Republic of Zambia
Ministry of Health

Participant Manual for Quality Improvement Training of Health Care Workers in Zambia

First Edition 2014

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Quality Improvement for Health Care Providers in Zambia

Participant Manual

Foreword

As stated in the Zambia National Health Strategic Plan 2011-2015 the Ministry of Health (MOH) is committed to "providing equity of access to cost-effective quality health care as close to the family as possible". In realising this commitment, there has been considerable expansion of health services to try and reach the communities through static, outreach and mobile health services.

In this vein, the MOH has moved systematically in employing models to address problems associated with quality of health care. The variety of health care quality improvement (QI) models that are being employed by various players within the health sector in Zambia are proving to be a challenge to monitoring and evaluating health care service delivery in the country.

Further, the multiplicity of QI models does lead to confusion amongst health workers as a harmonised presentation is not availed to them.

In order to address these challenges, this training manual has been developed to enhance health worker understanding and to enable systematic application of QI models along the continuum of the health care delivery system to maximise impact and reduce variation in practice. The training manual reflects the MOH-recommended approaches to health care improvement at each level of health care. It is an expectation of the MOH that the different players in health care service delivery will be guided by and will use the approaches elaborated in this document.

The purpose of this training manual is to:

- Develop a common understanding of quality of care
- Systematically elaborate QI approaches that should be utilised in all health facilities in Zambia by managers and staff at all levels

- Establish benchmarks against which all health facilities can provide quality health care across all levels
- Provide the basis upon which service delivery can be assessed, gaps identified and strengths appraised in collaboration with all stakeholders including the community.

It is my considered view that with appropriate levels of commitment and support from all the players, including cooperating partners, this training manual will significantly improve the quality of health services in Zambia. My Ministry will remain committed to providing leadership, an enabling environment and resources that will assure the successful implementation of QI activities.

Hon. Dr Joseph Kasonde, MP
Minister of Health
Ministry of Health

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Acronyms

ACT	Artemisinin Combination Therapy
ART	Antiretroviral Therapy
DHS	Demographic and Health Survey
HIA	Health Information Aggregation
HMIS	Health Management Information Systems
HRIT	Health Reforms Implementation Team
HRMIS	Human Resource Management Information System
IMCI	Integrated Management of Childhood Illnesses
ISQua	International Society for Quality in Health Care
ITG	Integrated Technical Guidelines
JCI	Joint Commission International
MOH	Ministry of Health
PIA	Performance Improvement Approach
QA	Quality Assurance
QI	Quality improvement
RCA	Root Cause Analysis
RCQHC	Regional Centre for Quality of Health Care
RDT	Rapid Diagnostic Test
SOP	Standard Operating Procedure
STI	Sexually Transmitted Infection
TB	Tuberculosis
TSS	Technical Support Supervision
TWG	Technical Working Group
USAID	United States Agency for International Development
WHO	World Health Organisation
ZISSP	Zambia Integrated Systems Strengthening Program

Definitions

Continuous quality improvement: System that seeks to constantly improve the provision of services with an emphasis on results

Effective: Provision of services based on current scientific knowledge to all who could benefit and avoiding provision of services to those who do not need them (i.e. will not benefit from them) and further achieving the desired effect/outcome/impact when these services are provided

Efficient: Avoiding waste of resources including waste of equipment, supplies, ideas and energy

Equitable: Provision of services that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status

External quality assessment: System of objectively, retrospectively checking results by means of an external agency

Indicator: Quantitative or qualitative factor or variable that provides a simple and reliable means to measure achievement, to reflect changes connected to an intervention, or to help assess the performance of a development actor

Internal quality control: Process that assures that factors determining the magnitude of uncertainty do not change during the routine use of any procedure over long periods of time

International Organisation for Standardisation: International standard-setting body composed of representatives from various national standards organisations

Patient-centreed: Provision of services in a way that is respectful of and responsive to individual patient preferences, needs and values and that assures that patient values guide all clinical decisions

Performance: Measure of the results achieved and with what level of efficiency; more simply, measure of the work /tasks that a person does, how s/he does it and the results thereof

Performance assessment: Process by which managers are expected to monitor and review performance levels

Performance improvement: Process for achieving desired institutional and individual results

Performance Indicator (or Key Performance Indicator): Measure to evaluate success of an institution or a particular activity; it can be "SMART" but in any event must be understandable, meaningful and measurable

Quality assurance: Systematic monitoring and evaluation of the various aspects of a project, service or facility to maximise the probability that minimum standards of quality are being attained or a planned set of activities implemented through a quality system that assures standards of services are met and is based on a quality assurance cycle which has three distinct steps: defining and designing quality, quality control and quality monitoring.

Quality control: Process by which entities review the quality of all factors involved in production

Quality improvement: Process of engaging appropriate methodologies and quality management tools to close the gap between current and expected levels of quality

Safety (health care): Avoiding injuries and harm to patients from the care that is supposed to benefit them and assuring the safety of health workers and visitors to health care facilities

Small test of change: Process, the definition phase of which takes preparing for delivering the project from knowing what is wanted and having an outline of what will be delivered to having a clear specification of what will be delivered such that a confident estimate can be made as to the time, cost and quality of delivery

Timely: Reducing waiting time and harmful delays for both those who receive care and those who give care

Total quality management: Process and philosophy of achieving best possible outcomes from the inputs, by using them effectively and efficiently in order to deliver best value for the customer, whilst achieving long-term objectives of the organisation

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Introduction to Performance and Quality Improvement Training

1.0 Introduction and Background

1.1 Introduction

The Zambia Ministry of Health (MOH) adopted the Quality Assurance (QA) approach for achieving health care quality in the past and will now focus on using the Performance Improvement Approach (PIA) to consolidate and build on the gains realised from QA. The PIA is a nine-step framework derived from human performance technology that focuses on improving worker performance by defining the desired performance, measuring the actual performance, identifying specific performance gaps, conducting root cause analysis and designing interventions that target the root causes of performance gaps in terms of human performance factors (institutional support, motivation, access to information especially feedback and clear job descriptions, skills and knowledge, and motivation). The framework emphasises context analysis, stakeholder analysis and engagement, and stringent monitoring and evaluation. This contrasts with the QA approach to attaining quality, which is a broader concept covering licensure, accreditation, and certification, in addition to the QA triangle of quality definition, quality control and quality improvement (QI). It derives most of its principles from industry, whereas the PIA draws from social-psychological research. This training package was developed to bridge the gap between Zambia's investment in QA and the need to apply PIA to health worker performance. It updates knowledge about the PIA on the part of managers, health workers, and all support staff. The MOH regards the PIA as an entry point for identifying and addressing human performance and systemic factors hindering the delivery of quality services in health facilities, and encourages managers and external and internal supervisors to learn and utilise the process to improve the quality of their services.

1.2 Background

In Zambia, poor macro-economic performance, deterioration of health services and worsening of the health status of the population gave impetus to the health reform initiatives of the late 1980s and early 1990s. There was a gap between increasing health problems faced by the population and the limited resources available to the public health system for an effective response.

In January 1991, a national conference was held to review the national health policy. The conference arrived at a consensus for a new national health policy. The new policies and strategies were enshrined in the National Health Policies and Strategies document, which was adopted by the Government of the Republic of Zambia in 1992.

The National Health Policies and Strategies aimed at reforming the health sector. The vision of the reform effort was *"to provide equity of access to cost-effective, quality health care as close to the family as possible"*. To achieve this vision, Zambia needed a health system that was robust enough to embrace all the key elements of health care delivery, such as strong health system structures, and availability of necessary inputs to assure effective services.

In 1993, the QA) unit was established and became part of the then Health Reforms Implementation Team (HRIT) with two senior staff members trained and assigned to take responsibility of QA activities in the country.

2.0 Programme Rationale

Experience from field activities in performance improvement using the PIA has revealed that health care providers at the implementation level find it relatively easy to adopt/ adapt and apply the principles and tools that come with this framework resulting in tangible improvement in performance and subsequently in improved performance indicators. The approach enables collective identification, analysis and resolution of implementation problems. This nurtures team work and peer learning at the different levels of health care delivery. Further, the application of PIA at the implementation level promotes the collection, analysis, interpretation and use of locally generated data. For these reasons the MOH considers PIA as a value-adding approach to QA activities.

3.0 Course Aim and Objectives

3.1 Aim

The aim of this course is to impart competencies for quality and performance improvement enhance the quality of health care services delivered by the health care system in Zambia.

3.2 Objectives

QI training of health care workers should be able to

3.2.1 Raise the quality of health care management and engender community utilisation of health care services

3.2.2 Increase effectiveness and contribute to reduction of morbidity and mortality resulting from poor case management

3.2.3 Increase technical and cost efficiency in the delivery of health care services

3.2.4 Increase stakeholder recognition and participation in health service design, planning and implementation at all levels.

3.3 Enabling Objectives

At the end of this course, participants will be able to:

3.3.1 Describe different approaches to quality

3.3.2 Define quality, performance and indicators

3.3.3 Measure quality and performance

3.3.4 Analyse their working contexts and plan for performance improvement

3.3.5 Conduct stakeholder analysis and devise plans for engaging and retaining their stakeholders

3.3.6 Define desired performances in measurable terms, identify performance gaps and conduct root cause analysis

3.3.7 Select, design and implement interventions to improve performance

3.3.8 Collect relevant programmatic data, and analyse and interpret the data for decision making at implementation level

4.0 Target Group

The course is meant for policy makers, senior managers in the health sector, district health managers, health workers and support staff.

Module 1: Overview and Introduction to Quality Health Care

Objective:

Describe quality in terms of its evolution, definition and importance in the provision of health care services

MODULE 1

SESSION 1.1

Session 1.1 Evolution of Quality Improvement in Health Care

Session Performance Objectives

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

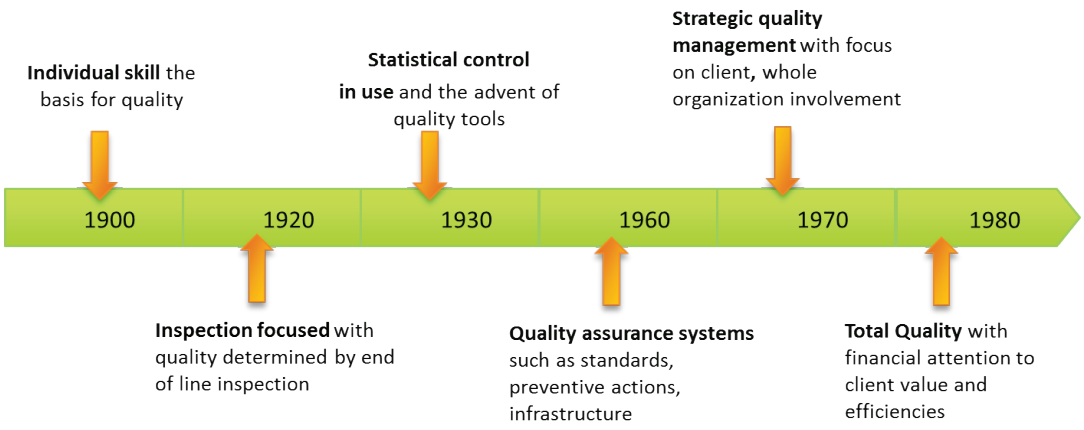
1. Explain the importance of quality and the need for QI in the provision of care
2. Describe QI initiatives in Zambia

A Brief Historical Perspective of Quality Improvement

The QI movement has a long history; its roots can be traced back through centuries. In modern times, QI initiatives have had significant influence over the way and manner in which services are provided, from the early 1900s when an individual worker's skill level determined the quality of services or production, to the current focus on systematic and continuous actions that lead to measurable improvement in services and the status of the organisation's targets. Figure 1: A Brief Timeline of Quality Improvement is an historical perspective of the quality movement.

In the health care sector, the reach and scope of QI is translated to measurable improvements in health care services and the health status of targeted patient/client groups.

Figure 1: A Brief Timeline of Quality Improvement



Africa, Health Care and Quality Improvement

The World Health Organisation (WHO) considers QI a permanent and ongoing obligation and priority for health service development. In the early 1980s, WHO encouraged Member States to establish systematic quality measures that address effectiveness, safety, security and impact of services, patient acceptability, cost and benefit of services. The WHO Regional Committee Resolution AFR/RC45/R3, passed in 1995, requires Member States to implement national quality programmes and:

- Establish a national quality of care programme as one of the main components of health sector reforms, given its impact on the outcome expected of other programmes;
- Introduce in the training programmes of health workers knowledge, skills and attitudes required to deliver quality care; and
- Offer incentives to health care institutions at all levels to develop internal and external evaluation schemes for the continuous improvement of the quality of care provided.[1]

[1] *World Health Organisation. (2003). Health Service Provision: Introduction to Quality Assurance and Accreditation of Health Care Services, updated July 2000. http://www.who.int/health.services-delivery/performance/accreditation/. Accessed 12 January 2003.*

Over the past several decades African countries are increasingly showing interest in assessing quality of health care, with emphasis on outcome as a measure of quality.[2] Some African countries are responding at the policy development level; others have progressed towards national quality programme implementation. **Zambia** started a national QA programme in 1994 ahead of other African countries. The **South African** National Policy on Quality in Health Care provides means for improving the quality of care in public and private sectors, and sets objectives of government to assure quality and continuously improve health care by measuring the gap between standards and actual practice.[3] **Ghana** has gone beyond policy to implementation of national health quality programming because improving the **quality** of health care is a key MOH objective and is expected to be carried out as part of routine health service delivery.[4]

Quality Improvement Initiative in Zambia

QI efforts began in Zambia in 1991 using the QA model as part of the health reforms initiated by the MOH with a vision of "providing equity of access to cost-effective quality health care as close to the family as possible". To achieve this vision, the MOH aimed to transform the centralised system of health care management into a decentralised system with the focus on strengthening primary health care delivery in a way that emphasised preventive care.

Improving Health Care through Standards, Accreditation, and Advocacy

Several organisations in the Africa region specialise in QI for the health sector. Their initiatives focus on a variety of issues that include establishment of rigorous standards that define quality for health facilities, accreditation programmes, advocacy and training quality of care issues.

The Council for Health Service Accreditation of Southern Africa (Cohsasa) works with a range of health care facilities in Southern Africa to meet and maintain quality standards for health care. The four sets of Cohasa standards currently accredited are: Primary Health Care Services Standards, Emergency Medical Services Standards, Hospital Standards, and Hospice Palliative Care Standards.

The Regional Centre for Quality of Health Care (RCQHC) provides leadership in building regional capacity to improve quality of health care in Africa through promoting evidence- based better practices. RCQHC performs a range of activities covering training of health managers, documentation and dissemination of strategic information, advocacy, intervention -linked research and technical assistance to countries and local institutions.

[2] *Mendoza Aldana, Jorge, Piechuklek, Helga and Al-Sabir, Ahmed. (2001.) Client satisfaction and quality of health care in rural Bangladesh. Bulletin of the World Health Organization: the International Journal of Public Health 79(6):512-517.*
[3] *Mseleku, T. (2007). A policy on quality in health care for South Africa. National Department of Health, Pretoria*
[4] *Offei, A., Bannerman, C. and Kyeremeh, K. (2004). Health care quality assurance manual for sub-districts. Ghana Health Service.*

Drivers of Quality Improvement

The QA unit, formed by HRIT in 1993, was tasked with accelerating the development of a sustainable approach to improving the quality of health care in Zambia.

The driving forces behind this were:

- **Political will:** The government required all ministries to provide good services to all Zambians.
- **Popular will:** Beneficiaries of the health care services were not satisfied with the care that was being given in the health facilities.
- **Support for change:** The national health reforms gave districts some autonomy for planning and implementation of health programmes and required effective management of resources for maximum impact.

Quality Assurance Structures and Systems

Throughout the 1990s, Zambia initiated several QA activities, and mechanisms were used to operationalise QA with an emphasis on introducing QA concepts to different levels of the public health care system. This included:

- Trained **primary care-level health workers** on the use of QA for systematic problem solving and **province- and district-level supervisors** were sensitised in QA concepts to support the primary care health workers.
- Established a **QA structure** from national to district level, with all districts and hospitals having **QA committees**.
- Established a national **QA steering committee**.
- Formed the **Zambia Health Accreditation Council** in 1998 and established a **health accreditation programme** using a set of standards for secondary and tertiary hospitals.
- Capacitated **QA trainers** encompassing all NINE provinces of the country. By 2002, provincial clinical care specialists were a constituent part of the QA teams.
- Integrated **QA content in some training institutions/courses**, e.g., the integrated competency-based training and nursing curriculum.

Key Points

- The concept of QI has a long history resulting in the present-day focus on systematic and continuous actions that lead to measurable improvement in services and the measurable progress toward targets.
- In relation to the role of the health care sector, the reach and scope of QI is translated into measurable improvements in health care services and the health status of targeted patient/client groups.
- The WHO Regional Committee Resolution AFR/RC45/R3, passed in 1995, requires Member States to implement national quality programmes.
- **Zambia** began its national QA programme in 1994 ahead of other African countries. Key QI initiatives include:
  - Establishment of a **QA structure** from national to district level, with all districts and hospitals having **QA committees**. There also is a national QA steering committee.
  - Formation of the **Zambia Health Accreditation Council** in 1998 and establishment of a **health accreditation programme.**

TIME: 15 MINUTES

Activity 1.1
Quality Improvement at Your Facility

In small groups **discuss**:

1. The QI initiatives that have been introduced at your facility
    - For each QI effort, what prompted it being undertaken?

2. What are the major challenges in delivering quality health care services in Zambia and at your facility?

3. **Prepare** a flipchart that describes:
    - QI efforts introduced at the facility and what prompted these measures
    - A list of challenges in delivering quality health care services.

MODULE 1

SESSION 1.2

Session 1.2
Definition and Principles of Quality Health Care

Session Performance Objectives

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

1. Define quality and understand the role of perspectives and dimensions in defining quality
2. Describe the basic principles of quality
3. Define quality of health care and appreciate the challenges of defining quality of health care

Defining Quality

When discussing quality health care, it is first important to decide what quality means. Defining quality is not a simple task and quality practitioners define quality in different ways. Current definitions of quality include:

- Meeting or exceeding customer expectations. In this context, "customer" covers refers to both internal (recipient of service within the organisation) and external (recipient of services outside the organisation) customers.
- A measure of how good something is", or "doing the right thing, in the right way at the right time".
- Understanding precisely what customers need and consistently delivering accurate solutions within budget, on time and with the minimum loss to society. (Chartered Quality Institute).

Defining Quality Health Care

What exactly is quality health care? As described above the concept of quality means different things to different people – so defining quality health care is not straightforward.

Some people think that quality health care means seeing the doctor immediately upon developing symptoms, being treated courteously by health facility staff, having the doctor spend a lot of time with them and being diagnosed and treated according to best practices in protocols. Others see quality health care as having a doctor follow protocols, use reliable equipment, perform the necessary procedures and prescribe the best course of treatment. Still others see quality in terms of the accessibility of health services for the general population, mobilising drugs and supplies in a timely manner and providing sufficient human resources for health.

As these interpretations show, defining quality of health care is challenging because quality is multidimensional: it has many elements and characteristics, and it is seen from different perspectives and points of view.

The following are several definitions of quality health care:

Quality Health Care in Family Medicine

The achievement of optimal physical and mental health through accessible, safe, cost-effective care that is based on best evidence, responsive to the needs and preferences of patients and populations, and respectful of patients' families, personal values, and beliefs

American Academy of Family Physicians, 2006

Quality Health Care

Consists of proper performance according to standards of interventions that are known to be safe, that are affordable to the society in question and that have the ability to produce an impact on mortality, morbidity, disability and nutrition."

Roemer and Montaya-Aguillar, 1988

Quality of Health Care

The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge

Institute of Medicine, 2006

The health care delivered must be indicated and efficacious for both the specific and general conditions present
The risk-to-benefit ratios must be reasonably minimised
The health care delivered must be cost efficient
Patient expectations must be met

Fidel Daviola, 2002

Science-based measures can be used to assess quality for various conditions and for specific types of care. For example, quality health care can be described as:

- Doing the right thing (delivering the needed service)
- At the right time (when needed)
- In the right way (using the appropriate test or procedure)
- To achieve the best possible results

Providing quality health care also means striking the right balance of services by:

- Avoiding underuse (for example, not screening a person for high blood pressure)
- Avoiding overuse (for example, performing tests that a patient doesn't need).
- Eliminating misuse

Common Features of Quality Health Care Definitions

The manner in which things are done: When health care workers provide services based on, for example, treatment guidelines, the way in which the service is provided should produce a quality result. For instance, in the case of tuberculosis (TB), if a patient has three sputum samples examined correctly and reported by the lab, the right action has been taken; if medication is given correctly, the right thing has been done in the right way; and if the TB patient is diagnosed early, before the disease has progressed substantially, so that transmission to others is limited, the right thing has been done at the right time.

Comparing what has been done to current expectations or standards: In most settings, health care service providers define what they want to see happen; this is called setting standards. A standard is a statement of expectation. For example, there is a standard that states the drug regimens that different categories of TB patients should be given. If health workers provide treatment according to these standards, then the treatment is in line with quality of care.

Patients' perspective: The patient perspective is very helpful to understand so that the services provided are in line with their requirements and expectations.

Cost of quality: The "cost of quality" is the cost of NOT creating a quality product or service. Every time work is re-done, the cost of quality increases. Obvious examples include: repeat laboratory tests and re-admission of patients because of poor management. This subject is discussed again in a later session.

Effective use of resources: Quality services are those that produce the best result they can produce with minimal resources. If more resources than necessary are being used to provide a given service, then a quality gap exists.

Dimensions of Quality Health Care

The complexity of defining quality means that important elements (aspects) of what one wants to measure must be identified. These are called dimensions. In the health care sector, the common quality dimensions that are taken into consideration are:

Technical competence: The degree to which the tasks carried out by health workers and facilities meet expectations of technical quality (i.e. adherence to standards)

Access to services: The degree to which health care services are unrestricted by geographic, economic, social, organisational or linguistic barriers

Effectiveness of services standards: The degree to which desired results (outcomes) of care are achieved

Efficiency of services: The ratio of the outputs of services to the associated costs of producing those services

Interpersonal relations: The extent to which the communication and interactions between providers and clients elicit rust, respect, confidentiality, courtesy, responsiveness, empathy and effective listening.

Continuity of services: The extent to which the delivery of care is provided by the same health care WORKER throughout the course of care (when appropriate) and appropriate and timely referral WITH communication between providers. It can also mean consistency of availability of indicated services and supplies to support the services

Safety: The degree to which the risks of injury, infection or other harmful side effects are minimised

Amenities: The state of the physical appearance of the facility, cleanliness, comfort, privacy and other aspects that define the environmental and physical comforts

Choice of services: The availability of client choice of provider, insurance plan or treatment as appropriate and feasible.

For further reading, see: DiPrete Brown L, Franco L.M., Rafeh N. and Hatzell T. Quality Assurance of Health Care in Developing Countries. Quality Assurance Methodology Refinement Series. Quality Assurance Project. 1998

TIME:
20
MINUTES

Activity 1.2
Dimensions of Quality

Individually **read** the scenario *Mrs. Mulenga Takes Chupa to the Health Facility* on the following page.

In small groups **discuss**:

1. Which dimensions of quality were met in this snapshot of Mrs. Mulenga's day at the clinic?
   Explain.

2. Which dimensions of quality were not met?
   Explain.

3. Do you think Mrs. Mulenga was satisfied with the service?
   Why or why not?

Be prepared to discuss your findings.

Mrs. Mulenga Takes Chupa to the Health Facility

Mrs. Mulenga lives in a district in Central Province. She is married with four children. Her youngest daughter, Chupa, is three years old. Chupa had a cough, fever and was sneezing two days ago. As the fever persisted and Chupa was unable to eat, Mrs. Mulenga decided to take her to the health centre. The centre is about 25 kms from the Mulenga home and transportation is not easily available. Mrs. Mulenga had to wait for her husband to get home from work to provide transportation money so they went to the health centre the following day.

When they arrived at the health centre in the morning, there was a very long queue despite there being two staff members screening patients. They had to wait for about an hour before they were checked in. However, the Classified Daily Employee who was giving out the files to patients was very welcoming and friendly. Chupa had last attended the health centre 11 months ago so it took a while for her file to be retrieved despite her file number being indicated on her Children's Clinic card. Mrs. Mulenga and her daughter waited another 30 minutes before the file was found. Whilst waiting, they sat on a bench and watched a programme on child abuse. Chupa's cough left her with a dry throat and she needed some water to drink. But the outpatient department had no drinking water. Fortunately, another mother who had brought water with her gave some to Chupa.

When Chupa and her mother finally entered the consulting room, they found a clinical officer who appeared rather tired due to the high number of patients he had attended to. The local language in the area is Lenje. Mrs. Mulenga is from the Bemba tribe and it was difficult for her to communicate with the clinical officer; another patient was asked to interpret. The clinical officer ordered some laboratory tests so Mrs. Mulenga and Chupa went to the laboratory. The laboratory technician was unable to perform the tests that day – he had suspended testing because the equipment kept giving contradictory results and patients were complaining about being sent back for repeat tests.

On their way back to the outpatient department, Mrs. Mulenga and Chupa had to wait a few minutes for the just-mopped wet floor to dry. A gentleman who apparently had not noticed that the floor was wet and slippery walked onto it and slipped and fell. When he got up, he was limping and so was taken to the clinical officer for his injury to be assessed.

Because the laboratory tests were not done, the clinical officer decided to treat Chupa symptomatically. He explained the possible causes of her symptoms and why he was prescribing the medication. He assured Mrs. Mulenga that Chupa would respond to the medication and be up and about in a day or two. However, they were not given a review date by the clinician.

At the dispensary, the drugs were given to Mrs. Mulenga without explanation about how to administer them. She was too shy to ask how to administer the drugs because of the language barrier and the long queue behind her. She decided to ask her neighbour whose son had had similar symptoms two weeks earlier.

