full-blown resistance. These are general ways to manage different responses to change:

- **Denial:** Need to send frequent clear and consistent messages, need to listen actively to determine reasons for resistance
- **Acceptance** and further innovation: educate, empower, encourage participation, negotiation and innovation
- **Commitment:** provide guidance, support, recognition and frequency of feedback on progress

Change Management Styles

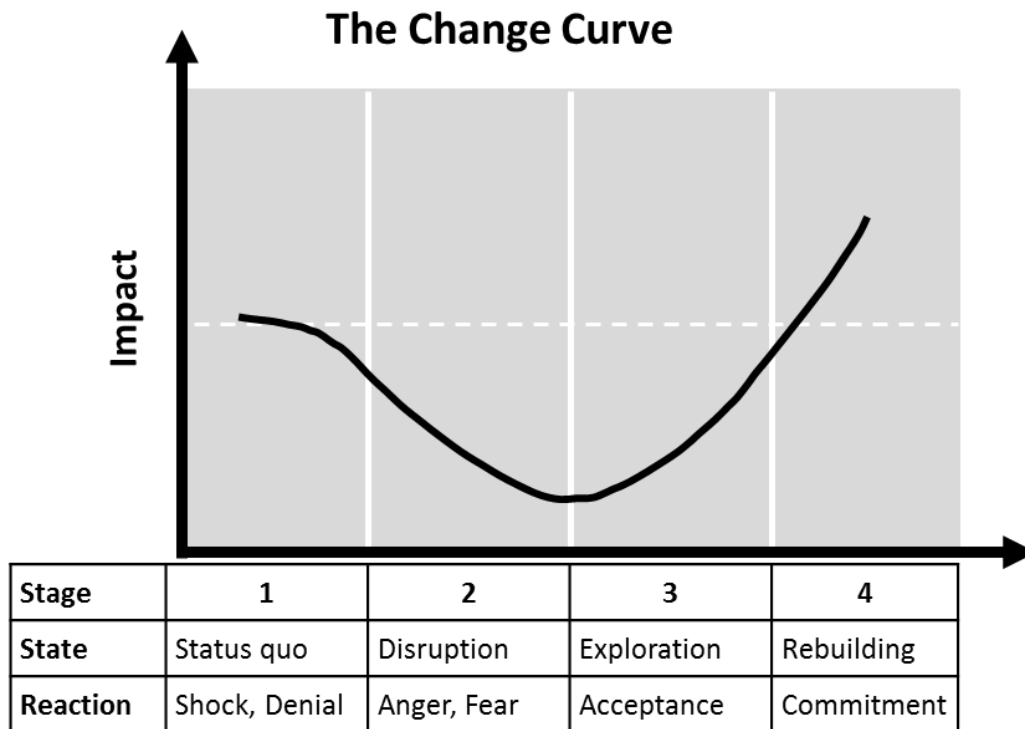
There are different change management styles. Facilitating and coaching styles result in high commitment and compliance compared to custodian and enforcement styles. However, the four change management styles when used together complement each other.

Need for Commitment	High	Facilitating Style Favorable Situations: <ul style="list-style-type: none"> • Long change lead time • Competent Followers • Followers promote change 	Coaching Style Favorable Situations: <ul style="list-style-type: none"> • Where both commitment & compliance are important for implementation
	Low	Custodial Style Favorable Situations: <ul style="list-style-type: none"> • Highly experienced Followers • Highly motivated Followers • Highly dependable Followers 	Enforcement Style Favorable Situations: <ul style="list-style-type: none"> • Emergencies • Tight deadlines • Inexperienced Followers
		Low	High
		Need for Compliance	

Source: Vance, Greg

Change Curve

The picture below shows that if people resist the change and remain at stage 2 of the Change Curve, the change will be unsuccessful, at least for the people who react in this way. This is a stressful and unpleasant stage. For everyone, it is much healthier to move to stage 3 of the Change Curve. Stage 4 is where changes start and people embrace the improvements.



Source: E. Kubler-Ross

1.1.6 Approaches to Introducing and Managing Change Successfully

Manage change successfully by:

- Making people part of the solution
- Looking for fundamental (unspoken) assumptions and beliefs behind decisions and actions taken
- Appreciating differences in people
- Understanding the value of teams and that cooperation rather than competition is necessary if changes are to be successful
- Recognising intrinsic motivation (curiosity, self esteem, dignity) over extrinsic (competition, focus on individual)
- Sharing information
- Understanding that we usually have bad systems, not bad people

Approaches to Implementing a Change

Approach	In which situations	How to use	Advantages	Drawbacks
Education and communication	Where there is a lack of information or inaccurate information and analysis	Communicate the designed changes and reasons to them	Once persuaded, people will often with the implementation of the change	Can be very time consuming if lots of people are involved
Participation and involvement	Where the initiators do not have all the information they need to design the change, and where others have considerable power to resist	Involve potential resisters in designing and implementing the change	People who participate will be committed to implementing change, any relevant information they have will be integrated into the change plan	Can be very time consuming if participators design an inappropriate change.
Negotiation and agreement	Where someone or some groups will clearly lose out in a change, and where that group has considerable power to resist	Offer incentives for making the change	Sometimes it is relatively easy way to avoid major resistance	Can be too expensive in many cases if it alerts others to negotiate for compliance.
Power	Threaten loss of jobs or promotions opportunities; fire or transfer those who can't or won't change	Speed is essential and change initiators possess considerable power	It works quickly and can overcome any kind of resistance	Can spark intense resentment toward change initiators

Attracting People to Change

Everett Rogers proposed 5 attributes of a change that facilitate adoption. Focusing on these attributes can make change seem more appealing.

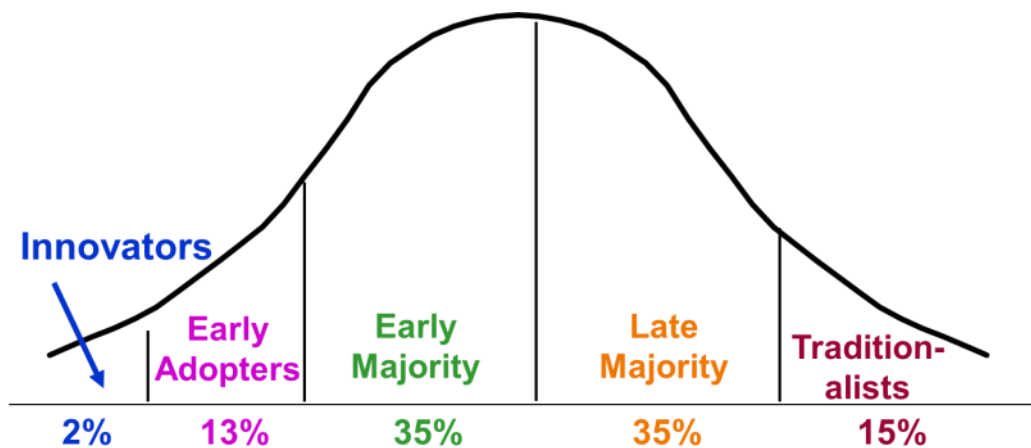
1. "What's in it for me?" (e.g, the relative advantage of the change over other changes or the status quo)
2. Compatibility with current culture and values
3. Minimal complexity in explaining the change
4. Allowing people to try and test the new change
5. Opportunities for people to observe the success of the change for others

Adopting Change

The image below is based on Everett Rogers' model called "Diffusion of Innovation".

For adoption of the idea to spread, we have to:

- Get from innovators into early adopters—and perhaps a bit further
- Early adopters will talk to innovators
- Early majority will talk with early adopters
- Late majority want to wait and see
- Laggards-historians (not all bad...DDT pesticide use had laggards who would not use it because they saw birds die)
- Who do we hope to see at a QI collaborative? Early adopters!



1.1.7 Key Points

- **Change** is when something stops being what it is and becomes something different
- **Change concepts** are general ideas used to stimulate specific actionable steps that lead to improvement
- **Change management** is the process to ensure changes are thoroughly and smoothly implemented and the benefits of change are sustained
- The three main factors for **resistance to change**: Background, Experience and Knowledge
- To manage change successfully, it is important to:
 - Focus on messages that attract people to change
 - Understand how people interact with each other and within a system
 - Predict how people will react
 - Understand motivations of people

Session 1.2: Introduction to Concepts of Quality in Health Care



Total Session Time: 1 hour 30 minutes

1.2.1 Learning Objectives

By the end of this session, you will be able to:

- Define quality and quality of care
- Define standards and guidelines
- Differentiate between quality assurance and quality improvement
- Explain the rationale for improving quality of care in HIV and AIDS services

1.2.2 Quality and Quality of Care.

What is QUALITY?

Quality is a way to describe a product or service according to set standards, specifications or expectations. The notion of “high quality” has been associated with terms such as excellence, superiority, high caliber, value and worth. Quality is a complex and multidimensional concept and therefore has been defined in many ways, using different terms, labels and models; the choice of which definition depends on intended use. Quality is also subjective, meaning that it is opinion-based and therefore means different things to different people.

Experts around the world have for years struggled to formulate a single, concise, generally applicable definition of the quality of health care. There are now several definitions which differ in their emphasis on quality of life, delivery of services and components of care as components of quality only because quality is a multi- faceted concept. In 1990, the Institute of Medicine (IOM) in the USA arrived with one definition after considering over 100 definitions of quality from the literature. This definition appears more often in discussions about quality of medical care. IOM defines it as follows:

“**Quality of care** is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.”¹

Quality of care denotes a degree of performance in relation to a defined standard of interventions known to be safe and have the capacity to improve health within available resources. It denotes accessible and effective care delivered in compliance with evidence-based standards, that meets clients’ needs. An example is upon early diagnosis of HIV infection in pregnancy, ART is initiated which leads to HIV-negative children.

For people living with HIV (PLHIV), quality of care may manifest itself as effectiveness of care (such as reduction of opportunistic infections, weight gain, resumption to work), respect and compassion from caregivers, clarity and relevance of information given, ease of use of facility (friendliness of support staff, short waiting time, cleanliness of facility, etc.) and

¹ Lohr KN. 1990. Medicare: A Strategy for Quality Assurance. Washington, DC: Natl. Acad. Press

confidentiality. For their families, partners and friends, quality can mean the same as above and confidence that their loved one is well cared for.

In simple terms, quality of care is:

- Doing the right things (what) - applying correct interventions to meet customer needs
- To the right people (to whom)
- At the right time (when) and
- Doing things right first time applying correct processes, efficiently and on time (using set standards).

The concept of right things right as regards to quality of care can be elaborated using an example of laboratory services in a health facility:

Right things Right

Collect blood sample appropriately, put it in the right container, label it correctly and submit to lab on time. The lab test will be conducted correctly and as requested, and the results sent to clinic on time

Right things Wrong

Collect blood sample appropriately, put it in the right container, label it correctly, **but** left it on the table till next day. Fill out correct form, **but** provide inaccurate information

Wrong things Right

Conduct wrong lab test, but conduct it correctly. Fill out incorrect form, but provide accurate information

Wrong things Wrong

Conduct wrong laboratory test, and conducted it incorrectly. Filled out incorrect form, and provided inaccurate information

1.2.3 Standards and Guidelines

Quality of health care is also associated with: compliance with the current GUIDELINES and achieving set STANDARDS of care.

Guidelines

Guidelines are a detailed collection of policies or procedures by which to determine a course of action or service provision. They provide guidance in setting standards, and act as a set of rules or principles that provide guidance for appropriate conduct. In health care, guidelines refers to a recommended practice in health care provision or set of standards according to which certain services should be provided in order to obtain the expected results.

Examples:

- National Guidelines for the Clinical Management of HIV and AIDS
- National Guidelines for Quality Improvement of HIV and AIDS Services

¹ Lohr KN. 1990. Medicare: A Strategy for Quality Assurance. Washington, DC: Natl. Acad. Press
Facilities should work according to national guidelines for clinical Management of HIV and AIDS, which should always be available on site. Staff should have also received orientation to appropriate guidelines as part of their initial training.

Standards

A standard of care is a formal diagnostic and treatment process a healthcare provider will follow for a patient with a certain set of symptoms or a specific illness. That standard will follow guidelines and protocols that experts would agree with as most appropriate, also called “best practice.” Standards also refer to a statement of “desired” and “achievable” performance of health care intervention which serves as a reference point for evaluation.

- A standard is defined as an explicit predetermined expectation set by a competent authority that describes an organisation’s acceptable performance level. (An implicit standard can be described as a practice that is simply “understood.”).
- Standards are usually set by professional societies health care organisations, panels of experts or governments.
- A standard is an agreed-upon, repeatable way of doing something through a set of technical specification or other precise criteria designed to be used consistently as a rule, guideline, or definition. Standards help to increase the reliability and the effectiveness of the goods and services we use.

Examples:

- All HIV exposed infants should be initiated on cotrimoxazole starting at the age of 4 weeks.
- All health care workers wear gloves when drawing blood.

Use of Standards

Standards are used to objectively measure an organisation’s performance. When the organisation performs to the minimum level of desired standards, it will be awarded a license that allows it to deliver the services. As performance improves to the maximum level of Standards as objectively measured, it will be Certified or Accredited for meeting the highest expected standards.

Standards describe explicitly who should be doing what, in which way, at which level of the health system at what time and the expected output.

Examples:

For provision of HIV services, the following standards should be observed:

- All HIV exposed infants should be initiated on CTX at the age of 4 weeks
- All HCW wear gloves when drawing blood
- All providers trained for provision of HIV care according to National Guidelines
- Facility with rooms that provide for privacy
- Confidential record keeping
- Facility to have the capacity to conduct HIV screening
- Care provided must include counselling, testing and adherence counselling

² Ministry of Health and Social Welfare, National Guidelines for Quality Improvement of HIV and AIDS Services, The National AIDS Control Programme (2010)

1.2.4 Quality Assurance and Quality Improvement

Quality Assurance (QA)

Quality assurance is the routine maintenance of a desired level of quality by means of attention to every stage of the process of service delivery or production. QA is a systematic and planned approach to monitoring and evaluating the quality of services on a continuous basis. QA should be considered as an integral management component of any health service organisation. It refers to the oversight process, including the adherence to standards and guidelines.

Quality Improvement (QI)

Quality Improvement is “a systematic process of assessing performance of a health system and its services, identifying gaps and causes, and introducing measures to improve quality and monitoring the impact”. Quality improvement is about using what is already known (scientific evidence) and innovations to transform how healthcare is delivered in local settings for better health outcomes. It is the process of intentionally making care better (effectiveness, efficiency), with the ultimate goal of improving health outcomes for health care clients.

Quality Improvement principles and tools provide an opportunity for continuously improving the quality of care by improving processes of care within local settings while ensuring needs of all clients are met and standards are adhered.

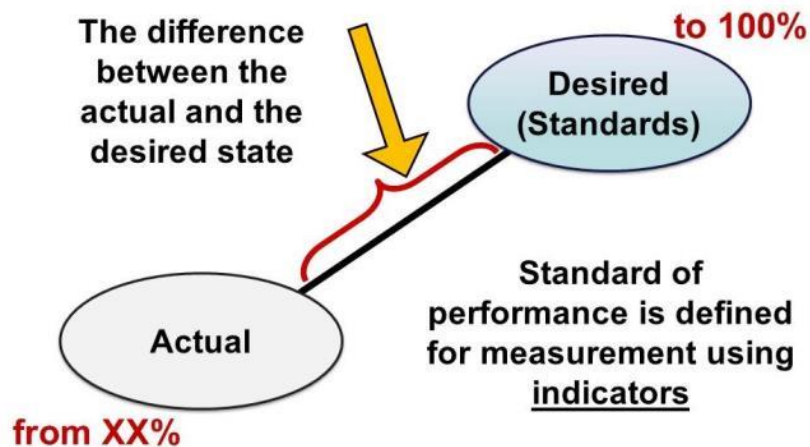
The essence of quality improvement is:

- Systematic assessment of quality by using data to measure current performance, comparing with expected standards and identifying quality gaps and opportunity for improvement
- Designing and testing small changes that will hopefully lead to improvement
- Monitoring the effect of the change to determine if there is adequate improvement
- Using the feedback from the data and its analysis to improve processes to provide better quality services on a larger scale

Key elements in quality improvement in health service organisations include:

- Build organisational commitment to quality
- Focus on the client/service user
- Find ways to measure quality
- Involving health care workers in the processes of improving quality
- Identify inefficiencies or failures and trace them to their source
- Work closely with referral agencies and other suppliers
- Design service processes with simplicity and client focus in mind
- Improve coordination and collaboration between different functions in the organisation

Opportunity for Improvement:



The diagram above illustrates how/where:

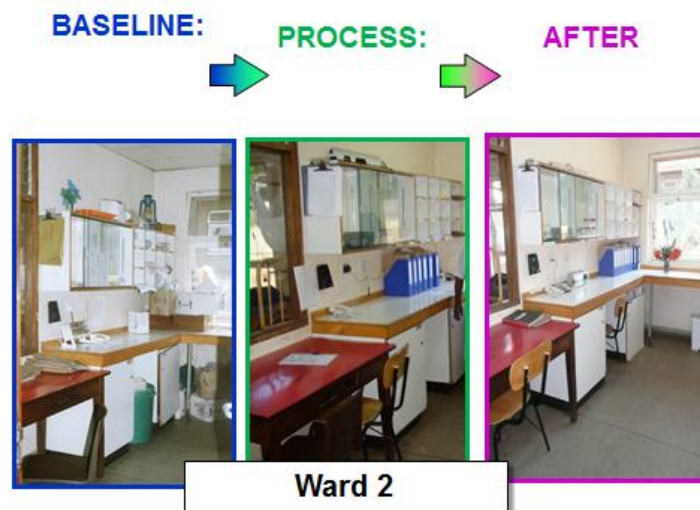
- Measurement of quality of health services allows actual performance to be compared to standards, guidelines and best practices
- Performance gaps and causes are identified
- Quality improvement interventions are introduced to bridge the performance gap
- Quality indicators are used to monitor changes or improvements

1.2.5 Rationale for Quality Improvement in HIV and AIDS Services

Quality Improvement aimed at making changes in health care system. The rationale for implementing QI is to ensure efficient process design given:

- Continuously increasing complexity of interventions due to:
 - Changes of health care environment
 - Medical technology advances
- Transition to integrated health care delivery system
- Emergence of new interventions
- Scale up of HIV and AIDS interventions
- Increased compliance with evidence-based protocols and guidelines
- Increased staff motivation and patient satisfaction
- Increased efficiency (better use of resources, increased productivity)
- Reduced number of medical errors
- Reduced cost of care
- Increased health status of the population

Examples of Quality Improvement initiatives:



1.2.6 Key points

- **Quality** is a way to describe a product or service according to standards or specifications
- **Quality of care** is the *degree to which health services* for individuals and populations increase the likelihood of *desired health outcomes* and are consistent with *current professional knowledge*
- **Guidelines** are a detailed collection of policies or procedures by which to determine a course of action or service provision
- **Standards** are explicit predetermined expectations set by a competent authority that describe acceptable performance level
- **QI** is a systematic process of assessing performance of a health system and its services, identifying gaps and causes, and introducing measures to improve quality and monitoring the impact
- QI helps ensure efficient process design given increasing complexity of interventions, and scale-up of HIV and AIDS interventions

Session 1.3: Dimensions of Quality



Total Session Time: 2 hours 15 minutes

1.3.1 Learning Objectives

By the end of this session, you will be able to:

- List the 9 dimensions of quality
- Describe the 9 dimensions of quality
- Cite examples for each dimension of quality
- Link the dimensions of quality to service delivery

1.3.2 Introduction and Definition of Dimensions of Quality

In health care, dimensions of quality refer to aspects of care or service provided to clients which individually or together contribute to the framework within which the quality of services provided can be judged. Various dimensions of quality have been developed from the technical literature and synthesise ideas from various Quality Improvement experts. Together, they provide a useful framework that helps health teams to define, analyse, and measure the extent to which they are meeting facility standards for clinical care and for management services that support service delivery.

Dimensions of Quality

The following nine dimensions of quality, when considered during health care service delivery are known to contribute to better client outcomes as well as patient satisfaction.

1. Technical performance
2. Effectiveness of care
3. Efficiency of service delivery
4. Safety
5. Access to service
6. Interpersonal relations
7. Continuity of services
8. Physical infrastructure and comfort
9. Choice of services

While all of these dimensions are relevant in health care service delivery, not all nine deserve equal weight in every healthcare intervention or are applicable in every country. Each should be defined according to the local context and specific health intervention programs. An elaboration on each of the nine dimensions is provided below with examples relating to the local context.

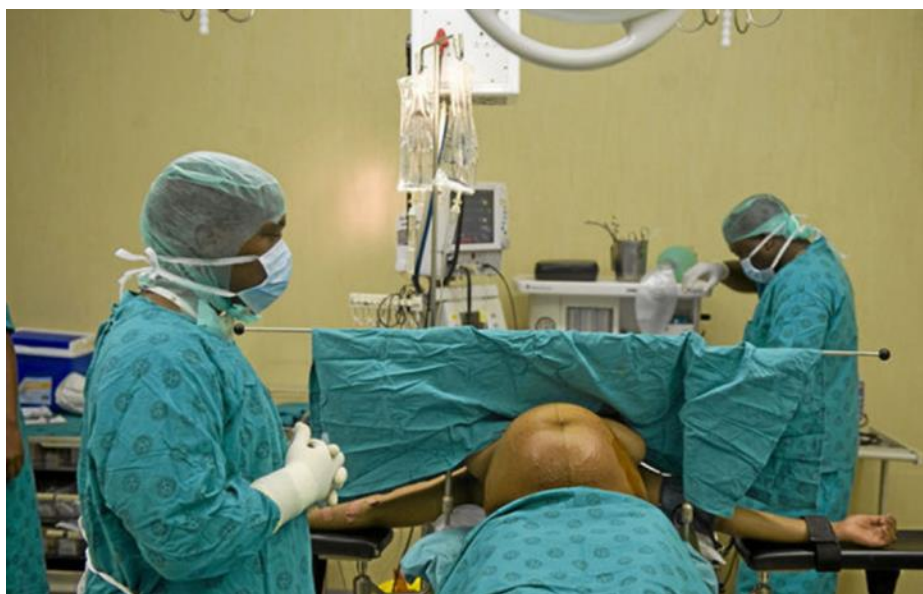
1.3.3-5 The 9 Dimensions of Quality in Health Care

1. Technical Performance

The degree to which the tasks carried out by health workers and facilities meet the expectations of technical quality (comply with standards). Technical performance refers to the skills, capability, and actual performance of health providers, managers, and support staff.

Example: performing surgical procedures according to standards.

The image below shows how the tasks carried out by health workers meet the expectations of technical quality in compliance with the set standards (providers appear to adhere to the theatre standards).



2. Effectiveness of Care

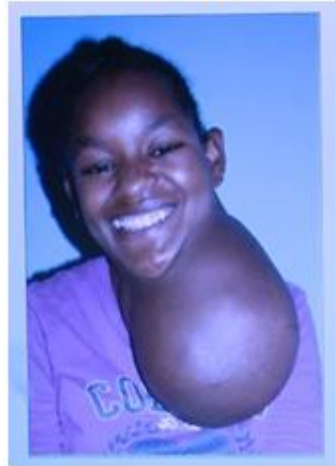
This dimension refers to the degree to which desired results (outcomes) of care are achieved through appropriate diagnosis and treatment. It requires the provision of appropriate services based on scientific knowledge to all who could benefit, refraining from providing services to those who would likely not benefit and avoiding underuse and overuse of treatment or services. Success of service delivery is measured based on the expected outcome of doing the right thing for the right person at the right time.

The quality of health services depends on the effectiveness of service delivery norms and clinical guidelines. Does the procedure or treatment, when correctly applied, lead to the desired results?