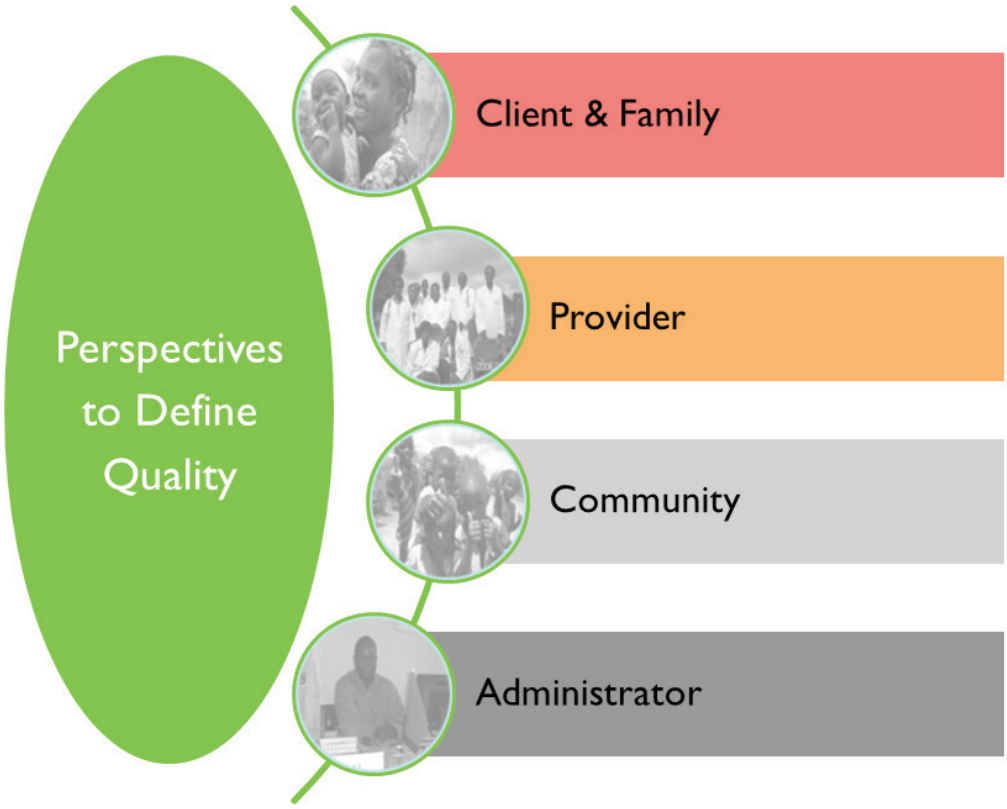
Mrs. Mulenga was thinking about going on contraceptives so whilst she was at the health centre she enquired about family planning services. The records clerk directed her to the maternal and child health department. She waited there for about 30 minutes. When the nurse finally came, she told Mrs. Mulenga that family planning services were provided only on Friday afternoon and to come back at that time. As Mrs. Mulenga was leaving she met a fellow church parishioner who had come to the health centre to have her contraceptive implant removed. The nurse explained to her that the midwife who was trained in implant insertion and removal was away attending a two-week workshop.

After having spent the whole day at the health facility, Mrs. Mulenga and Chupa finally went home.

Perspectives in Defining Quality Health Care

The dimensions that define the quality of health care are important because health care stakeholders – the communities and clients that depend on health care services for their well-being, the clinicians who provide care, and the managers and administrators who oversee it – each understand, define and describe quality of care from their own unique perspectives (Figure 2). These different perspectives lead to different expectations and different methods of measuring health care quality.

Figure 2: Four Perspectives from which Quality is Viewed



Client and Family Perspective

Addressing clients' concerns is as essential as technical competence.

For clients, quality is driven largely by the responsiveness of health services to their specific needs, the care received and the results. Additional issues include interaction with providers, with emphasis given to attributes such as waiting time, privacy, ease of access and getting the service they want.

Table 1 summarises patients' rights and responsibilities.

Table 1: Client's Rights (Zambian Patient's Charter)

Patient Rights	Patient Responsibilities
1. Respectful and safe access to health services 2. Treatment without discrimination 3. Informed consent 4. Freedom from abuse 5. Personal or physical privacy 6. Confidential treatment 7. Complete information regarding the health condition 8. Access to personal medical records 9. Freedom to provide suggestions or grievances 10. Timely referral or transfer to another facility.	1. Respect the health care providers 2. Desist from verbal or physical abuse or violence against health care providers 3. Desist from vandalising health facility amenities, furniture or equipment 4. Follow the course of treatment and instructions 5. Be considerate of the rights of other patients 6. Report anything that appears unsafe 7. Keep all appointments 8. Provide accurate and complete information to health care providers 9. Fulfill financial obligations 10. Observe all safety policies and procedures of the facility

Provider Perspective

For health care professionals, measurement of quality can be driven by:

- Health outcomes
- Technical excellence
- Access to medical equipment, infrastructure and supplies
- Support from higher-level professionals

Health Care Administrator Perspective

Health care administrators and managers tend to think of quality in terms of managerial input measures such as:

- Resource allocation
- Fee schedules
- Staffing and staff allocation
- Procurement, inventory management

Community Perspective

The community perspective is similar to the client perspective in that the overarching definition of quality is the responsiveness of health services to the specific needs of the community, the quality of care and the results. An additional element is ease of access to the range of health services that respond to community needs.

Other Perspectives

- Programme manager: definition includes support services
- Policy makers and donors: definition includes costs, efficiency and outcomes for population as a whole

Cost of Quality[5]

The 'cost of quality' is not the price of creating a quality product or service. It's the cost of NOT creating a quality product or service.

Consider the cost associated with a service where people wait a long time to see a provider, tests have to be repeated or treatments have to be repeated because of an incorrect diagnosis, prescription or intake of drugs. Such repetition costs more than when things are done right the first time. Every time a task is repeated, the cost of quality increases. Read the scenario 'What is the Cost of 'Poor' Quality?' As you read the scenario, think about and identify the costs that are a result of NOT providing quality service.

What is the Cost of 'Poor' Quality?

Mr. Peter Mumba was not feeling well – in fact, he had not felt so sick for a long time. His wife, Mary, convinced him to go to the health centre to get checked. The doctor suspected malaria and immediately prescribed lab tests. The centre did not have any rapid diagnostic tests (RDTs) in stock so the lab technician decided to perform a different diagnostic. After waiting for some time, Mr. Mumba was told the test results would not be available and that he would be treated based on symptoms. He was prescribed medication for malaria based on the doctor's unconfirmed diagnosis.

Mr. Mumba took the prescribed medication but his symptoms worsened and he noticed a rash on his abdomen. He returned to the health centre and additional lab work was prescribed. He was told it would take two days to get the test results; in the meantime, he was admitted to hospital with severe dehydration.

[5] *Adapted from American Society for Quality, http://asq.org/learn-about-quality/cost-of-quality/overview/overview.html. Accessed July 2013*

The scenario *What is the cost of poor quality?* points out the costs that can be incurred when services are not provided based on quality. In the case of Peter Mumba, the additional service delivery costs included:

- Lab test for malaria
- A course of Artemisinin Combination Therapy (ACT)
- Physicians' time for a follow-up visit
- Second set of more extensive lab tests
- Admittance to hospital for an extended stay

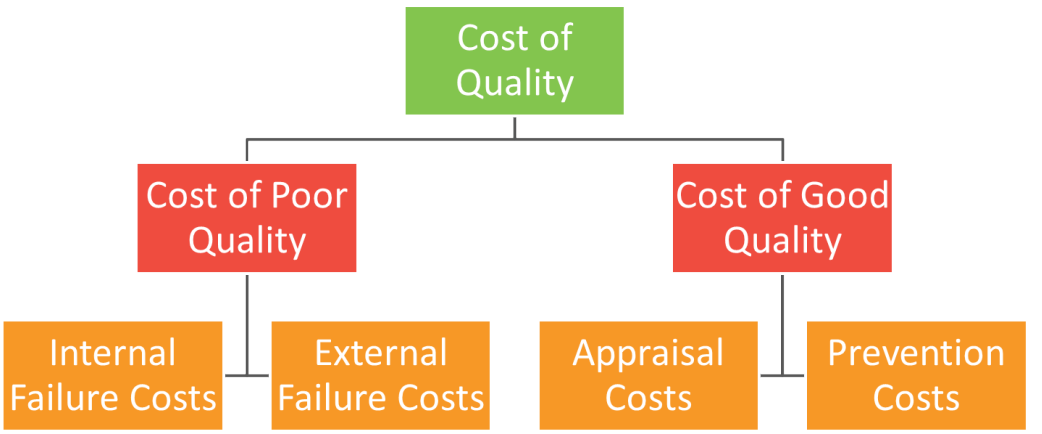
Other costs of quality impacted the client:

- Three round-trip fares to travel to the health centre
- Travel costs for family to visit whilst in hospital
- Time/wages forgone whist the client was unable work

Inefficiencies, mistakes and inaccurate diagnosis all have implications for the costs of providing care.

The cost of quality has two main categories (Figure 3):

FIGURE 3: THE COSTS OF QUALITY



- Cost of good quality: Costs invested to achieve high quality and prevent non-conformance; costs to monitor service to assure compliance with standards, guidelines and processes. This includes costs of prevention of poor quality – such as quality planning, appropriate education and training, strong supervision and good infrastructure. And costs for appraisal to provide continual monitoring, feedback loops to assure conformance to standards and requirements.
- Cost of poor quality: Costs that result from failing to meet standards, guidelines and so forth and result in rework, retesting, shortages of inventory and supplies, complaints and loss of life. Cost of poor quality include costs that occur prior to the delivery of services refered to as internal failure costs. Internal failure costs can include wastage of supplies and inadequate systems. External failure costs are those that occur during or after the delivery of health services. They include lack of human capital, inadequate knowledge and skills and return clients because of inaccurate diagnosis.

Key Points

- Defining quality of health care is challenging because quality in itself is **multidimensional**: it has many elements and characteristics and is seen from **different perspectives and points of view**.
- In the health care sector the common quality dimensions that are taken into consideration are technical competence, access to services, effectiveness of services, efficiency of services, interpersonal relations and continuity of services, safety, amenities and choice of services.
- Clients, service providers, administrators and others involved in the process of health care service delivery understand and describe service quality in different ways – these are the different perspectives from which health services is viewed.
- The 'cost of quality' is NOT creating a quality product or service to begin with – there are costs of poor quality and costs of good quality.

Session 1.3 Rationale for Quality Health Care

Session Performance Objectives

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

1. Make a case for a committed systematic effort to improve quality health care in Zambia
2. Describe the importance of standards of care and adherence to them

Snapshot of Health and Care in Zambia

The Zambia National Health Strategic Plan 2011–2015

The following statements are from the National Health Strategic Plan.

> *Zambia has a high burden of disease, which is mainly characterised by high prevalence and impact of communicable diseases, particularly malaria, HIV and AIDS, STIs, and TB, and high maternal, neonatal and child morbidities and mortalities. The country is also faced with a rapidly rising burden of non-communicable diseases, including mental health, diabetes, cardio-vesicular diseases and violence.*
>
> *Over the past five years, from 2006 to 2010, the health sector recorded significant progress in most of the key areas of health service delivery, and health support systems, leading to major improvements in most of the key health performance indicators.*

Zambia has been at the forefront of significant reform so that the provision of "…equitable access to cost effective, quality health services as close to the family as possible"[6] becomes a reality. As the National Strategic Plan points out significant strides have been made. Tables 2 and 3 capture important achievements in selected key health indicators.

Table 2: Key Health Indicators

45% of children under 5 are stunted
28% of children under 5 are underweight
47% of births are attended by a skilled health worker
51% of women do not receive any postnatal care

Table 3: Zambia Health Statistics

Indicator	1996	2001	2007
Neonatal mortality	35/1000	37	34
Infant mortality	109/1000	95	70
Under-5 mortality	197/1000	168	119
Maternal mortality	649/100,000	729	591

Source: Zambia Demographic and Health Survey (DHS) 2007

Despite these gains, there are major challenges that include the high burden of disease based on the high prevalence and impact of communicable diseases such as malaria, HIV and AIDS, TB and sexually transmitted infections (STIs).

[6] *From the Mission Statement of the MOH in the Zambia National Health Strategic Plan 2011–2015*

Health Workforce

Zambia continues to face a critical shortage of health care providers both in the numbers and skills mix. According to the Zambia National Health Strategic Plan, "The critical shortage of skilled manpower is a major obstacle to the provision of quality health care services and to the achievement of the national health objectives and MDGs [Millennium Development Goals]". As seen in Table 4, the ratio of health worker to the population is critically low – putting a tremendous burden on health worker performance.

Table 4: Human Resources for Health: Clinical Staffing per 1000 Population as at December 2009

Cadre	Number of Staff	Per 1,000 Population
Clinical officers	1,376	0.11
Medical doctors	801	0.06
Medical Licentiates	34	0
Registered Midwife	643	0.05
Enrolled midwife	1,731	0.14
Registered nurses	1,913	0.15
Enrolled nurses	5210	0.42
Total	11,708	0.93

Source: Zambia National Health Strategic Plan 2011–2015

Zambia's Response: Quality Improvement

Zambia's response to its health care challenges is persistent and has included extensive reforms, initiatives and structural changes. Since the 1990's, the MOH has been at the forefront throughout the Africa region to institutionalise QI in service delivery. This includes the establishment of a QI Technical Working Group (TWG), MOH Guidelines for QI, and national standards and guidelines.

- Establishment of QI TWG for MOH
- Development of national QI operational guideline by QI TWG
- Review of the QI training package and development of manuals by the QI TWG
- Decentralisation of the QI training to provinces; 64 provincial QI trainers trained

- Scale-up of training of health workers at all levels
- Formation of QI committees at all levels
- Technical support supervision (TSS) of QI committees from committees at higher level

Health care standards and guidelines for service delivery in Zambia exist and continue to be used for routine biannual performance assessment conducted at all levels for both self and external assessment. It has been widely shown, however, that health service providers routinely comply with only a small proportion of these standards and guidelines.

Even a casual observer can identify significant gaps in the quality of health care provided. These deficiencies are not regularly quantified, and attempts to address them are usually done on an individual basis and are not designed and implemented in a systematic fashion. Thus, each individual has a different response to any given gap in the health care provision, resulting in widely variable and inconsistent care.

Additionally, although national guidelines have been developed for diagnosis and treatment of a number of different conditions, implementation of the guidelines varies. This is frequently referred to as the 'know-do gap'. The inconsistent adherence to guidelines decreases the potential positive impact that the guidelines can have nationwide. (See text box, Diagnosis of Malaria).

Diagnosis of Malaria

Early diagnosis and prompt, effective treatment is a fundamental intervention for the management of malaria. WHO in 2009 recommended universal parasitological confirmation of all suspected malaria cases prior to treatment with an antimalarial drug because presumptive treatment of malaria results in over-diagnosis of malaria, poor management of nonmalarial febrile illness and wastage of costly ACTs. National Malaria Control Programme Guidelines for the Diagnosis and Treatment of Malaria in Zambia of 2003, revised in 2009/2010, recommend parasitological diagnosis, by microscopy or RDT, for all suspected malaria cases where confirmatory capacity is available.

In 2010, HMIS data showed that 1,314,169 malaria cases were parasitologically confirmed out of 4,229,839 suspected malaria cases nationwide

Source: Malaria Operational Plan, Zambia - FY 2012, September 19, 2011

Next Steps

Quality of health care is about clear articulation of standards of care and adherence to them. However, in a complex health care delivery system, problems do occur and standards are not followed. In this context, a systematic process for problem-solving that enables the identification of root causes and targeted solutions is needed.

The health indices in Zambia are in urgent need of further improvement and this is exacerbated by an overstretched health care system managing a high disease burden in a context of extremely limited resources. This situation calls for provision of technically and cost-effective services which can only be accomplished if quality is embedded in the health care delivery system. Continued efforts will focus on:

- Strengthening existing QI strategies like performance assessment, TSS, mentorship, performance review meetings, clinical meetings and mortality reviews
- Strengthening adherence to national standards and guidelines through monitoring and enforcement and new programmes like antiretroviral therapy (ART)
- Minimising and eliminating nonadherence to existing standards and guidelines

Key Points

- Despite the gains and achievements Zambia has made, as evidenced by select health indicators, there are major challenges that include the high burden of disease and the critically low ratio of health workers to the population. Together, these challenges and other critical issues can compromise health worker performance.
- Zambia needs high-quality health care services that provide focused, technically and cost-efficient and -effective health care services.
- There is need to promote use of performance and QI frameworks make this possible:
  - Embed QI in the health care delivery system as a common framework for technical and cost-effective services
  - Assure practitioners adhere to established evidence-based standards and guidelines

Module 2: Standards, Guidelines and Indicators in Health Care

Objective

Introduce participants to standards, guidelines and indicators and their role in QI monitoring

MODULE 2

SESSION 2.1

Session 2.1 Standards and Guidelines

Session Performance Objectives

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

1. Define the terms standards, guidelines and indicators as these relate to quality health care and QI
2. Identify where health professionals in Zambia can locate standards and guidelines
3. List characteristics of a good standard and a good indicator
4. Develop health programme performance standards and appropriate indicators to measure those standards

An Introduction to Standards

What are standards?

Standards are statements of what is expected to be done and the level of expected (desired) quality of performance, structures, processes and outcomes to assure quality health care. They "provide minimum requirements for the establishment and maintenance of health care facilities in order to protect the public interest by promoting the health, and safety of individuals"[7].

Cohsasa defines **standards in health care** as:

"Statements that define the key functions, activities, processes and structures required for organisations to be in a position to provide quality services and as they are determined by professional bodies, health care professionals, staff, patients and citizens"[8].

According to the Joint Commission International (JCI), an international health care accrediting organisation, *"standards are designed to support sustained improvements in care, promote a framework for risk reduction, create a culture of patient and worker safety, and contribute to patient satisfaction. These rigorous standards set uniform, achievable expectations for structures, processes, and outcomes for your primary care centre"*[9].

[7] *Health Professions Council of Zambia. (2011.) National Health Care Standards for Zambia.*
[8] *Cohsasa, http://www.cohsasa.co.za/health-care-standards-development. Accessed July 2013.*
[9] *Joint International Commission, http://www.jointcommissioninternational.org/. Accessed July 2013.*

Zambia has developed the country's National Health Care Standards to provide uniform requirements for the health sector, so that it responds to the health needs of all Zambians. The text box below is a brief overview of the basis of the Zambian National Health Care Standards.

National Health Care Standards for Zambia

In 2011, the Health Professions Council of Zambia published a comprehensive National Health Care Standards for Zambia in "recognition that the current health care provision needs to have a uniform standard of requirements in responding to the health needs of the country".

The development of these standards followed the following fundamental principles:

1. Regulatory standards were prepared for all health facilities according to the new health care tier system.
2. All the public and private health care facilities would be subject to uniform standards to avoid double standards in the health sector.
3. Provision of health care services would be quantitatively and qualitatively standardised for the minimum conditions for service delivery with regard to what, where, when and how services were provided. However, standards assessment would consider differences of service delivery by health facility according to their status.
4. Regulatory standards provide substantial evidence for assuring quality of health care services.
5. Stakeholders were part of the regulatory standards development and implementation processes.

The major aims of these standards are:

- To assure quality of health care service delivery
- To be used as essential guidance and easy reference
- To simplify licensing, inspection and enforcement actions. In addition, the standards could be used by service providers as a mechanism for internally assessing the quality of care provided and for rational health investment

Why use standards?

Standards are a strategic tool for increasing the effectiveness of service delivery and minimising errors and wastage. Standards explicitly state the expected level of quality in service provision or the expected outcomes of those services.[10] They allow individuals to know what they are expected to do clinically and operationally, the way in which they work, and how their facility or other organization should function.

Standards can be used to:

- Provide support and supervision to staff
- Measure a facility or organisations' performance for licensure, accreditation and/or medical audit
- Provide training on good practices in health care delivery
- Define indicators for measurement

For example, standards assure quality of care by specifying what is required for the delivery of such care – drugs, equipment, supplies, trained providers. The information produced in meeting these requirements provide the foundation of a health information system, as the data can be used to extrapolate and define criteria and indicators.

Standards can be used in:

- Training
- Evaluation of programme performance
- Client education
- Specification of inputs, processes, expected outcomes and impact

In short, standards should be used because they are a powerful tool to assure that the quality of care and the specific requirements for care – drugs, equipment, supplies, trained providers - are available: **The Right Care for the Right Client at the Right Time**!

Limitations of Standards

- Can not plan for every eventuality
- If written, may not be available
- If available, may not be used
- If implicit, may not be standard: if standards are not documented, they can not be used to hold providers accountable for non-adherence as everyone may be doing their 'own thing'.
- Some providers resist standardisation of practice
- Standards may limit a health provider's initiative to innovate

[10] U.S. National Library of Medicine, National Institutes of Health, http://www.nlm.nih.gov/tsd/acquisitions/cdm/formats46.html. Accessed July 2013.

Sources of Standards

Standards that relate to and influence the quality of health care can be those that are:

- Developed by local institutions, organisations and facilities with a specific focus on the Zambian context or for a specific organisation or facility
- Developed by external sources whose intentions are to assure the safety of patients and to better serve people globally, promoting standards as a consistent expectation.

Further, there are different types of standards. Standards can be implicit, meaning that they are implied or understood and not expressly stated or documented in writing – they are something that workers 'just know' about inputs, processes, outputs and outcomes. Explicit standards, in contrast, are formal, communicated in writing, and have evolved through rigorous evidence-based information. Explicit standards are usually established by authorities, regulatory bodies, or external accreditors. Implicit standards are more rooted within local institutions or facilities.

Standards from Local Institutions and Organisations

The **Ministry of Health** developed the National Health Care Standards for Zambia. The standards are divided into four groups – General Provisos, Core National Health Care Standards, Service Specific National Health Care Standards, and Annexes.

The **Health Professions Council of Zambia** is a Statutory Body established under an Act of Parliament. The Council regulates the registration of health facilities and health care practitioners and maintains optimal standards of competence, care and conduct. http://www.hpcz.org.zm/index.html

Health Professions Council of Zambia
(formerly Medical Council of Zambia)

Zambian Pharmaceutical Regulatory Authority was established to assure that medicines and substances conform to the required standards of quality, safety and efficacy throughout the chain of manufacture, importation, exportation, storage, distribution, supply, sale and use. It also assures that medicinal products are manufactured in facilities which are in compliance with current Good Manufacturing Practices (cGMP) standards as recommended by the WHO.

A **health facility** can set its own standards with regard to providing quality health care. These will be used to monitor the quality of service delivery in line with the set standards. A health facility can also adapt standards from those set at the national level to suit the institutional context.

Standards from External Bodies

Below are examples of external organisations that are leading the development of standards specific to health care. Many of the organisations provide facility accreditation if the standards are reached:

COHSASA develops standards for South African and sub-Saharan health care facilities that can result in a facility's 'accreditation' based on an external assessment. Detailed information about Cohsasa standards and programmes is at: http://www.cohsasa.co.za/

Joint Commission International (JCI) accreditation standards focus on improving hospital operations. Because countries have different technologies and resources, JCI standards are partially philosophical and aimed at creating the best possible environment for patients and staff. Different cultures and national laws sometimes convert these standards into guidelines, or principles, and they can be used as benchmarks.
For additional information, see http://www.jointcommissioninternational.org/

The **World Health Organisation** contributes to the development and endorsement of general standards of care that countries can adapt to their specific requirements. For additional information, see the WHO Management of Quality of Care Standards, at http://www.who.int/management/quality/standards/en/

The **International Society for Quality in Health Care (ISQua)** is involved in the accreditation of national and regional health care facilities worldwide via an International Accreditation Programme. ISQua is responsible for assessing the standards of organisations that set the benchmarks in health care safety and quality and is the only organisation to 'accredit the accreditors'. See http://www.isqua.org/

Types of Standards

Standards typically are of three general types: patient care, management of the organisation, and service specific. Below are examples of each type:

Patient Care Standards

Quality of Care

- All inpatients must be assessed daily by the medical officer
- All patient's files have detailed history, physical examination, diagnosis and treatment on first contact
- All health facilities should manage patients according to standards and guidelines of case management
- 80% of health facilities should comply with Infection Prevention standards

Integrated Child Health and Nutrition

- At least 80% of children under one year should be fully immunised
- All health centres should manage at least 90% of children according to Integrated Technical Guidelines (ITG)/Integrated Management of Childhood Illnesses (IMCI)
- All children with severe malnutrition must be managed according to WHO guidelines

Integrated Reproductive Health

- All maternal deaths should be reviewed and recommendations made and followed up
- At least 80% of deliveries must have partograms recorded according to guidelines
- At least 60% of expected deliveries must deliver in the facility
- All health centres must provide Focused Antenatal Care services according to guidelines

HIV/AIDS

- All adherence counselors should counsel all ART clients on the side effects of antiretroviral drugs.
- All health facilities must have staff trained in Counseling, Testing and Care
- Opt-out HIV testing policy should be implemented in all inpatient departments
- All HIV-positive clients should be managed according to guidelines
- 80% of patients on ART have a 95% compliance

STI Management
- All STI clients must be counseled and tested for HIV
- All STI patients must be treated according to guidelines

Tuberculosis
- All TB patients should be counseled and tested for HIV
- All TB cases must be managed according to guidelines

Malaria
- 80% of malaria cases should be confirmed with an RDT or blood slide
- All patients with a negative RDT results should not be treated with an anti-malarial drug

Management of Organisation Standards

Administration /Systems/Governance
- 80% of action points from previous performance assessment should be addressed according to agreed timeline
- At least 80% of expenditure should be according to action plan
- Back-up sheet and commitment ledger should be updated daily

Human Resources
- All staff must be appraised according to job description annually and individual career plan developed
- All staff must be enrolled on the Payroll Management Establishment Control (PMEC).
- At least 80% of human resources records should be kept according to standards (arranged alphabetically or numerically; two files per employee: open and confidential)

Infrastructure and Equipment
- All buildings, grounds and equipment must be maintained according to standards
- All facilities must have functional districtwide communication system

Essential Drugs and Medical Supplies
- All essential drugs should be available at all times for all departments
- Drug and Therapeutics Committee meetings must be held on a monthly basis

Epidemic Control and Public Health Surveillance

- All reported notifiable cases must be followed up
- All supplies and equipment for epidemic control available according to standards
- All public premises must be inspected at least once a year

Service-specific Standards

Environmental Health and Food Safety

- Food handlers must undergo medical examination every six months
- Medical waste should be disposed according to standard operating procedures (SOPs)

Characteristics of Good Standards[11]

Valid: based on current evidence, research and sound practice; standards reflect the current patient safety emphasis of the WHO World Alliance for Patient Safety initiative

Reliable: leads to same result each time it is applied.

Clearly stated: understood in the same way by everyone; not subject to misinterpretation.

Realistic: can be achieved with the existing resources and means.

Applicable: is pertinent to the context.

Measurable: implies or states what can be measured to monitor and assess achievement of standard.

[11] *The International Society for Quality in Health Care.(2007). International Principles for Healthcare Standards, Third Edition*

Understanding the Utility of Standards

Standards provide the measures that are regarded as generally accepted principles of good practice in a health care setting and that contribute to quality health care.

Typically standards include what are referred to as **criteria** (Cohsasa) or **measurable elements** (JCI). The criteria and measurable elements list what is required to be in full compliance in order for the facility and service providers to meet the standard. They are the specific requirements of the standard that will be reviewed during an assessment or survey process. Table 5 contains an illustrative standard from the National Health Care Standards for Zambia. Table 6 shows examples of standards from the MOH Health Centre Performance Assessment Tool.