Examples

- Reduction of episode of pneumonia in a an HIV exposed infant following cotrimoxazole prophylaxis
- The images below show a young girl with a huge swelling on the neck before surgery. The swelling was successfully removed, demonstrating the effectiveness of the care the patient received. She is smiling – the patient appears to be satisfied with the services.

Before:



After:



3. Efficiency of Service Delivery

Efficiency refers to the use of minimum resources to achieve desired results. This is an important dimension of quality because it affects product and service affordability and because health care resources are usually limited. When we provide optimal rather than maximum care to the patient and community, we provide the greatest benefit within the resources available.

Poor care resulting from ineffective norms or incorrect delivery should be minimised or eliminated. In this way, quality can be improved while reducing costs. Harmful care, besides causing unnecessary risk and patient discomfort, is often expensive and time-consuming to correct. It would be misleading, however, to imply that quality improvements never require additional resources. But by analysing efficiency, health facility supervisors may select the most cost-effective interventions.

Examples

- Providing HIV services for mother and child at RCH instead of referring to CT
- Organising records for easy retrieval, use, re-filing and maximize use of space



The above picture shows disorganised files. This will lead to in-effectiveness in retrieving files, therefore patients will have a longer wait and likely be less satisfied with service delivery.



The files shown here are properly arranged so it will be less likely that files will be misplaced or get lost. Therefore retrieval, and ultimately, care will be more efficient and more likely to satisfy the patient.

4. Safety

Safety refers to the degree to which the risks of accidental or preventable injury, infection or other harmful side effects produced by medical care are minimised. Safety requires a system of care delivery that prevents errors, learns from the errors that do occur and is built on a culture of safety that involves health care providers and patients.

Examples

- Wearing Personal Protective Equipment (PEP) including gloves, masks, gowns, boots, caps , goggles and aprons
- Safe disposal of infectious material to protect those who handle them and prevent injury or spread to the community as well as appropriate handling and disposal of sharps e.g. needles and surgical instruments
- Following National IP Guidelines and practising in all HCT sites performing HIV rapid testing

The images below show an example of an unsafe box (on the left) vs. a safe box (on the right).






Vs.



All sharps containers should have:

- A lid
- Puncture-proof or thick walls
- A large enough hole for lancets and needles
- Leak proof sides and bottom
- A label or colour code indicating bio-hazard material
- Sufficient quantity available at each testing site

<u>Color</u>	<u>Type of Waste</u>
Yellow 	Safety box containing the following: Needles and syringes, blades, broken glass, lancets, scissors, broken ampoules, slides and slide covers, etc.
Red 	Wet, infectious materials: Blood, body tissues (amputations), body fluids (discharges), specimens (stool, sputum), placentas, wet dressings, gauze/swabs catheters, blood infusion bags, etc.
Black/Blue 	Non-infectious materials: Office papers, pharmaceutical packaging, plastic bottles, including water bottles, food remains, waste paper, trash, etc.

The color-coding system shown above aims at ensuring an immediate and non-equivocal identification of the hazards associated with the type of healthcare waste that is handled or treated. In this respect, the color-coding system shall remain simple and be applied uniformly throughout the country. All healthcare facilities shall apply the color-coding system.

5. Access to Services

Access to services refers to the degree to which healthcare services are accessible by all; not restricted by geographic, economic, social, organisation or linguistic barriers.

Geographic access may be measured by modes of transportation, distance, travel time, and any other physical barriers that could keep a client from receiving care.

Economic access refers to the affordability of products and services for clients and for travel, if applicable.

Social or cultural access relates to service acceptability within the context of the client's cultural values, beliefs, and attitudes. For example, family planning services may not be accepted if they are offered in a way that is inconsistent with the local culture.

Organisational access refers to the extent to which services are conveniently organised for prospective clients, and encompasses issues such as clinic hours and appointment systems, waiting time, and the mode of service delivery. For example, the lack of evening clinics may reduce organisational access for day labourers.

Linguistic access means that the services are available in the local language or a dialect in which the client is fluent.

Examples

- The hospital ward has ramps for person in wheelchairs to enter
- Faith-based health facilities provide services to the entire population regardless of religious affiliation



The figure above shows that the client does not have reliable means of transport to access the health facility. In situations where people in the community do not have access to health facilities, serious consequences could occur, including death.



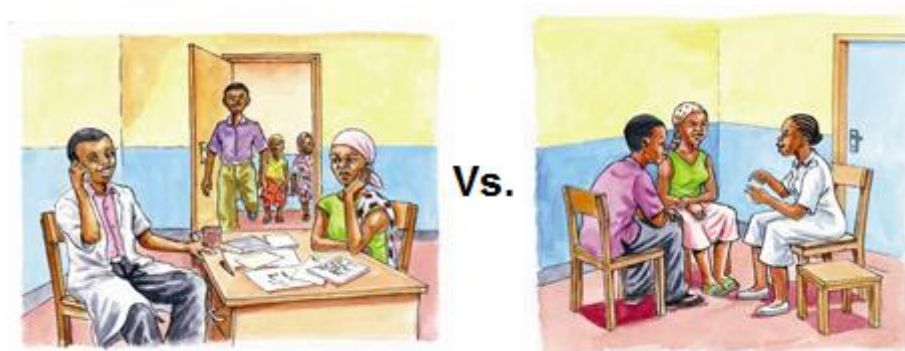
The figure above shows an ambulance cart, which has the ability to take several people at once who might otherwise have no mode of transportation other than walking. It may not be the perfect solution, but it will increase access for some, perhaps many.

6. Interpersonal Relations

Positive interpersonal interaction between client and provider can play a large role towards proper service provision and high client satisfaction. Positive interpersonal relations can be defined by a close, friendly or pleasant association between two or more people, often based on regular business interactions or social commitment that may be brief or long term. Interpersonal relations are enhanced when confidentiality, trust, respect, responsiveness, empathy, and effective communication is practised between providers and clients. Providers are primarily responsible for initiating this type of interaction.

Examples

- A health worker is not judgmental when speaking with a patient about his or her illness
- "... when I entered the doctor's room he was in a bad mood and did not explain anything to me. I left confused..." (quote from a patient)



The above pictures show a poor interpersonal relationship (on the left) versus a good interpersonal relationship between a health worker and clients (on the right).



The picture above shows a good interpersonal relationship between health workers and a client.

7. Continuity of Services

Continuity of services ensures uninterrupted and consistent services are provided to the population/community.

Continuity means that the client receives the complete range of health services that he or she needs, without interruption or unnecessary repetition of diagnosis or treatment. Services must be offered on an ongoing basis. The client must have access to routine and preventive care provided by a health worker who knows his or her medical history. A client must also have access to timely referral for specialised services and to complete follow-up care.

Continuity can be achieved by ensuring that the client always sees the same primary care provider; it can also be achieved by keeping accurate medical records so that a new provider knows the patient's history and can build upon and complement the diagnosis and treatment of previous providers.

The absence of continuity can compromise effectiveness, decrease efficiency, and reduce the quality of interpersonal relations.

Examples

- Availability of supplies and trained staff
- Functional referral and record keeping systems
- Functional social supporting networks

8. Physical Infrastructure and Comfort

The physical infrastructure and comfort of the facility in relation to physical appearance, provision of privacy, and other aspects are important to clients.

Physical infrastructure and comfort refer to the features of health services that do not directly relate to clinical effectiveness but may enhance the client's satisfaction and willingness to return to the facility for subsequent health care needs. Physical infrastructure is also important because it may affect the client's expectations about and/or confidence in other aspects of the service or product.

Physical infrastructure and comfort may include features that make the wait more pleasant such as music, educational or recreational videos, and reading materials. Clean, accessible restrooms and privacy curtains in examination rooms may be considered luxuries in some health care settings; they are nevertheless important for attracting and retaining clients and for ensuring continuity of coverage.

Examples

- The physical appearance of the facility:
 - Clean and well ventilated building
 - Availability of toilets according to guidelines
 - Infrastructure in favour for disabled persons
- Provision for privacy during consultation:
 - Adequate rooms and screens
- Other aspects:
 - Reading material and TV in waiting area
 - Benches/chairs provided in waiting and consultation rooms
 - Staff attitudes
 - Staff Professionalism, such as dress/clothing and language

Additional possible benefits

- Attracting and keeping clients
- Clients feeling comfortable contributed to their health and wellbeing
- Clients feel they receive quality service



The picture above shows the environment of a health facility in Tanzania whereby the following things can be observed with relation to physical infrastructure and comfort:

- Resting benches are shaded for patients and visitors
- Grass is short, trees are green and environment is clean
- There is a sheltered corridor connecting buildings which is also paved and roofed corridor connecting buildings (Good shelter)

9. Choice of services

The client can decide which facility to attend, time to seek health care and treatment plan.

Examples

- Having options to attend any health facility for HTC services
- Family planning provides different options for contraceptive methods (long and short term)
- Clinician can choose from a range of effective antibiotics to treat a respiratory infection
- Client can decide where to be referred for follow-up services

Small Group Activity

Refer to **Annex 1: Case Study of Begedu Health Centre** on **page 101** in this manual.

1.3.6 Key Points

- There are 9 dimensions of quality that contribute to high quality health care delivery
- Observing the dimensions of quality is critical to provision of quality services
- All nine dimensions do not deserve equal weight in every intervention or are applicable in every country. Each should be defined according to local context and specific health intervention programs

Unit 2: Quality Improvement and its Principles

Session 2.0: Introduction to Quality Improvement Principles



Total Session Time: 15 minutes

2.0.1 Learning Objectives

By the end of this session participants will be able to:

- Give an overview of principles of quality improvement

2.0.2 Overview of QI principles

Principles are broad statements that provide a framework of general rules to shape organisational thinking.

Fundamental decisions affecting health service delivery should be tested against quality improvement principles and rejected when found to be in violation of those principles.

The principles of quality improvement apply equally to every area, function, and person in the organisation. They are formally documented, widely disseminated, frequently discussed, and consistently deployed. The principles define the framework of general rules for judging behaviour and the basis for assessing health systems. The relationships among these principles deserve some discussion because their synergy is crucial to program success.

2.0.3 Purpose of QI Principles

- QI principles offer the basis for identifying unnecessary, redundant, or incorrect processes, then guide changes believed to yield improvements
- To achieve a different level of performance, it is essential to change the system in ways that enable it to achieve different results
- A system left unchanged will continue to achieve the same results

2.0.4 Principles of QI

There are five principles of QI:

1. Focus on clients' needs and expectations
2. Focus on communication and feedback
3. Focus on teamwork
4. Focus on measurements (data)
5. Focus on systems and processes

2.0.5 Key Points

- To improve performance, it is essential to change the system in ways that enable it to achieve different results
- QI principles offer the basis for identifying unnecessary, redundant, or incorrect processes, and then guide changes believed to yield improvements
- The 5 QI principles are: focus on clients' needs and expectations, focus on communication and feedback, teamwork, measurements, and focus on systems and processes

Session 2.1: Principles of Quality Improvement

1: Focus on Client Needs and Expectations



Total Session Time: 1 hour 30 minutes

2.1.1 Learning Objectives

By the end of this session, participants will be able to:

- Define who is a client
- Describe the levels of clients in health service delivery
- Explain client needs and expectations
- Explain the importance of meeting client needs and expectations

2.1.2 Definition of a Client

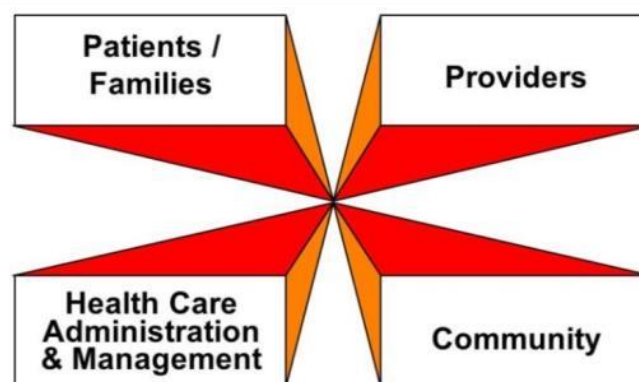
Because quality is a way to measure the care or services provided to a client, it is important first to define who the client is.

A client is a person or organisation using the services of a professional person or organisation. At a health facility, there are two types of clients:

- **An external client** comes to receive services, e.g. a patient
- **An internal client** is the one who delivers service, e.g. a counselor

2.1.3 Levels of Clients in Health Service Delivery

You may also think of clients in terms of levels, as patients, families, providers, the community and health care administrators & management at facility, district, regional and National levels are all clients of the health care system.



2.1.4 Client Needs and Expectations

Health services should be designed to meet the health needs and expectations of clients. In quality improvement, a focus on the client examines how and whether each step in a process prioritises meeting client needs and expectations and then eliminates steps that do not ultimately lead to client satisfaction or desired client outcomes. This focus on the client can

be achieved by gathering information about clients and then designing services to cater to the needs and expectations that are expressed.

Needs are the actual necessities or goals that the client wants to be met by utilising the health services.

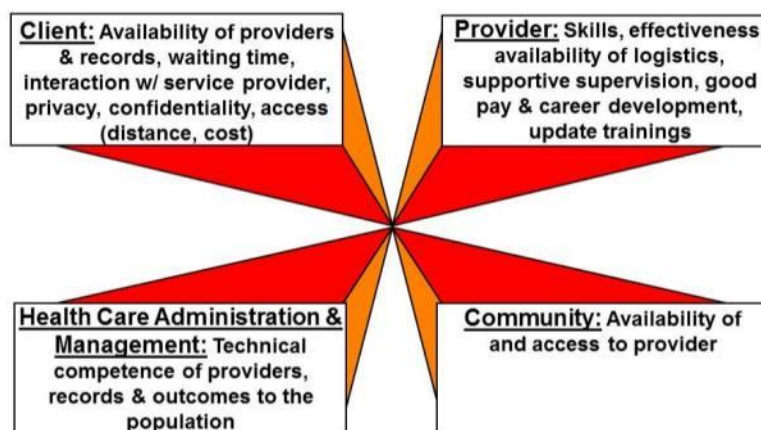
- **Internal clients** generally need availability of facilities, supplies and working gear for service provision in accordance to stipulated standards of care as well as best practices
- **External clients** generally need to access services that will effectively relieve symptoms and prevent illness.

Expectations are the preconceived ideas that the client has in mind about the service before the actual service delivery. These ideas could be about the process or the outcome. As was the case for needs, the expectations of quality of health services are different for the two categories of clients.

- **Internal clients** expect availability of logistics and supportive supervision, career development and acceptable remuneration
- **External clients** expect availability of healthcare providers at all times, good interaction with service providers and affordability of services

It makes sense that different levels of clients would have different expectations.

- **Patients and families** may expect providers and medical records to be available, minimal waiting time, positive interactions with their service providers, privacy, confidentiality, and reasonable access to services in terms of distance and cost.
- **Providers** may expect high skill level of their colleagues, effectiveness, and availability of logistical support, supportive supervision, good pay, and career development.
- **The community** may expect reasonable access and availability of services and service providers.
- **Health care administration and management** may expect competence of providers, detailed and accurate records and documentation of outcomes.



Case Study: Identifying Clients, Needs and Expectations

For this activity, refer to *Annex 1: Case Study of Begedu Health Centre* on page 101 in this participant manual and read the case study together. Then answer the following questions:

- Who are the possible clients in the story?
- What are the needs of at least two of the clients?
- What are the expectations of at least two of the clients?

2.1.5 Importance of Meeting Clients' Needs and Expectations

In the delivery of quality health services, the purpose of a health care organisation is to achieve client satisfaction.

Satisfied clients tend to:

- Comply and adhere to treatment
- Recommend the services to others
- Support resource generation for the health facility

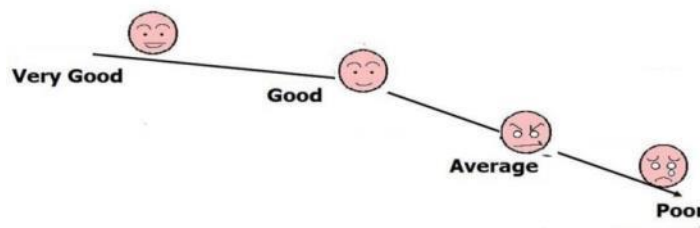
Dissatisfied clients may:

- Not adhere to treatment
- Not return to facility for further care
- Not recommend the facility to others; may tell others of their negative experience

Levels of Satisfaction

The notion of client satisfaction is, of course, not limited to the context of health care. A client can be satisfied or dissatisfied with any type of service such as at the market, restaurant, or cellphone service provider. Or a client can be satisfied/dissatisfied with a product they may have purchased. Their level of satisfaction depends on past experiences and current expectations. Clients will access the product or service that meets or exceeds their expectations.

What was your level of satisfaction the last time you visited a health facility?



The image below shows a fruit stand where client satisfaction is low (on the left) and where client satisfaction is high (on the right). Why do you think this is the case?



2.1.6 Key Points

- A client is a person or organisation using the services of a professional person or organisation
- At a health facility, external clients come to receive services, e.g. a patient
- Internal clients at a health facility are involved in the delivery of care, e.g. doctors, nurses, administration, cooking or cleaning staff.
- Needs are tangible and emotional necessities a client wants to be met from utilizing a service
- Expectations are preconceived ideas a client has before the service has actually been provided
- Meeting client needs and expectations is important for continuity of care and treatment services

Session 2.2: Principles of Quality Improvement

2: Focus on Communication and Feedback



Total Session Time: 1 hour 15 minutes

2.2.1 Learning objectives

By the end of the session participants will be able to:

- Define communication
- Describe the components of communication
- Explain the types of communication
- List the channels of communication
- Discuss the importance of effective communication
- Explain communication barriers
- Describe strategies for overcoming communication barriers
- Explain feedback and its importance
- Identify channels for gaining client's feedback

Introduction

As a quality improvement strategy, a better focus on client satisfaction can be achieved by gathering information about clients and then designing services to cater for the needs that are discovered. This requires establishing effective communication between the client and health facility.

Effective interpersonal communication between health care providers and patients is an important element for improving patient satisfaction, treatment compliance, and health outcomes. Patients who understand the nature of their illness and its treatment and believe the provider is concerned about their well-being show greater satisfaction with the care received and are more likely to comply with treatment regimens. Several studies conducted in developed countries show strong positive health outcomes and improved quality of care associated with effective communication. Provider-patient communication has been linked to patient satisfaction, recall of information, compliance with therapeutic regimens, and appointment keeping.

2.2.2 Definitions of Communication

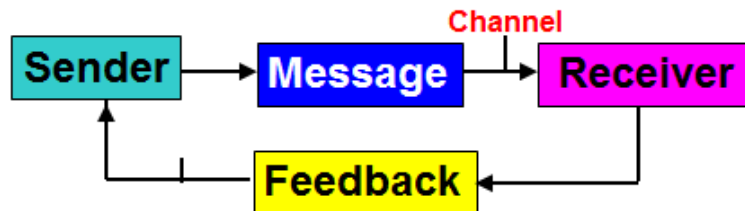
Communication is a process by which people share ideas, experiences, knowledge, and feelings through transmission of messages both verbal and non-verbal.

Communication can also be defined as the transfer of information from one person to another for the purpose of sharing the idea or information (via speech, writing or physical signs/gestures).

2.2.3 Components of Communication

The communication process consists of several components, such as:

- A **SENDER** creates a **MESSAGE** for the **RECEIVER**.
- The **SENDER** uses a **CHANNEL** to relay the **MESSAGE**.
- The **RECEIVER** and the **SENDER** use **FEEDBACK** to clarify and ensure the message is understood.



The **SENDER** or source is the one who initiates the communication. (The **SENDER** can be the Health Care Provider (HCP) when talking to the client. The **SENDER** can also be the client talking to the HCP). The sender should be interested in the subject, familiar with receiver and receiver's needs and interests. The sender conveys the message at the knowledge level of the receiver and chooses an appropriate communication channel to transmit the message.

The **MESSAGE** should be clear, concise, accurate, relevant to the needs of the receiver, timely, meaningful and appropriate to the situation.

The **CHANNEL** or **MEDIUM** is the format in which the message is transmitted. The channel should be appropriate, accessible and affordable. Examples of common channels are speaking, writing, body language, sign language, telephone, pictures, symbols, diagrams, drumming, dancing, visual images and hand signals. (In PITC, the HCP should never give results by telephone).

The **RECEIVER** is the person receiving the message and translating it into meaning. He/she has to be interested in the message, aware, and willing to accept the message. He/she understands the value and applicability of the message and is able to give feedback once he/she receives the message.

FEEDBACK is an essential part of communication; the Receiver has to respond to show that he/she understood the message or not. Also, the Sender has to find out whether he/she has been understood by the Receiver. Feedback can be verbal, non-verbal response, immediate or delayed.

Effective communication means that the correct message goes from the Sender to the Receiver successfully. It requires the ability of both the sender and the receiver to:

- Listen
- Pay attention
- Perceive what the other is trying to communicate
- Respond verbally or non-verbally i.e. provide feedback

2.2.4 Types of Communication

Messages are transmitted both verbally and non-verbally.

- Verbal = Spoken words
 - Loud, pitched and shout
 - Medium, friendly
 - Low, murmuring and whispering
- Nonverbal:
 - The way we stand and sit
 - Facial expressions
 - Silence
 - Eye contact (Eye expression is a vital aspect of body language.) Significant in our dealings with others
 - Gestures (smiling, leaning forward, nodding)

Of all the communication messages received:

- 7-11% are verbal, using spoken words
- The remaining 89-93% of messages received are non-verbal, using:
 - Gestures (smiling, leaning forward, nodding)
 - The way we stand
 - The way we sit
 - Facial expressions
 - Silence
 - Eye contact

Face-to-face verbal communication can be effective, but if it is to be passed through many people, the messages should be documented using another channel (written or recorded) in order to ensure everyone receives the same message. The counsellor should speak clearly and slowly and also avoid using technical language and jargon that the client might not understand. Some short words can be used to encourage the client to talk more, e.g. “can we go on,,” “what else,” “is that all,” “then,” etc. The rest of your communication (89-93%) is non-verbal.

Sometimes verbal and non-verbal messages may be contradictory or mixed. For example, someone says one thing but seems to feel a different way may include:

- Crying while saying, “I am fine”.
- Saying that you are listening when you are not making eye contact with the speaker and are looking all around the room while the speaker is talking.
- Saying that you are not bored or tired when you are yawning or uninterested.

Differences in how messages are perceived can lead to confusion.

Skills in communication include:

- Active listening
- Clarification
- Reflecting
- Effective Questioning
- Positive Feedback
- Paraphrasing
- Summarizing

Active Listening:

Active Listening is an essential component of good communication. Often, instead of truly listening to what the other person is saying, we're thinking about what our response will be to what they are saying, or what we want to say next, or something else entirely different

Active listening is a communication technique that encourages open communication of ideas and feelings and helps people establish trust to each other. In active listening, the listener accepts what is being said without making any value judgments. The listener makes sure that s/he understands clearly the ideas or feelings being expressed, and confirms with the other person that s/he understands them.

It enables a speaker to stimulate open and frank exploration of ideas and feelings and establish trust and rapport with a listener. It helps the speaker clarify the listener's comments and enables the listener to be heard and understood. In active listening, the speaker accepts what is being said by the listener without making any judgment, clarifies the ideas or feeling being expressed and reflects them back to the listeners.

The following are examples of active listening techniques:

- Stop talking and listen to the speaker don't interrupt
- Restate the speaker's exact words
- Paraphrases in your own words what the speaker said
- Understand and reflect the underlying feelings of the speaker (identify the emotion)
- Identify with the speaker's emotions and state the implications of those feelings.
- Make eye contact that is culturally acceptable.
- Face the speaker.
- Concentrate on the speaker and what he/she is saying
- Pay attention
- Demonstrate interest in what is being said.
- Avoid distractions, like phone calls, talking to other people, or doing paperwork (note that this is a factor related to the environment in which you are holding a conversation—in this picture, the pair has chosen a meeting place that is free from any distractions).



When actively listening, it is appropriate to ask non leading questions such as:

- “Can you tell me more about that?”
- “Help me understand what you said.”

It is also appropriate to ask for help as a part of active listening: for example:

- “I am not sure I fully understand what you are saying.”
- “I am confused as to whether you mean the doctor or the nurse. Can you explain more?”

Active listening does not include probing questions of a cross – examination type such as ‘Why did do that?’ or ‘What are you going to do about that?’ Active listeners are not accusatory, nor do they ask questions that lead to only one answer. Active listening reflects what has been said and draws the participant out to expand further on the meaning or feelings. It also is a communication tool which can be used to shape learning and reinforce effective behaviour in a positive way.

2.2.5 Channels of Communication

Common channels of communication include:

- Speaking
- Writing
- Email
- Body language
- Sign language
- Telephone
- Media (television, newspapers and radios)

Other channels of communication include:

- Drumming
- Dancing
- Visual images
- Hand signals
- Drawings and pictures

Please note: CTC and HTC providers should never give results by telephone.

2.2.6 Importance of Communication

Communication helps to develop a good working relationship between the patient and the provider:

- Patients better understand recommendations from healthcare providers
- Patients feel respected and understood
- Patients feel motivated to adhere to care plan

Therefore, it is important to use good communication to:

- Share knowledge and experiences
- Build relationships
- Motivate
- Inform and teach
- Persuade and inspire
- Entertain
- Give or receive directions and feedback

Good communication depends on careful observation and listening and correct interpretation of important information, such as a client’s message or feelings. For example, good communication by an HTC provider will help to meet counselling objectives. By helping the client examine possible options, an HTC provider can facilitate the client’s exploration of

solutions and their consequences. This will help the client make the best decisions and improve both outcomes and client satisfaction.

2.2.7 Effective Communication

In service provision, effective communication is essential for improving quality of care and identifying service quality gaps. Effective communication involves the ability to build a relationship of trust, understanding and empathy showing sensitivity and responsiveness at each level of communication. Practicing good communication skills includes being aware of potential communication barriers.

For effective communication, the following principles should be observed:

- Listening attentively to the person speaking or client:
 - Keeping eye contact that is culturally acceptable
 - Not interrupting the speaker/client when he/she is talking
 - Assuring that no one will talk to you during the discussion with the client/speaker unless the client's permission has been obtained
 - Avoiding looking at your watch or moving pieces of paper or silently showing you are in a hurry
- Establish a two way communication
 - Encourage use of open ended questions
 - Paraphrasing the sentence to encourage the other to join in the communication
 - Show the client that you care
 - Show empathy
 - Respect and dignity of to the client
 - Assure secrecy and confidentiality
- Affirm and acknowledge results
 - Accept clients point of view
 - Present yourself as expected of a professional

Considerations in Effective Communication

When working to improve communication and ensure it is effectively received, there are several aspects to take into consideration.

- **WHO:** Person you are communicating with
 - *Consider who you are communicating with and how they might receive your message*
- **WHAT:** Purpose of the message
 - *Keep the intention clear in your mind help ensure effective receipt of your message*
- **WHEN:** Timing of the communication
 - *Consider when might be the best time for your message to be effectively received*
- **HOW:** The way message is delivered
 - *Use simple words familiar to the client – short, clear and precise without skipping important information*

Communication in the Health Care Context

In health service delivery, communication occurs at different levels and between different clients (here we use the “external” meaning of the word “client”). Looking at the following list, can you think of the possible barriers that may exist between these communicators?

- Between clients and family friends
- Clients and spiritual leaders
- Client and service provider
- Health facility management and community
- Providers and health facility management
- Providers within the health care system

2.2.8 Barriers to Effective Communication

Ineffective communication occurs when obstacles or barriers are present. Barriers may be classified as physiological, physical, or psychosocial. Physiological barriers result from some kind of sensory dysfunction on the part of either the sender or the receiver, for example hearing impairments and speech defects. Physical barriers may consist of elements in the environment such as noise that may make it difficult to hear.

Psychosocial barriers are usually the result of one’s inaccurate perception of self or others; the presence of some defense mechanism or the existence of factors such as use of language that the client cannot understand, use of an inappropriate channel for communication or the message content not being clear.

It is very important to be aware of these barriers in health care service delivery as their presence can severely affect quality of service and client satisfaction. The most common barriers for communication in a healthcare setting are often caused by:

- Using a language that is not understandable to the client. For example speaking to a patient in English instead of Swahili or using technical medical terms instead of simpler language
- Using an inappropriate channel to convey the message. For example, using the television to deliver important public health information while it is known that the majority of households do not own television sets
- Delivering a message that is not clear, is ambiguous, or does not apply to the situation

Barriers may arise from either a Sender or Receiver or both; barriers keep us from understanding other’s ideas, thoughts and intentions. Barriers can appear at any point of the communication process. The sender has the primary responsibility for starting an effective communication flow. The following are common communication barriers:

Barriers from the Sender

- Talking too much, not giving client time to express him or herself
- Being critical and judgmental
- Laughing at or humiliating the client
- Showing signs of being upset
- Not listening or accepting feedback
- Using an inappropriate channel
- Not listening, not paying attention

- Lack of knowledge on the subject of discussion
- Using difficult or different language
- Advice giving and demoralising
- Arguing
- Preaching
- Storytelling
- Showing discomfort, embarrassment if client is upset
- Contradictory verbal information with non-verbal gestures

Barriers from the Receiver

- Using the inappropriate channel
- Not listening, not paying attention
- Interrupting before sender completes the message
- Not sending feedback

Barriers to Communication from a Healthcare Provider

Barriers may arise when a healthcare provider is not focused on the client but instead acts based on their own personal thoughts or beliefs. These actions may include:

- Demoralizing
- Advice giving
- Arguing
- Preaching
- Storytelling
- Showing discomfort, embarrassment if client is upset
- Not respecting client's beliefs and/or way of life
- Not creating trust or rapport

Barriers to Communication from a Patient/Client

- Language barrier
- Culture
- Negative attitude to the counsellor
- Patient is too sick to respond

Overcoming Barriers to Communication

Senders and Receivers can overcome barriers by:

- Using the appropriate channel
- Creating good rapport
- Being attentive both verbally and non-verbally
- Using a common language
- Avoiding medical terminology and jargon
- Being self-aware
- Using feedback from each other
- Asking questions for clarification in order to understand feedback

2.2.9 Feedback

Feedback is information given in response to a product, service or a person's performance of a task or service.

Feedback is essential throughout the service delivery process; many health service providers find it difficult to acquire the skill of giving or receiving performance-enhancing feedback which is very useful. Health service providers usually need practice to become more confident with this essential skill. If they are unable to effectively give or receive constructive feedback, not much will be accomplished to improve the quality of services.

Feedback is an important component of communication in health care settings as it opens channels for clients to express their opinions on the services provided and can help to identify service quality gaps and possible solutions for improvement.

Giving and receiving feedback helps to foster good communication, performance improvement and client satisfaction.

After obtaining suggestions for improvement, ensure feedback is realised by either:

- Implementing suggested changes, OR
- Informing clients what actions will be taken

Basic guidelines for giving effective feedback

- Ask permission first
- Don't be judgmental or use labels
 - Avoid words like "lazy," "careless," or "forgetful"
- Don't exaggerate or generalize. Be specific.
- Make positive suggestions for improvement
- Use the first person: "I think," "I saw," "I noticed."
- State facts, not opinions or interpretations
- Describe what you observed and be specific.
- Address what a person did, not your interpretation of his or her motivation or reason for it
- When making suggestions for improvement, use statements like: "You may want to consider...", "Another option could be to..."
- Take responsibility for your own feedback. Speak for yourself, not for others.

Feedback can be provided:

- During a patient encounter
- Immediately after a patient encounter
- During a review meeting at the end of the day

The closer the feedback is to the event, the more likely will it be remembered.

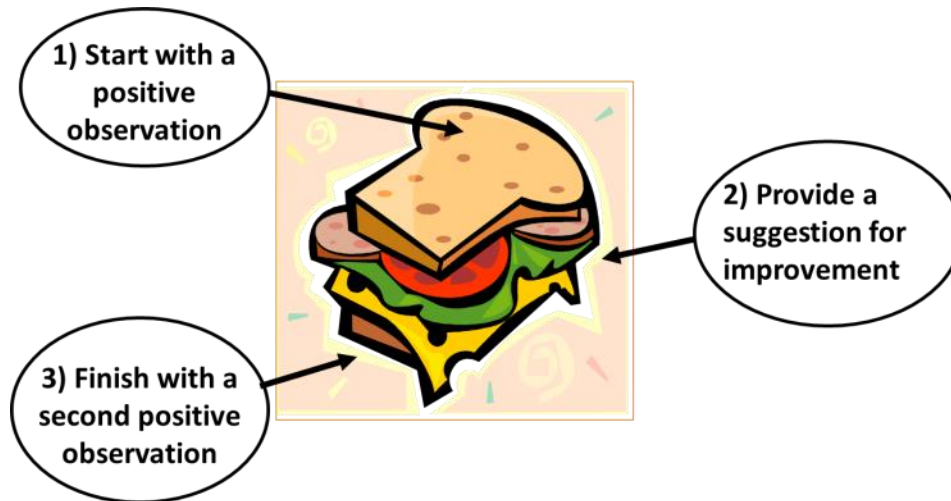
Example of descriptive, specific feedback

"When you gave the injection of local anesthetic, you did not tell the client what to expect. I saw her wince and thought she was tense, making it difficult for you to gain her cooperation later in the procedure."

Example of judgmental, non – specific feedback

“You always seem to be in such a hurry that you completely ignore the client’s needs.”

Sandwich Principle in Feedback



Gaining Client Feedback

Feedback is information given in response to a product, service or person’s performance of a task or delivery of a service. Client feedback can be obtained through one or combination of the following channels:

- Use of questionnaires asking opinions about the service provided
- Carrying out interviews for selected clients for example exit interviews
- Carrying out focus group discussion with select group of clients
- Holding regular meetings with clients/community to discuss on their opinions about service delivery

2.2.10 Key Points

- Communication can be either verbal or non-verbal.
- Most communication is non-verbal.
- Effective communication skills are essential to the promotion of quality services.
- Communication can be blocked by barriers from the sender or receiver or both.
- Building rapport will help the client feel comfortable in your presence, thereby facilitating effective communication.
- Effective communication is when there is shared meaning and understanding between sender and receiver.
- Effective communication enhances the working relationship between the client and the health service provider and leads to improved performance and client satisfaction.

Session 2.3: Principles of Quality Improvement

3: Focus on Team and Team Work



Total Session Time: 2 hours

2.3.1 Learning Objectives

By the end of this session, participants will be able to:

- Define team and teamwork
- Explain the importance of team work in QI
- Describe the composition of QI team
- Describe the stages of team formation
- List the characteristics of an effective team

2.3.2 Defining Team and Team work

Team work is one of the principles of quality improvement in health care services.

A **Team** is a group of people working together to achieve a common goal for which they share responsibility.

Team work is the act of solving problems together in a situation where all members have the ability to influence decisions and apply their strengths effectively.

When people work in teams, they increase the chances of combining their talents, skills and efforts hence increasing the possibility of accomplishing the results that would otherwise not be able to achieve as individuals. Team work enables common people to achieve uncommon results. In the context of healthcare, team work results in higher quality health services.

2.3.3 Importance of Teamwork in Quality Improvement

Team work is increasingly advocated by health service policy makers as a means of assuring quality and safety in the delivery of services [3]. Teams are important for delivery of quality health services for several reasons:

- Mutual support and cooperation is often fostered when people work together on a project. This feeling of goodwill often leads to an increased commitment to make improvements.
- Taking more perspectives into consideration can create a more complete picture of the process or situation to be improved. While an individual might have knowledge gaps, a group of people will likely have a more complete understanding.
- Team accomplishments often lead to increased confidence among individuals. Competence and confidence create an upward spiral whereby competence builds confidence and confidence builds competence.
- When people help design a solution, they are more likely to embrace it. A proposed solution will meet with much less resistance if the people who will be impacted by the change have contributed to the development of the solution.
- Team work reduces complexities regarding hierarchy.

A team approach is most effective when:

- The process or system is complex
- No one individual in an organisation knows all the dimensions of an issue
- The process involves more than one discipline or work area
- Solutions require creativity
- Staff commitment and buy-in is needed

Team work is performed by:

- Committing to solve problems together, whereby members of the team bring in their different skills and knowledge to tackle a common problem. All members of a team have the ability to influence decisions and effectively apply their strengths.
- The interaction or relationship between two or more health professionals who work interdependently to provide care for patients. Team work means members of the team are mutually dependent, they see themselves as working collaboratively for patient-centered care, and they benefit from working collaboratively to provide patient-centered care.

Teamwork is NOT a group of people with one star who does all the work, and it is not a group of people with a leader dictating what to do.

2.3.4 Quality Improvement Team Composition

The composition of a team depends on the task the team aims to accomplish, as the task will define the mix of skills and competency required. Usually, healthcare is provided by a team of health professionals each with specific and distinct competencies and skills. Generally, a quality improvement team in a health facility is composed of members from different units in the health facility who are directly or indirectly involved in the service provision. For example, members will likely come from different departments and sections such as:

- The management e.g. Administrator(s) or representative(s)
- The clinical teams e.g. Providers from in-patient and out-patient departments or special clinics in the facility
- Support services units or sections such as pharmacy
- Laboratory, operating theatre, or medical records, etc.

It is important to note that during the implementation of an improvement activity, the team may be expanded to include other staff whose skills are deemed necessary for accomplishment of the improvement.

Once a quality improvement team is composed, it is necessary for the team to establish team hierarchy by appointing some of the team members to fill the following positions:

- **Team leader** who will be the overall coordinator of the team during implementation of improvement activity
- **Team secretary/recorder** responsible for organising and scheduling team meetings as well as for recording proceedings from team meetings and handling communication between members, facility management and other stakeholders
- **Other specific roles** can be identified for other team members as needs arise in consideration of the team's objective

2.3.5 Stages of Team Development

There are five stages of team development. These are:

1. Forming
2. Storming
3. Norming
4. Performing
5. Closing

This model of stages of team formation was first proposed by Bruce Tuckman in 1965 [4] who maintained that these stages or phases are all necessary and inevitable in order for the team to grow, to face up to challenges, to tackle problems, to find solutions, to plan work, and to deliver results.

Each stage has its own set of characteristics, but there may also be overlap among them. Teams that make it to the norming and performing stages have done so because members were willing to trust other members and care for them. Performing teams are also able to assess the team's effectiveness and make decisions on how to improve in the future – all autonomously. This is the most desirable state for a team to reach. The certainty of change in a team (whether it be objectives, members, or other) will almost inevitably cause the team to revert back to earlier steps. Long standing teams will periodically go through these cycles as changing circumstances require.

Stage 1: Forming

In the first phase, the forming of the team takes place. The team meets and learns about the opportunity, challenges, agrees on goals and begins to tackle the tasks.

- Members tend to cautiously explore acceptable group behavior and their roles starts changing from “individual” to “member”
- At this stage, members may challenge the authority of the leader or coach although they also tend to depend on them for orientation and direction. Mature team members begin to model appropriate behavior even at this early phase

The team leader needs to handle team dynamics transparently and appropriately to bring the team members together such that they begin to think themselves as part of a team working jointly to achieve a specific objective. This stage is complete when members begin to think of themselves as part of the team.

Stage 2: Storming

The next step is the storming stage, which is critical for group development. During this stage, the team addresses issues such as what problems they are really supposed to solve, how they will function independently and together and what leadership model they will accept. Team members open up to each other and confront each others' ideas and perspectives. In the storming stage:

- Tasks ahead may seem harder than expected
- Some team members may become impatient, argumentative and resist collaboration with some team members
- Individuals in the team have the opportunity to establish their skills, knowledge and specific role in the group
- The team forges ways of working together and respects each others' point of view

In this stage, members can experience positive or negative feelings about the team, the team members, and the project's chance of success. If not handled well, this can be destructive to the team and may lower motivation. Supervisors of the team during this phase should be more accessible and provide their guidance for decision-making and professional behaviour.

The storming stage is complete when there is relatively clear hierarchy of leadership within the group and the team has forged ways of working together for a common objective, while respecting individual members' point of view.

Stage 3: Norming

At this stage team members adjust their behaviour as they develop work habits that make team work effective.

- Team members accept their team and realise their common goals as well as their roles and the individuality of fellow members. With respect to the shared objective, members start to agree on rules, values, professional behaviour, shared methods, working tools and even taboos.
- During this phase, conflicts are minimal and there is more cooperation between members. Motivation increases as the team gets more acquainted with the improvement objective and as a result, there are fewer conflicts and more cooperation between members

This stage is complete when the group structure becomes established and the team develops a shared understanding of how they should behave during the implementation of activities planned for achieving the shared objective.

Leaders of the team during this phase should be more participative than in the earlier stages. Team members can be expected to take more responsibility for making decisions and for their professional behaviour.

Stage 4: Performing

Some teams will reach the performing stage. Such teams are able to function as a unit as they find ways to get the job done smoothly and effectively without inappropriate conflict or the need for external supervision. At this stage:

- The team starts to identify problems, propose solutions, prioritise and implement changes
- Members accept each others' competencies, roles, strengths and weaknesses and are able to handle the decision-making process without supervision
- The team performs at its best

Supervisors of the team during this phase are almost always participative. The team will make most of the necessary decisions.

Stage 5: Closing

This stage is also known as adjourning or mourning. At this stage, the problem solving work or quality improvement activity which the team intended to achieve has already been accomplished. At this stage:

- The team must deal with either the success or failure of their efforts and the dissolution of the team
- The team identifies lessons learned and plans how these will be communicated

- The leader and the team may celebrate their success or provide support if the objectives were not achieved

It is important to note that even the most high-performing teams will revert to earlier stages in certain circumstances. Many long-standing teams will go through these cycles many times as they react to changing circumstances. For example, a change in leadership may cause the team to revert to storming as the new members challenge the existing norms and dynamics of the team.

2.3.6 Characteristics of an Effective Team

Teams work most effective when they have a clear purpose, good communication, co-ordination, protocols and procedures, and effective mechanisms to resolve conflict when it arises. The active participation of all members is another key feature.

Successful teams recognise the professional and personal contributions of all members, promote individual development and team interdependence, recognise the benefits of working together, and take accountability. Characteristics of effective teams are:

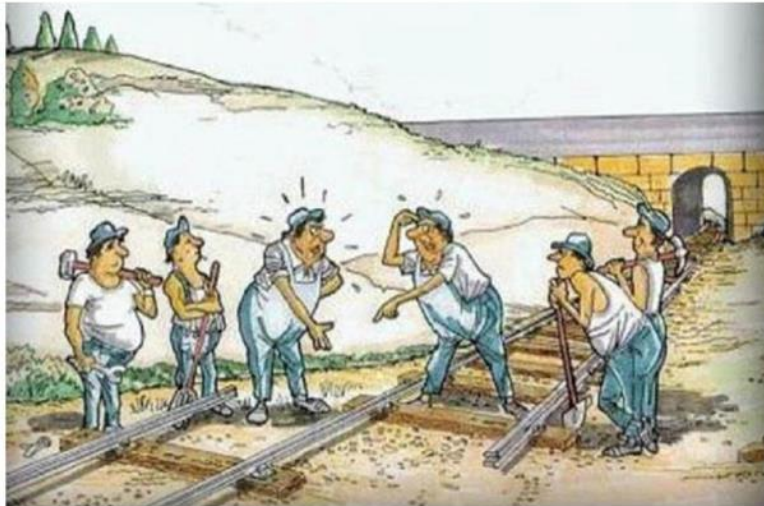
- Clear roles and responsibilities of each team member
- Awareness of each others' needs
- Appreciation and recognition of individual efforts and contribution
- Trusting team climate
- Effective communication among team members

Effective Teamwork:

The image below is an example of how a good team can achieve much more than an individual possibly can.



Ineffective Teamwork:



2.3.7 Key Points

- A team is a group of people working together to achieve a common goal for which they share responsibility
- Team work requires that all members have the ability to influence decisions and apply their strengths effectively to solve problems together
- Team work is one of the principles of QI in health care service delivery

Session 2.4: Principles of Quality Improvement

4: Focus on Measurements of Quality in Health Services



Total Session Time: 3 hours

2.4.1 Learning Objectives

By the end of this session, participants will be able to:

- Define measurement of quality in health services
- Explain the rationale for measurement of quality in health services
- Discuss the importance of measuring quality of health services
- Explain the types of quality measures of health services
- Describe the sources of data for measuring quality in health services
- List the 6 steps to conduct measurement of quality of health services
- Explain the uses of data and challenges of data quality/availability
- Define indicators
- List the characteristics of a good quality indicator

2.4.2 Defining Measurement of Quality of Health Services

Measurement of quality of health services is the process of using data to evaluate the performance of health service programmes and providers against recognised quality standards.

Quality of health services can be assessed at several levels, from the services provided by individual health professionals (e.g. nurses or physicians) and services provided by health systems as determined by national health plans.

It is worth noting that measuring quality of health services is a process requiring precise determination and specification of useful measures.

The science upon which measurement is based is constantly changing as best practices are adapted due to constant new evidence brought in by scientific development.

2.4.3 Rationale for Measuring Quality

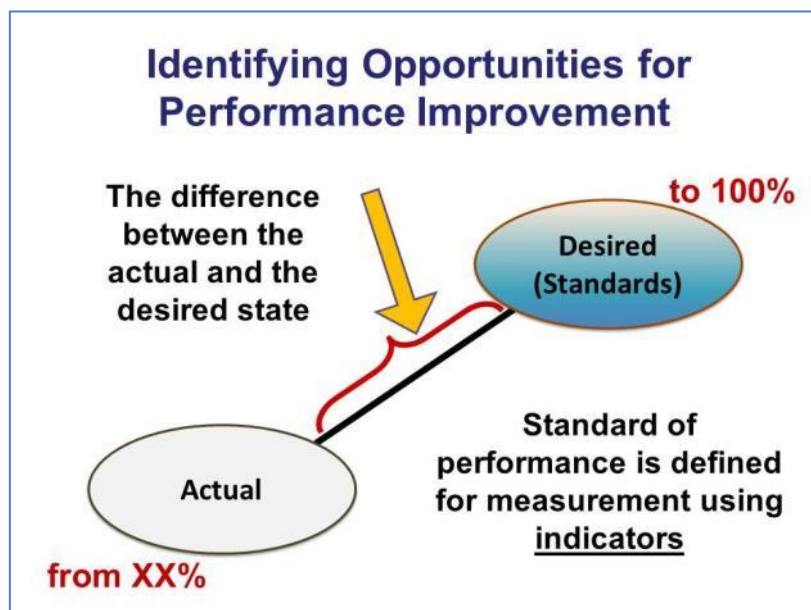
Measurement is critical to quality improvement initiatives because it separates what you think is happening from what is really happening, it can establish a baseline and show progress over time, and can help to avoid implementing ineffective solutions.

Measurement provides information about how the objective for improvement is being achieved. Comparing collected data on a particular process of care under assessment with standard requirements reveals the gap i.e. what should be improved, (see figure below). Measurements provide objective information that allows the development and testing of changes, as well as monitoring progress after a change has been implemented.