Table 5: Example of a Standard: Core National Minimum Health Care Standards for Class A

Domain	2.1 SAFETY
Area	2.1.1 INFECTION CONTROL
Standard	Health care facilities assure the management of infection prevention and control (IPC) activities and procedures are in place to safeguard patients/service users, visitors and staff
N	Assessment Criteria
1.	An official Infection Control Committee or designated staff oversees all IPC activities
2.	Written procedures to prevent infections exist and are implemented as follows:
	1. Hand hygiene at all workplaces and sanitary accommodation (toilets)
	2. Transmission based precaution (occupational exposure to blook borne viruses and post exposure prophylaxis special precaution for TB infected patients, contact, droplet, and airborne precautions)
	3. Safe handling and disposal of clinical waste
	4. Housekeeping and cleaning of all health care facility areas
	5. Isolation of patients

Table 6: Example of Minimum Acceptable Performance Standards for a Zambian Health Centre

3. Quality of care and curative services

Objective: To provide quality health services according to national approved guidelines and SOP

Functional Area/ Guiding Questions	Minimum Acceptable Standard	Indicators	Source of Information	Previous Period. Number/rate/ yes/no (6 months)	Current Period Number/rate/ yes/no (6 months)	Comments
3.1 Outpatient Department	**3.1.1** All patients are treated according to ITGs					
	3.1.2 Health centre has a properly equipped and functioning ORT corner					
	3.1.3 Health centre has a regular programme of health education					
3.2 General Clinical and Nursing Care, Inpatient Department	**3.2.1** All patients with detailed history and examination, appropriate diagnosis and treatment on first contact at Outpatient Department and admission					
	3.2.2 All inpatients reviewed daily by trained staff					
	3.2.3 Inpatients are treated according to ITGs					
	3.2.4 Nursing protocols available and adhered to					

Source: MOH Health Centre Performance Assessment Tool

Guidelines

Guidelines are statements that include recommendations for optimising patient care. Guidelines are informed by a systematic review of evidence gleaned from a synthesis and analysis of the current literature, expert opinion, open forum commentary, clinical feasibility data and an assessment of the benefits and harms of alternative care options.

Guidelines are established to assist health providers to make decisions about optimal care for patients in an efficient manner. Clinical guidelines inform clinical decisions and actions in the context of overall case management. One example of clinical guidelines is the Zambian Consolidated Guidelines for Prevention and Treatment of HIV Infection in Children, Adolescents, Pregnant Women and Adults.

TIME: 15 MINUTES

Activity 2.1
Standards and Guidelines as Tools for Quality

In small groups **discuss**:

1. In the facility in which you work, how are guidelines and standards utilised? Which guidelines and standards does your facility adhere to?

2. What are major accomplishments at the facility you work at that can be linked to using standards and/or guidelines? The accomplishments should be based on evidence.

3. What are major challenges to assuring that all health care providers and other staff at your facility use standards and guidelines? For each challenge, identify one solution.

Standards and Guidelines Are Not Enough!

Having standards – and accompanying guidelines to help meet the standards – is essential for health care professionals who work continually to meet the standards and employ evidence-based clinical treatments. However, simply having standards and guidelines in place is not sufficient; the challenge is to adhere to them.

This requires:

- Buy-in
- Training in standards and QI
- Using skills to address non-compliance issues
- On-going monitoring of progress
- Appropriate level of support

Indicators

Indicators are quantitative or qualitative measures of performance used to detail the extent to which standards have been achieved – an operational definition of a result. Some standards and guidelines may require more than one indicator to monitor adherence to the expected level of performance. Indicators are used to:

- Observe progress and measure actual results compared to expected results
- Answer HOW and IF progress is being made toward achievement of standards

Characteristics of Good Indicators

- **Specific:** To minimise ambiguity about what is being measured.
- **Measurable:** Quantifiable so that the level, quantity and quality of what is being measured can be determined objectively, for example, the percentage of family planning clients who receive information on side effects of IUDs at the family planning clinic
- **Achievable:** Practical and feasible so as to have reliable data and adequate resources to measure in a timely manner
- **Realistic:** Observable, to show clear evidence of changes from the actual level of performance to the desired level or otherwise
- **Time-bound:** To reflect within the period of time in which the indicator will be achieved

Indicators should have the following attributes:

- **Precision:** Indicator has the inherent characteristics to measure an occurrence accurately and consistently.
- **Reliability:** Indicator is consistent and dependable and will lead to the same result each time it is applied.
- **Validity:** Indicator is based on scientific evidence or other acceptable experience and is relevant and applicable to the measure of the occurrence of interest.
- **Sensitivity:** Indicator has the ability to measure what it is intended to measure. For example, if a test is positive then it is truly positive and if the test is negative, then it is truly negative.
- **Specificity:** Indicator is able to measure an occurrence if it has truly occurred and is less likely to count falsely if the occurrence has not occurred.

Additional Tips on Good Indicators

- When possible, disaggregate data by relevant variables – gender, location, cadre of health worker, facility level, and so forth.
- Choose indicators that can be reproduced by other groups or when measured at different points in time.
- Choose indicators that provide a clear, unambiguous, yes or no answer to the question “did they or didn’t they?”
- Choose indicators that are under the control of the performer.

Types of Indicators

In monitoring and evaluation, indicators tend to be assigned to categories based on a typology that classifies them by their role and/or effect. There are different types of indicators: input, process output, outcome and impact. See Table 7: Indicators for a definition of each indicator type and an example.

Writing the indicator statement:

- Should be made with knowledge of the metrics, data source and method of collection so the description of the measure is realistic
- Includes the mathematics – percent (%), number per 1,000, with numerator/denominator specified

Table 7: Types of Indicators

Types of Indicators			
Input The level, quantity, quality and type of resources to conduct/carry out and/or perform	**Process** Actions, steps, systems related to delivery of activities – how much is being done and how well people like it	**Output** The short-term results of the utilisation of the inputs through the process	**Outcome** The results of the combined processes and outputs – directly attributable to the activity
Example % of family planning clinics that have at least 1 health worker trained in insertion of IUD	**Example** Proportion of family planning clients coming for review whohad their blood pressure checked	**Examples** • # of clients provided a service • # of condoms distributed • % of target clients with at least four modern contraceptive methods available	**Example** % of births attended by a midwife % of targeted women who demonstrate improved attitude to hormonal contraception methods
Impact Long-term results affected by service delivery activity			

What Kind of Indicator is This?

For each indicator below, decide what kind of indicator it is – input, process, output, outcome or impact:

Number of referrals to voluntary counseling and testing sites

Number of facility staff trained in voluntary counseling

Percentage of target audience aware that zinc is appropriate treatment for paediatric diarrhoea

Percentage of women accepting a modern family planning method

Malaria case fatality rate

Table 8 repeats Table 6, illustrative standards from the MOH Health Centre Performance Assessment Tool, but fills in the indicator column; this shows the relationship between the standard and the indicators.

Table 8: Example of Minimum Acceptable Performance Standards for a Zambian Health Centre, with Related Indicators

3. Quality of care and curative services						
Objective: To provide quality health services according to national approved guidelines and SOP						
Functional Area/ Guiding Questions	**Minimum Acceptable Standard**	**Indicators**	**Source of Information**	**Previous Period Number/rate/ yes/no (6 months)**	**Current Period Number/rate/ yes/no (6 months)**	**Comments**
3.1 Outpatient Department	**3.1.1** All patients are treated according to ITGs	# of patients treated according to ITGs/# sampled				
	3.1.2 Health centre has a properly equipped and functioning ORT corner	Presence of a diarrhoea corner meeting standards				
	3.1.3 Health centre has a regular programme of health education	# of health education activities carried out during period				
3.2 General Clinical and Nursing Care, Inpatient Department	**3.2.1** All patients with detailed history and examination, appropriate diagnosis and treatment on first contact at Outpatient Department and admission	# of patients correctly managed/# of patients sampled				
		Presence of ITG				
	3.2.2 All inpatients reviewed daily by trained staff	# of patients reviewed daily by trained staff/ # sampled				
	3.2.3 Inpatients are treated according to ITGs	# of patients treated according to ITG's/# sampled				
	3.2.4 Nursing protocols available and adhered to	# of patients managed according to nursing protocol/ # sampled				

Source: Zambian Ministry of Health's Health Centre Performance Assessment Tool

National QI Core Indicators

At the national level, the following core indicators have been developed for QI monitoring at all levels of the health care system.

1. Percentage of exposed infants tested for HIV at 12 months

   Definition:

   Numerator: Number of exposed infants tested at 12 months (HIV3-060)

   Denominator: Number of exposed live births delivered 12 months ago (HIV3-035)

   Data source: Health Management Information System (HMIS)-Health Information Aggregation (HIA) 2

2. Percentage of all HIV-positive clients retained on ART in the last 12 months

   Definition:

   Numerator: Net cohort at 12 months (HIV4-340)

   Denominator: Number of HIV-positive clients started on ART 12 months ago

   Data source: HMIS-HIA 2

3. Number of maternal deaths at the facility recorded in the last 1 month/12 months/quarter

   Definition:

   Maternal deaths in facility (IRH4-110)

   Data source: HMIS-HIA 2

   Assumption: Maternal deaths are not supposed to occur. Therefore, the counts of this indicator are likely to be very small; if the proportion were to be used, then it would appear insignificant and could be ignored.

4. Proportion of confirmed malaria cases in the last 1month/12 months/ quarter

   Definition:

   Numerator: Sum of malaria cases confirmed with microscope or RDT in the last 1 month/12 months/quarter

   Denominator: Sum of all malaria cases (clinical and confirmed) in the last 1 month/12 months/ quarter

   Data source: HMIS-HIA 1

   This is a facility- and district-level indicator. However, it could be used at the provincial and national level as long as the period of analysis is specified and three months has elapsed from the date of collection of data.

5. Number of under-five children who died in the last 1 month/12 months/ quarter (IPD1-080 + IPD1-085)

   Data source: HMIS-HIA 2

   The indicator is a count. This is a facility- and district-level indicator. However, it could be used at the provincial and national level as long as the period of analysis is specified and three months has elapsed from the date of collection of data.

Link between Standards and Indicators

Standards describe the level, scope and depth of the desired quality of service; standards comprise criteria or measurable elements that a facility must meet to be in full compliance with the standard.

Data Sources and Measurement

When developing indicators, it is important to identify sources of the desired data and methods to use to collect the data.

Data Types

Data sources can include:

Routine vs Non-routine Data

- Routine data:
  - Collected continuously (daily, patient by patient, monthly, etc.)
  - Come from health information systems
- Non-routine (periodic) data:
  - Collected at certain periods of time, or over a specific period of time
  - Come from studies or surveys carried out for a specific purpose

Strengths and Limitations of Routinely Collected Data

- Strengths
  - Often low cost since data are routinely collected
  - Usually collected at the point of service delivery (i.e., health facility) then reported to and aggregated at district, provincial and national levels (for a 'complete picture' of country health information)
  - Often coincides with programme implementation so that data can be used to monitor and evaluate programme goals
  - Can help identify outbreaks and abnormal trends
- Limitations
  - Time consuming, can be burdensome for health staff
  - Data quality not always assured

Strengths and Limitations of Non-routine Data

- Strengths
  - Surveys especially useful if other data are not available or inadequate
  - Surveys can be tailored to fit specific measurement objectives
  - Surveys yield cost-efficient data on population and services useful for facilities, providers and clients
- Limitations
  - Surveys are expensive and time consuming
  - Respondents may have difficulty with recall
  - Survey sampling design and analysis may be complex

Routine Data – Instruments

- Data collection/entry instruments
  - Registers
  - Daily activity sheets
  - Patient cards
  - Program-specific forms
  - EHS (SmartCare)
- Data summary instruments
  - Activity/tally sheets
  - HIA Forms
  - National AIDS Council Activity Reporting Form (NARF)
- Data elements
  - Date of birth, test result, pregnancy status etc.

Frequency of measurement of indicators

The frequency of measuring indicators is dependent on various factors that include:

- **Frequency of performance** of event being monitored
- **Pattern of performance**
  - Stable performance (better-performing programmes or facilities) may be intermittently monitored
  - Unstable performance (poor-performing programmes or facilities) may be more regularly measured
- **Level of risk or exposure of programme or service** will influence the frequency of measurement – the more risky the programme or service is, the more frequently measurement should be done.
- The **method of gathering the data can determine the frequency of data collection**; simple record reviews will be done more frequently than an extensive survey such as the DHS
- Service coverage statistics are measured on a monthly basis
- Annual summations are compiled from the monthly data

Methods and tools for gathering data

- Observation - checklist
- Interview - interview guide, checklist
- Focus group - discussion guide, verbatim (if possible) record
- Record review - checklist, data abstraction sheet
- Key informant interviews
- Informal surveys (small samples)
- Formal surveys

Factors to consider when gathering data to assure validity and generalisation

- Sample size (QI vs operations research)
- Randomness of sample vs. convenience or purposive collection
- Inter-rater reliability issues- a measure of reliability used to assess the degree to which different judges or raters agree in their assessment decisions. Inter-rater reliability is useful because human observers will not necessarily interpret answers the same way; raters may disagree as to how well certain responses or material demonstrate knowledge of the construct or skill being assessed.

Selecting the Best Data Source

Factor	Questions to Consider
Cost	What is a reasonable cost for the team to incur for collecting the data? Some low-cost data collection methods limit the type of information that can be collected.
Speed	How much time is available and reasonable for data collection and processing? How will shorter collection times impact other data characteristics in terms of accuracy and level of detail?
Geographic diversity	What is the geographic area impacted by the programme? How can data be effectively collected in hard to reach or widely dispersed geographic areas?
Demographic civersity	How much diversity is present in the target audience?
Level of accuracy	How accurate should the data be? How accurate are the local statistics? How do you balance level of accuracy against the cost of data collection?
Reliability	Can comparable data be collected using the same method in the future?
Frequency	How often are the data to be collected? How does this impact data collection in terms of staff resources and costs associated with collecting the data?

Table 9: Example of the Performance Assessment Tool For Health Centre Level With Minimum Acceptable Standards, Indicators and Sources of Data, builds on Tables 6 and 8 with the inclusion of data sources for information.

TABLE 9: EXAMPLE OF THE PERFORMANCE ASSESSMENT TOOL FOR HEALTH CENTRE LEVEL WITH MINIMUM ACCEPTABLE STANDARDS, INDICATORS AND SOURCES OF DATA

3. Quality of care and curative services

Objective: To provide quality health services according to national approved guidelines and SOP

Functional Area/ Guiding Questions	Minimum Acceptable Standard	Indicators	Source of Information	Previous Period Number/rate/ yes/no (6 months)	Current Period Number/rate/ yes/no (6 months)	Comments
3.1 Outpatient Department	**3.1.1** All patients are treated according to ITGs	# of patients treated according to ITGs/# sampled	OPD Register, Patients' case records			
	3.1.2 Health centre has a properly equipped and functioning ORT corner	Presence of a diarrhoea corner meeting standards	Observation			
	3.1.3 Health centre has a regular programme of health education	# of health education activities carried out during period	Health Education, Register Observation, Client interview			
3.2 General Clinical and Nursing Care, Inpatient Department	**3.2.1** All patients with detailed history and examination, appropriate diagnosis and treatment on first contact at Outpatient Department and admission	# of patients correctly managed/# of patients sampled	Patient records			
		Presence of ITG				
	3.2.2 All inpatients reviewed daily by trained staff	# of patients reviewed daily by trained staff/ # sampled	Patient records			
	3.2.3 Inpatients are treated according to ITGs	# of patients treated according to ITG's/# sampled	Register, Patient records			
	3.2.4 Nursing protocols available and adhered to	# of patients managed according to nursing protocol/ # sampled	Cadex, Patient records			

Source: Zambian Ministry of Health's Health Centre Performance Assessment Tool

TIME: 15 MINUTES

Activity 2.2
Name that Indicator

1. In your small group, review the standards below.
2. For each standard, write an indicator(s) that can be used to measure the extent of performance and has characteristics of a good indicator.
3. Describe the sources of data for each indicator.

Standard	Indicator	Sources of Data
Each family planning clinic must have at least one health provider trained in insertion of IUD		
All family planning clients coming for review must have their blood pressure checked at each review		
All clinicians assigned to the ART clinic should be trained in ART		
85% TB cure rate		

Key Points

- Standards are statements of what is expected to be done and the level of expected quality of performance, structures, processes and outcomes to assure quality health care.
- When standards are adhered to, they are a strategic tool to increase effectiveness of service delivery and minimise errors and wastage.
- Standards that relate to and influence the quality of health care can be those that are composed by local institutions with a specific focus on the Zambian context as well as by external sources who provide accreditation.
- Characteristics of good standards are that they are valid and based on evidence, reliable, clearly stated, realistic and applicable, and measurable
- Health-related standards tend to be multi-dimensional and address **performance**, **inputs**, process, **outputs**, outcome and eventually impact, all of which contribute to the provision of equitable, cost-effective and quality health care in Zambia as close to the family as possible.
- Standards include what are referred to as **criteria** or **measurable elements**. The criteria and measurable elements list what is required to be in full compliance with the standard in order that the facility meets the standard.
- Indicators are quantitative or qualitative measures of performance used to detail the extent to which standards have been achieved.
- Indicators are written with knowledge of the metrics, data source and method of collection so the measurement of the indicator is realistic.

Session 2.2 Monitoring and Evaluation of Adherence to Standards

Session Performance Objectives

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

1. Describe the purpose of monitoring and evaluation of performance against the standards
2. List methods that can be used to monitor and measure facilities performance in relation to standards

Table 10 shows the definition and use of monitoring and evaluation.

Table 10: Monitoring and Evaluation

	Monitoring	Evaluation
Description	A continuous management function that generally involves collecting and analysing data on programme processes and results and recommending corrective measures	A time-bound exercise to assess systematically and objectively the relevance, performance and success of on-going and completed activities. Evaluation commonly aims to determine the relevance, validity of design, efficiency, effectiveness, impact or sustainability of a programme
Use	Tracks the actual performance against what was planned	Analyses why and how intended results were/were not achieved
	Provides managers with regular feedback on implementation of activities	Assesses contribution of activities to results
	Informs need for corrective action or adjustments	Documents achievements that can be used in future designs

An important element of QI is consistent monitoring and assessment of individual or institutional (facility) performance against standards. Continual monitoring of indicator performance is essential to:

- Assure compliance with standards and guidelines
- Identify problem areas and improvement opportunities
- Assure improvements are maintained and sustained

Methods of Monitoring Performance

Monitoring performance to ascertain the progress of a facility – and the individuals who work in the facility – towards achievement of standards is an on-going process that can include both formal and informal methods:

Common methods include:

- Self-assessment
- Peer assessment
- Assessment by internal supervisor
- Assessment by external supervisor
- External assessment by an expert panel – accreditation

Monitoring and assessment can be formal and standardized: performance appraisals, reporting and audits. It can also be more informal and initiated by a facility; for example, staff performance or the efficiencies of selected processes.

What to monitor:

- High-risk, high-volume, problem-prone standards
- Key Input, Process, Output, Outcome (IPOO) characteristics

Progress monitoring tracks the operational work of the project. It answers questions like:

- Have activities been completed as planned?
- Have outputs been produced as anticipated?
- Is the work of the project progressing as projected?

Whilst monitoring is passive – it changes nothing – it tells the project manager where the project performance is in terms of money, time, risk, quality and other areas of project progress. Table 11: The What, Why, and How of Monitoring provides a snapshot of monitoring.

TABLE 11: THE WHAT, WHY AND HOW OF MONITORING

What	A continuous review of project progress at the activity and output level. Identify necessary corrective action.
Why	Analyse current situation Identify issues and find solutions Discover trends and patterns Keep project activities on schedule Measure progress against outputs Make decisions about human, financial and material resources
When	Continuous
How	Field visits Records, reports

TIME: 15 MINUTES

Activity 2.3
Develop a Monitoring Plan

In your small group, continue working on the development of a monitoring plan.

1. Use the information from the previous exercise (Activity 2.2) and select two or three indicators
2. For each indicator plan the following:
   a. Collection method
   b. Schedule (when and how often)
   c. Person responsible

MONITORING WORKSHEET

Indicator	Source of data	Collection method/tools	Schedule/ Frequency	Responsible	Date completed

Evaluation

Evaluation typically tracks progress at the higher levels. It explores questions such as:

- Is the project successful at achieving its outcomes?
- Is the project contributing to its ultimate goal?
- Evaluation data are collected and analysed less frequently than monitoring data and often requires a more formal activity (often by technical advisors or external evaluators to show project results.)
- Evaluation speaks to the value of a project. For example, it asks questions such as, “Has infant mortality decreased?”
- Evaluation identifies the benefits intended.
- Evaluation typically occurs at the mid-term, end or after a project to examine project impact at the defined period of time.
- Evaluation can be internal or external.
- Evaluation checks effectiveness.

Monitoring and Evaluation Tools Used By Ministry of Health

Table 12: Performance Assessment Tool For Health Centre Level

3. Quality of care and curative services

Objective: To provide quality health services according to national approved guidelines and SOP

Functional Area/ Guiding Questions	Minimum Acceptable Standard	Indicators	Source of Information	Previous Period Number/rate/ yes/no (6 months)	Current Period Number/rate/ yes/no (6 months)	Comments
3.1 Outpatient Department	**3.1.1** All patients are treated according to ITGs	# of patients treated according to ITGs/# sampled	OPD Register, Patients' case records			
	3.1.2 Health centre has a properly equipped and functioning ORT corner	Presence of a diarrhoea corner meeting standards	Observation			
	3.1.3 Health centre has a regular programme of health education	# of health education activities carried out during period	Health Education, Register Observation, Client interview			
3.2 General Clinical and Nursing Care, Inpatient Department	**3.2.1** All patients with detailed history and examination, appropriate diagnosis and treatment on first contact at Outpatient Department and admission	# of patients correctly managed/# of patients sampled	Patient records			
		Presence of ITG				
	3.2.2 All inpatients reviewed daily by trained staff	# of patients reviewed daily by trained staff/ # sampled	Patient records			
	3.2.3 Inpatients are treated according to ITGs	# of patients treated according to ITG's/# sampled	Register, Patient records			
	3.2.4 Nursing protocols available and adhered to	# of patients managed according to nursing protocol/ # sampled	Cadex, Patient records			

Source: Zambian Ministry of Health's Health Centre Performance Assessment Tool

TABLE 13: EXAMPLE OF A PERFORMANCE ASSESSMENT REPORT AT THE DISTRICT HEALTH OFFICE LEVEL

Functional Area	Findings	Achievements	Constraints	Analysis/Discussion	Recommendations
6.2 Antenatal Care	All health facilities in the district are providing PMTCT services according to national standard guidelines	100%	Nevertheless, gaps identified in quality of service provided	Most facilities are able to test mothers for HIV but this is only done at health facility level, not for women attended at outreach posts; sample referral for CD4 and initiation on ART or short course ARVs is a challenge in some facilities as some staff are not trained in PMTCT. There are several gaps in the mother-baby follow-up in a number of facilities	Mentorship in PMTCT implementation especially in new PMTCT sites. Staff to be trained in PMTCT. Orient staff in Dry Blood Spot (DBS) collection, storage and transportation. Active search for HIV-exposed babies during under-5 clinics
	549/549 HIV-infected women receive infant feeding counseling	100%	0%	Standard achieved	Maintain standard
6.3 Anti-retroviral Therapy	1/7 ART sites are accredited	14.8%25% inspected so far has been accredited	3/742.6% of the ART sites inspected have not been accredited	3/7 ART sites inspected failed to meet the accreditation standards	Maintain the standards at the accredited sites and improve and monitor standards in the other sites in readiness for inspection
	5/7 health centres providing ART services as per guidelines	71%	29%	2 health facilities are not providing ART according to standards because stable ART clients are never seen by clinicians for over 6 months and only attended to by adherence counselors at the hospital and Mumba Regional Health Centre. Meanwhile CD4 monitoring for most clients on ART was erratic, monitoring of children on ART is also showed gaps in weight monitoring and calculation of doses.	District health mgt team through the Clinical Care unit to monitor and supervise the ART service provision

Table 14: Example of Health Programme Performance Assessment Report at Hospital Level

Functional Area	Findings	Achievement	Constraint	Analysis/Discussion	Recommendations
3.1 Quality of Care (Clinical, Nursing Care and Rehabilitation)	2/10 patients are treated according to treatment protocols	2/10	Clinical officers (COs)are the first contact at OPD	Inadequate and lack of history (for referrals), inadequate examination, investigations not done, inappropriate diagnosis and treatment	Clinicians advised to revamp clinical meetings to involve clinical officers at OPD. MOs to provide mentorship to COs. Departmental grand teaching ward rounds with clinicians and nurses and students.
		4/5 patients managed according to nursing care plan	Inadequate nursing staff	Inadequate nursing staff therefore only critically ill patients have a nursing care plan	Nursing officers to offer mentorship to nurses on the ward.
	All patients reviewed daily by medical officer (MO)	16/16 patients were reviewed daily	None	Ward rounds are done daily except on weekends and public holidays.	Maintain the standard
	0/12 had detailed history, no examination in some cases and diagnosis had no correlation with presenting complaints, inappropriate treatment on first contact	Minimal achievement from previous	COs are the first contact at OPD	3/12 referrals had no history nor examination at all, 9/12 had inadequate history and exam, 8/9 had inappropriate diagnosis and treatment on first contact. Ordered investigations were not done for 7/12 patients in the ward up to time of discharge	MOs in the ward should evaluate patients, follow up on investigations and conduct departmental weekly grand teaching ward rounds with other MOs, COs and nurses

TABLE 15: AN EXAMPLE OF A PERFORMANCE ASSESSMENT REPORT FOR THE HEALTH CENTRE LEVEL

Functional Area	Findings	Achievement	Constraint	Analysis/ Discussion	Recommendations
3.7 Infection Prevention	Health centre meets some infection prevention standards except for lack of pedal bins, no separation of domestic and medical waste and unavailability of colour-coded bin liners.	Standards partially achieved	Medical stores only supply one colour bin liners and buckets have been supplied for use as bins instead of pedal bins	Medical stores only supply one colour bin liners and buckets have been supplied for use as bins instead of pedal bins	Maintain the standards achieved and apply measures to meet the remaining standards under the facility's jurisdiction
4.4 Case Manage-ment	2/11 children under 5 years managed according to ITG/ IMCI	18%	82%	None of the COs attending to children is trained in IMCI and reference to ITG	Clinical care team and MOs at the hospital to provide mentorship to the COs in OPD
6.4 Paediatric HIV	1/146 children was tested for HIV at 18 months	0.7%	99.3%	Staff claimed difficulties in monitoring HIV-exposed babies through register and identifying them has been difficulty	The target for PMTCT are HIV exposed babies and failure to follow them up renders the PMTCT programme failure because the outcome of the PMTCT is dependent on testing the babies to determine the performance of the programme. Therefore, update mother-baby follow-up registers and use them at every children's clinic to identify the babies and assure CTX prophylaxis and HIV test at 12 months in readiness for discharge from PMTCT or referral to ART.

Key Points

- Monitoring is a continuous management function that generally involves collecting and analysing data on programme processes and results and recommending corrective measures.
- Evaluation aims to assess systematically and objectively the relevance, performance and success of on-going and completed activities.
- Evaluation commonly aims to determine the relevance, validity of design, efficiency, effectiveness, impact or sustainability of a programme.

Module 3: Quality Improvement in the Work Environment

Objective

Describe QI in the work environment to enhance safety and efficiency

Introduction

QI in the health care workplace is a vital element in the provision of quality health care. There is mounting evidence that unhealthy work environments contribute to medical errors, ineffective delivery of care, and conflict and stress amongst health professionals.[12] Creating and maintaining healthy work environments is a critical factor in assuring patient and worker safety, assuring staff retention and providing efficient and effective health services.

What is a healthy work environment? Do you work in one? Functioning in a safe, healthy environment enables health providers to focus on patient needs, rather than dealing with issues and stressors related to the physical area. The 5S approach is a workplace organisation method that can be used to create and maintain a **healthy work environment**.