In health service provision, measurement is done in order to:

- Compare current practises to set standards or guidelines
- Identify performance gaps
- Identify opportunities for improvement
- Measure and monitor changes to ensure improvement is maintained over time
- Raise awareness of performance gaps among health service providers
- Identify client needs and levels of satisfaction
- Guide prioritisation of QI activities

Quality improvement initiatives target the gaps between the actual state (the status quo) and the desired state.



The diagram above illustrates how/where:

- Measurement of quality of health services allows actual performance to be compared against standards, guidelines and best practices
- Performance gaps and causes are identified
- Quality improvement interventions are introduced to bridge the performance gap
- Quality indicators are used to monitor changes or improvements

2.4.4 Importance of Measuring Quality

Without measurement it would be impossible to determine if any improvements took place. Measurement can provide relevant information related to quality of health services, for example:

- A decrease from 70% to 5% in loss to follow-up rates among patients on ART
- A decrease in waiting time to see a health service provider from 4-5 hours to 30 minutes at each service point
- To increase availability of human resource for health from 44%² to 90% in public health facilities

² Human Resource for Health Strategic Plan –Tanzania;2014-2019

Measurement is an important component of quality improvement because it helps to:

- Identify what is not working in the process of a health service delivery
- Make decisions based on fact, not opinion
- Prevent overuse, underuse and misuse of health services
- Ensure client safety
- Hold health insurance and health service providers accountable for providing high quality health services

2.4.5 Types of Quality Measures of Health Services

Quality measures assess health services across the full continuum of service delivery, from the level of individual client all the way up to the level of health insurance plans. Hundreds of different quality measures are used in health services. These measures generally fall into four types:

1. Structure
2. Process
3. Outcome
4. Client experience

Structure

Structure denotes the attributes of the settings in which health services are provided. Structure can be divided into:

1. **Inputs** which include attributes of human resources (such as the number and qualifications of health workers) and material resources (such as facilities' infrastructure, computerized information system, equipment and financing) and
2. **Organisational systems** i.e. how resources are arranged and managed (such as administrative policies, decision-making hierarchy, reimbursement mechanisms, referral systems and medical/nursing staff organisation)

Process

Measurement of processes should examine **specific activities** that make up health service delivery and provide timely information about activities that might improve outcomes if changed. Monitoring processes is important in order to identify solutions for improvement. Once a process that leads to better health outcomes is established, maintenance of a higher level of performance for that particular process is important in order to avoid poor outcomes.

Many processes are specific to a condition or procedure, however; in practice multiple processes are likely to interact to influence outcome and quality³ This is also true for HIV and AIDS which has several multifaceted interventions with multiple processes. **For example:** HIV testing process involves; pre-test counselling, drawing blood, performing the test using test reagents and equipment, giving test results to the client and post test counselling.

Note: Having well-designed process measures is critical and can mean the difference between providing recommended health services and just checking off a box. While process measures typically reflect professional standards of health service delivery, they do not always consistently predict outcomes, and users should be aware of their limitations. Good process measures should always be backed by evidence that can reliably link a process with improved outcomes.

³Leake PA, Urbach DR. Measuring Processes of Care in General Surgery: Assessment of Technical and Nontechnical Skills. *Surg Innov.* 2010. XX(X) 1- 8.

Outcomes

Outcomes refer to the effects of health services on health status of patients and populations. Outcomes can be:

- **Intermediate markers** of disease progression (such as clinical improvement among HIV patients receiving ARVs, increase in CD4 counts among HIV patients receiving ART); or,
- **End results** of effects of health services (such as mortality, morbidity, functional status, quality of life and patient satisfaction).

Measuring outcomes enables us to monitor the status of patients' health over time (e.g. an improvement in symptoms or morbidity or mortality).

Client Experience

Client experience measures provide feedback on clients' experience with health service delivery. Measures may range from accessibility and clarity of information provided by health service providers to how quickly clients can get services when in need. Clients' positive or negative experiences relate to quality of health services provided.

2.4.6 Sources of Data for Measuring Quality

Measuring quality requires specifically designed tools to measure the different aspects of service delivery. Once quality improvement interventions are prioritised, several data sources will be carefully selected to ensure appropriate and adequate data is collected.

Obtaining data for measuring quality can be difficult and expensive, and errors can occur at several levels. How one chooses appropriate sources of data for quality measurement depends on the purpose for which the information will be used. No single source of data is sufficient to provide enough information for measuring quality.

In general, common sources of data for measuring quality include:

- Routine surveillance
- Review of records and databases (such as CTC 2 cards , ART and Pre-ART registers, CTC2 database, DHIS, Pharmacy module database etc)
- Surveys (e.g. clients' opinion survey on quality of care provided, level of satisfaction etc)
- Direct observations e.g. provider/client interactions
- Interviews

Clients' records and database management are key components of measuring and improving the quality of health services provided to chronic conditions like HIV and AIDS.

2.4.7 Conducting Measurement of Quality of Health Services

Specifically designed tools are available and new ones can be developed to measure specific structures, processes and outcomes of health services. Procedures for conducting measurement are:

1. Developing a specific aim for measurement which requires QI teams to understand and internalise how their work is linked to measurement
2. Identifying the measures necessary to reach the established specific aim/objective

3. Developing operational definitions so that there is complete understanding by all involved of what will be measured
 - e.g. A possible question answered by operational definition: could we combine data from 5 people and have confidence that we are comparing mangoes with mangoes? If an operational definition is not adhered to we might end up comparing mangoes with beans rather than comparing mangoes with mangoes. In other words, standardisation of measurement methods ensures that any differences in measurements are not due to measurement methodology thereby permitting valid conclusions among health facilities being compared.
4. Developing a detailed data collection plan and customised tools to ensure comprehensive and accurate collection of the appropriate data
 - A data collection plan clarifies how often data will be collected and reported (weekly, monthly, quarterly etc) and for how long, and from what sources of data (data sheets/records, databases surveys, focus group discussions or some combination of these methods?)? Also, who will collect data. A data collection plan also clarifies whether there will be sampling of data or all available data will be collected for measurement. It is clear that a well-developed data collection plan saves time, effort and money and makes it sound improvements possible.
5. Collecting the data
6. Analysing and displaying the data

2.4.8 Use of Data

Evidence-based QI efforts depend on correct, complete and current data. Data is the cornerstone of quality improvement; it is information used to describe how well current systems are working, what happens when changes are applied and to document successful performance.

Data is needed to determine:

- Accurate baseline status
- Identification of opportunities for improvement
- Effective decision-making and prioritisation
- Effective planning of effective interventions
- Meaningful monitoring and evaluation to ensure that improvements are sustained

Challenges in data quality and availability

- Administrative sources often lack important elements and can be inaccurate
- Some data elements necessary for important quality measures may not be available due to burden of data collection
- Technology barriers to data collection
- Recording of data may be incomplete or inaccurate
- Legal or technical barriers to sharing data among multiple health service providers

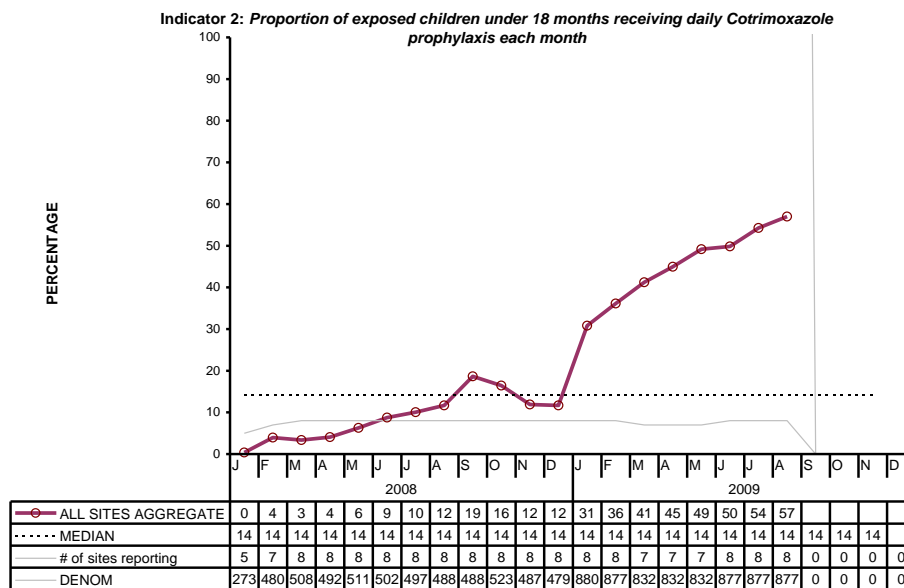
Displaying Data

In order for measurements of data to be useful, they need to be displayed in a way that tells a meaningful story. Data collected for measuring quality may be analysed and presented showing the following patterns:

- Present data over time
- Present data showing a distribution among data points
- Present data showing relationships
- Present data as locations
- Present data showing multiple measures

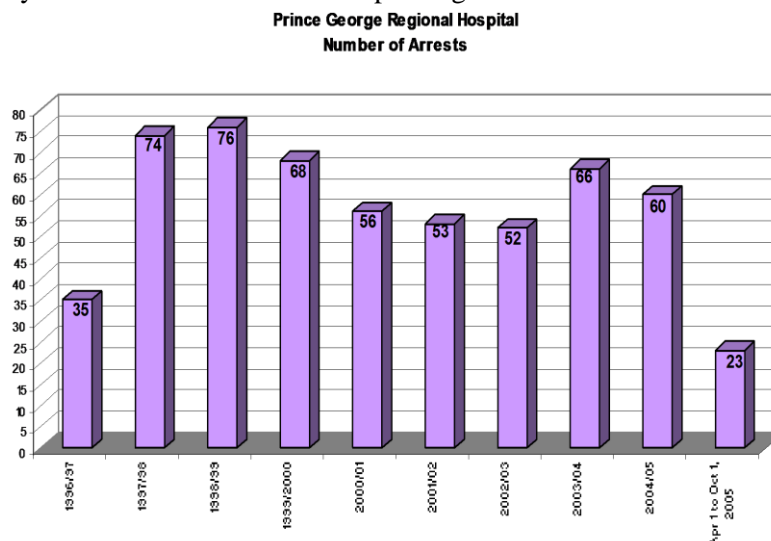
Examples of visual display of data

Run Charts show data plotted over time. You can see at a glance how the proportion of exposed children under 18 months receiving daily prophylaxis has increased over time. Run charts are just one way to display data. There are many ways to do this such as bar charts, pie charts and tables, and some work better for different types of data.

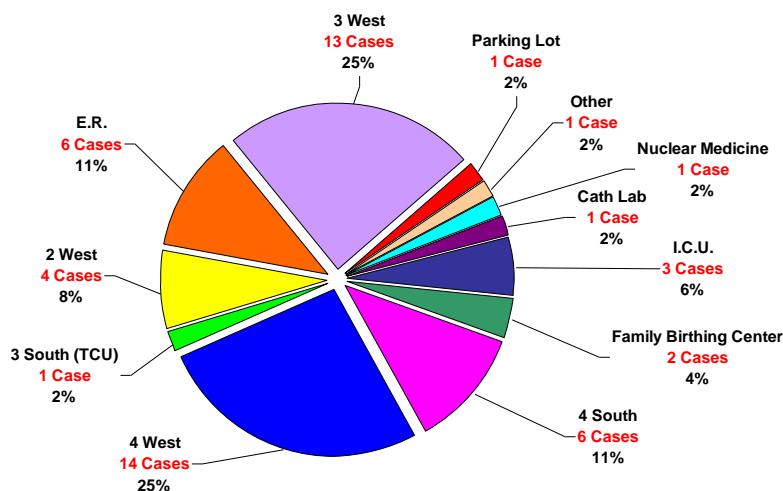


Numerator: # of HIV exposed infants that started receiving cotrimoxazole within 2 months of age **Data Source:** CTC 2 card, PMTCT Reg
Denominator: The estimated # of HIV exposed infants born in the preceding 12 months

Bar Chart typically start scale at 0 and continue past highest bar.



Pie charts display data as pieces of a pie.



2.4.9 Indicators

Introduction

Indicators are measures that are used to monitor and evaluate the quality of governance, management, clinical, and support functions that affect patient outcomes. Indicators are measures used to quantify, characterise, or assess a given situation.

Indicators have been defined in several different ways:

- As measures that assess a particular health care process or outcome.
- As measurement tools, screens, or flags that are used as guides to monitor, evaluate, and improve the quality of patient care, clinical support services, and organizational function that affect patient outcomes.
- As measures that are used to assess the status of system components, conformity to specifications and standards and the degree of attainment of objectives.

Measuring quality requires the development and application of performance measures or indicators against which to make judgement on the level of quality.

Since indicators are based on agreed standards and are evidence-based, they provide a quantitative basis for health service providers, organisations, and planners to achieve improvement in health services and the processes by which health services are provided. Furthermore, indicators help the health sector to define and measure progress towards set goals.

Purpose of Indicators

Indicator measurement and monitoring serve many purposes, they make it possible to: document the quality of care; make comparisons (benchmarking) over time between places (e.g. hospitals); make judgments and set priorities (e.g. choosing a hospital or surgery, or organizing medical care); support accountability, regulation, and accreditation; support quality improvement; and support patient choice of providers. The use of indicators enables professionals and organisations to monitor and evaluate what happens to patients as a consequence of how well professionals and organisational systems function to provide for the needs of patients.

Types of Indicators

Indicators can be related to structure, process, or outcome of health services.

Structural Indicators

Structural indicators also referred to as input indicators, describe the type and amount of resources used by a health system or organisation to deliver programs and services, such as the presence or number of staff, clients, money, beds, supplies, and buildings. The assessment of structure is a judgement on whether care is being provided under conditions that are either conducive for provision of good care.

Examples of structural indicators include:

- Number of staff trained in HIV clinical management in 2010 (count)
- Proportion of functional CD4 machines in the region in a month (proportion)
- Proportion of days in a month with stock out of ARV (proportion)

IMPORTANT NOTE: *The examples of indicators in this training package are primarily proportions, but indicators can also be:*

- *Counts (as shown in the first bullet point above)*
- *Rates (such as incidence or prevalence)*
- *Ratios and percentages*
- *Other measures*

Process Indicators

Process indicators measure the activities and tasks in patient episodes of care. Some authors include the patient's activities in seeking care and carrying it out in their definition of the health care process. Others limit this term to care that health care providers are giving. It may be argued that providers are not accountable for the patient's activities and these, therefore, do not constitute part of the quality of care, but rather fall into the realm of patient characteristics and behaviour that influence patients' health outcomes.

Examples of process indicators include:

- Proportion of patients seen by a doctor at CTC within 4 hours (proportion)
- Proportion of patients treated according to clinical guidelines (proportion)
- Number of HIV patients who undergo CD4 testing after every six months (count)

Outcome Indicators

Outcomes describe the effects of care on the health status of patients and populations. An ideal outcome indicator would capture the effect of care processes on the health and wellbeing of patients and populations.

Outcomes can be related to:

- (i) Disease: symptoms, physical signs, and laboratory abnormalities;
- (ii) Discomfort: symptoms such as pain, nausea, or dyspnoea;
- (iii) Disability: impaired ability connected to usual activities at home, work, or in recreation; and
- (iv) Dissatisfaction: emotional reactions to disease and its care, such as sadness and anger.
- (v) Death

Examples of outcome indicators include intermediate and end result outcomes.

Intermediate outcomes include the short-term results of programs and services, and they may be used as proxy measures for true health outcomes. Intermediate outcomes can take many forms, for example, in health promotion programs: measures of change in knowledge (e.g. how HIV is transmitted), attitudes (e.g. toward condom use), and risk behavior (e.g. self-reported rates of condom use).

Other examples of intermediate outcomes include:

- Clinical improvement among HIV patients receiving ARVs
- Increase in CD4 counts among HIV patients receiving ARVs from 2014-2015
- Improved ARVs adherence rates

End result outcomes

- Mortality e.g. proportion of deaths resulting from motor vehicle accidents
- Morbidity
- Functional status e.g. proportion of persons with disabilities living independently
- Patient satisfaction e.g. proportion of clients satisfied with tobacco cessation programs

Characteristics of a Good Quality Indicator

1. **Relevance:** Does the indicator relate to a condition that occurs frequently or has a great impact on the patients at your facility?
2. **Measurability:** Can the indicator realistically and efficiently be measured given finite resources?
3. **Accuracy:** Is the indicator based on accepted guidelines or developed through formal group-decision making methods?
4. **Improvability:** Can the performance rate associated with the indicator realistically be improved given the limitations of all your services and patient population?

Components of Indicators

Proportions are commonly used as indicators. These are the components of a proportion or rate.

- Numerator the part of a common fraction appearing above the line, representing the number of parts of the whole that are being considered
- Denominator the number below the line in a simple fraction, which indicates the number of parts making up the whole
- Time period over which the event or outcome of interest occurs

Any changes in the definition/specification of the numerator or denominator will change the indicator. In order to draw valid conclusions about trends in performance of an indicator it is important that the indicator definitions/specifications remain stable over time.

Examples of Indicators

Indicator: proportion of men accompanying their partners to ANC per month

- Numerator: number men accompanying their partners to ANC in a given month
- Denominator: total number of women attending ANC in a given month

Indicator: % of HIV patients from CTC receiving CD4 test once every 6 months

- Numerator: number of HIV patients both in general care and on ART seen at the clinic in the past six months who had a CD4 test in a particular month
- Denominator: Total number of HIV patients in general care and on ART seen at the clinic in the past 6 months

Tanzania HIV & AIDS Patient Care and Treatment Indicators

Health facilities in Tanzania report on the same indicators for HIV and AIDS care and treatment. These indicators address:

- Retention
- Access
- Wellness

Refer to **Annex 5: Tanzania HIV/AIDS Patient Care and Treatment Indicators** on page 111 in this Participant Manual for the indicators used in Tanzania.

2.4.10 Key Points

- Measurement of data is key to quality improvement because it provides useful information for decision making
- Quality of care can be measured on the following three aspects: Structure, Process and Outcome
- Performance measurement is an essential component of quality improvement initiatives
- Data management makes it possible to identify improvement opportunities and track performance over time
- Indicators should be selected carefully to align with improvement goals

Session 2.5: Principles of Quality Improvement

5: Focus on Systems and Processes



Total Session Time: 3 hours 45 minutes

2.5.1 Learning Objectives

By the end of this session, participants will be able to:

- Define a system
- Explain the concept of system components
- Explain the concept of “process”
- Describe the importance of focusing on systems and processes
- Describe process analysis
- Conduct a process analysis

2.5.2 Systems and System Components

To improve quality in the health care system one must view all services as a series of processes that make up the health system. Inefficiencies in providing health services is directly related to the efficiency of its processes; therefore it is essential for all involved in health service delivery to understand the processes they are a part of and how those processes make up the system. Then we can narrow quality gaps and improve services.

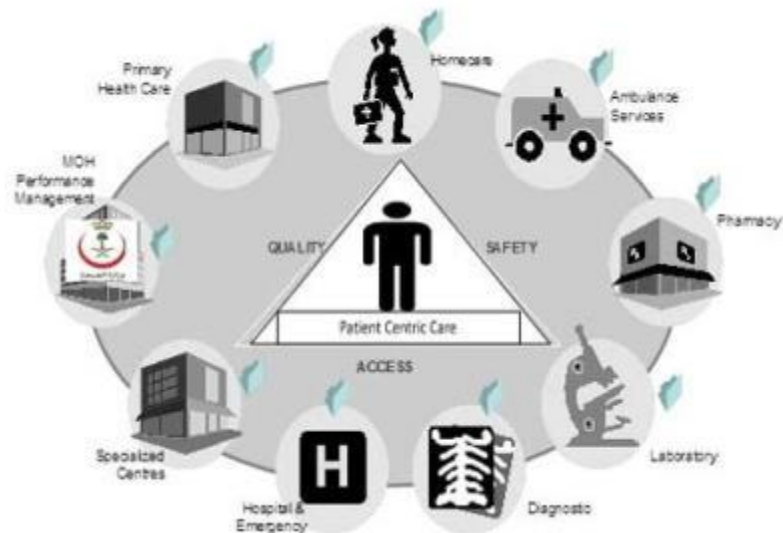
Definition of a system: A system is a set of interacting and interdependent parts and processes. A system can also be defined as sum of all elements that work together to produce a common goal or product.

Systems are arrangements of organisations; people, materials and procedures associated with a particular function or output. Systems can be small or large, simple or complex.

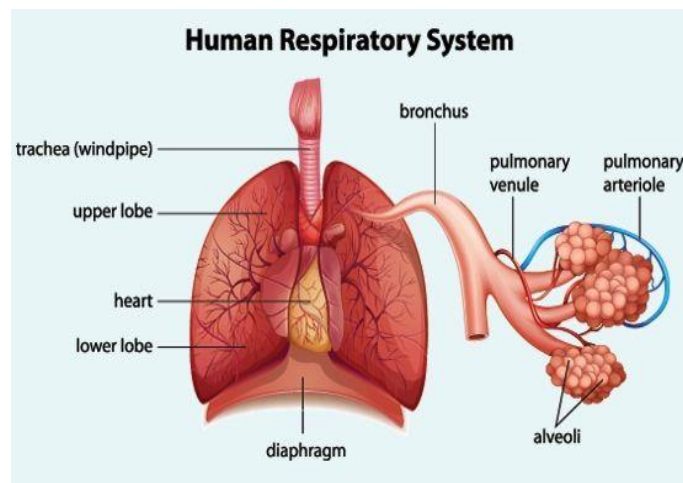
Every system is perfectly designed to achieve the results that are achieved. Each system has its own processes that are based upon the needs of the system. Processes can cause inefficiencies due to design, or due to problems during execution or transition from one step to another. For example, the patient flow process at RCH by which patient moves through health facility seeking and receiving health care will be influenced by processes other than that of their treatment in the health system.

Examples of Systems

A health care facility or hospital is composed of the reception, outpatient, inpatient, CTC, pharmacy, laboratory departments, etc. Each of those are a smaller system comprised of many processes.



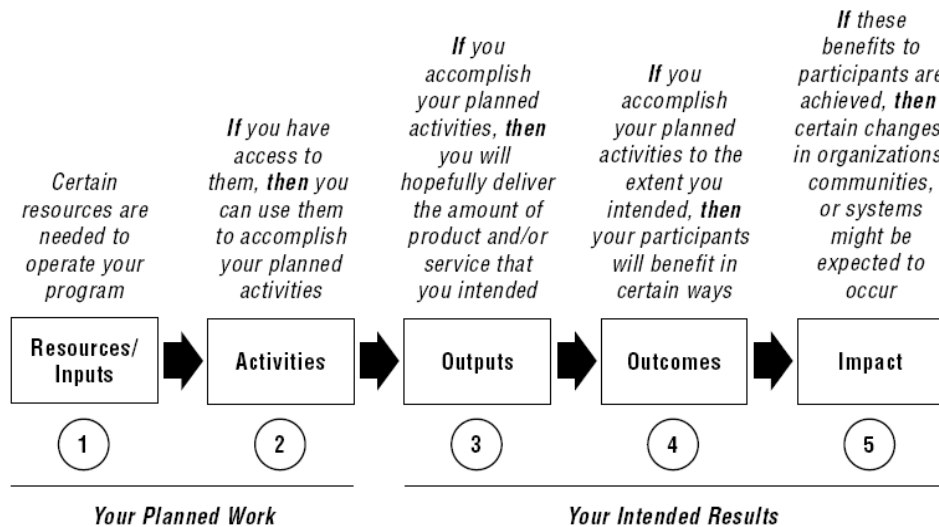
There are different systems in human body. The picture below illustrates the respiratory system. The human body is a system that is made up of complex organs and processes. The health care delivery system can be compared to the human body, for it is a system made up of complex parts and processes.



Components of a System

A system is made up of the following components:

- **Inputs**
Resources required to carry out a certain activity, e.g. National health policy, health sector strategic plan, national guidelines, SOPs for clinical and non-clinical services, human resources, time, financial resources, equipment and supply, effective, committed and transparent leadership, team work, infrastructure
- **Processes/Activities**
Series of actions needed to perform a task or transform inputs into outputs, e.g. HRH training, care delivery, implementation of QI approaches in an integrated manner
- **Output**
The immediate results of a process or activity. Product or services resulting from input and processes, e.g. number of health providers trained, supply inventory complete.

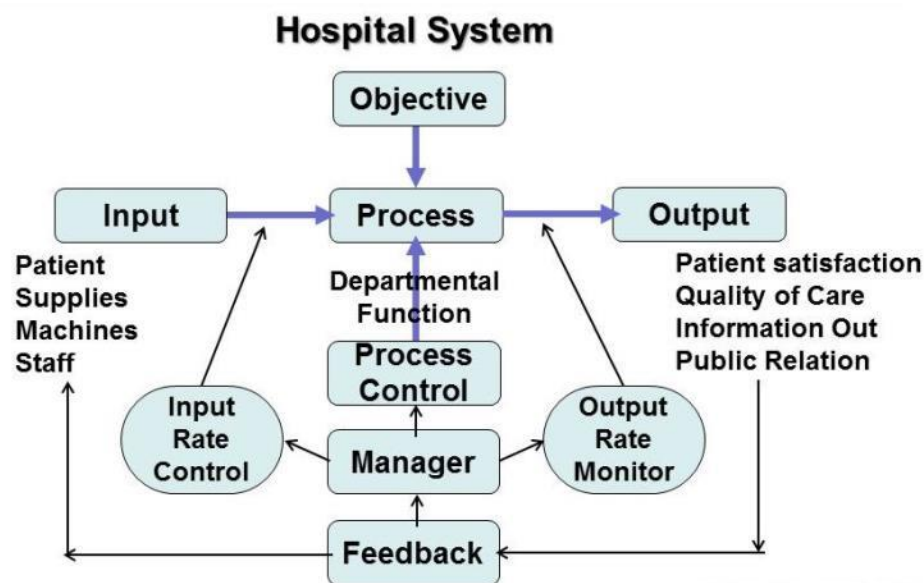


Source: Kellogg Foundation

There are various relationships between components of a system:

- **Inputs** are the resources required to implement any activity, for example, trainers, content experts, training space and funding.
- **Activities** are what you do with those resources, such as design and develop training materials, plan training sessions, and implement training.
- **Outputs** could be a finalized training package and a number of trained professionals.
- **Outcomes** are when the trained professionals use their training to benefit their facilities and clients.
- **Impact** refers to the longer-term outcome, such as optimally-running facilities and improved health of the community.

The image below depicts a hospital system. Ideally, the planned inputs and processes will produce outputs that will lead to good patient outcomes and have a positive impact on the health of the community.



Source: Dr. N.C. Das

Fundamental Rule of a System:

System design determines the results it produces. If different results are desired from a system, then a change in the system is necessary. When there is a failure in any part of the system, quality will suffer.

“ ... Every system is perfectly designed to get exactly the results it gets ... ”
- Paul Batalden, 2002.

“ Quality fails when the system fails.”
- Schalk, 2005.

2.5.3 Importance of Systems and Processes

As health care systems strive to join the ranks of other high-reliability organisations, many health settings continue to struggle with the basic challenge of developing **reliable systems**. Reliable systems can reduce defects and rework and facilitate safer care of our patients, thereby improving patient outcomes. They can also improve respect for people’s work and increase the joy in their work, and enable patients to know when variations in care occur.

There is a 3-step model to maintain reliable health service delivery systems:

1. Prevent failure (a breakdown in operations)
2. Identify failure when it occurs and intercede before harm is caused, or mitigate the harm caused by failures
3. Redesign the process based on identified failures

This three step model was developed by the Institute for Healthcare Improvement (IHI). Within each step of the model, specific reliability principles and change concepts can be applied to reduce ambiguities and opportunities for error, and improve the reliability of the processes used to support care.

In the health care delivery system, many processes occur simultaneously and involve many professional functions in the organisation; all processes are directed towards achieving the planned outputs that will lead to good outcomes and a positive impact on the population. In many cases, gaps in quality are directly related to ineffective processes which are due to poor design or human error. Making quality improvements requires an understanding of process analysis so that the process can be re-designed more effectively.

Importance of Systems

Effective systems can reduce defects and rework and facilitate safer care of our patients, thereby improving patient outcomes. Effective systems can improve respect for people’s work and joy in work. Effective systems enable patients to know when variations in care occur.

Defining Processes

A process is a series of activities needed to perform a task or transform inputs into outputs. Health services delivery involves a number of processes occurring simultaneously, each affects the quality of services offered. In order for a process to be carried out well, the following must be clearly defined:

- What needs to be done
- Why it needs to be done
- How it should be done
- Who should do it
- When it should be done

Importance of Processes

In most situations processes are at the root of quality problems (not people). In order to improve quality, we must be able to understand thoroughly the processes involved in the service delivery system. Processes may need to be modified to improve the quality of the system.

The majority of quality problems are in poorly designed processes or systems. Improvement of the system will depend on the extent to which we are able to understand, analyse and re-design processes.

2.5.5 Difference between Systems and Processes

There is a distinct difference between systems and processes:

- A process produces results through the completion of one activity whereas a system produces results through the interaction of multiple units
- Processes produce outputs whereas systems produce outcomes or impact
- Process owners manage activities to produce required outputs whereas system managers manage interactions to produce desired outcomes

Process	System
Results are produced through the completion of one activity	Produces results through the interaction of multiple units
Produces outputs	Produces outcomes
Process owners manage the activities to produce required outputs	System owners manage process interactions which produce desired outcomes

2.5.6 Process Analysis for Health System Reliability

Reliable health systems depend on efficient and effective processes.

Definition: Process analysis refers to gaining a deeper understanding of potential problems in a process by conducting a series of steps designed to identify areas for improvement to improve quality of service delivery.

Process analysis answers the question;” HOW?”

There are two kinds of process analysis:

- Directional (or perspective) process analysis asks: how do you do it?
 - For example, how to conduct a blood test or how to sign patients in at a clinic
- Informational (or descriptive) process analysis asks :how does the process work?
 - For example, how does the blood test work or how does the process of medical records and patient documentation work?

Importance of Process Analysis

Inefficiency in a processes results in time wastage, unnecessary steps and extra work to a system, ultimately reducing quality of service. Process analysis makes it possible:

- To identify problems and understand underlying causes
- To provide a clear framework for identifying parts of the process that require change
- To enable teams to communicate what they are doing and why

Steps in Process Analysis

1. Identify problems as they occur
2. Prioritise and select process for analysis
 - List every step in the process to identify steps that are problematic or redundant
 - Identify who does what to identify steps that are unproductive
 - Identify where the action takes place
 - Determine if steps consist of sub steps for possibilities of integrating some services to reduce resource wastage
3. Collect performance data on current situation (baseline data)
4. Analyse the data
5. Describe the current process using a process flowchart
6. Identify weak or redundant steps

Case Study: RCH Clinic Process

Refer to **Annex 3: Case Study of Mrs. Kwangu and Melela Health Centre** on page 107.

Take note of **Figure 4a** in **Annex 4: System and Process Flow Charts** on on page 109 of their manual.

Benefits of Using Process Flowcharts

Flowcharts are used as a basis to guide process analysis and design new, more efficient and effective processes. Process flow charts are used to identify steps that:

- Are unclear and/or cause unnecessary client movement at health facility
- Are inefficient and can be removed from the process
- Leave room for error
- Are redundant and can be merged with other steps to reduce client movement
- Are inconsistent with the process

Creating a Process Flowchart

1. Get the “right” people in the room—those who know the process best
2. Agree on the level of detail required
3. Define first and last steps in the process
4. Document process steps in sequence
5. Review for accuracy & completeness
6. When flowchart is final, analyse it, use it, and keep it up to date

Steps to Improve a Process

1. Identify areas for improvement by creating a process flowchart

- Steps where time could be used more efficiently?
- Steps where two tasks could be accomplished in a single step, or could be done parallel?
- Steps where a task could be shifted to a less-qualified staff member?

- What is the longest step?
 - Why does it take that long?
2. **Identify possible changes to the process that can reduce the identified problems**
 - Lab to stay open till 2pm
 - Task shifting to a less qualified staff member
 3. **Re-write your process flow chart with new steps or new actions**
 4. **Implement the re-designed process to see if it results in an improvement of the process of care at RCH**
 - Compare your results before and after the changes
 - Decide if the changes are making a difference and are worth making them permanent

Identify change ideas to the process flow that can reduce problems

Change ideas are generated by team members, discussed and prioritized, the following can be example of change ideas:

- Lab stays open till 2pm
- Task shifting to a less qualified staff member

Try the redesigned way of providing services to see if it improves outcomes

In redesigning process QI team decides and agrees on change idea to be tested this will include:

- Use data to compare results from before and after testing the change idea to see if sufficient improvement resulted
- Deciding if the change idea is making a difference and worth making it permanent

2.5.6 Conducting a Process Analysis

Follow the instructions provided by the facilitator to draw a process flow chart to re-design the process for Melela Health Centre.

Through analysis of processes in an illustrated flow chart, QI teams can identify weaknesses and change processes in a way that produces better results.

Refer to:

- **Annex 3: Case Study of Mrs. Kwangu and Melela Health Centre** on page 107
- **Figure 4b in Annex 4: System and Process Flow Charts** on page 110
- Answer the following questions:
 1. Draw process flow chart to describe the process of care that Mrs. Kwangu went through at
 - I. Melela Health centre
 - II. Labour ward at Melela HC
 - III. District hospital
 2. Identify weak or redundant steps in each of the stations above
 3. Prepare an improved process flow chart to make the process work better and present this

2.5.7 Key Points

- A system is a set of interacting and interdependent parts and processes
- A process is a series of steps needed to perform a task or transform inputs into outputs
- In most situations, processes are at the root of quality problems (not people)
- Process analysis refers to gaining a deeper understanding of potential problems in a process by conducting a series of steps designed to identify areas for improvement
- The goal of process analysis is to identify areas for improvement to improve quality of service
- Improving systems involves identifying areas for improvement in processes
- Creating a process flow chart can help to identify areas for improvement and provide possible solutions to overcome challenges
- Implement small changes to see if they result in an improvement of the process of care. If they do, institute those changes on a larger scale

Unit 3: Quality Improvement Model and Approaches

Part 1: QI Model and Approaches

Session 3.1.1: Quality Improvement Model



Total Session Time: 2 hours 15 minutes

3.1.1.1 Learning Objectives

By the end of this session, participants will be able to:

- Define ‘Quality Improvement’
- Describe the quality improvement model
- Practice the improvement model using a case study.

3.1.1.2 Definition of Quality Improvement

Quality Improvement is defined as a systematic process of:

- Assessing the performance of a health system and its services,
- Identifying gaps and causes,
- Introducing measures to improve quality, and
- Monitoring the impact of these measures.

Improvement comes from the application of knowledge in making changes in response to three fundamental questions:

- What are we trying to accomplish?
- How will we know that a change is an improvement?
- What changes can we make that will result in an improvement?

Quality improvement relies on the Plan, Do, Study, Act (PDSA) cycle. PDSA is a simple way to enable QI teams to answer the three fundamental questions when they introduce a new activity, using an effective method to learn and assess changes in their own settings.

3.1.1.3 Introduction to the Quality Improvement Model

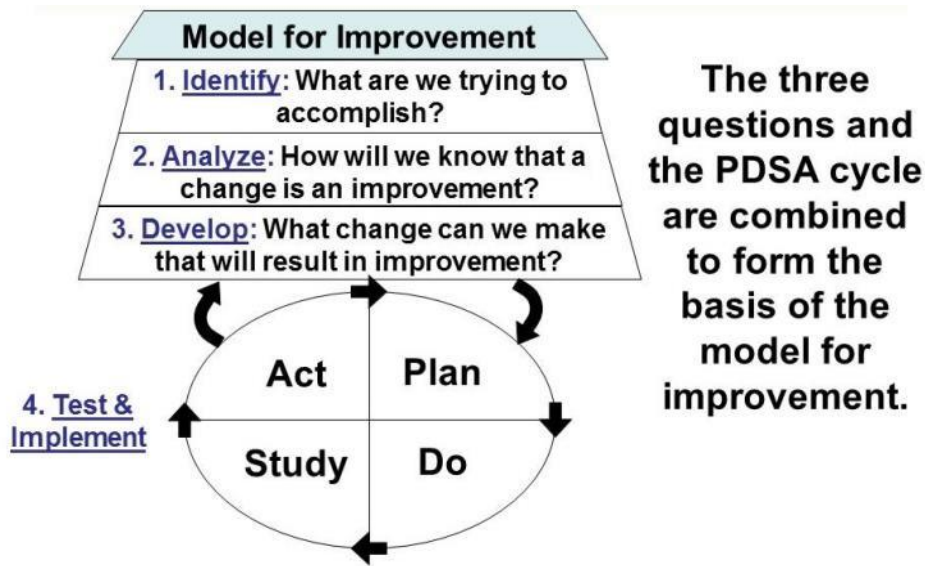
The four steps of quality improvement are:

- **Identify:** determine what needs to be improved
- **Analyse:** understand the problem
- **Develop:** hypothesize about what changes will improve the problem
- **Test/implement:** test the hypothesized solution to see if it yields improvement.

Based on the results, decide whether to abandon, modify or implement the change idea.

QI is not limited to carrying out these four steps, but rather is continuously looking for ways to further improve quality. When improvements in quality are achieved, teams can continue

to strive for further improvements with the same problem and/or address other opportunities for improvement that have been identified.



Step 1: Identify

The goal of this step is to determine what to improve. This may involve a problem that needs a solution, an opportunity for improvement or a process or system that needs to be improved. Examples of problems in HIV and AIDS services are:

- Stock outs of ARV medicines and/or laboratory reagents
- Few clients have follow up CD4 tests done
- Few infants are initiated breastfeeding within the first hour of delivery

The important question in this step is to ask: What is the problem as regards to the perceived quality gap?

In healthcare settings there are different ways of identifying problems/challenges related to delivery of quality services:

- Client might express satisfaction or dissatisfaction
 - Suggestion box
 - Client exit interview
- An adverse effect might draw attention
 - Client presenting with unusual allergic reactions
- Record review

Options for Identifying Problems related to Health Service Delivery

Record Review:

Use available data to help identify current gaps that need to be addressed. For example:

- Use pre ART register to determine if patients who are eligible for ART are being started on
- Use ART registers or ART database to check if patients are monitored CD4 count / HIV - Viral Load as scheduled, if patients who are supposed to return to clinic in a specified time frame are attending

- Check pharmacy registers to see whether patients who were prescribed and received ART
- Review indicators for quality improvement that have been used elsewhere for example
 - Were patients assessed for active TB at last clinic encounter
 - Did HIV exposed infants receive daily cotrimoxazole after eight (8) weeks of birth
 - Did female patients between 15 -49 years of age receive family planning counselling during their most recent clinic visit

Client Input:

Obtain ideas from clients (both internal and external) on areas which they think need improvement. This can be done by encouraging regular meetings with staff and patient groups, holding a focus group discussion, conducting exit interviews, and/or using suggestion boxes.

Step 2: Analyse

Analysis is gaining deeper understanding of the opportunity for improvement before considering changes. Analysis requires use of data (existing data, or collecting new data) and also utilizes flow charts or process analysis diagrams. These tools help QI teams to understand why the process or system produces the effect that we aim to change, and helps teams to understand the existing process through use of flow charts.

When analysing a problem, the key questions to be considered are:

- How do you know that it is a problem?
- What factors are causing the problem?

Once a problem or opportunity for improvement has been identified, the second step analyses what must be known or understood before changes are considered.

The objectives of the analysis step can be any combination of the following:

- Clarify why the process or system produces the effect that we aim to improve
- Measure the performance of the process or system that produces the effect
- Formulate research questions, such as:
 - Who is involved or affected?
 - Where does the problem occur?
 - When does the problem occur?
 - What happens when the problem occurs?
 - Why does the problem occur?
- Learn about internal and external clients, such as their involvement in the process being analysed and needs and opinions about the problem

Analysis requires use of existing or collection of additional data and drawing flow charts or process analysis diagrams.

- The existing or collected data can be used to measure the current level of performance and compare with the expected or set standards
- Performance measurements provide an objective way of understanding what is really happening, as opposed to assumptions

During measurements, it is important to have a clear and specific measure with defined time period. To be able to better visualize the information provided by the collected data, it is important to graphically plot the data for example run charts that can also show the trend.

Performance data usually shows gaps in quality but does not explain why the gaps exist. The information on why the gaps exist is obtained by having a clear understanding process of care. This can be achieved by developing a flow chart of the existing process and making a team review about the potential barriers of the process to the performance.

Step 3: Develop

This step uses information gathered from *Step 1: Identify* and *Step 2: Analyse* to explore and propose changes that might improve the existing problem. It is crucial to remember that at this point the proposed changes remains theoretical as they have not yet been tested.

There are four approaches can be used to develop ideas for possible changes that could result in improvement:

- Individual problem solving approach, where individuals develop specific minor changes in the system. These small changes effect few people and require less planning and time. This method generally does not require teams or outside experts for the development of hypotheses for improvements
- Rapid Team Problem Solving, which involves the development of a series of small changes to be sequentially tested and possibly implemented
- Systematic Team Problem Solving, which develops solutions directed towards the root cause of a problem and therefore these changes are generally large
- Process Improvement, which involves the permanent monitoring and improvement of a key process and therefore encounters a variety of improvement needs over-time

The rapid team problem solving approach is preferable for quality improvement teams as it allows the team to test a series of small changes sequentially thus being able to measure the effect of the change on improving the quality gap.

Changes may affect different processes and impact a lot of people, so they require planning before implementation. Although the change may result in improved quality, health workers may often feel apprehensive about change and resist it, especially if they did not participate in developing the change. Therefore, it requires time for organizational members to grow accustomed to the new ideas and learn the new methods. Resistance to change can be prevented through group participation and time for adjustment.

Step 4: Test and Implementation

During this step it is important to note that not every change will result into an improvement. The improvement team should test the proposed change and measure performance over a period of time to see if it results into improvement. The cycle of “measure – test – change – re-measure” forms a fundamental part of improvement work.

The data collected during the implementation of test changes can be plotted as “results versus time” in a run chart to enable the Quality Improvement Team better visualize the results and trends and compare with the similar charts obtained during the ‘measure’ phase, during problem analysis stage.

Once the change has been demonstrated to result into improvement the change can be institutionalized into routine healthcare delivery processes. It is important to emphasize that a variety of changes may be tested before an improvement is observed. The quality improvement teams are encouraged to start implementing the changes in a small scale, learn the impact before expanding, scaling-up, or institutionalizing a change.

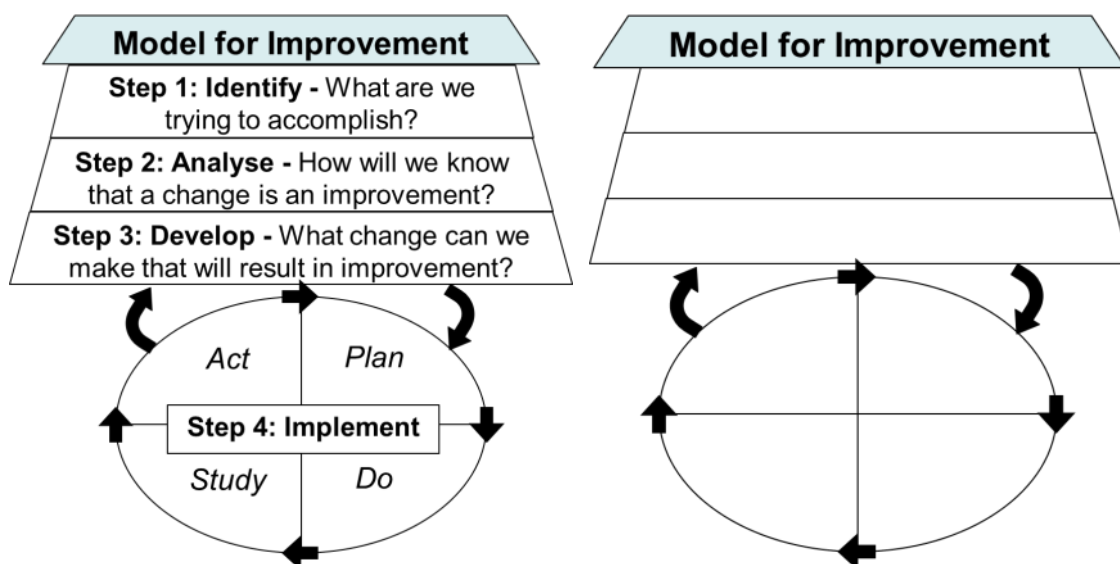
Plan-Do-Study-Act (PDSA) cycle is a fourth step of improvement model. PDSA is a simple way to enable QI teams to answer the third fundamental question(a change to be implemented) .

The application of QI model in Tanzania has mostly focused on measuring, testing changes and then re-measuring to assess if the tested change resulted in an improvement.

Based on the results, decide whether to abandon, modify or implement the solution.

3.1.1.4 : Activity: Applying the Improvement Model

Using **Annex 1: Case Study on Begedu Health Centre** on **page 101**, complete the model for improvement diagram in a small group.



Refer to **Annex 2: Applying the Model for Improvement to Begedu Health Centre** on **page 103** of this Participant Manual for a detailed example.

3.1.1.6 Key Points

- Quality improvement has four main steps:
 - Identify: determine what we want to improve
 - Analyze: understand the problem
 - Develop: hypothesize about what changes will improve the problem
 - Test/Implement to determine if the change yields improvement. Based on the results, decide whether to abandon, modify or implement the solution.
- The Plan-Do-Study-Act Cycle helps QI teams to answer three fundamental questions to guide implementation and assessment of changes.
- The model for improvement can be applied to reduce quality gaps in HIV care and services.

Session 3.1.2: Quality Improvement Approaches



Total Session Time: 1 hour

3.1.2.1 Learning Objectives

By the end of this session, participants will be able to:

- Illustrate different approaches to QI
- Describe the 5S approach and its importance
- Describe the Improvement Collaborative approach and its importance

3.1.2.2 Introduction to QI Approaches

Several approaches and models of quality improvement have been adopted in the delivery of health services in Tanzania. Some of these approaches are:

- **5 S:** A management tool used as a systematic approach for productivity, quality and safety improvement in all types of organisations
- **Improvement Collaborative:** An organised network of sites (e.g. districts, facilities or communities) that work together for a limited period of time to rapidly achieve significant improvements in a focused topic area through shared learning and intentional spread methods.
- **Stepwise Certification Towards Accreditations (SCTA):** A process of validation in which facilities are evaluated through standards which are set by a responsible board hence upgraded to a specific level such as 2 star, up to 5 star.
- **Standard Based Management and Recognition (SBMR)** – is the approach utilizes the performance improvement cycle of measuring actual performance using standards, identifying gaps, determining the root causes of the gaps, and identifying and implementing interventions to address the gaps
- **Results Based Financing (RBF)** is an approach that links financing to pre-determined results. Payment is made only upon the verification of the agreed results which have actually been delivered
- **Strengthening Laboratory Management Towards Accreditation (SLMTA)** – a structured quality improvement program, teaches laboratory managers how to implement practical quality management systems in resource limited settings using available resources

In improving the quality of HIV and AIDS services in the country, the MoHCDGEC together with stakeholders have opted to use Improvement Model and two approaches; 5 S and Improvement Collaborative.