[12] *There is a range of literature on this issue, including the Institute of Medicine of the National Academies, http://www.iom.edu/About-IOM.aspx, and the Agency for Healthcare Research and Quality, http://www.ahrq.gov/index.html.*

Session 3.1
The 5S Approach to Managing the Work Environment

Session Performance Objectives

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

1. Describe the 5S approach in managing the work environment and each of the five pillars
2. Identify how the 5S approach is a pre-requisite to improvement undertakings
3. Establish a plan to use the 5S approach to improve their work environment

The term **5S** is based on five Japanese words - seiri, seiton, seiso, seiketsu, shitsuke – that form the foundation of the approach. In English, these words mean **S**ORT, **S**ET-IN-ORDER, **S**HINE, **S**TANDARDISE, **S**USTAIN. The Japanese developed this simple and easily understandable approach and integrated it into their work and daily life and have made it a worldwide recognizable system.

The 5S approach is a systematic and basic management tool for continuous performance improvement that creates value for clients/ patients by eliminating unnecessary activity and improving the work environment in which is done. It describes how to arrange a work space for maximum efficiency and effectiveness by identifying and storing the items used, maintaining the area and items, and sustaining the new order. 5S results in a health care workplace that is clean, uncluttered, safe and well-organised so that health care facilities can perform well and deliver excellent service.

5S helps develop a culture in which staff aim for spontaneous and continuous improvement of the working environment and working conditions. Decision making throughout the 5S method is based on dialogue with all staff in an organization, from the top level to bottom, about standardisation, which builds understanding amongst employees of how they should carry out their work.

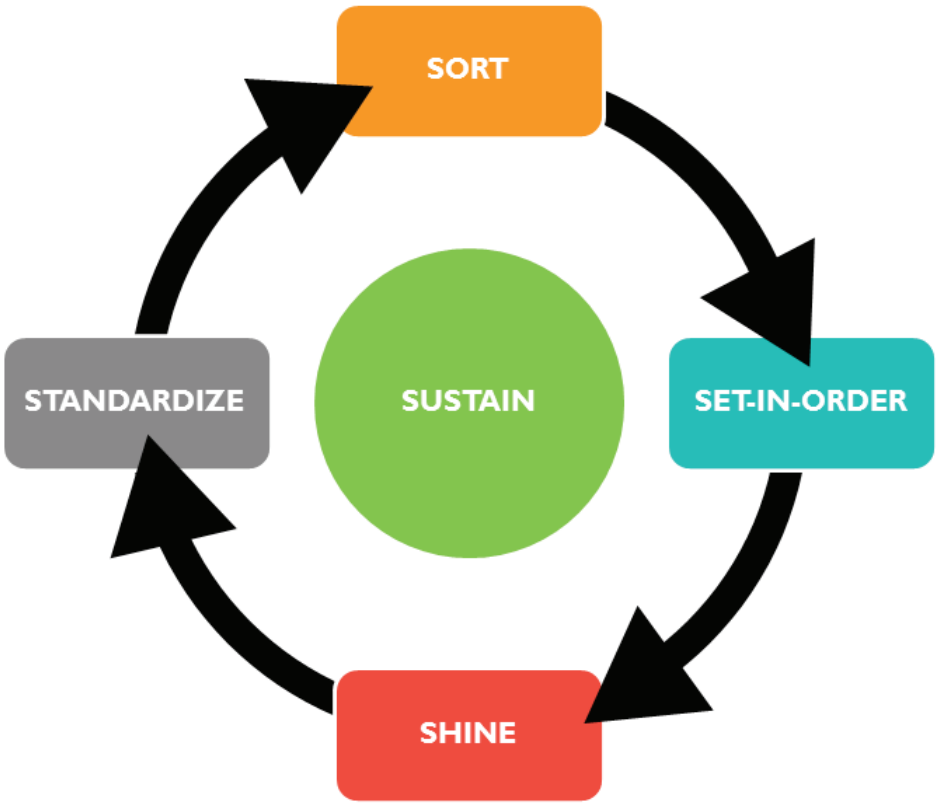
Targets of 5S include:

- 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 promoting safety
- Zero breakdowns bringing better maintenance

The Five Phases of 5S

Figure 4: The Phases of the 5S Approach



To reach its objective, 5S guides organisations through a series of five phases, as shown in Figure 4.

SORT

The primary objective of SORT is to clear the workplace of all non-essential items to create a clutter-free work environment. Go through all tools, materials, supplies and records in the work area. Keep only essential items and eliminate what is not required, prioritising things per requirements and keeping them in easily accessible places. Everything else is stored or discarded.

How to create a clutter free environment:

- Determine which items are needed for current activities.
- Classify items around three categories based on essentialness.
- Create guidelines to determine how to treat non-essential items:
  - Should the item be discarded immediately?
  - Stored in a different location for a period of time?
  - Know what is needed and the amount needed (drugs, supplies etc.)
- Use the Red Tag system to determine which items are essential and which items are not essential. If you are not sure if an item is essential, place a red tag on it. If one month passes the item has indeed not been needed, it should be sorted as either 'may be necessary' or 'unnecessary'.
- Allow time for all staff to review and discuss the disposition of the red-tagged items.
- Make sure that all red-tagged items – even if ultimately discarded – are properly logged for inventory or accounting purposes.

SET-IN-ORDER

The purpose of SET-IN-ORDER is to create an orderly and visually instructive workplace that makes it easy to locate, use and return items (e.g. patient files) to their proper places. This principle of 5S can also be referred to as: Straightening or Setting in Order to Flow, or Streamlining.

This is by far the most misunderstood and incorrectly applied S and has been responsible for failure to produce the expected benefits. When applied correctly a work flow is established that should eliminate work inefficiencies and allow the rest of the zero defect philosophy to be enabled.

Tips to create an orderly and visually instructive workplace:

- Create a diagram that clearly lays out the current workplace, either a specific work area or the whole facility.
- Use the diagram to evaluate the location of the essential items and plan for an optimal layout.
- Point-of-use storage is a strategy used to reduce unnecessary movement by arranging and storing items close to where they will be used.
- Once the optimal layout is determined and everything has a place, use visual controls (arrows, pictures and labels) to communicate where things are located and how they are stored.
    - Assign each item a dedicated location.
    - All items and their locations should be indicated by systematic labeling.
    - Place items in a visible spot to minimise search time.
    - Group items by type.
    - Minimise items in stock.
    - Follow the first-in-first-out (FIFO) and first-expiry-first-out (FEFO) method of storing items.
    - Place items so they can be reached or handled easily.

SHINE

SHINE, the third S, focuses on keeping the work environment, including equipment and machines, clean. To implement this phase, cleaning, shining, and inspection responsibilities are used to assure that everything in the workplace is cleaned and organised.

- All items including floors, walls, windows and equipment are cleaned.
- Appropriate cleaning tools, methods and materials are identified and practised.
- Waste bins are available at required places.
- Cleaning maps and schedules are developed for continuous practice of cleaning.
- Waste bins' colour coding must follow the national standard colour coding for waste management and infection prevention.

At the end of each shift, the work area should be clean and everything restored to its place. This assures that the workstation is ready for the next user and that order is sustained.

STANDARDIZE

The fourth S, Standardise, assures that improvements made during the first three phases are standardised and made best practice. The goal is for every team member, in all work centres, to understand the newly established best practices and to use them consistently.

In this phase, the 5S activities are scheduled as needed to assure the gains for SORT, SET-IN-ORDER, and SHINE are maintained in an organised and safe manner. Documentation and communication are critical and must be formalised in this stage. Like any system, things never remain static, and changes to the business may result in changes to the workplace. It is important to remain focused on continuous improvements.

Maintain and enhance gains made by the first three "S's" by providing:

- Implementation schedule
- Work instructions
- SOPs where required
- Labels and colour coding to identify danger zones, waste types, disposal bins and so forth
- Signboards for easy understanding
- Uniform procedures and setups throughout the operation to promote interchangeability

SUSTAIN the improvements gained during implementation and maintain momentum. The following will support this process:

- Self-discipline
- Effective communication amongst the team
- Training/coaching/on the job training
- Clearly defined roles
- Strict observation of rules
- Expectations for all workers
- Display of poster reminders on 5S
- Team incentives

Benefits of 5S are:

- Reduces workload
- Improves safety
- Improves communication
- Increases customer satisfaction
- Improves team work
- Increases productivity
- Creates a clean working environment

Figure 5: Workplace 5S Audit Sheet

No	Category	Topic	Description & Score							__ /5	Improvement Points
			Audit Questions	1	2	3	4	5			
1	Sort	Workplace condition	Unnecessary items are removed from	0% - 20%	21% - 40%	41% - 60%	61% - 80%	81% - 100%	of the audit area		
		Removal of unnecessary items	A process for removing unnecessary items	does not exist	exists but is not known	known but not used	often used	always used			
2	Set in Order	Workplace condition	Necessary items are at point of use for	0%-20%	21%-40%	41%-60%	61%-80%	81%-100%	of the audit area		
		Proper arrangement of items	A process for setting items in order	does not exist	exists but is not known	known but not used	often used	always used			
3	Shine	Workplace condition	Free of trash, scraps, soil, leaks, dust, etc. within	0%-20%	21%-40%	41%-60%	61%-80%	81%-100%	of the audit area		
		Cleaning to inspect	A process for daily cleaning to inspect the workplace condition	does not exist	exists but is not known	known but not used	often used	always used			
4	Standardise	Workplace condition	Standards exist for markings, colours, item locations, signage, etc. at	0%-20%	21%-40%	41%-60%	61%-80%	81%-100%	of the audit area		
		Revision of standards	A process to review, revise and update standards	does not exist	exists but is not known	known but not used	often used	always used			
5	Sustain	Workplace condition	The current high score for 5S is maintained by	0%-20%	21%-40%	41%-60%	61%-80%	81%-100%	of the audit area		
		Auditing 5S	A process for auditing and checking 5S condition and process	does not exist	exists but is not known	known but not used	often used	always used			
Total score for this audit, out of 50:											Auditor: Audit date: __/__/____

Source: The Quality Group, Lean Principles, http://www.thequalitygroup.net/public/index.asp. Accessed September 2013.

TIME:
10
MINUTES

Activity 3.1
Workplace 5S Audit Sheet

Use Figure 5, the Workplace 5S Audit Sheet on the previous page to individually or in facility teams complete the audit.

Reflect carefully about the clinic and respond accordingly.

Tools for 5S Implementation

Red Tag

When: Sorting

Why: To determine if items are essential or non-essential

How: If you are not sure if the item is essential place a red tag on it. If one month passes without needing the item, it should be sorted as either 'may be necessary' or 'unnecessary'.

5S RED TAG

Dept./Unit……..……..

Tagged date……..By……

Date of Re-check…….. By……..

☐ Necessary

☐ May be necessary

☐ Unnecessary

Where to keep……..……..

Alignment

When: Set-in-order

Why: To organise files, equipment and materials **to improve orderliness**

How: Arrange files, equipment and other objects in a neat and orderly way.

Numeric/Alphabetical Coding

When: Set-in-order

Why: To organise files and other items by numbers/letter to find information quickly and easily

How: Team must agree on a set of rules governing how to organise or a central coordinator is needed to make these decisions.

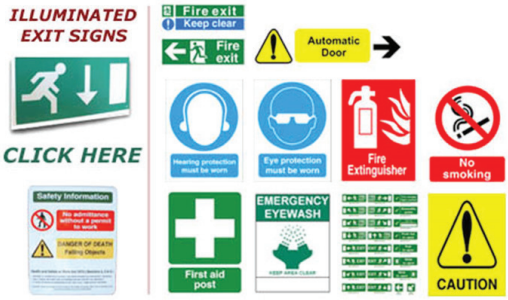
Checklist

When: Set-in-order and Standardise

Why: To document in writing the tasks to be carried out, and the responsible party and timeline for each task

How: Person with overall task/activity responsibility records in writing the tasks to be performed, who is to perform each task, when, how often, status.

Safety Signs



When: Set-in-order and Standardise

Why: To warn visitors and workers to pay attention to hazardous items

How: Develop your own design or use common safety signs. Make sure to educate staff and visitors as to the meaning of the signage.

Colour Coding

When: Standardise

Why: To make clear for visitors and workers the meaning of something using colour

How: Develop a set of colour-coding rules and label all items accordingly. Educate staff and visitors as to the meaning of the colours.

Sign Boards

Pharmacy

UMUTI

When: Standardise

Why: To guide visitors and workers to where they need to be

How: Clearly write and label common locations in languages that are used in the country.

Labeling

When: Set-in-order

Why: To identify each item and organise each one properly. Very useful for filing and storing items in cabinets or shelves

How: Develop guidelines for labeling. Make sure staff knows the system.

Signals

This is used to enable everyone to understand the meaning of something by marks/symbols that need minimal or no explanation.

X-Y Axis

Why: To improve order and make displays look organised and neat.

This is especially used for notice board.

Before

After

Zones

When: Set and Standardize.

Why: Identify the proper location of items so people know "Where it should be".

How: Place an item where it should be located. Use colored tape or paint to identify the appropriate placement of the item.

Tips to Using 5S Tools

- Tools can be combined.
- All tools require an agreed set of rules and everyone must follow the rules.
- If a symbol or colour is already widely used to convey a particular meaning, it is best to retain that meaning when it is used.

To succeed, the following are essential:

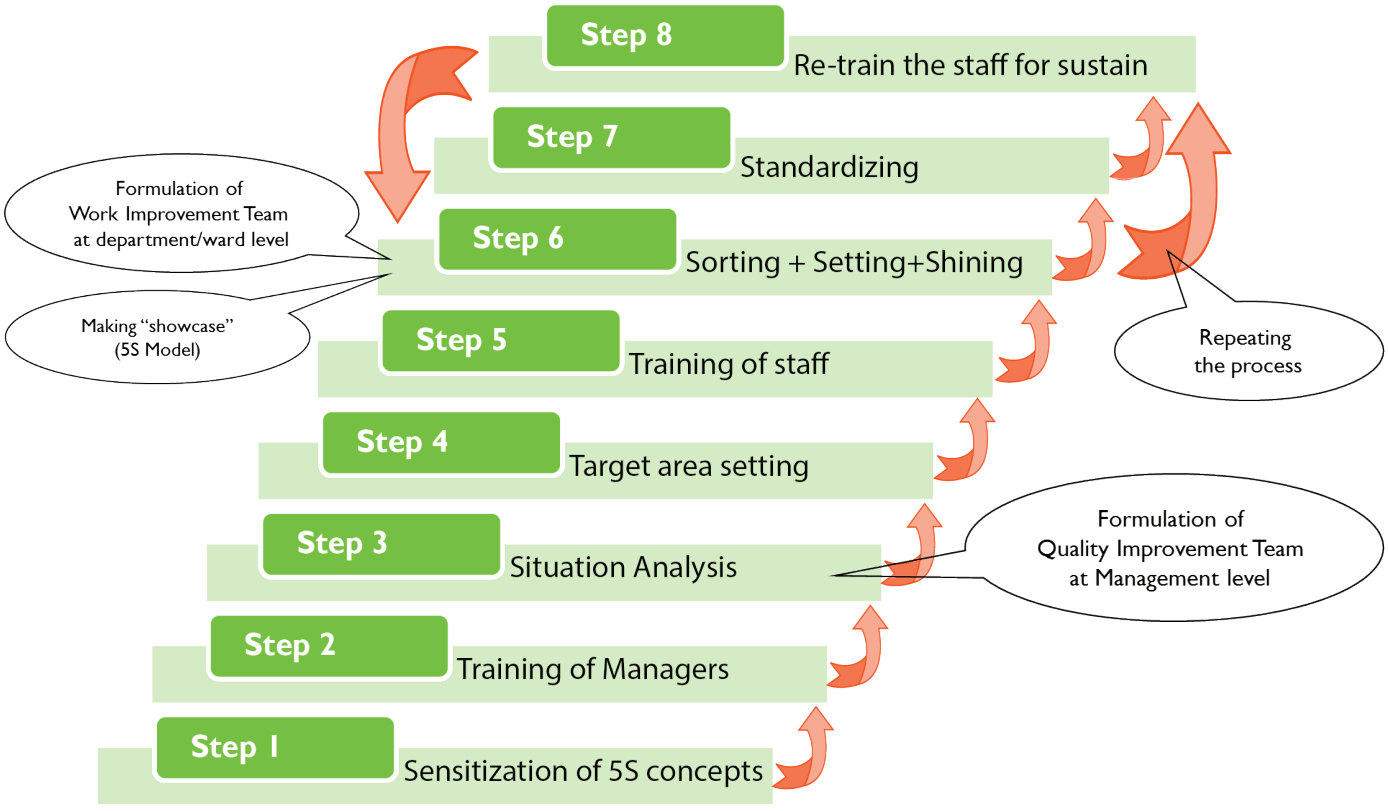
- Continued commitment and support from top management
- Education and training
- Universal participation – no one is an observer in 5S
- Repetition of the 5S cycle in order to achieve a higher standard

Steps to Implement 5S

Figure 6 illustrates the following steps of 5S implementation.

1. Start with education and training.
2. Recognize current situation of your working environment. (Take photos!)
3. Start small – do not rush to expand 5S to everywhere. Make a showcase within the facility.
4. Repeat training, Sort/Set/Shine activities until they are institutionalised and sustained.
5. Provide about 10 minutes to practice 5S every day.

Figure 6: The Steps of Implementing 5S



5S, like any other QI approach, requires motivated staff. The following can be motivators:

- Strong leadership (QI team at management level)
- Ownership of activities by staff (Work Improvement team at department level)
- Strong support system
- Periodical monitoring and evaluation (using photography, evaluation sheet)
- Awarding good practice (quality competition)

TIME: 15 MINUTES

Activity 3.2
Create A Practical 5S Plan for Your Clinic

Individually or in a clinic team, discuss the results of the 5S audit performed earlier.

1. Use the 5S Audit Worksheet (Figure 5) to identify areas for improvement and suggestions for how to do this.
2. Use the planning tool below to map out the strategy to introduce the 5S model.

Action Item	Responsible	Begin and End Dates	Resources Required

Key Points

- The 5S approach is foundational to any QI effort.
- 5S is based on a simple philosophy: sort, set, shine, standardize, sustain.
- 5S improves efficiency and quality by improving the work environment.
- 5S is a 'whole team' effort; all staff should be engaged and responsible.

Module 4: Performance Improvement Approach

Objective

Participants employ the principles and procedures recommended in the PIA to assure that worker performance meet established health sector standards

MODULE 4

SESSION 4.1

Session 4.1 Performance

Session Performance Objectives

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

1. Define performance and link performance to quality health care
2. Describe several performance factors and elaborate how these enable good performance
3. Discuss the goal of performance improvement and why this is important for delivery of quality services
4. Describe the nine steps of the PIA and understand how the steps are related to each other

What is Performance?

In order to improve performance, one must begin with a clear understanding of what performance is. A clear definition of what you are working to improve will guide the process and provide focus for decisions. For our discussion, performance is defined **as the way people do their job and the accomplishment of desired and useful results**.[13] The 'desired and useful results' are defined by the organisation, in line with organisational goals, vision and mission. The overarching mission is to provide services in a clean, caring and competent health workforce.

The Zambian National Health Strategic Plan 2011-2015 describes the mission of the MOH as "**to provide equitable access to cost effective, quality health services as close to the family as possible**". This is an important statement because it clearly enumerates the desired and useful results the MOH expects from its workforce: **Equitable access; cost-effective, quality services; close to the family**. Individual MOH staff and leadership are expected to perform their jobs to collectively, as the strategic plan goes on to say, "improve the health status of people in Zambia in order to contribute to socio-economic development". Performance expectations throughout the MOH must be aligned to the attainment of these results.

[13] *Watkins, Ryan, and Leigh, Doug, eds. (2010). Handbook of Improving Performance in the Workplace Volume 2. International Society for Performance Improvement*

Factors that Influence Performance

The work performance of each staff member in a health care facility contributes to the overall quality of health service delivery. For workers to perform their best, there are common factors that must be accounted for, at both the individual and team levels, that provide performance support and influence achievement of the desired results and accomplishments. These factors, listed in Table 16, are essential support systems.

Table 16: Factors that Influence Performance

	Factors	Considerations
1.	Clear job expectations	Do performers know what to do (and why) and to what level of quality?
2.	Constructive and timely performance feedback	Do performers know how well they are doing? How often is constructive feedback provided?
3	Adequate environment, tools and materials	Do performers have the tools to do the job well? Does the work environment enable the desired performance? Are processes and systems effective and efficient?
4.	Motivation, recognition and incentives	Is good performance recognised and rewarded? Are incentives offered to drive changes in performance? Are performers self-motivated?
5.	Appropriate skills and knowledge	Do performers have knowledge and skill to meet expectations?
6.	Organisational/ institutional support	How does desired performance align with the organisation's mission and goals? Are roles and responsibilities clearly described and written? What supportive supervision mechanisms are in place to assure the performance factors are in place? Do the systems allow for quality service delivery? What interventions are in place to address performance issues?

The 'successful organisation' supports workers by instituting and sustaining these performance factors. This support can be provided from within the organisation, such as from a supervisor, or from external sources, such as feedback from clients and incentives from peer groups. Regardless of the source, it is the responsibility of the organisation – from its senior structures such as MOH headquarters to the community health facility – to make sure that a system is in place to deliver the factors.

When a performance factor is missing and a gap in performance occurs – regardless of the scope or depth of this gap – there can be a considerable impact on the 'desired and useful result' and therefore the degree of quality of the health care delivered is jeopardised. This makes it necessary to carefully identify why there is a 'gap' in performance and then to determine the most appropriate solution, or intervention, to address the issue.

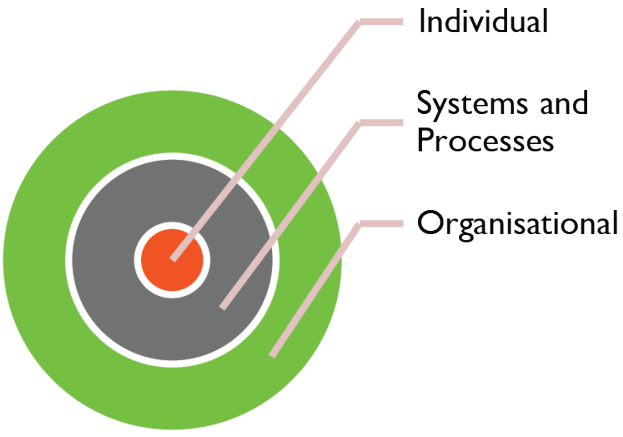
INPUTS ➡ PROCESS AND/OR ACTION ➡ OUTPUTS

People are at the centre of the processes and/or actions that change inputs to outputs; they do things themselves or use machines, but they are primarily the controllers. This means that what a person does and how they do it will have impact on the quality of the output – the service or the product. For example, the government can buy all the laboratory equipment, drugs, supplies and other items needed for malaria treatment but patients will only be treated properly (with quality) if health personnel take the right actions. When people do the right things in the right way at the right time to the right person then the system will produce something of quality.

A Systematic Approach to Performance Improvement

The goal of performance improvement is to address and resolve performance issues to achieve the desired organisational goals. When undertaking performance improvement initiatives keep the following points in mind:

- Performance relies on how well individuals perform their tasks (skills and knowledge) AND the systems and processes (for example, feedback systems) in place to facilitate efficient and effective performance, including the workplace environment (for example, the condition of the health facility) in which they perform.
- When performance is NOT at the expected level, it's necessary to know the requirements of good performance – indicators and standards.



- It also is necessary to identify the root causes of the underperformance and use appropriate solutions to address the issues.
- By using a systematic approach to performance improvement health care workers have the power to continuously improve the quality of service delivery.

TIME: 5 MINUTES

Activity 4.1
Job Factors that Influence Performance and Available Tools and Resources

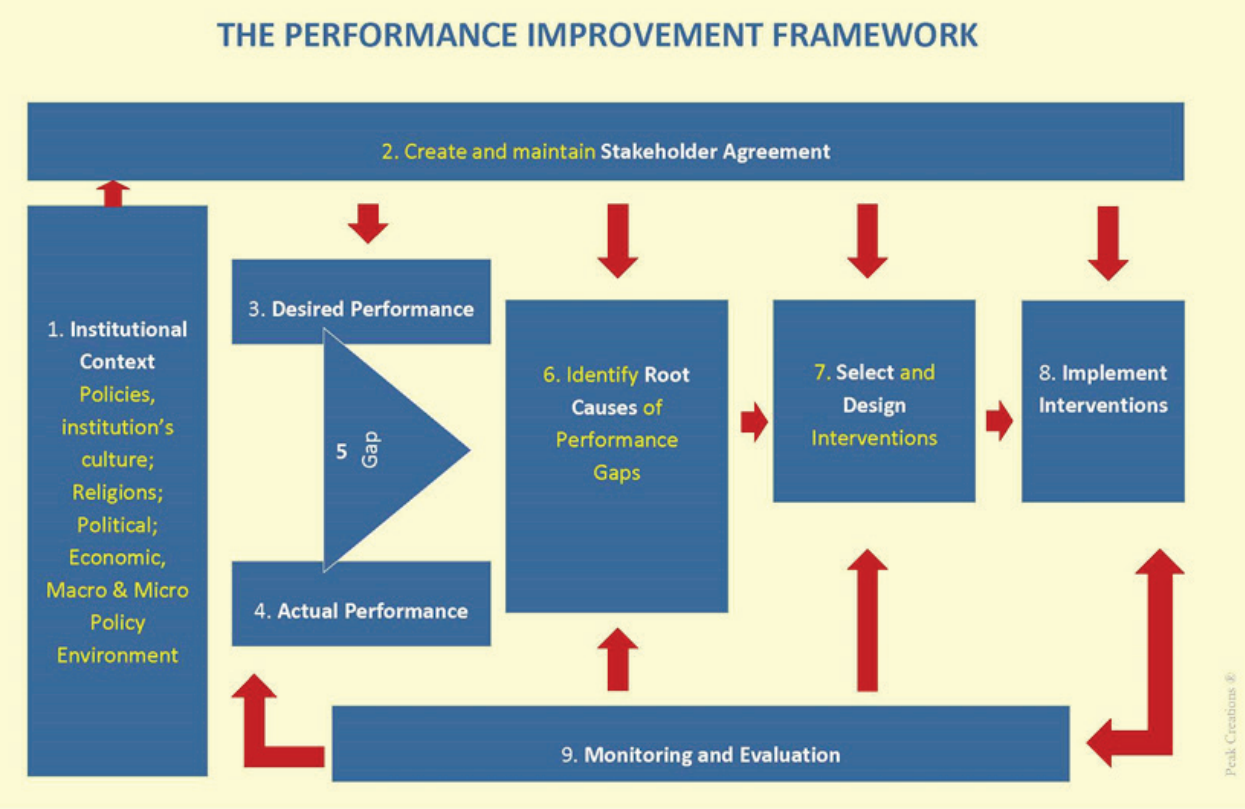
Work with your neighbour to identify existing system tools and resources to assure the performance factor is supported.