3.1.2.3 The 5S Approach

Five-S (5-S) as an entry point for overall health system quality improvement.

Five-S is a philosophy and a way of organizing and managing the work place and work flow with the intent to improve efficiency of work by eliminating waste, improving flow, improving safety and minimize time wasting, often occurring secondary to a disorganised environment.

5-S Principles are reliable instruments which help to make a break-through in your work environment and staff attending various service provisions in an institution. This is not only a concept but also a set of actions, which has to be conducted systematically with the full participation of staff serving the institution.

5-S activities are practiced in a real participatory movement to improve the quality of both the work environment and service contents, which are delivered to your clients using the improved environment. It is used as a basic, fundamental, systematic approach for productivity, quality and safety improvement in all types of organisations.

Targets of 5-S principles are:

- Zero changeovers leading to product/ service diversification
- Zero defects leading to higher quality
- Zero waste leading to lower cost
- Zero delays leading to on-time delivery
- Zero injuries thus promoting safety
- Zero breakdowns bringing better maintenance
- Zero customer complaints, i.e., customer satisfaction
- Zero red ink, i.e., betterment of organisation's image

Furthermore, introduction of 5-S is expected to instil team culture, increase morale and motivation and improve job satisfaction. They are simple but effective methods to organise the workplace (Hirano and Talbot, 1995). In the long-run implementation of the 5-S principles also helps in creating positive altitude to the workforce.

What is 5-S?

Five-S approach is based on the abbreviation for five terms presented below:

1. Sort

- Remove unused stuff from your working place, by:
 - Categorizing and colour coding the items
 - Developing inventory list for all categorized items
 - Removing all unnecessary items for discarding
 - Storing (keeping) “may be needed” items
 - Regular sorting of unused items
 - Developing a culture of returning items to where they belong



2. Set

- It is to organise all necessary items in proper order for easy services provision:
 - Organise cabinets with labelling/numbering
 - Keep items at their respective areas and label them accordingly
 - Post directional arrows leading to service areas
 - Label all service rooms
 - Update stock/equipment inventories
- The rules and regulations must be written and well known to all staff

3. Shine

- To 'shine' is to maintain high standards of cleanness. This involves:
 - Routine cleaning and mass cleaning campaign
 - Clean not only the place that comes into your view but also behind/under furniture or equipment
- Clean and attractive environments will be appreciated by internal & external clients

4. Standardize

- To 'standardize' is to set up the Sort, Set, and Shine as norms in every section of health facility. This involves creating:
 - Work instructions
 - Standard Operating Procedures (SOPs)
 - Standards and regulations for both administrative and technical staff

5. Sustain

- To 'sustain' is to ensure that all of the other S's are taking place on an ongoing basis. This involves training and maintaining the discipline of the health workers engaged. This can be done by:
 - Applying regular self assessment
 - Conducting a quarterly 5-S audit and implementation of improvement activities

Importance of 5S Approach

- The workplace gets cleaned and better organised
- Hospital and office operations become easier and safer
- Results are visible to everyone, including insiders and outsiders
- Visible results enhance the generation of more and new ideas
- People will be proud about their clean and organised workplace
- As a result, a health facility's good image generates more business

Figure 3.2.1 Example of 5S in Tanzania

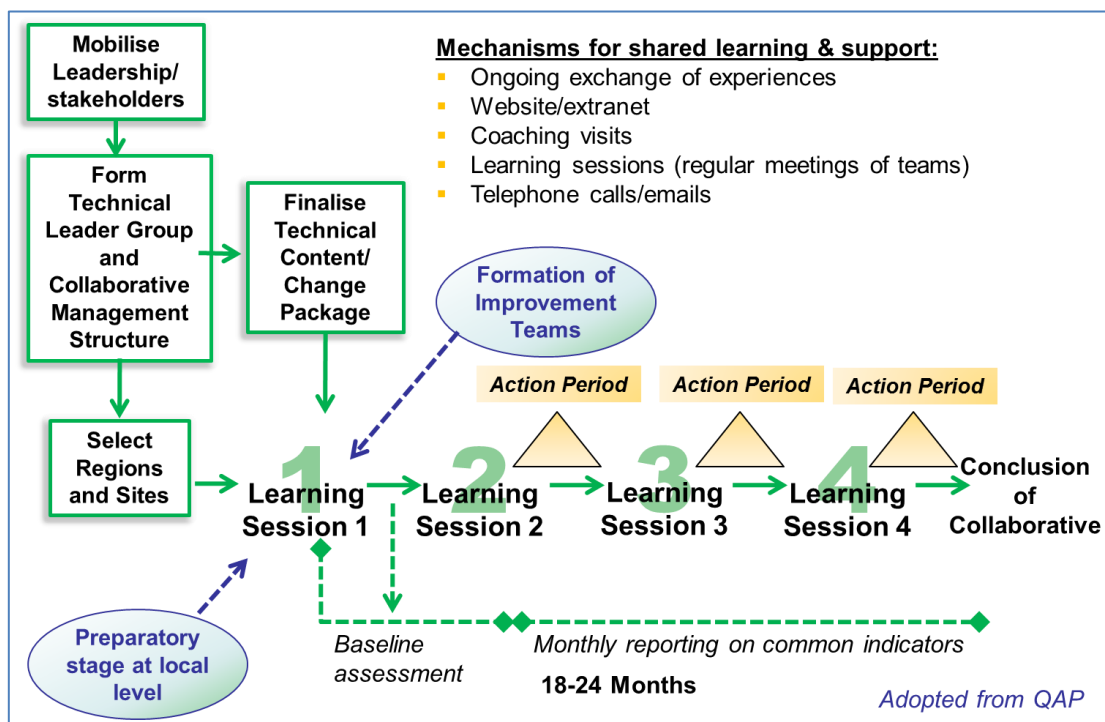


3.1.2.4 Improvement Collaborative Approach

An Improvement Collaborative is the organised network of sites (such as districts, facilities or communities) that work together for a limited period of time (usually 9 to 24 months) to rapidly achieve significant improvement in a focused topic area through shared learning and intentional spread methods. A Quality Improvement Collaborative develops the abilities of practitioners to use the approach to plan and test local changes in health care.

Example: In a regional set up, all selected health facilities will work on agreed improvement areas and monitor the progress of their activities and share best practices and challenges within a given time frame.

Figure 3.2.2 Improvement Collaborative Approach



Phases of an Improvement Collaborative

There are three main phases of an improvement collaborative:

1. Introductory or Pre-Work Phase
2. Implementation Phase
3. Coaching and clinical mentoring during action period

Phase 1: Introductory or Pre-Work Phase:

The introductory phase entails organizing orientation sessions to obtain buy-in of the concept by the leadership of the region. During these orientation sessions, the improvement concept is presented to the regional, district and facility level management for initiation and actual implementation of quality improvement activities. This helps to create ownership and foster sustainability of the quality improvement work.

These regional and district management teams undergo training on QI concepts and their application. They also receive training on coaching and clinical mentorship skills. They will act as coaches and QI experts to the QI team at each site.

Phase 2: Implementation Phase

The implementation phase is subdivided into two components: learning sessions and action periods.

Learning Sessions:

Learning sessions are the first component of the actual implementation of an Improvement Collaborative. At agreed intervals (quarterly, biannually or otherwise) the implementing teams gather for three to four days to share experiences, challenges and lessons learnt as they implement quality improvement.

These learning sessions bring together representatives from participating sites within a region or district.

During learning sessions, regional and district management teams and QI teams undergo training on QI concepts and the application of these QI concepts. If a team is stuck, they can learn from another team that found something that worked, and they feel the competition to keep up with the other teams.

QI teams also receive updates on quality improvement and the technical content of the subject they are working on. Teams use evidence-based standards of the identified problem and develop common improvement indicators that all teams will work towards at their sites. At the end of each learning session, QI teams develop work plans for implementation during the Action Period.

Usually a collaborative will run for 5-6 cycles of Learning Sessions alternating with Action Periods.

Action Period:

The action period is the time when QI teams implement work plans developed during a learning session. During the action period, teams are implementing ideas and approaches that are intended to bring about desired changes. This is accomplished through application of the improvement model described earlier (4 steps of quality improvement and PDSA cycles). During action periods, teams do process of care analysis and design process changes to implement evidence-based standards with the help of the coaches/mentors. Generally, an action period ranges between 2-4 months.

Phase 3: Coaching and Mentorship

Coaching and clinical mentoring is done by regional and district management teams within their respective areas. These team are trained on coaching and clinical mentorship skills and they will act as coaches and QI experts to the QI team at each site. These teams are expected to identify QI champions within their regions/councils and train them as coaches and mentors of others as per the national guidelines and the national Supportive Supervision Manual.

Coaching and mentoring is performed during action period in order to:

- Assess team functionality
- Review collected data on priority indicators
- Review progress on implementation of work plan
- Provide on site training on formulation and testing of changes, documentation and plotting data on run charts

Follow-Up Learning Sessions

Learning sessions occur after every action period, until the collaborative is concluded. During subsequent learning sessions, QI teams:

- Share experiences, challenges and lessons learnt as they implement quality improvement
- Conduct peer-to-peer learning
- Present realized activities and data collected, based on their workplans
- Receive updates and additional training on quality improvement

Factors to consider while implementing the Improvement Collaborative Approach

There are a variety of considerations to address when implementing an improvement collaborative approach, including:

- Challenges in defining purposes and in preparations
- Ensuring participants define their objectives and assess their capacity to benefit from the collaborative
- Defining roles and making clear what is expected
- Ensuring teams building and preparation by teams for the collaborative
- Enabling mutual learning rather than carrying out teaching
- Motivating and empowering teams
- Ensuring teams have measurable and achievable targets
- Equipping teams, to deal with data and change challenges
- Learning and planning for sustaining improvements
- Planning and learning for spread

3.1.2.5 Key Points

- MoHCDGEC has approved several approaches in improving quality of health services.
- MoHCDGEC has opted to use the 5S and Improvement Collaborative to improve HIV and AIDS services.
- The 5-S approach stands for sort, set, shine, standardize, and sustain and can be employed to improve the efficiency of work.
- An improvement collaborative is a network of sites that work together to rapidly achieve improvements in a specific focus area.
- Improvement collaboratives incorporate orientation, implementation/learning sessions, and coaching/mentoring

Session 3.1.3: QI Documentation: Standard Evaluation System (SES)



Total Session Time: 45 minutes

3.1.3.1 Learning Objectives

By the end of this session, participants will be able to:

- Describe the Standard Evaluation System (SES)
- Utilize the SES form to document QI activities
- Outline the components of data management

3.1.3.2 Introduction to SES Form

The standard evaluation system (SES) will be used for documenting changes. The tool includes the following components:

- Improvement Objective
- Indicator
- Problem description
- Process analysis
- Tested changes
- Run chart

The SES Form is composed of three main parts:

- **Part A:** Contains facility and site names, improvement objective, indicator name, description of the problem, and process analysis
- **Part B:** Contains a change worksheet that briefly explains a change concept, start and end dates, responsible person, and timeline.
- **Part C:** Contains indicator name, description of the numerator and denominator, and a graph that shows performance of an indicator.

3.1.3.3 SES Form Part A: Planning Worksheet

Below appears an example of Part A of the SES form:

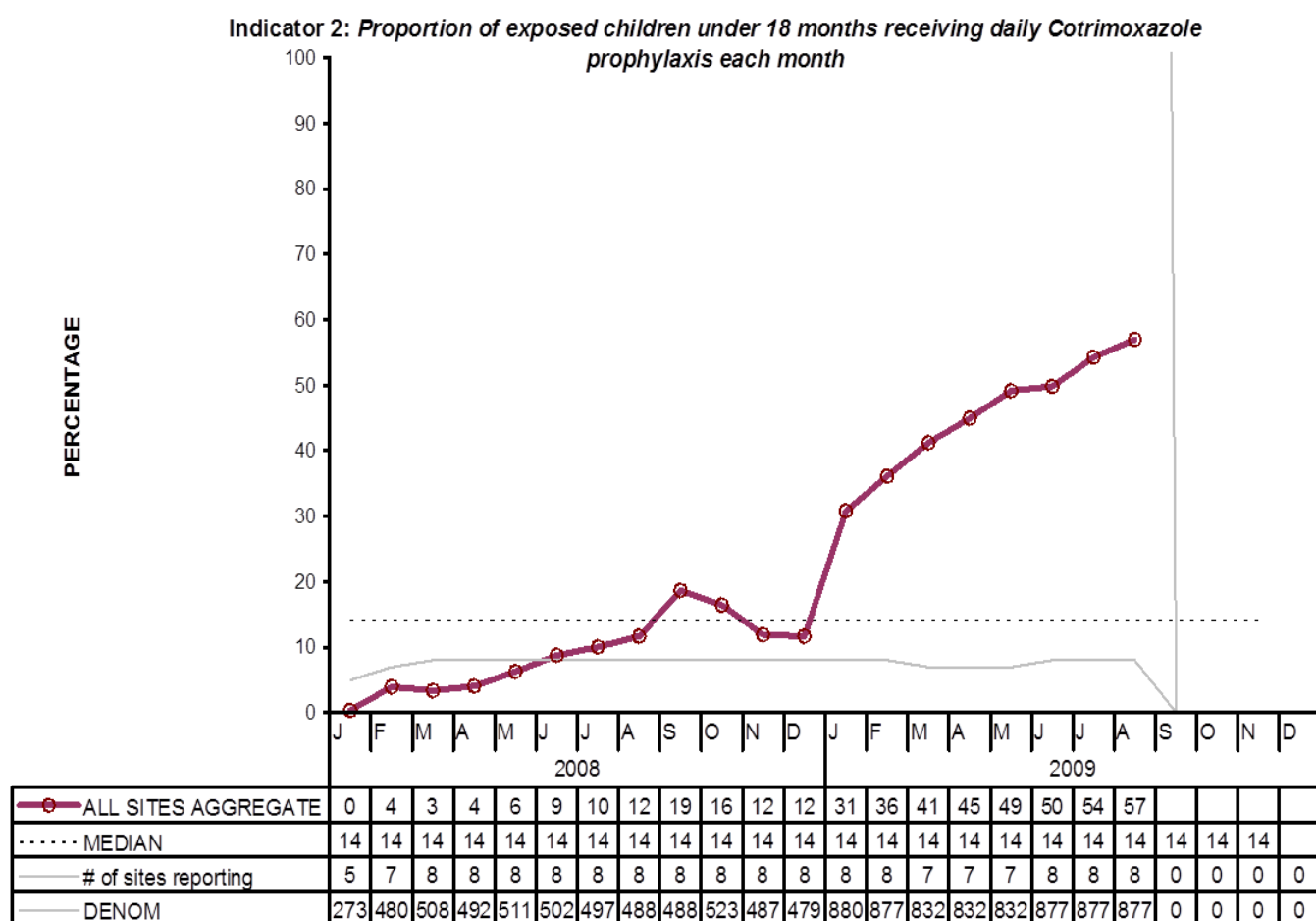
Site Name:
<i>Standard Format for Documentation of QI Work</i> Part A: Planning Worksheet
Improvement Objective:
Indicator(s):
Description of Problem: <i>Briefly describe the problem being addressed and gaps between the current situation and your improvement objective.</i>
Process Analysis: <i>Which steps in the process of care are currently problematic?</i>

3.1.3.4 SES Form Part B: Changes Worksheet

In the table below, please list all the changes you will introduce.

Tested Changes <i>(use 1-2 sentences to briefly describe the tested change)</i>	Planned Start Date	End Date <i>(if applicable)</i>	Responsible Person	Comments <i>Note here any evidence that the change took place and potential reasons why it was or was not effective, such as key barriers or important enabling factors.</i>

3.1.3.5 SES Form Part C: Timeline Graph



Numerator: # of HIV exposed infants that started receiving cotrimoxazole within 2 months of age **Data Source:** CTC 2 card, PMTCT Reg
Denominator: The estimated # of HIV exposed infants born in the preceeding 12 months

3.1.3.6 Data Management

It is important for health facilities implementing QI activities to understand that the data that they are collecting have to be managed properly.

This means that data have to be:

- Collected and stored
- Aggregated to form a report
- Presented (in pictorial forms)
- Analyzed and interpreted
- Used in planning and decision making
- Shared

No steps in the data management process should be overlooked.

3.1.3.7 Key Points

- Accurate and timely documentation of QI activities is very important.
- It is critical that QI teams and health facilities use the SES forms for every improvement objective.
- QI data (including SES forms) should be easily available and accessible.

Session 3.1.4: Leadership, Roles and Responsibilities of QI Teams at Different Levels



Total Session Time: 1 hour 15 minutes

3.1.4.1 Learning Objectives

By the end of this session, participants will be able to:

- Define the concept of leadership
- List attributes of a leader
- Outline the roles of a leader
- Describe specific roles of a leader for Quality Improvement in health care setting
- Describe the roles of QI teams at the different levels of the health system

3.1.4.2 Background

The Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC) in line with the government's policy is implementing the decentralization of the health system with the objective to empower districts /councils who are the implementing agents and directly involved in the provision of health services. In the decentralization process the regional secretariat through the Regional Health Management Team (RHMT) serves as an arm of the MoHCDGEC in coordinating policy implementation and providing technical support and supervisory oversight to the implementing authority in the councils; the Council Health Management Team (CHMT).

The RHMT in this sense plays a leadership role to the CHMT; and coordinates the implementation of MoHCDGEC health policy and strategic plans. The CHMT provides leadership and managerial oversight to health facilities in the council in the provision of health services. In the efforts to improve the quality of HIV and AIDS services in the country, both RHMTs and CHMTS need to provide leadership to ensure that efforts to improve quality of services at facility level are successfully implemented.

3.1.4.3 Introduction to Leadership

Koontz and Weihrich defined **leadership** as “the art or process of influencing people so that they will strive willingly and enthusiastically toward the achievement of group goals.”

A **leader** is considered to be a catalyst helping a team to attain its objectives through the maximum application of his/her capabilities. According to Koontz, “leaders do not stand behind a team to push and prod; they place themselves before the team as they facilitate progress and inspire the team accomplish common goals.”

A leader is supposed to help a team to attain set objectives. Leaders are those individuals who have the ability to influence and inspire others by providing a vision and direction for quality improvement of healthcare services. Leaders create the culture in which quality is both valued and promoted.

This concept of leadership has been positively applied by the science of quality improvement with various forms of approaches including the improvement collaborative approach. (The Improvement Collaborative approach was covered in detail in Session 3.1.2.)

3.1.4.4 Attributes of a Leader

Every team that performs very well has some person as its head who is skilled in the art of leadership. Below are four areas that leader need focus on:

- The ability to influence others to work together to achieve a common objective
- The ability to inspire others to achieve set objectives
- Fostering a shared vision of what can be achieved, sharing this vision with others and developing strategies for realizing the vision
- The ability to direct, promote a positive working environment, use creative problem solving and negotiate for resources to support achievement of set objectives

Other qualities of a leader include: being truthful, approachable, patient, accountable, persuasive, adaptive, credible, confident, focused, good communication, and high integrity.

In addition to having some or all of the above mentioned leadership attributes, a successful leader needs to have some managerial skills as well. In some respects, leadership attributes are similar to those of a manager although they may differ slightly.

The attributes of an effective manager include, but are not limited to:

- Having clarity of purpose and tasks
- Having good organisation skills
- Ability to communicate tasks and expected results effectively
- Ability to negotiate various administrative and regulatory processes
- Having good delegation skills

It is important to emphasize that good managers should strive to be good leaders and good leaders need management skills to be effective.

3.1.4.5 Roles of a Leader in QI

Leaders are responsible for moving the team to accomplish its task. They should ensure an environment that helps teams get their work done. A balance must be maintained between keeping a team focused on the task and allowing a team to make its own decisions. A leader should be aware that all team members have a contribution to make and therefore should create an environment where everyone is free to share their ideas.

In relation to improvement of quality of HIV and AIDS care and support services the roles of a team leader include but not limited to:

- To guide a team of healthcare workers to improve quality of HIV and AIDS services
- To inspire and assure cooperation among the group
- To promote individual contributions towards achieving set objectives

Roles of a Leader in QI in Health Service Delivery

There are four specific roles for a leader of a Quality Improvement team to focus on:

1. Support a systematic approach to quality improvement
2. Communicate priorities
3. Educating team members
4. Facilitate innovation and learning

1. Support a Systemic Approach to Quality Improvement

First, leaders need to support a systematic approach to quality. To do this, they must adapt their actual leadership actions to support measurement-centred and team-driven improvement work. They need to make quality a part of everyone's job. "Quality is not extra work" but an environment in which every step of the process is quality oriented. To establish this, leaders should:

- Participate in quality improvement team meetings, create and share vision for quality and setting performance goals
- Use data in decision-making, stress importance of documentation, make sure that the 'voice' of patient is heard, and institute regular review of data and standards to measure quality of service
- Support quality improvement changes and provide motivation
- Allocate resources including time, human and financial resources to support implementation of planned improvement activities

Leaders need to support team members as they learn new skills. Leaders can help to create a safe environment for learning (e.g. through encouragement/motivation, allowing room for mistakes and continuous feedback etc). Furthermore, leaders are encouraged to hold meetings to discuss quality improvement on a regular basis (e.g. monthly).

2. Communicate Priorities

Priorities come from service quality gaps that have been identified through measurement of data. Not all gaps can be addressed at once, therefore it is important to select the most urgent area that requires immediate improvement and address it. As time goes by, more gaps can be added to the list of priorities. The roles of team leader shall be to:

- Facilitate the development of quality-oriented priorities
- Develop and reinforce a sense of common purpose
- Guide team members through conflicting priorities
- Clarify the quality goals of the team
- Facilitate ongoing dialogue between leader and team members on quality improvement activities

Usually, health care systems are complex. Health care workers might get caught up in day-to-day work and may lose sight of long-term goals around meeting client needs. The job of the leader is to communicate priorities by keeping everyone focused on these long-term goals and encourage a sense of ownership of the goals with the health care workers. Leaders should guide quality improvement teams in selection of priorities and clarifying quality goals.

3. Support Team Members

Leaders need to allocate time in their schedules for quality improvement work. This requires leaders to act as teachers, reinforcing the concepts of quality improvement and making sure teams/individuals apply them throughout their work. They need to provide reassurance and guidance, if needed, to consistently support teams in quality improvement efforts. Although the vision, direction and culture are shared within the whole team, it is the leader's responsibility to maintain a direction and values that nurture the shared vision of providing quality health care services. The role of QI team leader is to provide:

- Guidance
- Reassurance
- Support for quality improvement efforts

The role of leader in the team is to build and sustain skills over time. Educating team members requires leaders to act as teachers, reinforcing the concepts of quality improvement and making sure teams/individuals apply them throughout their work.

4. Facilitate Innovation and Learning

Leaders influence teams' performance by encouraging communication and cooperation among members. Leaders also convince others to take ownership of quality improvement work and can influence a team's performance.

Leaders have the role of:

- Facilitating adoption of the Plan-Do-Study-Act (PDSA) approach to quality improvement
- Supporting staff as they learn new skills
- Creating a conducive environment for learning and for experimentation

3.1.4.6 Roles and Responsibilities of QI Teams at Different Levels of Health System

Health services in Tanzania are organised in four levels: National, Regional, District and Facility level. National and regional levels are involved in policy, coordination and guidance, while district, council authorities and facility levels are responsible for direct implementation of the quality improvement strategy. According to the National Guidelines for Quality Improvement of HIV and AIDS Services [2], each level has a critical role in ensuring efficient and effective running of the QI program.

National Level

The MOHCDGEC through NACP aims at a rapid rollout of HIV care and treatment services to those in needs, hand in hand with quality assurance. As implementing partners are more and more implementing the QI Model and approaches for improvement of HIV and AIDS services, coordination continues to be an important component to ensure uniformity. This fact calls for formulation and implementation of national guidelines.