	Factors	Considerations	Tools and Resources
1.	Clear job expectations	Do performers know what to do (and why) and to what level of quality?	Example: Detailed revised job description
2.	Constructive and timely performance feedback	Do performers know how well they are doing? How often is constructive feedback provided?	
3	Adequate environment, tools and materials	Do performers have the tools to do the job well? Does the work environment enable the desired performance? Are processes and systems effective and efficient?	
4.	Motivation, recognition and incentives	Is good performance recognised and rewarded? Are incentives offered to drive changes in performance? Are performers self-motivated?	
5.	Appropriate skills and knowledge	Do performers have knowledge and skill to meet expectations?	
6.	Organisational/ institutional support	How does desired performance align with the organisation's mission and goals? Are roles and responsibilities clearly described and written? What supportive supervision mechanisms are in place to assure the performance factors are in place? Do the systems allow for quality service delivery? What interventions are in place to address performance issues?	

The Performance Improvement Framework

The Performance Improvement Framework is a process that uses a systems view of an organisation to systematically improve performance, which results in quality service delivery. It is participatory and empowers health workers to actively engage in the management and implementation of the process of improvement and change. Figure 7 illustrates the framework.

Figure 7: The Performance Improvement Framework



The major phases of the performance improvement process are:

Know the institutional context: Appreciate the cultural, social, political and financial forces that can influence the organisation and how it works. What are the organisational goals and mission? Are strategies in line with the goals and mission? How do social, political and financial forces influence the organisation and work? Cultural beliefs of the affected community on the subject of interest should be considered in order to win support. For example, if you are trying to improve the uptake of family planning in a community that is dominated by the Catholic faith or serviced by a Catholic Mission-run health facility, many stakeholders in the community and at the Catholic institution might not welcome the family planning effort. An understanding of the environment will provide important information about the current environmental, cultural, and behavioral realities. If you are encouraging male circumcision amongst a cultural group that does not practise it, it is advisable to first identify and win the support of the community's traditional leaders to promote and influence uptake.

Obtain and maintain stakeholder agreement: Involve key decision makers and influencers to establish a transparent and participatory process that strengthens ownership of the process and results. Who are the stakeholders, partners and competitors?

Define desired performance: The quality, scale and depth of performance must be defined so that individuals, supervisors and the overall organisation know what is expected. The desired level of performance, also referred to as the standard of performance, must cascade from the organisation's mission and goals. As discussed earlier, the performance standards can be international such as those set by WHO and other agencies; national such as those set by the MOH; or local, such as those set provincial, district or health facility authorities based on local requirements.

Describe actual performance: This baseline information enables analysis of current performance against expected performance.

Describe the performance gap: The performance gap between the baseline and the desired performance is a starting point from which to change or correct performance issues.

Uncover root causes of the performance gap: The root cause of the problem – not a superficial symptom – must be identified in order to fundamentally address performance issues.

Select and design interventions: Interventions are actions that are put in place to remedy the root causes of performance issues. Interventions must be appropriate to the context and to address the root causes of the problem, feasible and realistic to implement. They must be prioritised starting with those that have been cost-effectively and scientifically proven to close the biggest proportion of the gap.

Implement interventions: This is the action time, when you DO something about resolving the root causes of the problem. Implementation should be clearly planned, with time frames and tasks assigned to individuals. Coordination and team work is key during implementation.

Monitor and evaluate: This is used to inform management and stakeholders how the improvement effort is working. Information from monitoring is fed back into the process so continual corrections can be made. Monitoring is a continuous process that typically begins early on and should continue throughout the performance improvement process.

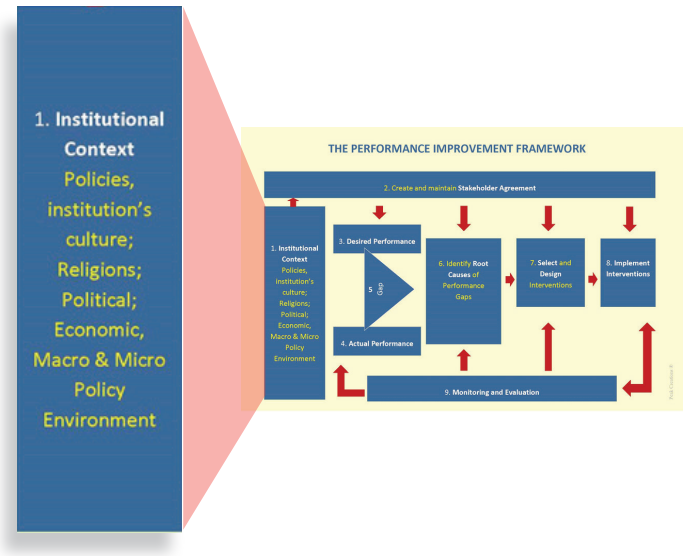
Key Points

- Performance is defined **as the way people do their job and the accomplishment of desired and useful results**.
- The delivery of quality health services depends on individual and collective performance that is in line with the organisation's goal and mission.
- Performance in this sense must take into consideration how well individuals perform their tasks, the systems and processes that are in place to facilitate efficient and effective performance and the environment in which the work is conducted.
- For workers to perform their best, there are common factors that must be accounted for in the organisational workplace: clear job expectations, performance feedback, a clean and supportive environment, motivation and recognition, and the right skills and knowledge and organisational support.
- The goal of performance improvement is to address and resolve performance issues to achieve the desired organisational goals.
- The Performance Improvement Framework is a process that takes a systems view of an organisation to systematically improve the quality of its performance, resulting in quality service delivery.
  - This is a participatory process that empowers health workers to actively engage in the management and implementation of improvement and change.
  - This framework provides the foundation and guidance to methodically identify what is required to assure good performance and deliver quality service.

MODULE 4

SESSION 4.2

Session 4.2 Step 1: Analyse Institutional Context



Institutional Context

There are many institutional factors that may influence efforts to improve performance. These factors include: mission, goals, strategies, policy, perspectives of patients and the general community.

It is important to understand the environment in which the health facility operates. To do this:

- Examine the factors in your environment that are likely to have positive or negative effects on your efforts to improve the quality of health care services
- Identify what will work for you and what will work against you. This will help you to know the issues that you must address to succeed in your improvement program
- Have a clear understanding of who your clients are and whattheir expectations are
- Identify your supporters, potential supporters and actual/potential competitors and opponents
- Use the above information to list positive and negative drivers of performance

Session Performance Objectives

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

1. List technical and non-technical factors identified from within the institution that can have either a positive or negative influence on initiating or implementing improvement
2. Describe how knowledge of the working environment in terms of policies, strategies and regulatory requirements are critical when designing performance improvement activities

To analyse the institutional context, the health facility team should answer certain key questions. The template in Figure 8 can be used as a guide to do this.

Figure 8: Key Questions to Understand the Institutional Context

Institutional Context	Notes
What are the national health goals and MOH mission? • What are the connections between the MOH goals and mission and our healthy facility goals, e.g. in maternal and neonatal health, and malaria programmes? • How successful has the facility been in promoting or conforming to the issue at hand?	
What is the organisational structure of the health facility? • What are the reporting lines between the facility, and district, province and central levels? • Who needs to approve a performance improvement intervention and its activities?	
Whom are we serving? The community, people who use antenatal care, donors, government or facility personnel or all?	
What languages shall we need to work in?	
Which organisations are active in the geographic area where we operate? • What are they doing? What have they been doing? • Are their policies in line with our health facility policies? • What contribution are they making to address patient care, e.g. management of malaria in pregnancy?	
Have previous projects/interventions/activities worked in the same location to address malaria in pregnancy • If so what was the outcome? • What has been tried before and how well did it work?	
What does our target population look like? • Rural or urban? • Men, women or both? Young or old? • Do they have special needs?	
What are the estimated logistical constraints under which we will work (timeframe, budgets)?	
Are staffing levels adequate?	
How does the cultural, religious, gender, political and economic context/ environment of the health facility shape the attitudes and behavior of potential antenatal care clients?	
How does the cultural, religious, gender, political and economic context/ environment of our clients affect our efforts in addressing malaria in pregnancy	
What are unique characteristics of the environment?	
Who are the spokespersons in the community or other potential stakeholders groups that can help steer the QI process?	
Who is likely to oppose our activities? If there are any opponents, how do we approach them?	

These questions are illustrative, not exhaustive. It is important that at the end of this exercise you have a well-documented list of all the positive and negative influencers in the environment where you want to make the improvement. You must also have a strategy and plan to address the factors that might work against you.

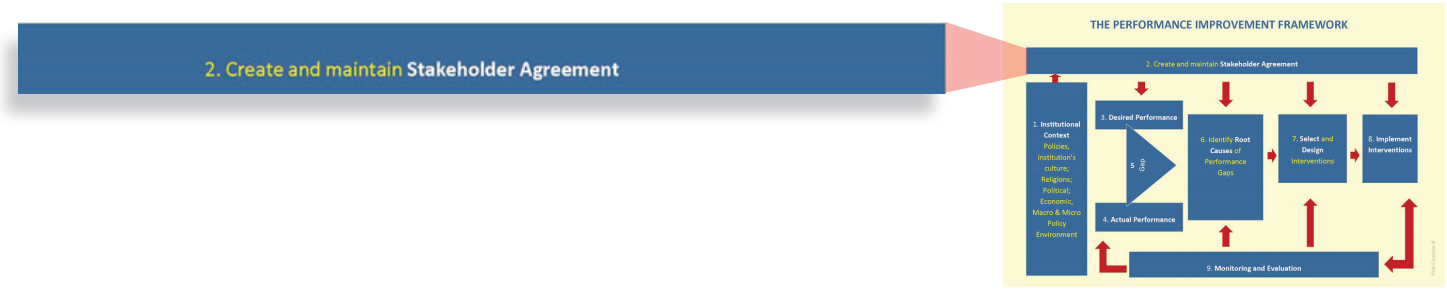
Key Points

- Understanding the institutional context is foundational to performance improvement.
- An improvement team needs a clear understanding of what will work for and against you in the environment.
- You must agree on a strategy and plan to address potential hurdles at this stage.

MODULE 4

SESSION 4.3

Session 4.3
Step 2: Obtaining and Maintaining Stakeholder Agreement



Stakeholder Agreement

Stakeholder Management is an important discipline that can be used to win support from others – be they staff, the wider organisation, external organisations, the community and clients.

Stakeholder Analysis is the technique used to identify the key people, groups and organisations that have something to gain or lose by the activities of the facility.

Definition of a Stakeholder:

A person, group or organisation that has something to gain or lose based on a specific activity.

Session Performance Objectives

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

1. Conduct a stakeholder analysis
2. Apply appropriate strategies to obtain and maintain stakeholder agreement

Who Are Health Facility Stakeholders?

Table 17 lists typical health facility stakeholders.

Table 17: Health Facility Stakeholders

Internal to the Health Facility	External to the Health Facility – Govt. Related	External to the Health Facility
Health facility staff – clinical and non-clinical	District representatives	Providers of equipment and supplies
MOH central and regional offices	Officials from other ministries and programmes	Community members and clients
Supervisors in the district/ hospital administration/ pharmacy	Law enforcement agencies	Media groups
District health team member(s)		Religious groups
		Customary leaders
		Business establishments
		Private practitioners
		Business community representative (insecticide-treated nets and insecticide issues)
		Nongovernmental organisations
		Political and advocacy leaders
		Traditional healers
		Traditional birth attendants
		Community leaders
		Community health workers

Note: This list is not exhaustive and the level of the cadres involved depends on the improvement focus.

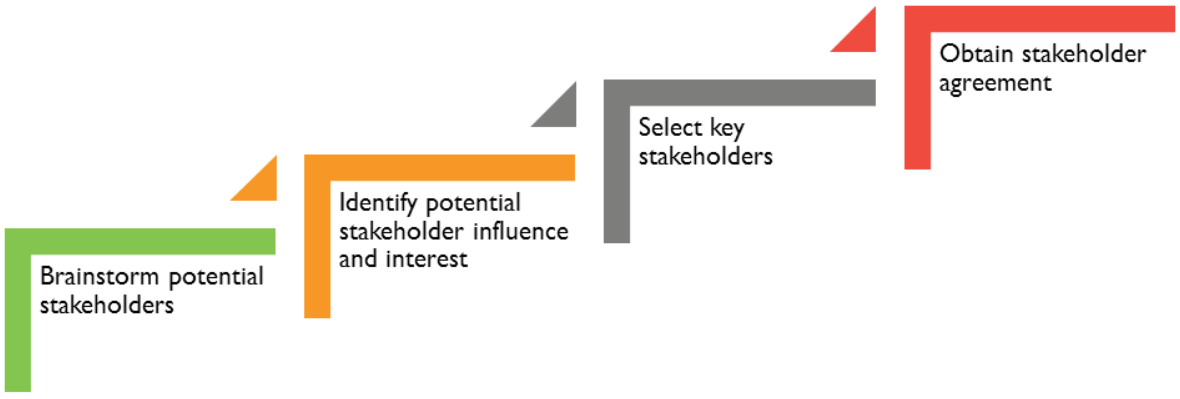
The benefits of using a stakeholder-based approach are:

- Stakeholders can make or break the improvement effort depending on the power they yield in the community.
- There are resources (talents, skills, knowledge, finances, technical, strategic linkages etc.) that become available to you because you engage stakeholders.
- When stakeholders buy into what you are doing, the likelihood of success is very high.

- You can use the opinions of stakeholders to shape the health facility activities at an early stage. Not only does this make it more likely that they will support you, but their input can also improve the quality of the project and shape success.
- Gaining support from stakeholders can help win more resources – human capital, financial, technical, strategic linkages.
- By communicating with stakeholders early and frequently, you can assure that they fully understand what you are doing and understand the benefits – this means they can support you actively when necessary.
- You can anticipate what people's reaction to the facility's activities may be, and build into the plan the actions that will win people's support.

The goal of this process is to engage key stakeholders in a transparent and participatory process that ultimately results in agreements and collaboration for performance improvement (Figure 9) .

FIGURE 9: THE STAKEHOLDER ENGAGEMENT PROCESS



Brainstorm potential stakeholders

The first step in your Stakeholder Analysis is to brainstorm who your stakeholders are. As part of this, think of all the people who are affected by your work, who have influence or power over it or who have an interest in its successful or unsuccessful conclusion.

- Who are our stakeholders?
- What is their work?
- What is their contribution to the programme we are trying to improve?
- What is their likely opinion of performance improvement?
- Where are they?
- What is their availability?

Identify potential stakeholder influence and interest

Although stakeholders may be organisations, ultimately you must communicate with people within the organisations. Make sure that you identify the correct individual stakeholders within a stakeholder organisation.

- Map out your stakeholders
- Use a tool to categorise and summarise stakeholders

- The Stakeholder Analysis must identify:
  - Who MUST be on board?
  - Who could be on board?
  - Who is potentially a threat?
  - Who is not directly linked to your work, but could be helpful?

Select key stakeholders

You may now have a long list of people and organisations that are affected by – or could be affected by – the health facility activities around performance improvement. Some of these may have the power either to block or advance performance improvement. Some may be interested in what you are doing, others may not care.

The Stakeholder Interest/Involvement Map (Figure 10) is an example of a tool you can use to plot your stakeholders and classify them by their influence over your work and by their interest in your work. A stakeholder's position on the grid shows you the actions you have to take with them.

FIGURE 10: STAKEHOLDER INTEREST/INVOLVEMENT MAP

	High involvement	**Low involvement**
High interest	Actively engage	Keep informed
Low interest	Keep satisfied	Occasionally contact

- Make a final decision on which of the stakeholders you will label as "key"
- Use the information from the Stakeholder Interest/Involvement Map

Obtain stakeholder agreement

When the health facility team has agreed on key stakeholders, formally obtain their support. To do this:

- Get more information on each stakeholder; understand who they are and what they do
- Brief the stakeholders about the functions of the facility, its achievements, its problems and its aspirations
- Inform the stakeholders about the need to improve the quality of the services being offered by the health facility
- Ask the stakeholders to consider being a part of the QI process
- Discuss the possible role for the stakeholder

Sustaining Stakeholder Support

- Communicate regularly
- Provide feedback on challenges and successes

Invite key stakeholders to a meeting to gain consensus on:

- Main points of the QI idea
- Agreement to have a signed written document reflecting what exactly has been agreed upon

TIME: 15 MINUTES

Activity 4.3
Stakeholder Analysis Exercise

Work in assigned small groups.

1. List your stakeholders.
2. Map your stakeholders in the Interest/Involvement Map below.
3. Analyse the stakeholders to determine who the key stakeholders are.
4. Describe actions you will take for each group of key stakeholders to assure that your activities succeed. Be sure to carefully assess how each stakeholder can affect your improvement activity. This exercise should be done thoroughly.

STAKEHOLDER INTEREST/INVOLVEMENT MAP

	High involvement	Low involvement
High interest	Actively engage	Keep informed
Low interest	Keep satisfied	Occasionally contact

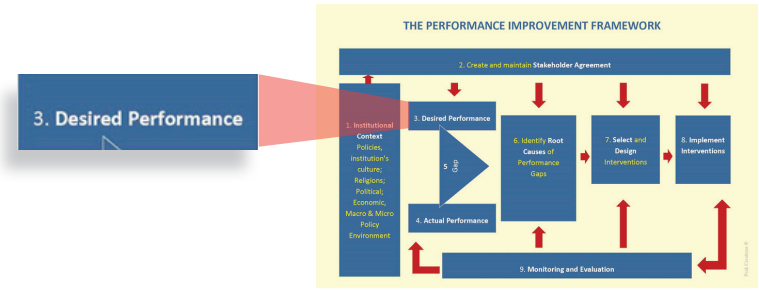
Key Points

- Stakeholder analysis is an opportunity to identify the people, groups and organisations most important to engage with during the performance improvement process
- The goal of this process is to involve key stakeholders in a transparent and participatory process that ultimately results in agreements and collaboration for performance improvement.
- The stakeholder engagement process includes identifying all facility stakeholders, mapping out the influence and interest of stakeholders to prioritise key stakeholders, selecting key stakeholders and obtaining agreement on engagement.
- Maintaining the relationship is a critical part of stakeholder engagement – provide regular updates throughout the implementation process.

MODULE 4

SESSION 4.4

Session 4.4 Step 3: Desired Performance



Introduction

The Institute of Medicine[16] defines health care quality as the extent to which health services provided to individuals and patient populations improve desired health outcomes. The care should be based on the strongest clinical evidence and provided in a technically and culturally competent manner with good communication and shared decision making.

Session Performance Objectives

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

1. Define desired performance
2. Relate desired performance to set standards
3. Discuss standards and principles of developing desired performance statements
4. Discuss principles used in developing performance indicators

Defining Desired Performance

Desired performance can be described as actions that are undertaken in a health facility so that the expected achievements are 'according to set standards'. For jobs that involve clinical procedures with universally accepted standards, there is little room for debate on desired performance, which is detailed in the SOP manuals. For other jobs, the expected level of performance – what tasks individuals do, how they do them and the result – might need to be carefully considered.

Desired performance can be described in realistic or ideal terms. Both approaches can pose risks. Setting ideal standards can inspire staff members to strive and work harder but also can be demotivating because such standards may seem unreachable and perhaps unrealistic.

[16] *http://iom.edu/Global/Search.aspx?q=quality+health+care&output=xml_no_dtd&client=iom_frontend&site=iom&proxyreload=1*

When is the Right Time to Define 'Desired Performance'?

Performance improvement is a continuous process that instills a culture of constant self or internal reflection, constructive and critical analysis, and revision. Following are examples of health care-related situations that require reflection and a revision or redefinition of desired performance:

- Solve an existing problem
  - TB patients are not being counseled according to health facility guidelines
  - Under-fives presenting with fever are not being assessed according to IMCI guidelines
- Address the needs and expectations of clients
  - TB patients at Kaputa Health Facility are demanding information on the side effects of prescribed anti-TB drugs
  - Patients put on ACTs for the first time are requesting the safety profile of the new drugs
- Set up an enabling system for new performance
  - Introduce HIV/TB collaborative activities
  - Integrate services for health problems, including malaria, TB and HIV control, with antenatal care

Systematic Process to Define Desired Performance

1. Set the stage:
   - Know the operational context
   - Involve stakeholders in the process
   - Understand client needs
2. Develop a written desired performance statement:
   - Describe the 'issue' in terms of performance
   - Focus on actions – state the accomplishments
   - Use evidence as the basis – be observable and measurable
3. Define indicator(s) for performance statements:
   - Select indicator that will allow you to measure the actual performance that is directly related to the standard
   - Make sure the appropriate data are available to use as a measurement

Writing the Desired Performance Statement

A desired performance statement must be clear, results oriented and measurable and must:

- State the accomplishments and/or behavior of the performer
- Be observable
- Be measurable
- Be agreed on by different observers
- Be clearly stated and not subject to interpretation
- Be under the control of the performer

Performance problem: HIV-exposed infants are not being tested for HIV at 12 months of age at Mungulu clinic.

Performance statement: Only 43% of HIV-exposed infants are tested for HIV at 12 months of age at Mungulu clinic.

Desired performance: 90% of HIV-exposed infants should be tested for HIV at 12 months of age at Mungulu clinic.

Define Indicators and Targets to Measure the Desired Performance

A desired performance statement must have performance-related indicators ("performance indicators") developed to make performance measurable:

- Measurability will assure adherence to the desired performance
- Indicator developers must determine the level/target of frequency that the performance should meet: 100%, 90%, 70% etc. of the time.

Desired performance: Health care providers at Mungulu shall counsel every TB patient on side effects of anti-TB drugs according to health facility guidelines

Performance indicator and target: Proportion of TB patients who are counseled on side effects of anti-TB drugs according to health facility guidelines at Mungulu should be adhered to at least 75% of the time.

TIME: 15 MINUTES

Activity 4.4
Establish Desired Performance Statements and Performance Indicators

Work in small groups:

1. Identify a quality problem in the work environment.
2. Write a statement of desired performance.
3. Develop an indicator(s) to use to determine the degree and level of adherence to the stated desired performance.

Description of quality problem:

Standard	Indicator
E.g. All HIV-exposed Infants should be tested for HIV at 12 months of age.	E.g. Percentage of HIV-exposed infants tested for HIV at 12 months of age.

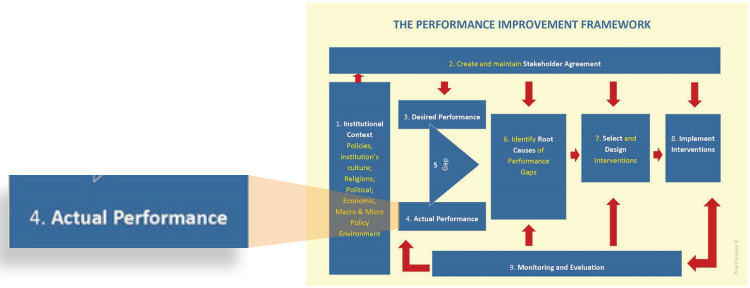
Key Points

- Standards are statements of what is expected to be done and the level of expected quality of performance, structures, processes and outcomes to assure quality health care.
- When standards are adhered to, they are a strategic tool to increase effectiveness of service delivery and minimise errors and wastage.
- Standards that relate to and influence the quality of health care can be those that are composed by local institutions with a specific focus on the Zambian context as well as by external sources who provide accreditation.
- Characteristics of good standards are that they are valid and based on evidence, reliable, clearly stated, realistic and applicable, and measurable
- Health-related standards tend to be multi-dimensional and address **performance**, **inputs**, process, **outputs**, outcome and eventually impact, all of which contribute to the provision of equitable, cost-effective and quality health care in Zambia as close to the family as possible.
- Standards include what are referred to as **criteria** or **measurable elements**. The criteria and measurable elements list what is required to be in full compliance with the standard in order that the facility meets the standard.
- Indicators are quantitative or qualitative measures of performance used to detail the extent to which standards have been achieved.
- Indicators are written with knowledge of the metrics, data source and method of collection so the measurement of the indicator is realistic.

MODULE 4

SESSION 4.5

Session 4.5
Step 4: Measuring Actual Performance



The first step to identify performance gaps is to define the desired performance in specific and measurable terms. Using the same indicators, the actual performance can be measured and described.

Develop Strong Performance Indicators

Performance indicators are measurable variables used to determine the degree of adherence to a stated desired performance. Performance indicators make it possible to measure the desired performance.

FACTS ABOUT INDICATORS

Indicators can be counts, averages, ratios, proportions or percentages.

Indicators can be qualitative or quantitative.

Quantitative indicators are often ratios, proportions, rates, percentages or averages.

Session Performance Objectives

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

1. Describe methods for measuring actual level of performance and the advantages and disadvantages of each
2. Enumerate the key elements of good indicators for measuring actual performance
3. Identify appropriate methods of data analysis
4. Estimate the performance gap and derive performance gap statements

A quantitative indicator has a denominator and a numerator:

Denominator: specifies the total population observed/all possible occurrences

Numerator: indicates the number of actual observed/occurrences

1. Performance Indicators and Metrics Examples:

1. **Percentage of exposed infants tested for HIV at 12 months**

   Definition:

   Numerator: Number of exposed infants tested at 12 months (HIV3-060)

   Denominator: Number of exposed live births delivered 12 months ago (HIV3-035)

   Data source: HMIS-HIA 2

2. **Percentage of all HIV-positive clients retained on ART for the last 12 months**

   Definition:

   Numerator: Net cohort at 12 months (HIV4-340)

   Denominator: Number of HIV-positive clients started on ART 12 months ago

   Data source: HMIS-HIA 2

3. **Number of maternal deaths at the facility recorded in the last 1 month/12 months/quarter**

   Definition:

   Maternal deaths in facility (IRH4-110)

   Data source: HMIS-HIA 2

   Assumption: Maternal deaths are not supposed to occur. Therefore, the counts of this indicator are likely to be very small and if proportion were to be used, it would appear insignificant and could be ignored.

4. **Proportion of confirmed malaria cases in the last 1 month/12 months/quarter**

   Definition:

   Numerator: Sum of malaria cases confirmed with microscope or RDT in the last 1 month/12 months/quarter

   Denominator: Sum of all malaria cases (clinical and confirmed) in the last 1 month/12 months/quarter

   Data source: HMIS-HIA 1

   This is a facility- and district-level indicator. However, it could be used at the provincial and national levels as long as the period of analysis is specified and three months has elapsed from the date of collection of data.

5. **Number of under-five children who died in the last 1 month/12 month/ quarter (IPD1-080+ IPD1-085)**

   Data source: HMIS-HIA 2

   The indicator is a count. This is a facility- and district-level indicator. However, it could be used at the provincial and national levels as long as the period of analysis is specified and three months has elapsed from the date of collection of data.

2. Types of Indicators Examples

- Counts (Numbers)
  - Number of health facilities with trained midwives
- Averages
  - Average life expectancy
  - Average births per woman
  - Average antenatal visits per pregnant woman (HMIS).
- Ratio/proportions/rates/percentages
  - Maternal mortality ratio (MMR) Maternal mortality ratio (MMR) this is measured per 100,000 e.g. for Zambia is 449 per 100,000 per live births (Zambia DHS 2007).
  - HIV prevalence rate 14.3% (Zambia DHS 2007).
  - Infant mortality rate 70 per 1000 (Zambia DHS 2007).

Data Collection

The activity to measure the performance must be designed so that the appropriate data and information are available to collect.

Sources of data include clinic records, MOH statistics and information from existing or previous projects and studies completed in the same area. Often, however, existing data on current performance will be insufficient, making it necessary to collect the data.

It is important to capture ACCURATE and PRECISE data to get a clear picture of performance levels. A data collection plan is a useful tool to make sure the information required and methods used are in line with the kind of data needed and that this information is accessible.

A data capture plan should:

- Be focused and specific
- Be process oriented to focus on what is being done to convert inputs to outputs
- Include clear instructions so as not to be intimidating
- Clearly state what data are required
- Explicitly state how the data will be used
- Avoid or minimise bias by:
    - Pre-testing data collection instruments
    - Training interviewers/data collectors
    - Auditing the collection process
- Include different methods of data collection

Table 18 describes different data collection methods.

TABLE 18: DATA COLLECTION METHODS

	Description	Tips
Interviews	Interviews are conducted one-on-one. Focus group discussions (FGD) are held with small groups of 8-12 people with similar backgrounds or a common variable. Discussants should not be mixed by sex and age group. Facilitator should use a discussion guide/ checklist. There should be note taking or tape recording and should take 30-45 minutes. Interviews can be used throughout the data-gathering process. Although the process is time consuming, it is useful because you can gather specific information and ask follow-up questions to get more detail on items of particular interest.	1. Write down questions before the interview and give them to the person(s) being interviewed. 2. Decide beforehand how to document the information. 3. Put the persons being interviewed at ease by telling them the purpose of the interview and how you will use what they tell you. 4. When appropriate, assure them that what they say will be kept confidential.
Observations	Direct observation of the work being performed. Observations are usually done in conjunction with another data gathering method that is used to fill in the gaps and answer questions. Inspection of facility: checklist, physical structure, instruments, equipment (environment).	1. Arrange observations in advance and get permission from management. 2. Let workers know why you are observing them. 3. If the observation includes a client/patient, explain the purpose of the activity and get their permission to observe. 4. If possible, have an expert with you who can tell you what to look for. 5. Be a mystery client: visit the clinic as if seeking care to get a client's perspective. 6. Conduct a facility inspection.
Surveys and questionnaires	Surveys are used to gather data from a large number of people, when it is impractical to meet them all face to face. Surveys can be both formal (where the results are subject to statistical reliability and validity) and informal (where results are anecdotal).	1. Decide upfront if you need to base your conclusions on statistically valid and reliable data. If so, consult an expert to help determine the sample group, method of data collection and how you will compute your results. 2. If the survey or questionnaire is designed internally, make sure to test it.
Review of records	A review of appropriate records can provide valuable information to substantiate the performance deficiencies under review. It is important to determine which data are relevant and whether the quality of the data is adequate.	1. Make sure to understand how the data were collected and what the data mean. 2. Make sure that the data are current. 3. Sources can include checklists, patient records, register, bin cards, HMIS, performance assessment tools or reports.

Source: Adapted from PRIME II, Performance Improvement Stages, Steps and Tools. http://www.prime2.org/sst/step4-1.html. Accessed October 2013.

Data Collection Tools

- Should be simple and self-explanatory
- Design in-house or use pre-existing

Examples of data collection tools to use include:

- Forms
- Checklists
- Questionnaires

General Tips: Data Collection Tools

Questionnaires

Part 1

- Administrative issues: Records information on topic, date, location, interviewer, interviewee

Part 2

- Technical issues: Describes technical area to observe/question
- Coding system

Forms

Part 1

- Personal details: Name, age, marital status, gender/sex, date, file number

Part 2

- Clinical: Describes clinical area including history taking, physical examination investigation, diagnosis and treatment.
- International Classification of Diseases (ICD)

Sources of Data

- Existing records, e.g. patient medical records, facility logbooks, HMIS reports, treatment notes, survey reports, census data, support supervision reports
- Observation of or interviews with, providers, customers, service managers, customer feedback
- Existing data sources
    - This is more efficient and economical with no effort to collect also referred to as primary dataCan be used when:
    - Relevant data are available
    - There is not enough time or funding to collect data
    - There is need for proof or credibility

The need to collect data (secondary data) arises when existing data are not accurate and do not provide enough or the right kind of information. The type of data that need to be collected is determined by what is being measured.

In addition to being divided into primary and secondary data, data can be divided into quantitative and qualitative:

- **Quantitative data** is information that is collected as, or can be translated into, numbers, which can then be displayed and analysed mathematically.
- **Qualitative data** are collected as descriptions, anecdotes, opinions, quotes, interpretations, etc.; they generally can not be reduced to numbers.

Data Analysis

Analysing information involves examining it in ways that reveal the **relationships, patterns** and **trends** that can be found within it. That may mean subjecting the information to statistical operations that can reveal not only what kinds of relationships seem to exist amongst variables, but also the level to which you can trust the answers you're getting. It may mean comparing the information to standards or from other groups (a control or comparison group, for example) to help draw conclusions from the data.

The emphasis should be on conducting an accurate assessment in order to better understand performance levels and the effects on those things you're concerned with, or in order to better understand the overall situation:

- For smaller databases compilation may be done manually using tables and check sheets (data analysis sheet). In this form all the variables which were on the questionnaire or form are captured and analysed manually.
- For larger amounts of data statistical analysis software may be used, e.g. SPSS, STATA, EPI Excel

Data Presentation Tools

Data presentation tools are used to show data as visual pictures. This kind of presentation is useful and can assist in interpreting the information – to define and analyse problems, verify causes, see cause and effect and compare sizes, amounts, quantities or proportions of various items or groupings of items. Common presentation tools include:

Tables

Tables present the information as precise values.

Tables show data tabulated as numbers as well as rates, percentages and ratios. The latter also can be presented in graphic form.

Table 11 is an example of a table with data.

Table 19: Example of Data Presented in a Table

ART Treatment Outcomes

Period / Indicator	2011					2012				
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
Lost to follow-up	1	2	6	59	68	393	264	298	272	1227
Trans-In	25	24	31	27	107	30	23	24	29	106
Trans-Out	42	34	46	33	155	23	32	31	32	118
Dead	4	4	8	4	20	5	7	13	6	31
% of patients on 2nd line ART	16	18	18	20		22	25	28	29	

Charts

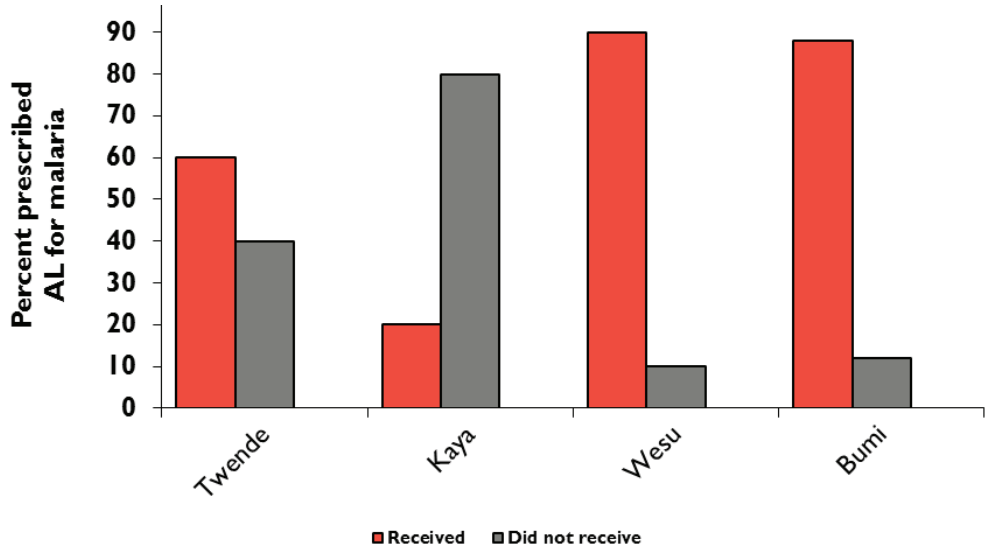
Frequency charts

Depict the number of occurrences of a certain event, shown in the form of a bar chart.

- Graphically show the distribution of data
- Compare sizes, amounts, quantities or proportions of various items or groupings of items
- Can be used for defining and analysing problems, verifying causes or judging solutions
- Are easy to understand because they present the data as a picture

Figure 11 is an example of a bar chart of hypothetical Zambian clinics that gave out Coartem to malaria patients. Observe how easy it is to tell which clinics are doing well and which are not.

Figure 11: Example of a Bar Chart



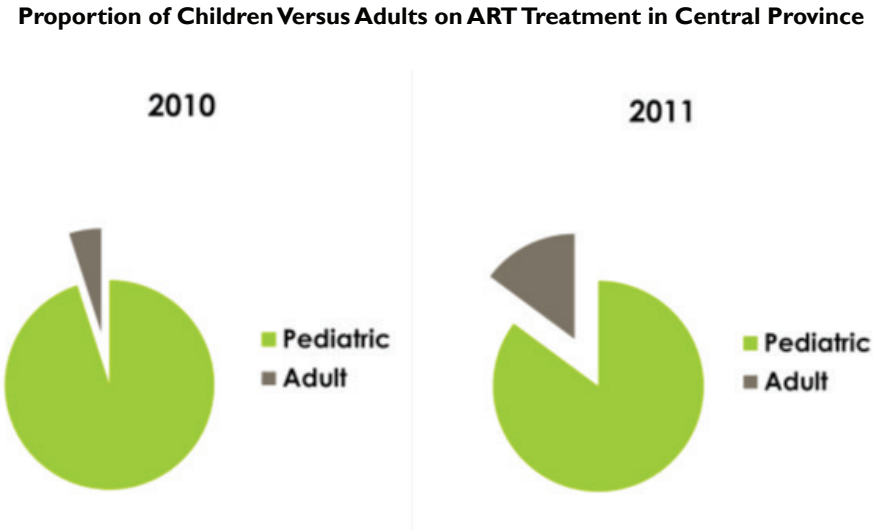
Trend charts: Show the pattern of a repeated event over time, e.g. growth chart of a child, temperature chart, under-five chart or disease incidence.

Pie Chart: Show the proportions of various components of a whole (how the "pie" is divided). The pie chart below displays the proportion of children to adults on ART in Central Province.

Distribution charts

Show the occurrence of an event within a specified area and period.

Figure 12: Example of a Pie Chart



Distribution Charts: Histogram

What is a histogram?

- A graph that shows how often different values occur in a set of data
- A graph that shows frequency distributions

When to Use a Histogram:

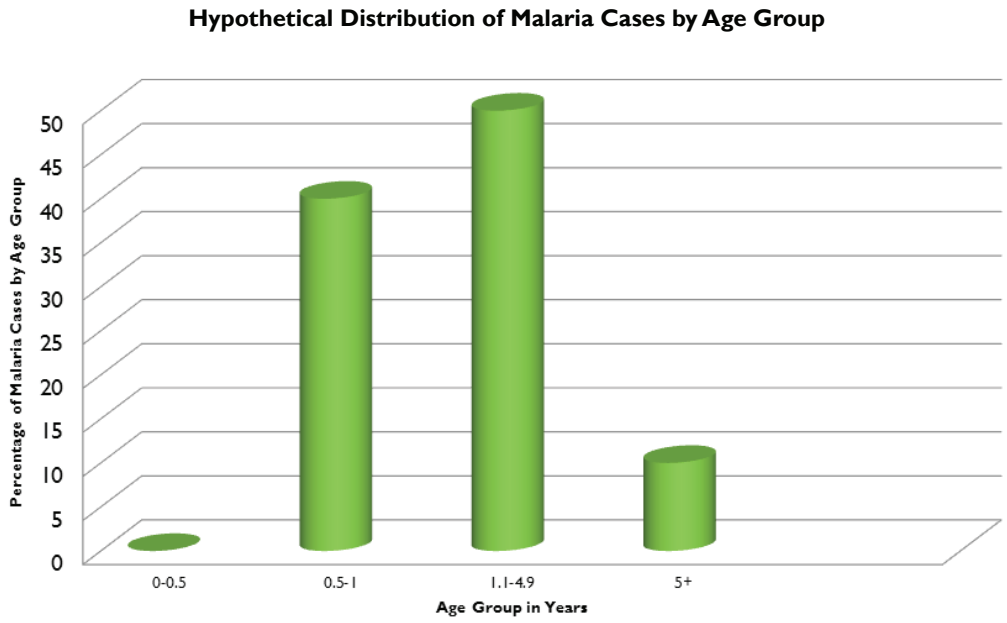
- When the data are numerical
- When you want to see the shape of the data's distribution, especially when determining whether the output of a process is distributed approximately normally
- When analysing whether a process meets the customer's requirements
- When seeing whether a process change has occurred from one time period to another
- When determining whether the outputs of two or more processes are different
- When communicating the distribution of data quickly and easily

Figure 13 is a histogram that plots the distribution of malaria cases for age intervals in a hypothetical Zambian population.

Trend Chart

Trend charts, also known as run charts, show trends in data over time. Trend

FIGURE 13: EXAMPLE OF A HISTOGRAM



charting enables performance improvement teams to identify changes in process outputs over time. The chart can be used as a measurement tool to understand how a process is currently performing and also to track any changes in the process over time.

Displaying data over time increases understanding of the performance of a process, particularly with regard to an established target or goal. Figure 14a shows a trend chart of average waiting time at a health facility over a period of 38 days.

Figure 14b is another trend chart; it shows progress towards the 2015 MDG on under-five mortality in Zambia.

Figure 14a: Examples of a Trend Chart

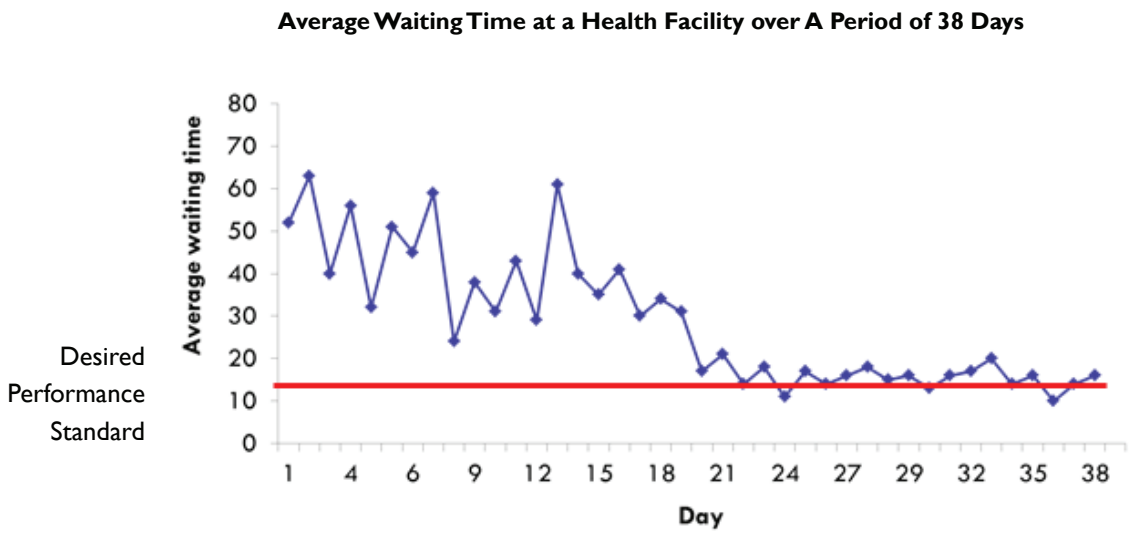
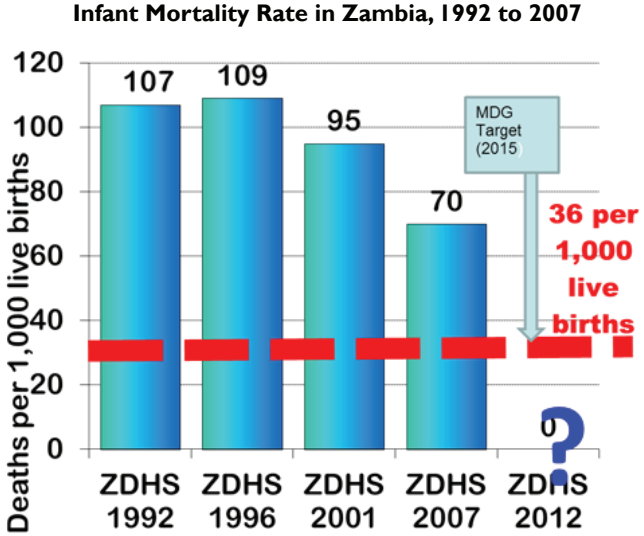


Figure 14b: Example of a Trend Chart



Control Chart

Better health care requires making changes in the processes of care and service delivery. Although process performance is measured to determine if these changes are having the desired beneficial effects, this analysis is complicated by the existence of natural variation – that is, repeated measurements naturally yield different values and, even if nothing was done, a subsequent measurement might seem to indicate a better or worse performance.

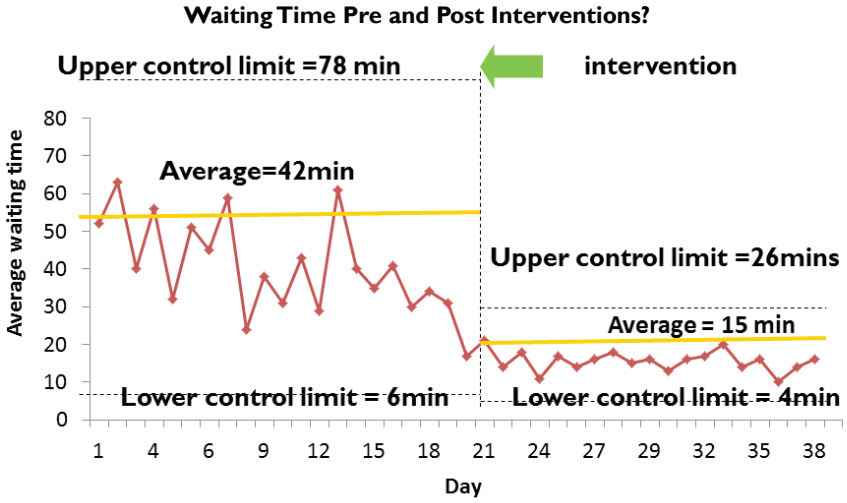
The trend chart can be used to create a control chart. A control chart helps identify the upper and lower points of performance. The charts are line graphs in which data are plotted over time, with the addition of two horizontal lines, called control limits; there is an upper control limit (UCL) and the lower control limit (LCL). The vertical axis represents a measurement and the horizontal axis is the time scale. It can be used for general monitoring and improvement of hospital performance, monitoring of health-related variables for individual patients, surveillance of infectious diseases and so forth.

Control charts can also be used to:

- Show trends/variation in process over time
- Detect causes of that variation
- Predict future performance
- Monitor performance
- Determine control limits, if data are sufficient
- Determine trends (eight consecutive points above or below the centre line suggest a shift in the process; six successive increasing /decreasing points suggest a trend; 14 successive points alternating up and down suggest a cyclical process)
- Determine the effect of an intervention

In Figure 15, the upper control limit is calculated by three standard deviations from the mean. Any data point outside of the upper control limit represents unusual variation. Similarly, the lower control limit (-3 standard deviations) shows the values below which the average waiting time should not fall. Anything below this is again unusual variation.

FIGURE 15: EXAMPLE OF A CONTROL CHART



Another example of a control chart is Z-scores on the under-five cards as they relate to the management of malnutrition. In statistics, the standard score is the number of standard deviations an observation or datum is above the mean. Thus, a positive standard score represents a datum above the mean, whilst a negative standard score represents a datum below the mean. A Z-Score is a statistical measurement of a score's relationship to the mean in a group of scores. A Z-score of 0 means the score is the same as the mean. A positive Z-score indicates the observed value is above the mean of all values, whilst a negative Z-score indicates the observed value is below the mean of all values. We compare a child's measurement (weight/height) with the average measure for children at the same age and gender to standardise a child's measurement. For example, if a boy of three months is 55cm, how does this indicate a healthy three-month-old boy without comparison to a reference standard?

The WHO classification Z-scores are the most commonly used cut-off with Z-scores is -2SD. This means that a child with a Z-score below -2 standard deviation is considered moderately or severely malnourished.

Mild, moderate and *severe* are the malnutrition classification indicators presented from the WHO malnutrition classification system.

Table 20:: WHO Classification Z-scores

System	Cut Off	Malnutrition Classification
WHO	<-1 to >-2 z-score	Mild
WHO	<-2 to >-3 z-score	Moderate
WHO	<-3 z-score	Severe

Scatter Diagram

Charts displaying associations: e.g. scatter diagrams. A scatter diagram graphs pairs of numerical data, with one variable on each axis, to look for a relationship between them. If the variables are correlated, the points will fall along a line or curve. The better the correlation, the tighter the points will hug the line. A scatter diagram is used when trying to determine whether two variables are related in the following situations:

- When trying to identify potential root causes of problems
- After brainstorming causes and effects using a fishbone diagram, to determine objectively whether a particular cause and effect are related
- When determining whether two effects that appears to be related occur with the same cause

A scatter diagram is a good tool to:

- Illustrate the strength of the relationship between the variables
- Test the relationship between variables

Examples of Scatter Diagrams

The examples in Figure 16 are scatter diagrams plotting two variables, for example, smoking (X) and an outcome (disease Y).

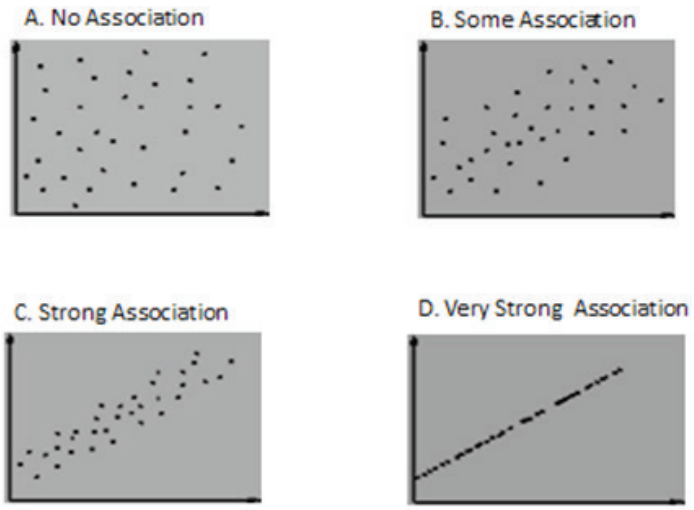
A. The two variables are not related and there is no association.

B. There is a loose association between the variables.

C. The association is stronger and there is more of a relationship.

D. There is a very strong (perfect) correlation between two variables.

Figure 16: Examples of Scatter Diagrams



Pareto Chart

The Pareto chart is based on the Pareto principle, which states that when several factors affect a situation, a few factors will account for most of the impact; 80 percent of variation observed in everyday processes can be explained by a mere 20 percent of the causes of that variation.

Thus, a Pareto chart organises and displays information to show the relative importance of various problems or causes of problems. It is a type of bar chart that orders items from highest to lowest relative to some measurable effect of interest: frequency, cost or time. Th chart graphically displays the relative importance of the differences between groups of data and show which situations are more significant.

A Pareto chart is a good tool to:

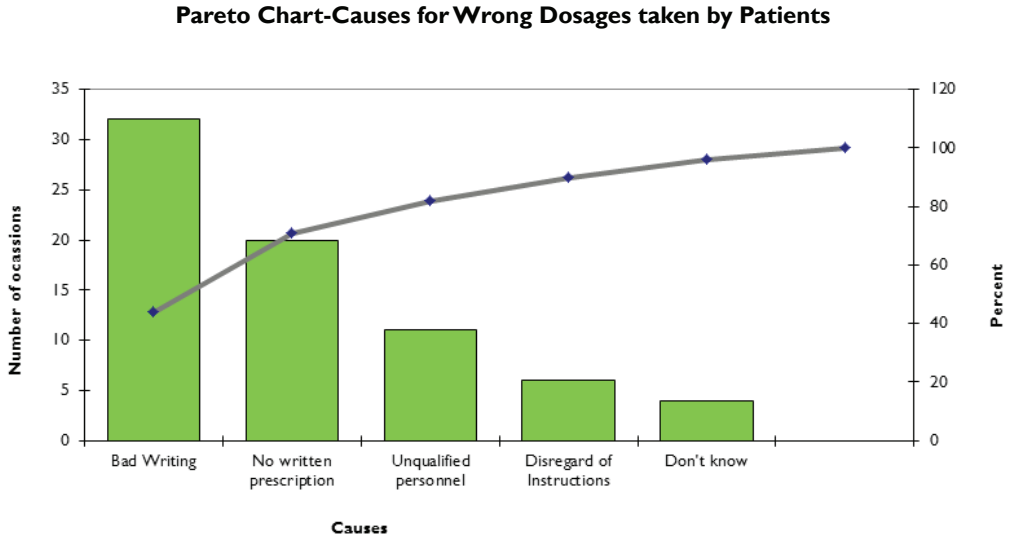
- Provide facts needed to set priorities
- Show relative importance of problems or their causes
- Display information in a simple manner
- Understand if an implemented solution reduced the relative frequency or cost of that problem or cause by comparing the chart over time

A Pareto chart is used when:

- Analysing data about the frequency of problems or causes in a process
- There are many problems or causes and you want to focus on the most significant
- Analysing broad causes by looking at their specific components
- Communicating with others about your data

Figure 17 is an example of a Pareto chart related to why patients end up taking wrong doses of prescribed drugs. The line graph is the cumulative percentage of the causes of the incorrect dosages. The chart shows that addressing the first two causes would solve 80% of this problem.

FIGURE 17: EXAMPLE OF A PARETO CHART



TIME: 15 MINUTES

Activity 4.5
Sources, Methods and Presentation

In small groups, use any available source of information or health service indicator report to respond to the following:

1. List the sources of where to find the data

2. List the data collection method(s) that can be used to collect this data

3. Describe how this information will be depicted/analysed

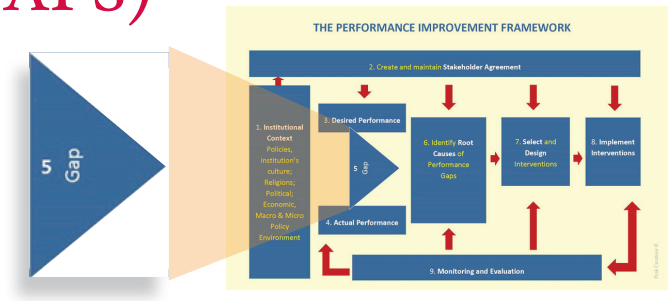
Key Points

- Performance gaps are the difference between what is desired and what is happening. Performance indicators must be measured in the same units for desired and actual performances.
- To measure performance, first define the desired performance and develop performance indicators; next measure the actual performance using the same indicators.
- The data collection process should be focused and quality controlled. Collect data only if needed; be aware of the existing sources of data that can be used.
- Analyse data and use the outcomes to inform your QI activities.
- There are different types of data presentation tools; in selecting the best tool 1) know what you want to communicate; 2) think about and select the tool that will best represent the information.

MODULE 4

SESSION 4.6

Session 4.6
Step 5: Performance Gap (Identification and Prioritisation of Performance Gaps)



How Do We Know That There is a Problem?

HMIS reports: Review of data will show the quality gaps, where there is underperformance or outside threshold. (e.g. triple A-assessments/analysis,)

Special surveys: For example, DHS and Malaria Indicator Survey (MIS), which show progress towards achieving indicators relating to malaria (e.g. IPT1, IPT2, IPT3).