The following are roles and responsibilities of the national QI Technical Working Group::

- Set HIV and AIDS Services' QI Guidelines and SOPs based on available evidence and best practices
- Develop and review national guidelines for all core interventions with clear targets and monitoring indicators

- Develop a QI coordination mechanism including national guidelines and tools for supportive supervision and mentoring and monitoring and evaluation system.
- Mobilize financial and technical resources for QI initiatives.
- Identify training needs on QI and develop an appropriate capacity building programme.
- Disseminate QI guidelines and tools to stakeholders
- Prepare the respective QI training curricula.
- Provide regular technical support through supportive supervision and Mentoring R/CHMTs, ZHRCs and health facilities
- In collaboration with National, Referral and Specialized hospitals provide support and coordination to regional hospitals.

Regional/ Council Level

At the regional/Council level, the R/CHMT and HIV and AIDS implementing partners work together on QI activities in their region. The R/CHMT (Governance/Technical Committee) being the Government arm will provide leadership to stakeholders in QI activities connected to policy, coordination, advocacy and communication. The R/CHMT in collaboration with stakeholders will accomplish the following QI tasks:

- Ensure integration of QI activities for HIV and AIDS into the Council Comprehensive Health Plans (CCHP)
- Interpret and analyze data for management of Hospitals, health centers and dispensaries on quarterly basis and advise them on implications of the data for the public health.
- Define the type of data to be gathered for management and coordination.
- Gather and review current statistical literature according to the set priorities.
- At the regional/council level, the R/CHMT & HIV and AIDS implementing partners work together on QI activities in their region.
- The technical committee of R/CHMT will provide leadership to stakeholders in QI activities connected to policy, coordination, advocacy and communication.
- The technical committee of R/CHMT in collaboration with stakeholders shall integrate QI activities for HIV and AIDS into the Council Comprehensive Health Plans (CCHP).
- Define populations of interest in developing client satisfaction studies for specific groups in the Region/Council.
- Develop statistical and technical summary reports, based on surveys
- Develop and maintain computerized databases, to monitor the current health status of targeted groups
- Evaluate the effectiveness and efficiency of intervention or control strategies.
- Determine health status outcomes, in order to ensure that, established program standards are met
- Monitor functionality of Quality Improvement Teams (QITs) at RRH and other Referral Hospitals at Regional level, Council Hospital and other Hospitals at Council level, as well as lower health facilities.
- Interpret and analyze data from health facilities, regarding quality of health services and provide feedback for improvement of service provision.
- Advise the C/RHMT on implications of data for the QI/QA at Regional and LG level
- Share the report for decision making with CHMT & RHMT, the Regional technical committee; then submit to PMO-RALG & MoHCDEG. Report should be shared with the:
 - CHMT Technical & Governance Committees and RHMTs;
 - Then, shared with the Regional Technical Committee and RHMT-Governance Committee
 - Thereafter submitted to the PMO-RALG, MoHGCDEC and Partners

Roles of Regional/Council Hospital

The regional/council hospital that serves as the referral level within the region and council will provide:

- Clinical services to inpatients and outpatients referred to by district hospitals
- Curative specialist services in the region
- Expert and technical support and mentoring to district, faith-based & private hospitals as well as primary health facilities on HIV and AIDS services
- Representative health professionals to join the Regional or Council Hospital QITs and the QI implementation, in particular the clinical mentoring component
- Establish Hospital QI team with terms of reference.
- Implement HIV and AIDS QI activities in line with QI guidelines.
- In collaboration with WITs , facilitate identification and training of health service providers in QI.
- Strengthen the Logistics Management Information System to ensure uninterrupted supply of HIV and AIDS commodities
- Oversee QI implementation in the hospital by conducting review meetings regularly.
- Ensure functioning of the existing system for data collection, aggregation, storage, analysis, utilization and dissemination.
- Submit monthly reports to the Hospital Management Team.
- Advocate, sensitize and promote HIV and AIDS QI activities within the Hospital.

Regional/District Hospital Management Team.

The Hospital Management Team (HMT) of the Regional/Council Hospital being the referral level within the Regional/Council should perform the following functions:

- Provision of clinical services to inpatients and outpatients referred from primary health facilities and other hospitals within the Regional/ district
- Provision of curative services at the Regional/district hospital
- Providing expert and technical support, and mentoring to primary health facilities; public, faith-based and private on HIV and AIDS services

Health Facility Level (Other Hospitals and Primary Health Facilities)

The roles and responsibilities of health facilities have been broadly described in intervention specific guidelines. Below are QI-specific roles and responsibilities of health facilities:

- Establish QI team and describe roles and responsibilities of team members
- Ensure implementation and management of QI activities
- Ensure clean and safe working environment for clients and health care workers
- Identify quality gaps through analyzing processes of care within the facility and propose changes for improvement
- Develop work plans and set targets based on defined national indicators
- Test the proposed changes and innovations using the QI model
- Collect, compile, validate, analyze, utilize and submit data (timely) to the Council
- Share QI experiences through existing internal and external forums including community health committee on HIV and AIDS

3.1.4.7 Key Points

- A leader is a person who influences people and facilitate processes that support the achievement of a group's goals.
- Leadership attributes include the ability to influence others, the ability to inspire others to achieve objectives, fostering a shared vision, and having the ability to direct.
- Leaders play important roles in QI to improve the quality of HIV and AIDS services.
- Leaders at the national, regional, district and health facility level play four roles related to QI:
 1. Support a systematic approach to quality improvement
 2. Communicate priorities
 3. Support team members
 4. Facilitate innovation and learning
- QI roles at each level support national achievement of goals and objectives for improving quality of health care.

Unit 3: Quality Improvement Model and Approaches

Part 2: Implementing Quality Improvement Activities

Session 3.2.1: Preparation and Implementation of the Practicum



Total Session Time: 1 hour

3.2.1.1 Learning Objectives

By the end of this session, participants will be able to:

- Develop a plan for a health facility visit
- Conduct a health facility visit
- Conduct post-visit tasks
- Document the work done during the health facility visit

3.2.1.2 Develop a Plan for a Health Facility Visit

Before Traveling to the HFs

The following should be done before travelling for the visit:

- Hold a team meeting and confirm the role(s) of each member
- Appoint a team leader and rapporteur
- Decide on sections of the HF that the team will visit
- Decide on the indicators that the team will follow up.
- The indicators are based on Access to services, Retention and well being

Time Management

For a successful visit need to have a good planned time table which manage and guide during the visit as it is shown below:

- Breakfast : 07:30 hrs – 08.00 hrs
- Travel to HFs: 08:00 hrs – 08:20 hrs
- Practicum: 08:30 hrs - 13.00 hrs
- Return to Training Venue: 13:30 hrs – 14:00 hrs
- Lunch: 14:00 hrs – 14:45 hrs
- Post practicum activities: 14:45 hrs – 16:00 hrs
- Training closure: 16:00 hrs – 16:30 hrs.

3.2.1.2 Conduct a visit to the health facility

Arrival at the Health Facility

The following things should be done upon arrival:

- Pay courtesy call to the HF In charge
- Explain to the HF In charge/ management the objectives/ purposes of your visit
- Clarify that it is a visit for practicum and not an audit.
- Show to the management documents that are used for the visit

- Build rapport with the HF staff
- Divide into respective groups ready to start the practicum
- Agree with the HF management team on time for the feedback and the place for the feedback.
- Recommended time allocation:
 - 08:00 – 11:00 field visit activities
 - 11:00 – 12:00 report compilation
 - 12:00 – 13:00 Feedback to HSPs

Conducting the Practicum

During the practicum you need to:

- Obtain verbal informed consent from HSPs and clients for observation of procedures or counseling sessions.
- Sit together with the HSPs of the section
- Explain/ elaborate the indicators to HSPs
- Ask the HSPs to bring to the table the data collecting tools for the respective indicators
- If HF has an electronic data base, then move to the room that house the data base
- Collect the data for each respective indicator for the period agreed
- While collecting the data, explain to the HSPs about numerator and denominators
- Plot the data collected on the timeline charts for each indicator
- Interpret the timeline charts to give them a meaning
- Set improvement objectives based on the data collected
- Guide HSPs to identify the challenges
- Guide the HSPs to describe the indentified challenges
- Guide the HSPs to analyze the processes that they conduct
- Guide the HSPs to redesign the processes for the improvements
- Together with the HSPs, decide the changes to be tested and fill in the table for the changes to be tested
- Compile the three forms (SES) for each indicator
- File the SES forms properly into the HF QI file

3.2.1.3 Post-Practicum Activities

Upon return to the training venue:

- a) Compile a field visit report
- b) Develop an action plan
- c) Present the field visit implementation report to the rest of participants
- d) Obtain a feedback from the other participants
- e) In cooperate feedback comments into group report
- f) Submit the group report to facilitators

3.2.1.4 Document the work done during the health facility visit

The report should be written based on the standard format for Quality improvement (SES) which stands for Standard Evaluation System. SES contain the following information on each Form:

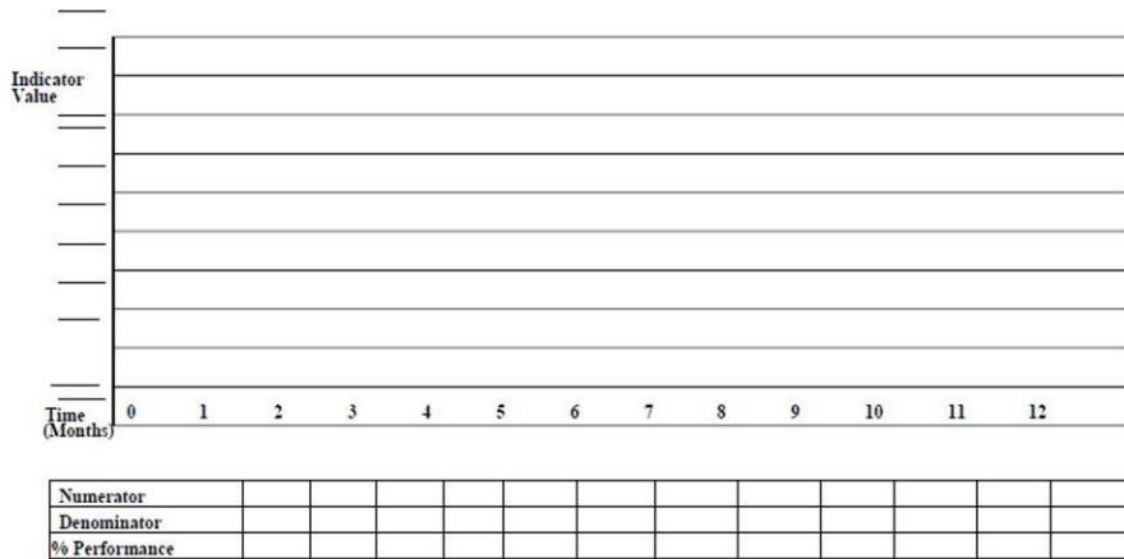
Form A: Basic Information

- Site Name:
- Part A: Planning worksheet
- Improvement Objective:
- Indicator(s):
- Description of Problem: Briefly describe the problem being addressed and gaps between the current situation and your improvement objective.
- Process Analysis: Which steps in the process of care are currently problematic

Form B: Changes Worksheet

Tested Changes Used 1-2 sentences to briefly describe the introduced test/change	Planned start date:	End date (if applicable):	Responsible person name:	Comments: Note here any evidence that the change took place; and potential reasons why it was or was not effective such as key barriers or important enabling factors.

Form C Graph



3.2.1.5 Key Points

- For field visit to be effective, good preparation is important
- Sections of the HF that are to be visited must be identified prior to the visit
- Indicators to be followed up during the visit must be selected prior to the HF visit
- Documentation of the findings and actions plans developed is important for QI in HIV and AIDS services
- Provision of feedback to the HSPs is important

Participant Manual Annexes

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Annex 1: Case Study of Begedu Health Centre

I. Introduction

Begedu Health Centre provides reproductive and child health (RCH) services including Prevention of Mother to Child Transmission of HIV (PMTCT), labour and delivery. All medical supplies and equipment required for service delivery at Begedu HC are obtained from the district hospital through the District Medical Officer (DMO) office. The distance from Begedu HC to the district hospital is about 56km of very rough, unpaved road.

II. End of January:

Ms. Milembe is a nurse in charge of the RCH unit at Begedu HC. She is responsible for the ordering of all medical supplies and equipment for use at the RCH clinic from the DMO office. During the end of January, Ms. Milembe realized that all test kits [i.e. SD-Bioline1/2 3.0, Unigold and Dry Blood Spots (DBS) used testing HIV-exposed infants] were completely out of stock. Ms. Milembe decides to look for the special ordering form (RR form) inside the counseling room where she keeps her inventory books and registers. However, due to pile up of files, registers, scattered papers and waste arising from used medical supplies in the room, Ms. Milembe struggles and spends a lot of time before she finds the RR form. Thereafter, she fills in the RR form itemizing quantities of all the needed supplies and equipment for her RCH unit.

III. First Monday in February

Early in the morning on the first Monday of February month, Ms. Milembe travelled to the district hospital to follow up missing medical supplies and equipment. Upon arrival she went straight to the DMO office to get her RR forms approved and signed but unfortunately the DMO was attending a meeting at the District Executive Director's (DED) office. She had to wait until 01:00 pm. When the DMO returned, he signed and stamped her RR forms and instructed Ms. Milembe to go to the district laboratory and pharmacy to get the supplies.

At the laboratory Ms. Milembe was welcomed by Ms. Sijali, the district laboratory technologist. Mrs. Milembe handed her RR forms to Ms. Sijali, and this was followed by heated arguments between the two. Eventually Ms. Milembe was curtly told that the consumption report for SD-Bioline 1/2 3.0 and Unigold was not correctly filled-in and that she will have to fill-in another RR form, otherwise HIV test kits for February will not be issued. Ms. Milembe was provided with a plain RR form and asked to get it photocopied so that she can fill in her request correctly. Ms. Milembe agreed, and she went to look for a photocopy bureau in town.

She managed to get copies of the RR forms, filled them and returned back to the district laboratory but unfortunately it was beyond normal working hours and the laboratory and the pharmacy were already closed. She could do nothing and went back to Begedu HC disappointed.

IV. The following week

Next week, Ms. Milembe returned to the district laboratory with her RR forms. Upon presenting them to Ms. Sijali she was told her order did not indicate the balance of HIV test kits in the beginning of January. She was also told that in accordance with regulations she will not be issued with HIV test kits until this issue is addressed. Ms. Milembe was issued with all other medical supplies and equipments except HIV test kits. She returned to Begedu HC. Throughout the period of stock outs of HIV test kits, clients seen at Begedu including those who were admitted could not be tested for HIV, instead they were asked to go to the district hospital.

Questions:

1. Do you think that the story of Ms. Milembe & Begedu HC has reflected the dimensions that we have discussed? If yes, mention the dimensions and explain how they are reflected.
2. Consider the client's perspective. What is your opinion about the quality of service provided to Ms. Milembe at the district hospital while looking for test kits?
3. What is your opinion about the process of ordering test kits? Can it be improved?

Annex 2: Applying the Model for Improvement to Begedu Health Centre

Ensuring Consistent Supply of HIV Testing Kits at Begedu HC

Introduction

April 2014

Four staff from Begedu HC attended a 5 days Quality Improvement training facilitated by the DMO office. During this training they learned about methods, techniques and tools for improving care and were supported to develop an improvement plan that they would implement when they returned to Begedu to ensure that HIV test kits are consistently available and that RR forms are filled-in correctly.

May 2014

The team who had attended the QI training met with their colleagues from other departments in the health center for two hours to review what they had learned about Improvement Science and conducted discussions to better understand why they were experiencing regular shortages of HIV test kits and incorrectly filled-in RR forms. A Quality Improvement team comprised representatives of front-line employees of all cadres from all departments including pharmacy, laboratory, male, female wards, etc as well as the in-charge of the health center was formed.

Question 1: What are we trying to accomplish?

The AIMS:

Together, the team discussed and agreed on the following improvement **AIMS**:

1. To reduce the number of days in a month where there is stock out of HIV test kits by 50% BY December 2014
2. To achieve 100% compliance with on proper filling of RR forms by July 2014

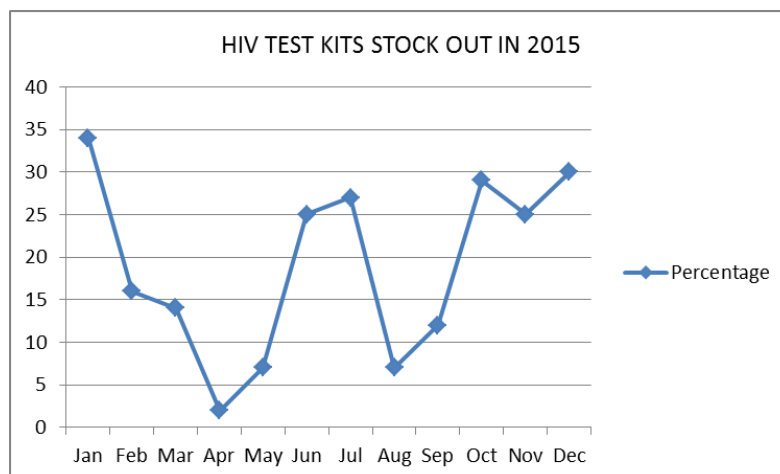
Question 2: How do we know that a change is an Improvement?

The Begedu team developed simple **MEASURES** related to their two aims, these were:

1. Percentage of days in a month where there is stock out of HIV test kits
2. Percentage of filling errors picked up in the RR forms submitted to district hospital laboratory and pharmacy every month

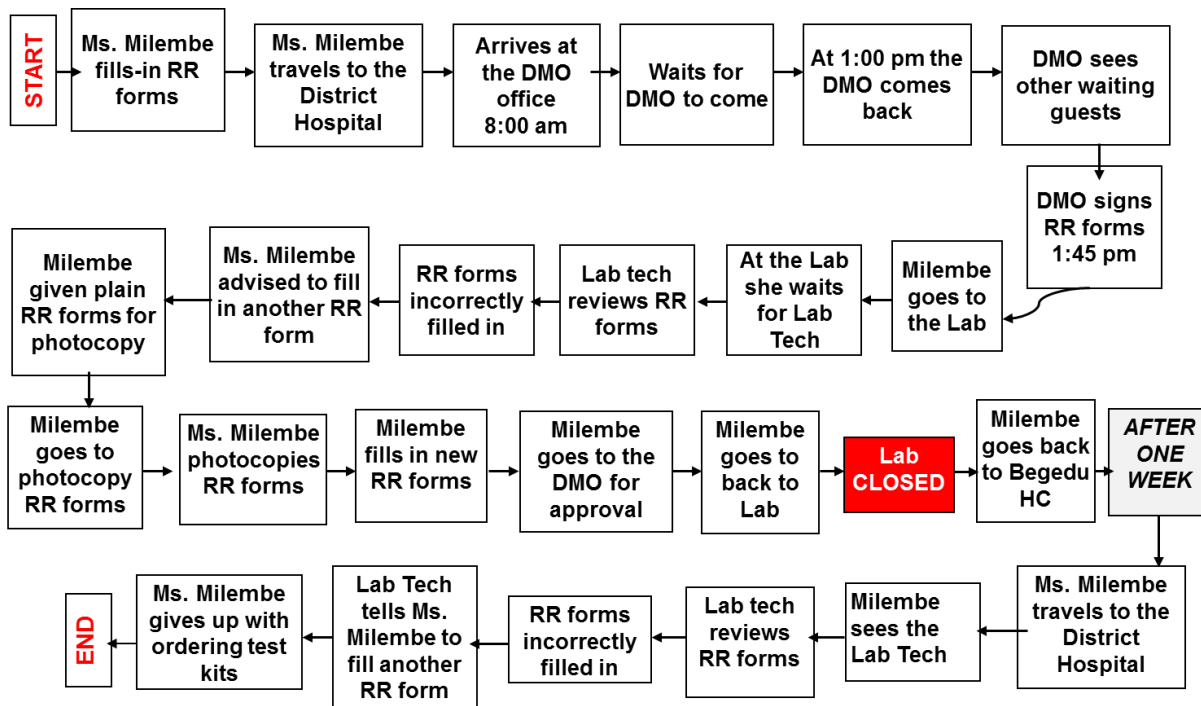
The team reviewed their laboratory and pharmacy inventory records to establish a **baseline** for duration of days in a month for the previous six months where they had stock out of HIV test kits and the number of incorrectly filled-in RR forms rejected at the district hospital.

This is the baseline data for the Begedu team found:



Question 3: What changes can we make that will result in improvement?

To identify problematic steps and come up with **CHANGES** in the ordering process, the team analyzed the whole process of ordering of HIV test kits all the way from filling of RR forms at the health center to receiving of supplies at the district hospital. They created a detailed process map showing all steps followed by the RCH in-charge to order and acquire HIV test kits and other supplies from the district hospital. The process started when at the RCH in-charge fills-in RR forms, travels to the district hospital, detailed all the back and forth movements at the district hospital and ended with the receiving of HIV test kits and other supplies (see below).



Based on what the team learned from the analysis and process map the team discussed and agreed to test changes using the PDSA cycles.

PDSA Cycle 1: Quality Improvement Team (QIT) conducted internal assessment of their facility (Begedu HC). One of the gaps they found was incomplete and incorrect filling of the R&R forms. The QIT presented the finding of the assessment to the facility in charge with proposed plan to address the gaps.

- **Plan:** The HF in charge to request DMO office to arrange on-site mentorship and coaching session to build the capacity of the Begedu team on how to correctly fill the R&R forms
- **Do:** District pharmacist conducts mentorship to the facility health workers of the Budegu HC on how to fill the R&R forms
- **Study:** Review the past filled forms to check the percentages of errors post mentorship session
- **Act:** Re conduct the mentorship session on the areas where the errors were made

PDSA Cycle 2: The Health Facility QIT found that, when a staff takes the form to the DMO, it took too much waiting for approval by the DMO who may not be in the office due to other equally important activities outside the office. The team advised the H/C I/C to discuss with the DMO on the possibilities of having another person(s) in the CHMT to be given a proxy to verify and sign on behalf of the DMO.

- **Plan:** During the CHMT meeting, discuss with the DMO about possibility of assigning the District Pharmacist and/or Laboratory Scientist to verify forms and approve on his/her behalf.
- **Do:** The forms are verified and approved by the District Pharmacist and/or Laboratory Scientist on behalf of the DMO when he/she is busy or out of the office.
- **Study:** Time spent to get the forms approved by the is no longer a problem.

- **Act:** Decided to continue with forms to be approved by the District Pharmacist and/or Laboratory Scientist on behalf of the DMO when he/she is busy or out of the office.

PDSA Cycle 3: Sporadic stock outs of HIV test kits continue to occur while some health facilities in the district had abundant stocks.

- **Plan:** The problem with sporadic stock outs of HIV test kits while other sites were having abundant stocks was presented during a monthly CHMT meeting. After the discussions, the DMO and the DRCHCO decided to create a mechanism to gather stocks of HIV test kits from all facilities in the district every week. All 36 HFs in the district were asked to send this information every Monday morning.
- **Do:** All HF including Begedu to send balance amount of remaining HIV test kits via mobile phone sms to the DRCHCO and DACC every Monday
- **Study:** Following the implementation of early alert system, the CHMT could know exact test kits stocks in each facility. They used this information to redistribute test kits from facilities with abundant stocks to those experiencing stock outs. The stock out of HIV test kits across facilities was significantly reduced.
- **Act:** Continue with this system.