Supervisory visits: Records review carried out during visit to facilities reveals performance gaps in the facilities. This maybe done through personal interaction with the health worker as well as appropriately designed tools like the Performance Assessment Tool.

Health facility reports: Monthly, quarterly reports, incidental reports, case records.

Client complaints: Verbal or non-verbal (suggestion boxes).

Health worker complaints: Verbal or written to management.

Audits: Data audits and case audits, for example, of maternal mortality or stillbirths – help to quickly identify quality gap

Peer reviews: A good way to finding out how each facility is performing as peers get a chance to learn freely and adapt the best practices.

Electronic health records: For example, SmartCare.

Session Performance Objectives

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

1. Identify performance and quality gaps
2. Prioritise performance gaps

What is the Gap?

Performance gaps refer to the difference between desired and actual performance.

For example:

Desired Performance:
90% of all HIV-exposed infants should be tested for HIV at 12 months of age at Mungulu clinic.

Performance Gap:
47% of HIV exposed infants are not tested for HIV at 12 months of age.at 12 months of age.

Actual Performance:
Only 43% of HIV exposed infants are tested for HIV at 12 months of age.

Performance gap statement: 47% of HIV-exposed infants are not tested for HIV at 12 months of age.

Desired Performance	Actual Performance	Gap
90% of all HIV-exposed infants should be tested for HIV at 12 months of age at Mungulu clinic.	Only 43% of HIV-exposed infants are tested for HIV at 12 months of age.	47% of HIV-exposed infants are not tested for HIV at 12 months of age.

When performance gaps are identified there are several important questions to address. Two of the most important questions are:

- Who and/or what is causing the performance gap?
- Which performance gaps are addressed first?

Who and/or What Caused the Performance Gap/Problem?

There are many factors that cause performance issues. In fact often performance issues can stem from more than one issue. Common areas that have an impact on performance include:

- People (caregivers, service providers, dispensers, maintenance, trainers, supervisors, administrators)
- Machines (accuracy, data-bases, speed)
- Materials (labels, timeliness, adequacy, storage, expiry)
- Methods (techniques used, protocols, procedures)
- Measurements (biases, completeness, accuracy)
- Environment (very busy, too cold/hot, privacy, crowded)

To properly identify what is causing the performance issue, the series of questions in Table 21 can be used as a guide.

Table 21: Who and/or What Caused the Performance Issue

Action	Questions to Ask
Identify the Problem	What is the problem? How do you know it is a problem? How frequently does it occur? How long has the problem existed What are the effects of this problem? How will we know when it is resolved
Analyse the Problem	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?

Prioritisation Tools

Sometimes there are more gaps than can be addressed, so the gaps need to be prioritised. There are different prioritisation tools; their use depends on the complexity and number of 'performance areas' identified as gaps. The tools are:

- Voting
- Prioritisation matrices
- Pareto charts

Voting

- Useful when options are fairly straightforward or time is limited
- Quick and efficient way to make a decision
- Allows equal participation especially where some members would dominate for any reason

Voting Options

- Straight voting: One person, one vote! Good for selecting one activity.
- Multi-voting: Offers multiple rounds of voting. Appropriate when the list of gaps is long and/or there are competing interests. The multiple rounds narrow a broad range of possibilities to a few top priorities.
- Weighted voting: Useful when groups have strong but divergent ideas.

Multi-voting as a team decision-making tool

Multi-voting is a group decision-making technique that can be used to prioritise a list of items to a manageable number by means of a structured series of votes and assign priorities with a high degree of team agreement.

How to conduct a multi-vote exercise

Step 1: Write each of the identified performance gaps on a flipchart or board so that all members of group can see the issues.

Step 2: Assign a letter to each performance gap to avoid confusion of item designations with the vote tally.

Step 3: Vote: Each team member selects the most important one-third (or no more than one half) of the performance areas by listing the letters which appear next to those items. For example, if there are 60 items, each person should choose the 20 performance issues he/she thinks are most important.

- Each team member may cast only one vote per idea and must cast all allotted votes.
- Voting may be done by a show of hands or by paper ballot if the team chooses to preserve confidentiality.

Step 4: Tally the votes: Place a checkmark next to each item for each vote received. Retain the items with the most votes for the next round of voting. To decide how many items to eliminate in each round use the following guide:

- If the team has five or fewer members, eliminate items that receive two or fewer votes.
- If the team has 6 to 15 members, eliminate all items that receive three or fewer votes.
- If the team has more than 15 members, eliminate all items that receive four or fewer votes.

Step 5: Repeat vote. In the second round, each person again selects the top one-third of short- listed issues. Repeat steps 3 and 4 until only a few items remain. Never multi-vote down to only one item.

The items that were not identified as priorities should be retained as backup data or for future use by the team in its improvement efforts.

Prioritisation Matrix

A prioritisation matrix can be used to think through each performance gap issue in terms of pre-selected criteria. Prioritisation matrices are useful when core areas for improvement have been identified and require further focus or:

- The group is not sure where to start
- There are many areas that require consideration
- The performance improvement process is constrained by limited resources

The criteria should be based on the priorities, needs and resources of the health facility. Criteria to consider include the impact of the problem, the magnitude of the problem, the cost of addressing the problem, the frequency at which the problem occurs and the consequences of not addressing the problem. The criteria can be weighted or ranked (for example, by allocating funding) and the problem scoring highest is selected.

Example: Using the Prioritisation Matrix

A health service facility in Zambia has a high TB defaulter rate. The facility's QI Committee determined that the reasons for this performance gap were: 1) unskilled staff, 2) no vehicles and 3) no drugs.

The QI Committee had to prioritise which problem(s) to address. Committee members agreed to use the following criteria to rank the problems:

- Impact: How big is the damage if the problem is not addressed?
- Cost: What is the cost of not addressing the problem?
- Frequency: Is this a one-off or does this occur frequently and therefore needs to be addressed?
- Magnitude: How big is the problem? Is it worth the investment that would go into solving it?

The next step was to do the prioritisation. The QI Committee decided that each member would be allocated 100 kwacha to distribute amongst the problem areas in order of importance – what they thought would give the best return for the money. The members individually assessed each problem and allocated their kwacha so that the vertical sum (for each criterion) totaled 100.

Table 22, Prioritisation Matrix, shows the average allocation of all QI committee members. For the impact criterion, the average allocation was 40 kwacha to unskilled staff; 20 kwacha to no vehicle and 40 kwacha to no drugs, for a total of 100 kwacha.

The committee used the same process for the remaining three criteria – cost, frequency and magnitude.

Then the kwachas were added horizontally (across rows) to determine the prioritisation score – and thus which problem would be worked on first. In this case, it would be the "no drugs" problem, which scored 190.

Table 22: Example of a Prioritisation Matrix

Problem	Prioritisation Criteria				TOTAL
	Impact	Cost	Frequency	Magnitude	
Unskilled staff	40	50	30	30	150
No vehicles	20	10	20	10	60
No drugs	40	40	50	60	190
Total	100	100	100	100	---

Prioritisation using a pre-defined score

- Chose the criterion, e.g. importance, cost, size of problem, risks and frequency
- Establish a ranking system. For example the ranking for Table 23 below is the following:
  - 5-extremely important
  - 4-very important
  - 3- important
  - 2- slightly important
  - 1-not important

Table 23: Example of a Prioritisation Matrix Using a Pre-defined Score

Problem	Criteria*				
	Issue Seen as Important	Realistic Scope (too big or too small?)	Likelihood of Success	Potential Impact (patients, resources, indicators, efficiency etc.)	TOTAL
1.					
2.					
3.					
4.					
5.					
6.					

* Can include other relevant criteria such as cost, and consequences of not addressing the problem. All group members can vote and then come up with the total votes per problem; the problem getting the most votes is the one the group with tackle first.

TIME:
15
MINUTES

Activity 4.6
Prioritising Performance Gaps

1. List several performance gaps from your workplace.

2. Develop criteria for prioritisation (to decide on what you must address first if you can not address all of them at once).

3. Draw and complete the prioritisation matrix.

4. Indicate from your analysis the order in which you will address your performance gaps.

5. Prepare a presentation.

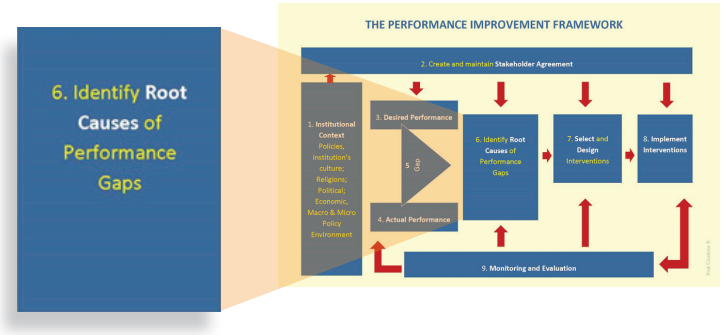
Key Points

- We identify quality problems in different ways and there are various causes for quality problems.
- Performance gaps measure the shortfall in performance and are calculated by finding the difference between desired performance and actual performance.
- When there are many performance gaps, it is important to prioritise using methods such as voting or a prioritisation matrix.

MODULE 4

SESSION 4.7

Session 4.7
Step 6: Root Cause Analysis



Introduction

As health care workers it is easy to understand the difference between treating symptoms and curing a medical condition. When a patient is in pain because they have a broken wrist, they want to have the pain – one symptom – treated. However, taking painkillers won't heal the wrist; only proper treatment of the fracture itself and healing over time is needed before the symptoms can disappear.

To provide quality health care, it is imperative not to only remove the superficial symptom of a performance gap but to identify and fix the deeper issues causing the symptom. Otherwise, the problem will not go away, or will do so only temporarily.

Session Performance Objectives

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

1. State what is meant by a root cause
2. Conduct a root cause analysis
3. Develop Root Cause Statements

Root Cause Analysis

Root Cause Analysis (RCA) is a popular technique that helps identify the real cause(s) of a performance gap. When root causes are correctly identified, the appropriate interventions can be put in place to address the causes and solve the problem. When they are not correctly identified, a wrong solution can be applied, which will not solve the problem.

RCA uses a specific set of steps, with associated tools, to find the primary cause of the problem, to:

- Determine what happened
- Determine why it happened
- Figure out what to do to reduce the likelihood that it will happen again

RCA assumes that systems and events are interrelated. An action in one area triggers an action in another. By tracing back these actions, it is possible to discover where the problem started and how it grew. Typically the roots of the problem will be related to the factors that influence performance as shown in Table 24.

Table 24: Factors that Influence Performance

Factors	Considerations
Clear job expectations	Do performers know what to do (and why) and to what level of quality?
Constructive and timely performance feedback	Do performers know how well they are doing? How often is constructive feedback provided?
Adequate environment, tools and materials	Do performers have the tools to do the job well? Does the work environment enable the desired performance? Are processes and systems effective and efficient?
Motivation, recognition and incentives	Is good performance recognised and rewarded? Are incentives offered to drive changes in performance? Are performers self-motivated?
Appropriate skills and knowledge	Do performers have knowledge and skill to meet expectations?
Organisational support	How much the performer is supported by the superiors to assure the prerequisites to good performance are met?

RCA can trace the symptoms of performance issues to the performance factors that ultimately influence performance. This involves investigating the patterns of negative effects, finding hidden barriers in the system, and discovering specific actions that contribute to the problem. This often means that RCA reveals more than one root cause.

Tips for conducting an RCA:

- Know the context in which the gap is occurring.
- A process analysis using flow charts can be a useful tool to pinpoint where, when and perhaps why there is a gap in performance.
- A cause-and-effect analysis is a helpful way to dig deeper into the roots of the performance gap with input from people who are knowledgeable about the context in which the performance gap is occurring (include those working where the performance gap is occurring and are affected).
- For the causes that you have verified, identify the performance factors to which they relate – this will help you to quickly identify possible interventions to solve the performance gap; develop the root cause statements.

Understand the context of the problem

The following are useful questions to ask about your performance gap as they will help you to get clues as to why the gap exists:

- What is the problem?
- How do you know it is a problem?
- How frequently does it occur?
- How long has the problem existed?
- What are the effects of this problem?
- Who is involved or affected?
- Where does the problem occur?
- When does the problem occur?
- What happens when the problem occurs?
- How will we know when it is resolved?

Understand the process within which the performance gap occurs

To uncover root causes, it is important to understand the process or system in which the performance in question is conducted. System modelling and process flow charting are useful tools for this. Flow charts are easy-to-understand diagrams showing how steps in a process fit together. This makes them useful tools for communicating how processes work, and for clearly documenting how a particular job is done. In addition the act of mapping a process in flow chart format helps to clarify one's understanding of the process, identify bottlenecks and where performance challenges are occurring and provide insight to where the process can be improved.

A process flow chart can be used to:

- Define and analyse processes and the sequence of activities that occur in a process
- Build a step-by-step picture of the process that breaks activities into sub-steps
- Define, standardise or find areas for improvement in a process

Tips for making a process flow chart:

- Determine the first and last steps of the process
- Record the first step and draw an oval around it
- Clarify how things are currently working and if appropriate compare this to how things should be working
- Be sure you identify key elements of the system or process to see what the possible causes of the gap may be

Flow charts are simple diagrams that map out a process. Figure 18 is a flow chart that shows the patient registration process in a health facility.

To draw a flow chart:

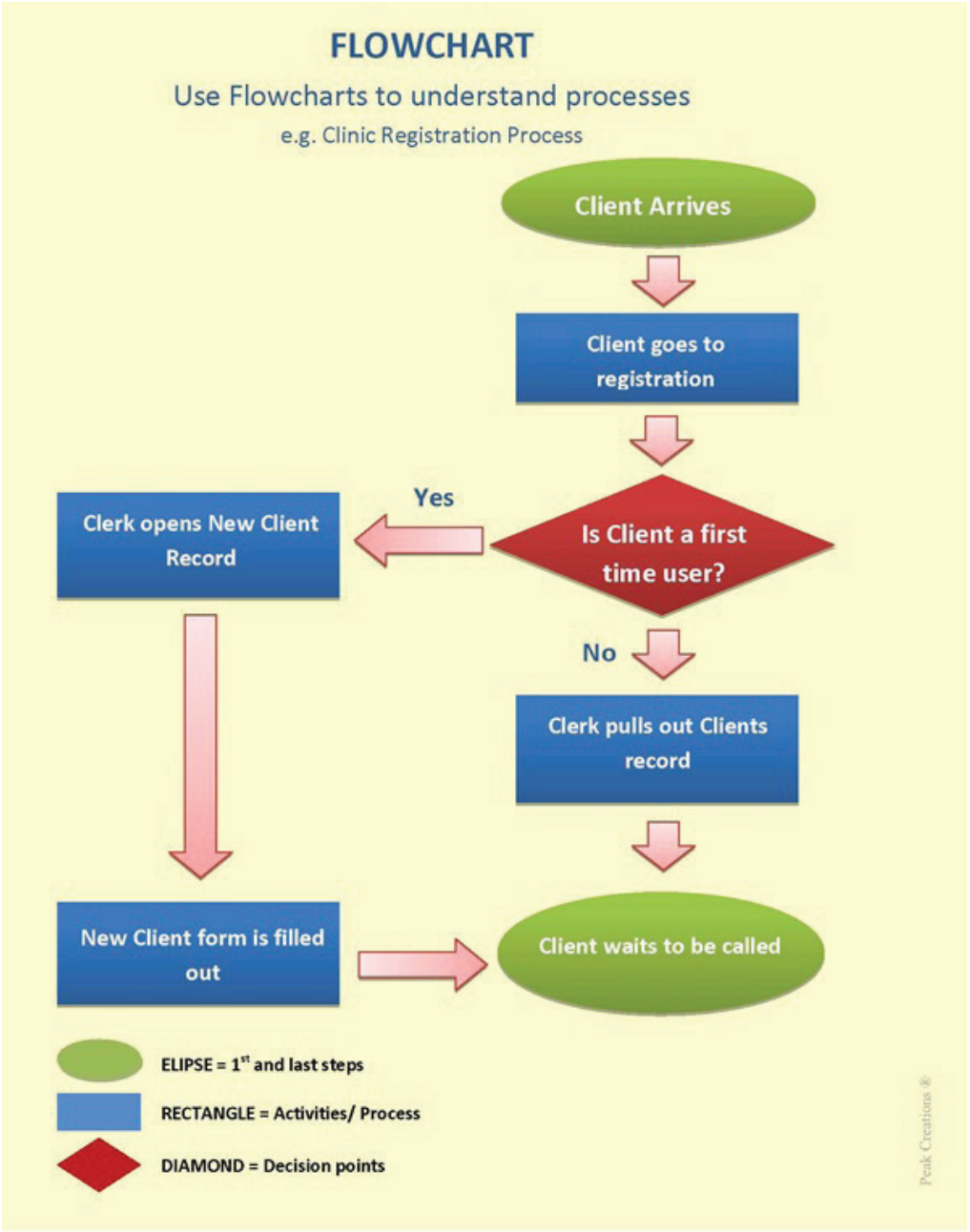
1. Brainstorm the tasks and decisions made during a process, and write them down in order.
2. Map these out in flow chart format using appropriate symbols for the start and end of a process, for actions to be taken and for decisions to be made.
3. Typical symbols used in flow charting include:

   Oval  to represent the beginning and end of a process

Rectangle  to represent instructions or actions

Diamond  to represent decision points

FIGURE 18: FLOW CHART OF PATIENT REGISTRATION



Relate causes to effects

- Once a problem has been specifically located, a hypothesis about its causes should be developed.
- "Hypothesis" is used because the suspected or proposed root cause (the core of the problem) has to be verified by data.
- Cause-and-effect analysis helps to generate as exhaustive a list of causes as possible – this is helpful because root causes may not be obvious.
- A cause-and-effect analysis helps to look beyond the symptoms of the problem to:
    - Discover the root cause of a problem
    - Uncover bottlenecks in your processes
    - Identify where and why a process isn't working

Analytical Tools for Root Cause Analysis

There are several tools to use in mapping why undesirable performance occurs. These RCA tools enable their users to look beyond the symptoms of the undesirable performance and link the performance to its fundamental causes. Two RCA techniques are:

- The fishbone diagram (causes by category)*
- The why-why-why techniques (a chain of causes)*

How to Use the Fishbone Technique

The following steps show how to diagram a problem using cause-and-effect analysis:

Step 1: Identify the Problem

First, write down the specific problem in the blank space of the fish head – this is the effect. When possible and appropriate, identify who is involved, and when and where the problem occurs.

For example, in the fishbone diagram in Figure 19, the identified issue is **staff is performing unnecessary repeat lab tests**.

Step 2: Identify the Major Performance Factors Involved

Next, list the job performance factors that contribute to individual and team quality performance and have been noted to influence desired results and accomplishments: performance feedback, job expectations, skills and knowledge, motivation, environment and tools, and organisational support. These job performance factors should be written at the end of each fish spine.

Step 3: Identify All Possible Causes of the Problem

Now, for each job performance factor, brainstorm the likely causes for the undesirable performance making sure there is a **logical flow between cause and effect**. To do this:

- Use simple brainstorming to generate a list of possible causes
- Classify the causes on the fishbone diagram: insert them on the correct spines (performance feedback, job expectations etc.) assuring a logical flow

Where a cause is large or complex, then it may be best to break it down into sub-causes. Show these as lines coming off each major spines.

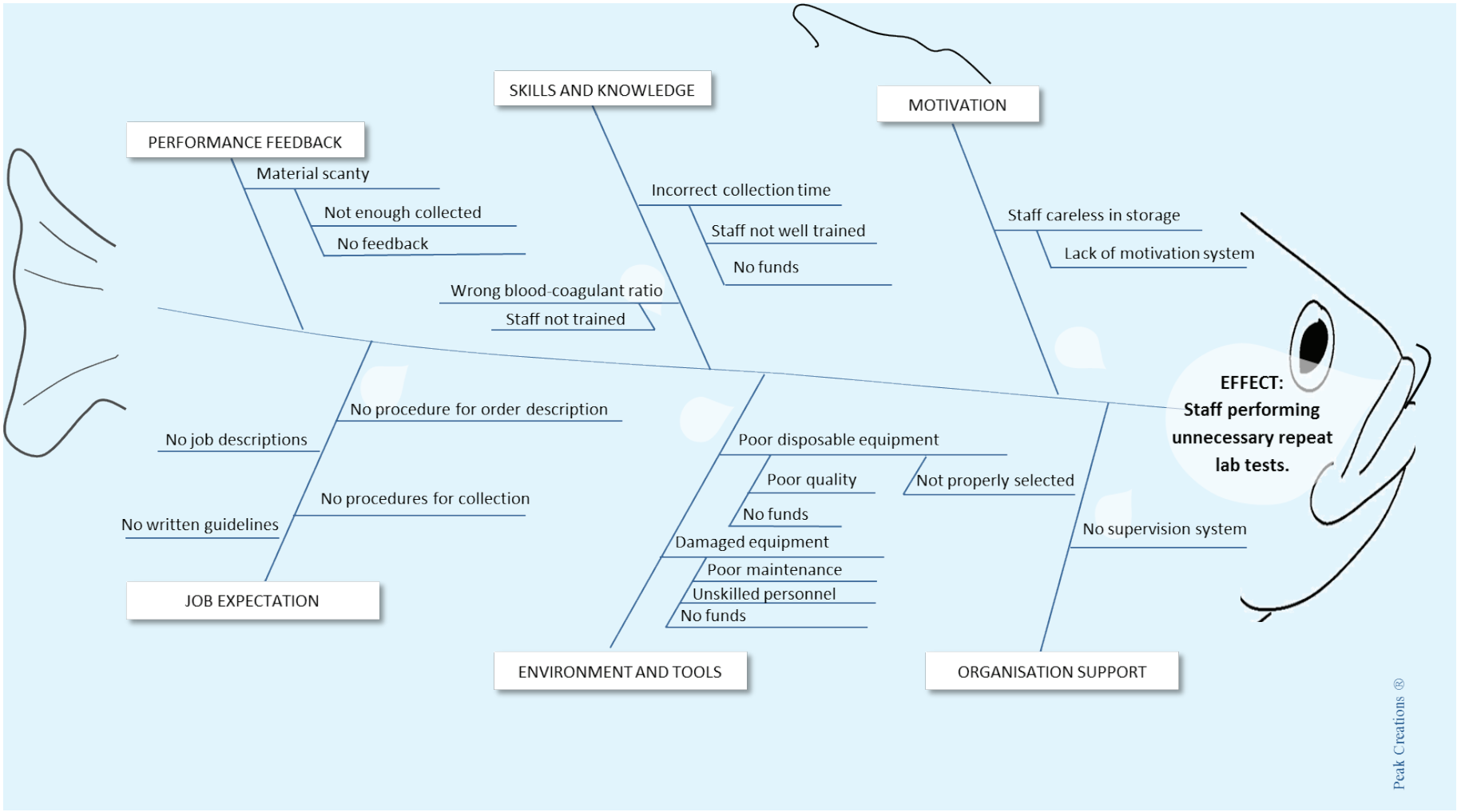
Step 4: Analyse Your Diagram

By this stage you should have a diagram showing all of the possible causes of the problem that you can think of.

Depending on the complexity and importance of the problem, you can now further investigate the most likely causes. This may involve setting up investigations, carrying out surveys and so on to test which of the possible causes is actually causing or contributing to the problem.

Figure 19: Fishbone Technique Diagram

USING FISHBONE TECHNIQUE IN ROOT CAUSE ANALYSIS



The Why Tree Technique

The Why Tree, also known as the But Why Tree, the 5 Why's and Why-Why-Why, is a simple technique that helps you to get to the root of a problem quickly. Made popular in the 1970s by the Toyota Production System, the 'Why' strategy involves looking at a problem and asking: "Why [is there a problem]?" and "What caused this problem?" Often, the answer to the first "why" will prompt another "why" and that answer will prompt another "why" and so on (Figure 20).

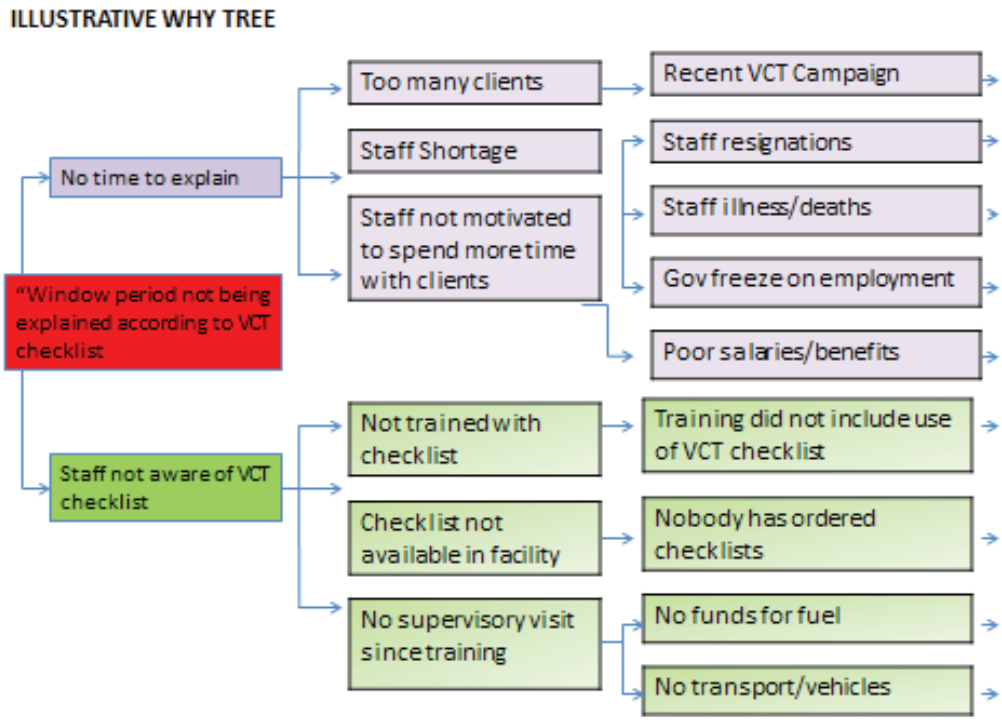
Benefits of the technique:

- It helps you to quickly determine the root cause of a problem.
- It's simple, and easy to learn and apply.

How to Use the Why Tree

When you are looking to solve a performance problem in the health care system, start at the end result (the identified problem) and work backward toward the root cause, continually asking: "Why?" Repeat this over and over until you can not dig deeper; you will have reached the root cause of the problem.

Figure 20: Example of a Why Tree



Summary: Cause-and-effect analysis

- Agree on the problem or the desired state and write it in the effect box (be specific!)
- For fishbone or tree diagram:
- Define six or eight major categories (six for performance improvement if based on classic performance factors)
- For each category, brainstorm likely causes
- Fill in the likely causes for each category making sure that there is a logical flow between cause and effect as you fill them in
- For the why tree, keep asking why and why else until you identify the fundamental cause (root cause)

Use data to verify the root causes

Root causes must be verified by data; they must ALWAYS be based on accurate, reliable data and not on opinions and assumptions.

- Causes identified from the cause-and-effect analysis should be considered hypotheses that need to be verified.
- When collecting data to prove/disprove your hypothesis/es, use data sources that are different from the ones used to identify the problem.
- Do not collect more data than needed.