Annex 3: Case Study of Mrs. Kwangu & Melela Health Centre

Introduction

Melela Health Centre (MHC) provides comprehensive antenatal services including Prevention of Mother to Child Transmission of HIV (PMTCT) and delivery. Melela Health Centre also provides care and treatment services (Test and treat). Patients who require care and treatment services do not need to be referred to the district hospital for CD4 test before initiation of ART.

Part 1: First RCHC visit

Mrs. Kwangu is a primigravida who attends RCHC clinic at Melela Health Center.

During a health education session, Mrs. Kwangu was convinced to undergo counselling and testing for HIV. The HIV test results tested positive. At 30 weeks pregnant when she booked, the RCH nurse midwife enrolled her on Option B plus (TLE) and instructions on how and when to use. But while that process was taking place she was not registered in the PMTCT register nor in the RCH 4 card. She is then referred (without referral form) to CTC at the district hospital, about 80 kilometers from Melela Health Centre for baseline CD4 counts. She is afraid of disclosing to her husband, fearing that he would chase her away.

Part 2: Mrs. Kwangu at the District Hospital

Mrs. Kwangu organizes herself and on Monday leaves for the district hospital for baseline CD4 count test, WBC, LFTs/RFTs as instructed by the PMTCT counsellor. Because she did not have a referral slip, on her arrival at district hospital (around 9am), she was not sure where to go. She first went to the general reception, where she got registered and asked to sit at the waiting bench. She lined up at the queue and waited for 3 hours before seeing a clinician. After consultation she was directed to go to the laboratory for CD4 testing. She arrived at the laboratory few minutes after 12 noon. The Laboratory technician told her she was late and that he had already reached his maximum number of 30 samples for CD4 testing for the day. She was given an appointment to come the following Thursday.

Part 3: Follow - up

On Thursday Mrs. Kwangu finds that she has no money for bus fare and no other means of transport therefore she fails to go to the district hospital. Also she was not feeling well but she did not stop using her ART.

Part 4: Next RCHC Visits at MHC

She continued attending the RCHC as scheduled also collecting her ARV drugs. When labour started she reported in time at the health facility where she was received by a Nurse Midwife. She was examined and escorted to the labour ward for delivery. At the second stage of labour which was an hour later Mrs Kwangu delivered spontaneously a healthy baby weighing 3.5 kg.

The following morning, she received a post natal health education about breastfeeding and care of the baby. She and her baby were assessed after the midwife discharged them home through RCH clinic for continuum of care. She went home with her husband happily.

Part 5: Twelve months later

Mrs Kwangu was admitted at the district hospital Paediatric ward. Her beautiful baby was having recurrent pneumonia. The Doctor ordered several investigations including HIV testing which revealed that the baby was HIV positive.

Annex 4: System and Process Flow Chart

Figure 4a: Example of a process flow chart at RCH Clinic

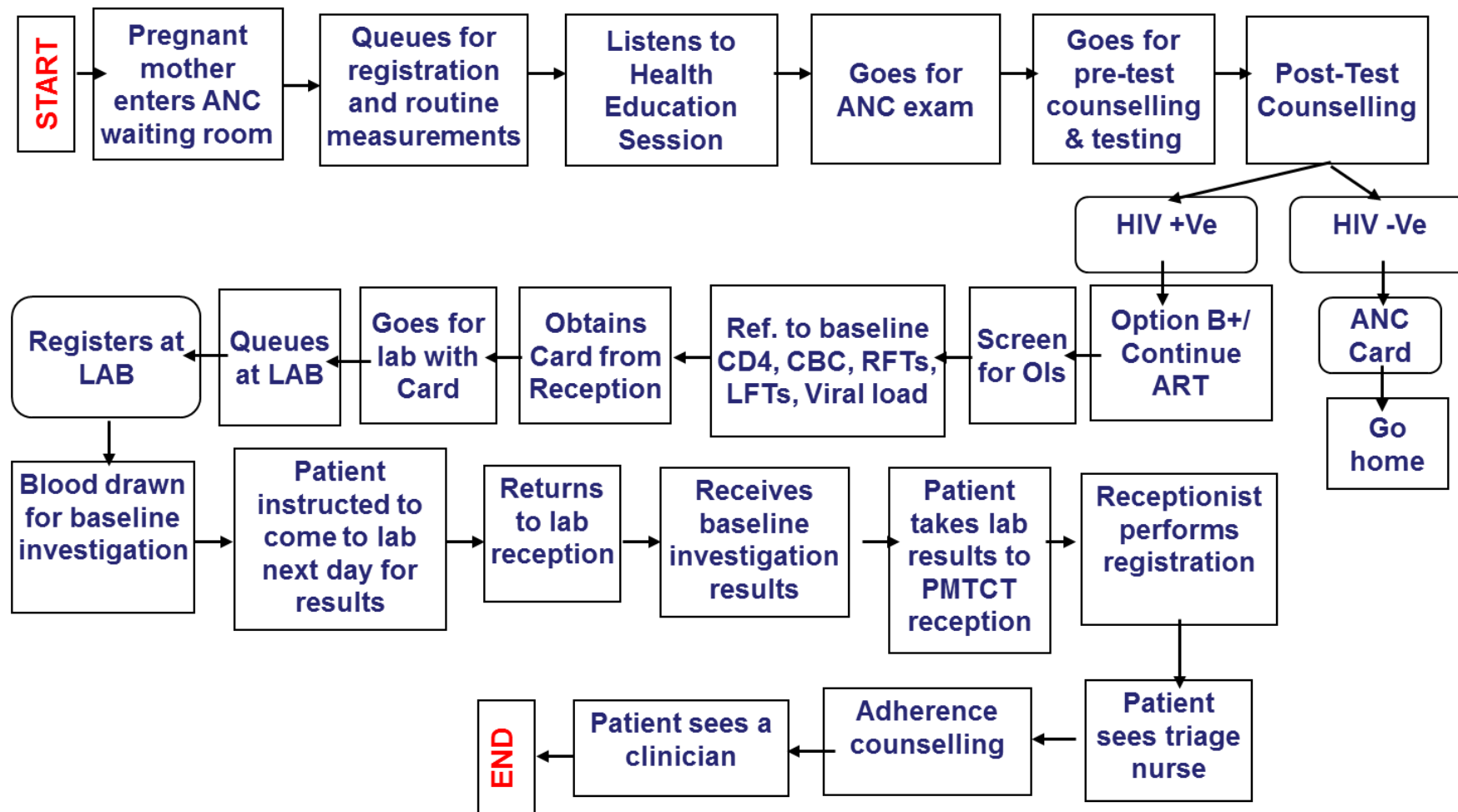
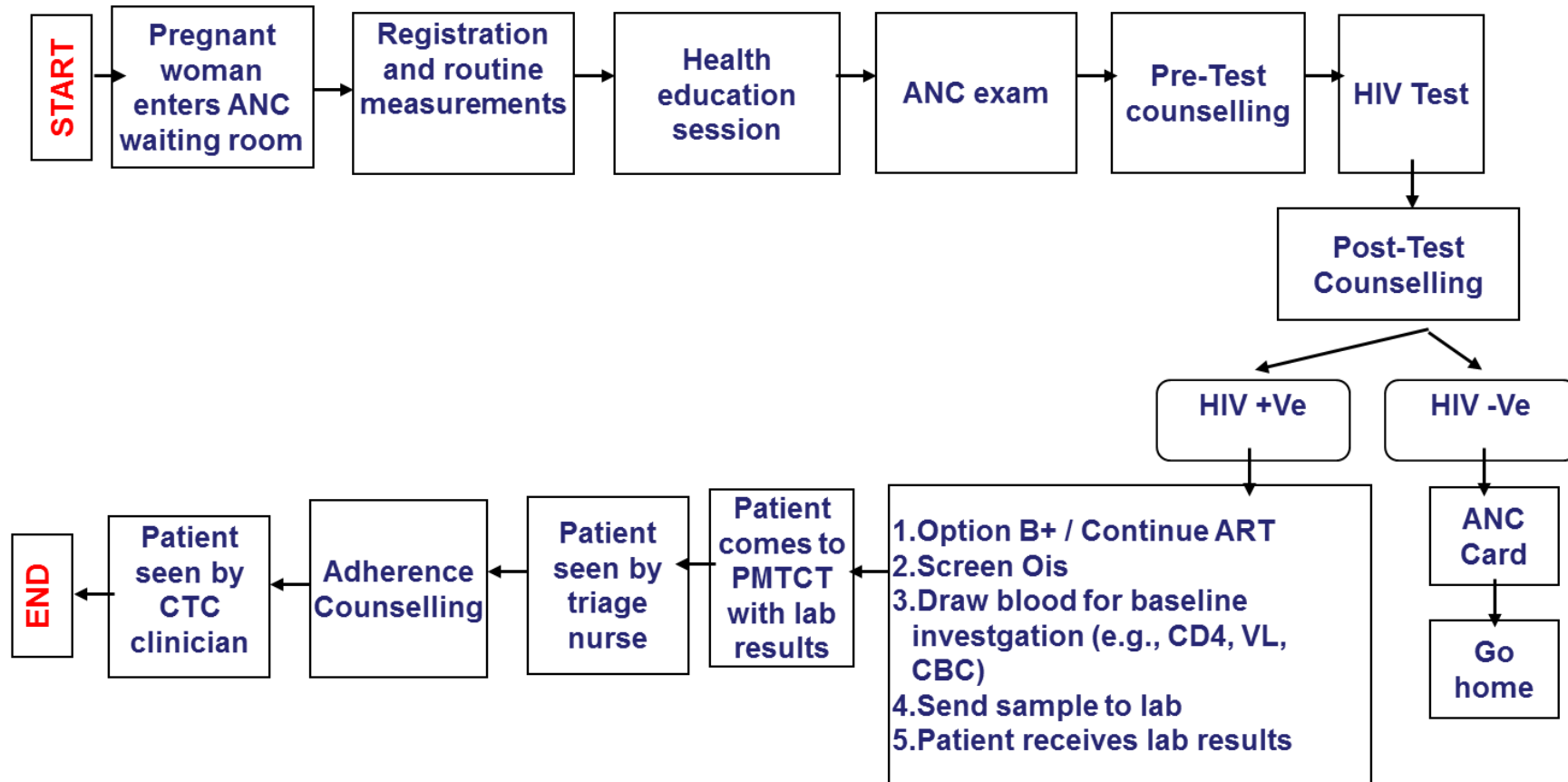


Figure 4b: Example of a re-designed RCH clinic process



Annex 5: Tanzania HIV/AIDS Patient Care and Treatment Indicators

sn	Indicators or other aggregated data	Rationale	Reporting Obligation
1	Percentage alive and on ART X months after start of ART (X= 12,24,36 and 48 months) (Retention)	Assesses progress in providing ART to every person with advanced HIV infection. Monitors trends in coverage	National, UNGASS, UA , EWI
2	Percentage of persons starting first-line ART who are still on first-line ART X months later (Retention)	Early warning indicator for HIV drug resistance	National EWI
3	Number enrolled in HIV care: (a)new and (b)cumulative ever at the facility by age and sex (Access)	Identifies gross numbers of patients enrolling in HIV care, contributing to national targets and progress of scale-up	National
4	Number started on ART: (a)new and (b)cumulative ever started at the facility by age, sex and pregnancy status (Access)	Identifies gross numbers of patients starting on ART, contributing to national targets and progress of scale-up	National
5	Number receiving HIV care during period by age and sex (Access)	Identifies reach and accessibility of HIV care during scale-up, informs facility-level planning	National Global fund
6	Number currently on ART at the facility by age, sex and 1st-line or 2nd-line regimen (Numerator for UNGASS and National Core 7) (Access)	Assesses progress in providing ART to every person with advanced HIV infection	National Global Fund
7	Number medically eligible for ART but not yet started by age and sex. (Access)	Identifies reach and accessibility of ART during scale-up	National
8	Number currently enrolled in care receiving Cotrimoxazole (Access)	Allows monitoring of Cotrimoxazole use, drug supply management.	National
9	Number currently on ART receiving Cotrimoxazole (Access)	Allows monitoring of Cotrimoxazole use	National

sn	Indicators or other aggregated data	Rationale	Reporting Obligation
10	Percentage patients currently on ART who status is (working, ambulatory, bedridden) (wellness)	Patient productivity, quality of life, and therefore ART success	National
11	Percentage of health facilities that offer ART (UA) (Access)	Measures access to Care and Treatment services	UNGASS
12	Percentage of adults and children with advanced HIV infection receiving antiretroviral therapy. (Access)	The indicator measures coverage of ART among those who need it.	UNGASS
13	Percentage of individuals starting ART who are prescribed a standard regimen. (Access)	<p><u>Numerator:</u> Number of individuals initiating first-line ART at the site who are prescribed an appropriate first-line regimen during the selected time period</p> <p><u>Denominator:</u> Number of individuals starting ART during the selected time period</p> <p><u>Set target: 100%</u></p>	National EWI
14	Percentage lost to follow-up during the 12 months after starting ART. (Retention)	<p><i>*"Lost to follow up" is defined as having missed three consecutive months of drug pick-ups and clinical appointments.</i></p> <p><u>Numerator:</u> Number of individuals starting ART during a selected period of time in the previous year who were subsequently classified as "LOST TO FOLLOW UP"* during the first 12 months of ART</p> <p><u>Denominator:</u> Number of individuals starting ART during the selected time period in the previous year <u>Set target: < 20%</u></p>	National EWI

sn	Indicators or other aggregated data	Rationale	Reporting Obligation
15	Percentage of persons starting first-line ART who are still on first-line ART 12 months later. (Retention)	<p><u>Numerator:</u> Number of individuals starting ART during a selected period of time in the previous year who are (12 months from ART start) still on first-line ART (this includes substitutions of one standard first-line regimen for another).</p> <p><u>Denominator:</u> Total Number of individuals starting ART during a selected time period in the previous year ,minus the number of individuals starting ART in that time period who were transferred out during the 12 months after starting ART. However, individuals who died, stopped ART, switched to second-line ART, or were lost to follow-up must be included in the denominator. <u>Set target: > 70%</u></p>	National EWI
16	Percentage of persons who attended all appointments during a year. (Retention)	<p><u>Numerator:</u> number of individuals who were on ART at the end of the previous year or who started ART at some time during the present year who kept all appointments on time in the year up until the time they were classified as lost to follow-up, dead, transferred out, or stopped ART</p> <p><u>Denominator:</u> number of individuals who were on ART at the end of the previous year or who started ART at some time during the present year Set target: 80%</p>	National EWI
17	Percentage of HIV positive patient who were screened for TB in HIV Care or Treatment setting (Access)	<p><u>Numerator</u></p> <p><u>Denominator</u></p>	New national indicator for TB/HIV collaborative activities

sn	Indicators or other aggregated data	Rationale	Reporting Obligation
18	Percent of HIV positive patient in HIV Care or Treatment (pre ART or ART) who started TB treatment (access)	<u>Numerator</u> <u>Denominator</u>	New national indicator for TB/HIV collaborative activities
19	Number of HIV positive clinically malnourished who received therapeutic and or supplementary food (wellness)	<u>Nutritional support</u>	New national indicator

Annex 6: Standard Format for Documentation of Quality Improvement Work

Standard Format for Documentation of Quality Improvement Work

Name of the Health Facility:

Part A: Planning Worksheet

Improvement Objective:

Indicator(s):

Description of Challenge:

Briefly describe the challenge being addressed and gaps between the current situation and your improvement objective.

Process Analysis:

Which steps in the process of service delivery are currently challenging?

Part B: Changes Worksheet

In the table below, please list all the changes that you will introduce.

Tested Changes Used 1-2 sentences to briefly describe the introduced test/change	Planned start date:	End date (if applicable):	Responsible person name:	Comments: Note here any evidence that the change took place; and potential reasons why it was or was not effective such as key barriers or important enabling factors.

Part C: Graph

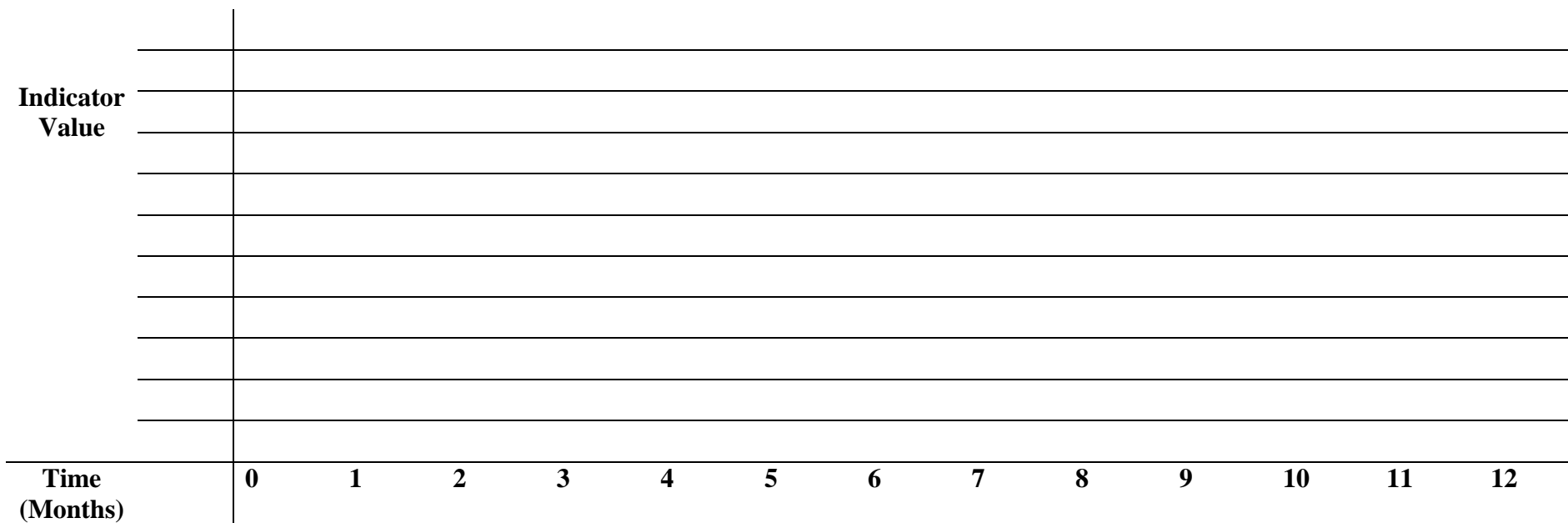
Describe the indicator(s) you have used, including the value of the numerator and denominator.

Annotate your graph based on the time the change was introduced or ended. You may use the change's number (from the table above) to annotate.

Name of the indicator:

Definition of the numerator:

Definition of the denominator:



Numerator:													
Denominator:													
% Performance:													

Annex 7: List of Contributors

The following individuals deserve a special mention for the efforts they put in developing the training package on Quality Improvement of the HIV and AIDS service:

1. Dr. Angela Ramadhani	NACP/MOHCDGEC
2. Dr. Joseph Hokororo	HSIU/ MOHCDGEC
3. Dr. Patrick Mwidunda	NACP/ MOHCDGEC
4. Dr. Gissenge J.I.Lija	NACP/ MOHCDGEC
5. Dr. Peris Urassa	NACP/ MOHCDGEC
6. Dr. Stella Stephen Chale	I-TECH
7. Dr. Alick Kayange	I-TECH
8. Mrs. Violet Rugangila	I-TECH
9. Ms. Fortunata Mufundi	I-TECH
10. Mr. Octavian Leonard	I-TECH
11. Dr. Hobokela Stephen	URC/ASSIST
12. Mr. Jared Mussanga	URC/ASSIST
13. Dr. Rehema Kiwera	HJFMRI - WRP
14. Dr. Aisa Mhalu	MDH
15. Dr. Sarah Matemu	AGPAHI
16. Dr. Mohamed Mnyau	Lugalo Military Hospital
17. Dr. Mohamed Iyulu	RHMT Dodoma
18. Dr. Paul Luvanda	RHMT Iringa
19. Dr. Selemani Msangi	RHMT Tanga
20. Dr. Edith Minja	Bombo Regional Referral Hospital - Tanga
21. Mrs. Fortunata Yambesi	Temeke Hospital (Retired)
22. Ms. Regina Joseph	Mkuranga District Council
23. Ms. Penina Kambenga	Kongwa District Council

Since it is not possible to mention everyone by name, the MoHCDGEC would also like to thank all those who contributed in one way or another in the preparation of this training package.

Annex 8: List of Reference Materials

Unit 1

Session 1.1

1. Ministry of Health and Social Welfare, The National Health Policy (2007), Ministry of Health and Social Welfare Tanzania
1. Ministry of Health and Social Welfare, The Tanzania Quality Improvement Framework (2004). Ministry of Health and Social Welfare-Tanzania
2. Ministry of Health and Social Welfare, The Health Sector Strategic Plan III 2009 -2015 (2009), Ministry of Health and Social Welfare Tanzania
3. Ministry of Health and Social Welfare, The Health Sector HIV and AIDS Strategic Plan II 2008 – 2012 (2008), Ministry of Health and Social Welfare Tanzania
4. Ministry of Health and Social Welfare, The National Guidelines for Improvement of HIV and AIDS Services (2010), National AIDS Control Program, Ministry of Health and Social Welfare Tanzania

Session 1.2

1. Koontz, H., and Weihrich, H. (1998): *Essential of Management*. 5th edition, New Delhi; Tata McGraw-Hill Publishing Company limited
2. Ministry of Health and Social Welfare, National Guidelines for Quality Improvement of HIV and AIDS Services, The National AIDS Control Programme (2010)

Unit 2

Session 3

1. Hall, J. et al. 1988. Meta-analysis of correlates of provider behavior in medical encounters. *Medical Care* 26 (7):657–75. Ong, L.M. et al. 1995.
2. Doctor-patient communication: A review of the literature. *Social Science and Medicine* 40 (7):903–18.)
3. Nancarrow, S. A., Booth, A., Ariss, S., Smith, T., Enderby, P., & Roots, A. (2013). Ten principles of good interdisciplinary team work. *Human Resources for Health*, 11, 19.

Session 4

1. Guzzo, R. A., & Dickson, M. W. (1996). Teams in organisations: Recent research on performance and effectiveness. *Annual Review of Psychology*, 47, 307-338
2. Xyrichis A, Ream E (2008) Teamwork: a concept analysis. *Journal of Advanced Nursing* 61(2): 232-241
3. Kohn L, Corrigan J, Donaldson M (eds) (2000) *To Err Is Human: Building a Safer Health System*. Washington: National Academy Press
4. Tuckman, B. W. (1965). Developmental sequence in small groups. *Psychological Bulletin*, 63, 384-399.

Session 6

1. Rashaad Masoud et al, A modern paradigm for improving healthcare quality
2. MOHSW. (2003): *Sexually Transmitted Infections: A Manual for Service Providers* (first edition). (NACP). Tanzania.
3. MOHSW. (2004). *The Draft National Essential Health Sector HIV/AIDS Intervention Package*. (NACP): Tanzania.
4. MOHSW. (2007). *Trainer's Guide for Management of Sexually Transmitted and Reproductive Tract Infections* (NACP). Tanzania.
5. MOHSW. (2009). *Implementation Guideline for 5S-CQI-TQM Approaches*: Tanzania

6. MOHSW. (2009). *National Guidelines for the Clinical Management of HIV and AIDS* (NACP). Tanzania.
7. MOHSW. (2010). *National Guidelines for Quality improvement of HIV and AIDS Services*: (NACP).Tanzania.
8. MOHSW. (Reprint 2010). *Tanzania Quality Improvement Framework*: Tanzania.

Unit 3

Session 1:

1. Kolttler abstract and ‘‘Schlesinger’’ 1979
2. (2015) essential about –human resistance-to-change Mindtool.com/page/article/new PPM 56.htm
3. (1976) Adams,Hayes&Hopson’’s changes curve

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