The data collected should answer the following questions:

- Does the hypothesised cause really exist?
- Is the cause frequent/widespread enough to explain the extent of the identified problem?
- How is the cause associated with the problem?

Example: Problem, Hypothesis and Questions to Investigate Root Causes

Problem: Pregnant women eligible for IPT are not being given Sulphadoxine-Pyrimethamine at the health centre.

Hypothesised Root Cause: Anti-malarial drugs are frequently out of stock.

Examples of questions to ask when collecting data for verification: How many days in a month are anti-malarial drugs out of stock? How many women do not receive drugs as a direct result of these stock-outs? Why are there stock-outs?

Plan for Data Collection

A data collection plan must consider the following:

- What data would answer the question?
- Which of these data already exist? Where? What are efficient ways to collect the data?
- How should additional data be generated?
- By whom and how often?
- With what tools?
- How will the data be analysed?
- By whom and how often?
- With what tools?
- How can the data be displayed and analysed to draw conclusions about root causes and key improvements?

REMEMBER: Data presentation tools include: bar charts, trend charts and Pareto diagrams.

Develop root cause statements and align them to performance factors

When cause-and-effect analyses like those described above are used to trace a performance gap back to its root causes, causal relationships become evident. A written statement can be developed to describe the links between the root cause and one or more of the performance factors.

For example, based on the information identified in the SKILLS AND KNOWLEDGE bone of the fishbone diagram, the following statement can be constructed:

Inadequate funds have led to failure to train staff in proper blood sample collection. The staff's inadequate skills have resulted in staff performing unnecessary repeat blood tests.

This methodical process will identify appropriate solutions to address the performance gaps:

- Interventions become clear and more focused.
- The root causes closest to the performer and his/her work environment are identified.
- The performers participation in addressing root causes facilitates sustainability.

QI Project Template

Facility Name: _____ Program/Dept.:_____

Date project initiated:_____

Frequency of monitoring/reviewing the project:_____

QI Project:

1. Performance problem

2. Actual Performance

3. Desired performance

4. Performance Gap

5. Performance indicator(s)

QI Team

Team Leader:_____

Team Members:_____

_____

_____

QI Project Template cont...

Current/Existing Process

Flowcharts: (attach additional information as needed)

Root Cause Analysis

Fishbone Diagram: (attach additional information as needed)

a. Ask Why at least 5 times for each cause until you say "I don't know"

b. Circle the Root Cause

c. Rank the Causes using the prioritization matrix

Verify the gap identified using data :

What is your Plan?

Use the QI Project Work-plan to document your plan.

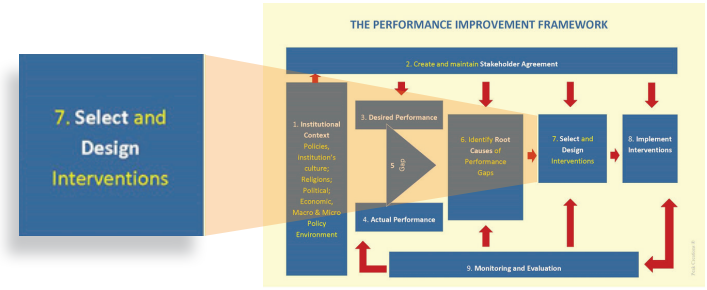
Key Points

- An RCA: 1) can explain the effect or root cause of a performance gap either directly or through a series of steps and 2) removing this effect would reduce or eliminate the gap or undesirable performance.
- Cause-and-effect analysis tools generate hypotheses on root causes.
- The root causes must be narrowed down and validated by data.
- In the PIA, root causes are linked to the six performance factors.

MODULE 4

SESSION 4.8

Session 4.8
Step 7: Select and Design Performance Improvement Interventions



Introduction

Performance improvement interventions are solutions that when implemented will improve the performance of the task in question and close the identified gap, thus moving towards meeting the established standards. To help identify and select interventions, answer the following questions:

- Is the cause of the performance gap a lack of information, resources or motivation?
- Is it a problem for a few individuals, a department or the entire organisation?
- Is it an issue with a work process or the workplace environment?

A comprehensive analysis often reveals that performance improvement is rarely confined to one performance factor. As the various causes of performance problems are determined, the appropriate targets of performance interventions should become more apparent.

Session Performance Objectives

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

1. Link root causes of performance gaps to appropriate Interventions
2. Develop criteria for selection of interventions
3. Design Interventions
4. Appreciate the need to address monitoring and evaluation at this stage

Characteristics of Performance Improvement Interventions

Typically interventions should be:

- Results-oriented: Appropriate to produce the desired result
- Comprehensive: Cover all aspects of the identified root causes
- Systematic: Implemented in a logical sequence
- Cost-effective: Able to produce good results without costing a lot of money

Interventions are most effective when they:

- Operate within the existing context of politics/policies, economic, culture, mission and vision
- Address the root cause(s) directly
- Integrate within the on-going systems
- Have basic inputs that are accessible, well distributed and well managed
- Have inputs, process and outputs done as agreed (and each actor plays their roles)
- Produce outputs acceptable, in terms of amount, quality and mix, to service providers and clients
- Meet required standards for inputs, process and outputs

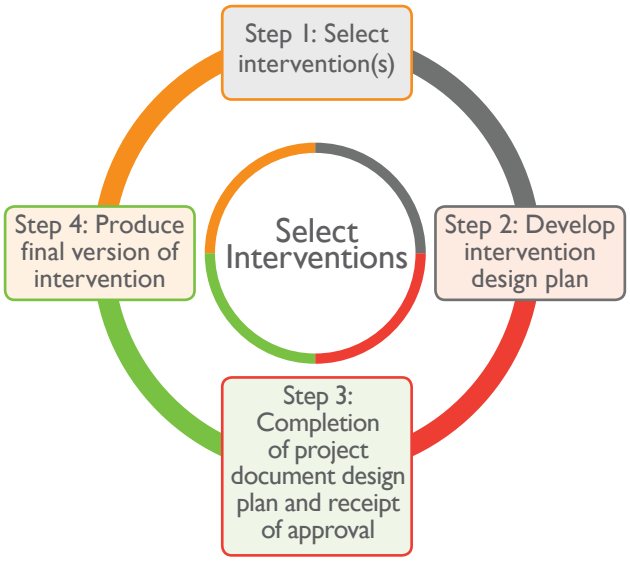
Overview of Selecting Performance Improvement Interventions

- Identify what we need to improve, and where (where in the process/ procedure or in the system)
- Identify the actions that need to be undertaken and by whom
- Conduct capacity analysis to see whether the responsible person/ department or organisation is able to undertake the action effectively
- Assess/hypothesise the possible outcomes of the intervention
- Implement the intervention (whilst you monitor and evaluate to assess effectiveness and "side effects")

Steps to Select and Design Interventions

Whilst it would simplify the process to decree the interventions to use to close a performance gap, such an approach would likely fail to consider the complexities of most performance challenges. A systematic process should be used to develop interventions that recognise the interrelatedness of the work, the worker and the workplace; individuals and groups; and the organisation as a whole and its relationship to the larger, global community. This is a collaborative process that should include:

- Key clients
- Stakeholders
- Design and implementation teams
- External expertise if necessary



Step 1: Select intervention(s)

The aim of this phase is to brainstorm and identify interventions that will best address key causes of performance gaps. For each root cause:

1. Brainstorm a list of possible interventions to address the root cause. Keep in mind that more than one intervention might be necessary.
2. Develop and agree to a list of criteria for the selecting the best interventions.
3. Use a prioritisation matrix to evaluate how each potential intervention meets the priority criteria.
4. Select the most desirable intervention(s).

Examples of Selection Criteria

- Cost and affordability
- Feasibility
- Least dependent on consultants
- Cultural acceptability
- Sustainability
- Acceptable to the implementer
- Effectiveness at closing or reducing the performance gap
- Time bound: able to implement by a specified time period
- Requires no external supervisors

Mini Case Example

Root cause/problem: Health providers do not have updated guidelines for TB management

Possible solutions/interventions:

- The health facility should write its own guidelines.
- Hire a consultant to write guidelines.
- Ask the MOH to update guidelines and supply the facility.

The health facility improvement team used the following criteria to evaluate the potential solutions:

- Feasibility
- Cost
- Policy agreement
- Timeliness

Using the prioritisation matrix shown below, the health facility improvement team allocated the highest score to the following intervention: "MOH to update guidelines and supply the facility".

Intervention/ Criteria	Feasibility	Cost	Policy Agreement	Timely availability of guidelines	Total score
Guidelines updated by facility	35	45	20	70	170
Consultant hired to update guidelines	20	10	0	10	40
MOH to update guidelines	45	45	80	20	190

In the prioritisation matrix above, the QI team decided to use an allocation technique to prioritise the interventions. The QI team members eligible to vote were told that they must allocate 100 kwacha between each of the potential interventions according to each member's analysis of the weight this intervention should have with regard to the criteria and against the other listed interventions. Each intervention could get a maximum of 100 kwacha. At the end of the exercise, each member added up their total score for each intervention. Then the sum of all the total scores for each intervention from each member was added up. The intervention that got the highest score was considered to be of the highest priority. Such prioritization helps to guide the order of implementing the potential interventions. It did not mean the other interventions were not important, but based on the Pareto principle it implies that implementing the identified intervention might resoslve 80% of the problem.

Typically interventions can be described as instructional or non-instructional:

If intervention goal is:	Appropriate type of intervention is:
To improve knowledge and skill	Instructional interventions: • Instructor led training • Coaching/mentoring • On-the-job training • eLearning
To improve or guide: • Processes, products, services • Performance of individual, group or team • Plans and results	Non-instructional interventions: • Job descriptions, protocols, job aids, policies, support supervision, client feedback etc. • Re-organise/revamp supply lines • Strengthen logistical systems • Develop information management systems • Develop recognition systems – awards

TIME:
30
MINUTES

Activity 4.7
Select an Intervention

In your field work team, select one root cause of a performance issue identified during the investigation at the facility.

1. Brainstorm a list of possible interventions to address the root cause. Keep in mind that more than one intervention might be necessary to address the root cause.
2. Develop and agree to a list of criteria to base the selection of best interventions.
3. Use a prioritisation matrix to evaluate each potential intervention in relation to the priority criteria.
4. Select the most desirable intervention(s).
5. Prepare a flipchart presentation of:
    a. The list of potential interventions
    b. The selection criteria and matrix
    c. How the team evaluated the potential interventions
    d. The teams' final decision.

Step 2: Develop Intervention Design Plan

Once the intervention(s) are agreed, the next activity is to design the intervention(s). Design deals with issues of how the intervention will be put together – much like an architect draws the plan of a house so that the builder can construct the house. The monitoring plan and a draft evaluation plan also are developed at this stage. The aims of the design stage are to:

- Identify expectations and design plan
- Put in place a team to develop the intervention
- Establish a common understanding of the activity direction, including the development of a monitoring and evaluation plan

The composition of the design team is dictated by the complexity and skill requirements necessitated by the intervention. Generally a design team is expected to: be multi-skilled (if many interventions) and may include:

- Intervention and subject matter specialists
- Key client
- Representative of the target group

Team Planning Meetings

This meeting initially aims to:

- Summarise the findings of Performance Needs Assessment (the first six steps of the PIA)
- Agree on objectives of the assignment
- Develop the team's work plan to include who is responsible, time frame, check points
- Agree on plans for working with clients
- Agree on and plan how they will work together

The expected output from the team is:

- A description of the expected result(s) of the activity
- A monitoring and evaluation plan including indicators
- A process comprising steps
- A time frame
- Requisite resources

Using a Logic Model to Plan Interventions

A logic model is a framework and a process used in planning to close the performance gap, that is to get you from where you are to where you want to be. The model provides a structure, a logframe, to clearly show the situation that drives the need for a performance improvement intervention, the desired and actual end states and how resources are linked to activities to achieve the desired results. A logframe is also useful because it is a visual way of presenting and sharing the intervention logic; and can measure progress through indicators and sources of verification.

In its simplest form, a logic model looks like this:

INPUTS ➡ OUTPUTS ➡ OUTCOMES ➡ IMPACTS

It shows the logical relationship between:

- The resources that go into an intervention
- The activities the intervention undertakes
- The changes or benefits that result

Following is an example of an expanded logic model:

INPUTS ➡ OUTPUTS ➡ OUTCOMES ➡ IMPACTS

INVESTMENT ➡ ACTIVITIES ➡ SHORT TERM ➡ LONG TERM PARTICIPATION

Columns in a Logframe

1. The first column presents the hierarchy of objectives – what needs to occur for the project/intervention to be successful – for each stage of the model.
2. The second column presents the indicators that are appropriate measures of whether the activities, outputs or outcomes have been achieved.
3. The third column presents the source of data for verifying the indicator.
4. The fourth and final column is very important because it outlines the assumptions

(1) Description	(2) Indicator	(3) Means of Verification	(4) Assumptions and Risks
Result/Impact			
Outcomes			
Output			
Activity/Process			
Inputs			

that materialise for that particular activity, output or outcome to occur.

Working through the rows of the logframe, start at the top to design the performance improvement interventions:

1. Describe the result / impact to be achieved through the intervention.
2. Describe the outcomes.
3. Describe the outputs the intervention will deliver.
4. Define the intervention activities.
5. Define the inputs needed to carry out the activities and achieve the outputs, outcomes and results. Verify the vertical logic with the If/Then test: Starting from the bottom, the vertical logic reads something like this: if adequate resources/inputs are provided; then the activities can be conducted. If the activities are conducted; then the outputs can be produced. If the outputs are produced; then the outcomes will occur. If the outcomes occur; then this should contribute to the goal.
6. Develop indicators, identify the data sources (means of verification) and list any assumptions or risks.

TABLE 25: EXAMPLE OF A LOGFRAME

Gap: Poor results of cure rates due to poor record keeping/ data storage
Intervention: Train data managers in data management to improve record keeping and storage

(1) Description	(2) Indicator	(3) Means of Verification	(4) Assumptions and Risks
Result/Impact Increased cure rates	# of clients who are cured	Review of client files	
Outcomes Improved record keeping	% of data managers recording correct information with minimal error % of end-of-period records submitted with minimal error and on time	Review and observation of records Review of end-of-period records	
Output Trained data managers	# of data managers who complete training with a 75% post-assessment	End-of-training assessment/ training report	Availability of data managers to take the training
Activity/Process Training	# of trainings conducted # of people trained	MOH Human Resource Mngt Information System (HRMIS)	
Inputs Resources, time			Resources are available

TIME: 30 MINUTES

Activity 4.8
Design the Intervention Using a Logframe

Use the intervention selected in the previous activity:

1. Describe the result/impact to be achieved through the intervention:
   a. Define the outcomes
   b. Describe the outputs the intervention will deliver
   c. Define the intervention activities
   d. Identify the inputs that are required
   e. Verify the vertical logic with the If/Then test
2. Develop indicators for all elements of the logframe
3. Identify means of verification/data sources for each indicator
4. Identify any assumptions or risk issues
5. Prepare the information on a flipchart

(1) Description	(2) Indicator	(3) Means of Verification	(4) Assumptions and Risks
Result/Impact			
Outcomes			
Output			
Activity/Process			
Inputs			

Table 25 is an illustrative logframe.

Step 3: Document design plan and receipt of approval

- Share intervention plan with key client and other decision makers
- Get input from intervention specialists as to feasibility, adequacy and suitability
- Discuss timing, resources and sequencing
- Compare with other similar interventions

Step 4: Produce final version of intervention

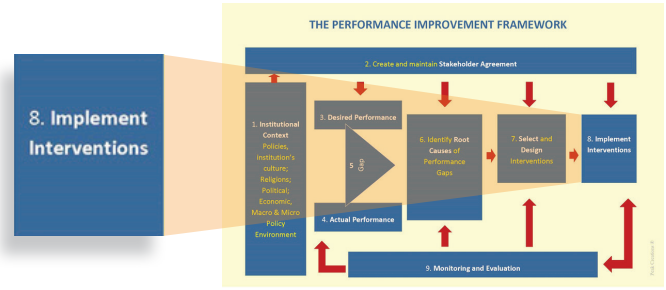
- Develop and field test (if warranted; this normally applies to large and/or complex interventions)
- Review with users, clients and content experts

Key Points

- When selecting and designing interventions, the aim should be on those solutions that address key (root) causes of performance gaps.
- The interventions selected should be the ones most in line with the established criteria and that is considered best to close or reduce the identified performance gaps.
- To effectively address a root cause, more than one intervention may be required.
- A logic model is a framework and a process used in planning to bridge the gap between where you are and where you want to be. It provides a structure to clearly understand the situation that drives the need for an initiative, the desired and end state and how investments are link to activities to achieve the desired results.
- A logframe is a useful tool as it is a visual way of presenting and sharing the intervention logic; it can be a tool to measure progress through indicators and sources of verification.
- The logic model approach to planning establishes a monitoring and evaluation framework.

MODULE 4
SESSION 4.8

Session 4.9
Step 8: Implement Interventions



Introduction

The goal of implementation is to execute the intervention package. The Performance Improvement Team and other stakeholders who designed the interventions appoint and manage the implementation team (or multiple teams, if needed), manage the overall implementation and oversee the organisational change processes. The most important outcome of this stage will be implemented interventions that close the performance gaps, improve job performance and eventually achievement of the desired performance.

- Implementation requires:
  - QI implementation team
  - Implementation plan
  - Intervention agreements with cooperating agencies and other organisations
  - Interim reports on the milestones

Session Performance Objectives

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

1. Describe the requirements of implementation
2. Understand the important role of QI implementation team(s)
3. Appreciate the need to implement the most targeted and cost-effective intervention that will close the performance gap
4. Appreciate the necessity for effective monitoring of the implementation process

- Implementation steps

1. Build QI implementation team(s)
    - Maintain stakeholder agreement
    - Identify professionals who can implement the planned interventions
    - Engage cooperating organisations, when necessary
    - Draw up agreements, specifying goals, methods, milestones, deliverables and deadlines, with the cooperating organisations
2. Develop a detailed implementation work plan so that all team members:
    - Understand their roles and responsibilities
    - Know expectations of the intervention
    - Know and can meet the evaluation milestones
3. Conduct monitoring activities and meetings
    - Monitor progress of plan
    - Keep stakeholders informed
    - Resolve any obstacles
    - Review adequacy of materials and continued support
    - Look at organisational changes

Quality Improvement Project Work Plan

Before implementation begins, the QI implementation team should write a work plan detailing how the intervention will be executed. This provides the team a map of what activities need to be carried out, the resources required to carry out the activities, those responsible for carrying out each activity and a monitoring plan to track progress. The work plan makes clear what team members are to do and it establishes accountability for implementation of the activities.

Figure 20 is a template of the Quality Improvement Work Plan/ Implementation Monitoring tool.

Figure 21: Quality Improvement Work Plan/ Implementation Monitoring Tool

Quality Improvement Monitoring-Plan

Facility Name:_____ District: _____ Province:_____

Qi Project:_____

Date Of Implementation:_____

Time Frame _____

Monitoring/ Review Date	Reason for the Gap	Change/ Intervention	Key Action Steps	Performance Indicator(s)	Required Resources	Responsible Person
				How do you know what you are doing is working/closing the gap?		

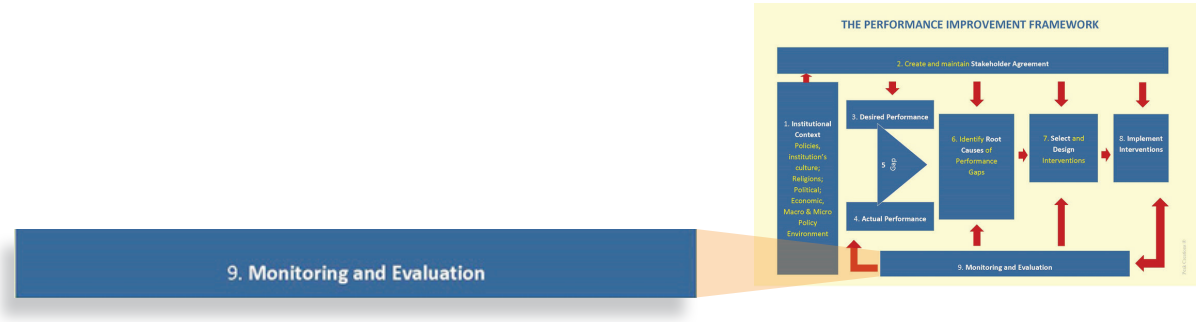
Key Points

- Effective implementation of performance improvement interventions is a critical aspect of the QI process.
- Thorough implementation requires: 1) an implementation team, 2) an implementation plan, 3) agreements with all cooperating agencies and 4) continual monitoring.

MODULE 4

SESSION 4.10

Session 4.10
Step 9: Monitor and Evaluate Performance



Fundamentals of Monitoring and Evaluation

Monitoring and evaluation are both management tools that use indicators to measure progress towards standards. However, they operate differently and serve different purposes: Monitoring is done routinely and assists in day-to-day management of projects by helping managers understand if project outputs and outcomes are moving in the right direction and according to plan. Evaluation is conducted periodically and typically answers questions of project effectiveness and impact, such as:

- What operational lessons were learned?
- Was the target population affected?
- Has change occurred because of the intervention?

Monitoring and evaluating performance is essential to assure that implementation of QI interventions are accomplishing the expected results, are closing performance gaps and can be sustained over time.

In health care, monitoring is often conducted through:

- Review of records and reports
- Supervisory assessments
- Self-assessments; peer assessments

Session Performance Objectives

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

1. Define monitoring and evaluation
2. Enumerate the purposes of monitoring and evaluation
3. Differentiate between monitoring and evaluation
4. Appreciate the monitoring and evaluation framework or logic model (Inputs ---> Impact)
5. Understand the different applications of monitoring and evaluation

- Client feedback
- Community surveys, to get community views on a health issue to inform decision making
- Benchmarking, using the best-performing facility as a standard against which to compare and/or assess other facilities in a given area

An important part of monitoring is building in opportunities to inform stakeholders, implementers and target groups what you are learning through the monitoring activity and how you are using this information.

Evaluation assesses progress at a particular point in the life span of the project. It determines the extent to which objectives have been accomplished, provides feedback on whether plans have been executed adequately and with what modifications if any, determines reasons for success or failure of implementation and informs future planning.

In brief, you monitor and evaluate performance to know more about the actions you and the staff have taken and the changes made. Were the interventions carried out as planned? Did they have the intended result? Did they help to close performance gaps? Has this improved the quality of services being delivered?

The Logic Model

The logic model, introduced in Session 4.8, is a commonly used framework during planning of the intervention and should also be used to guide monitoring of implementation and evaluation of results.

Figure 21 shows examples of the logic model is used to plan monitoring of implementation of interventions.

Figure 22a: Examples of How Logic Model is Used to Monitor Intervention Implementation

Inputs	Processes	Outputs	Outcomes	Impact
•Resources •Materials •Drugs •Manpower •Equipment •Funds •Infrastructure	•Training •Recording •Purchases & inventory •Recruitment •Material development •Health education	•Training sessions held •Staff trained •Materials developed •Drug availability •Clients educated	•Improved services •Improved access •Improved competence •Improved compliance •Proper treatment •Cure •Reduced waiting time	•Improved health •Reduced morbidity & mortality
things put in a system	activities for a desired result		short term effects	long term effects

FIGURE 22B: EXAMPLES OF HOW LOGIC MODEL IS USED TO MONITOR INTERVENTION IMPLEMENTATION

Gap: Poor results of cure rates due to poor record keeping/data storage
Intervention: Train data managers in data management to improve record keeping and storage

(1) Description	(2) Indicator	(3) Means of Verification	(4) Assumptions and Risks
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Output Trained data managers	# of data managers who complete training with a 75% post-assessment	End-of-training assessment/training report	Availability of data managers to take the training
Activity/Process Training	# of trainings conducted # of people trained	MOH HRMIS	
Inputs Resources, time			Resources are available

Monitoring

Monitoring is an integral part of the planning process and is put into place when planning is initiated. As part of the overall plan to implement performance improvement interventions, a monitoring plan is established as an element of the log frame that links the activities to the intended results.

Examples of what to monitor:

- To what extent are activities being carried out correctly?
- To what extent have activities been conducted within the allocated budget and human resource allocation?
- To what extent have partners and other stakeholders fulfilled their commitments?
- To what extent are the activities being carried out on time?
- How well are services being provided?
- How often are the services being provided?
- Who is providing the services?
- How acceptable are the services being provided?
- How close are we in achieving the programme targets?

Specific examples of things to monitor:

- Check TB patient cards on every visit to the health facility, to monitor the patient's adherence to treatment guidelines
- Review stock cards weekly, to monitor the availability of drugs
- Tally cases of mothers presenting with malaria in pregnancy weekly, to monitor the malaria trends in an area.

An example of a monitoring checklist

- Is leadership currently supportive?
- Do target groups accept use of the intervention?
- Are there any external conditions that may affect implementation?
- Are the required resources in place?
- Does the capacity to implement the intervention actually exist?
- Are you performing the services or activities as planned? Are you reaching the intended target population? Are you reaching the intended number of participants? Is it leading to the products you expected? How do the participants perceive these services and activities?

- Participation: Did the targeted audience participate in the activities as expected? Why? Were some individual's over- or under-represented? Why?
- Quality: Were the services/materials you provided perceived as valuable by the intended audience? Were they appropriate? How did others in the field view their quality?
- Satisfaction: Did those affected by your programme's services approve of them? Why? Who was most/least satisfied?
- Context: What other factors influenced your ability to implement your programme as planned? What political, economic or leadership issues intervened, changing the expected outcomes in your programme?

Evaluation

Evaluation refers to the formal, systematic time-bound measurement of how much things have changed because of the intervention(s) implemented.

Because many factors can bring about change, a formal evaluation works to demonstrate how much a specific intervention contributed to the change.

Purpose of evaluations:

- Assess progress made at a particular point in time (mid-term or end of project)
- Assess progress towards achievement of set objectives
- Provide feedback on whether plans are being or have been met
- Demonstrate how much a specific intervention contributed to a given change
- Answer whether the initial assumptions made were valid; what worked and what failed
- Provide reasons for success or failure
- Provide a basis for future planning

Example of outcome indicators obtained from evaluation exercises:

- Percent change of TB patients getting sputum smears done at the end of treatment (cure rate)
- Change in number of stock-out days for key anti-malarial drugs in a facility
- Percent change in pregnant mothers sleeping under insecticide-treated nets over a period of time

Checklist of Evaluation Questions

Evaluating the plan:

- Was the programme in line with the national policy?
- Were the programme objectives based on need?
- Did the activities meet the needs?
- Were the activities feasible?
- Was the budget adequate?
- Was the implementation time adequate?

Evaluating activities (processes):

- Did the activities address the needs?
- Were the activities practical?
- Were activities adequately funded?
- Was adequate time allowed to accomplish the activities?

Evaluating inputs/structure:

- Were the number of implementers involved appropriate?
- Did they have necessary skills?
- Were the required materials and supplies available?

Evaluating the outputs/outcomes/impact:

- Were the objectives achieved?
- Did the programme meet the goals related to the indicators which were agreed for the facility, district or country?
- Were the services available and acceptable to the intended clients?

Table 23 summarizes features of monitoring and evaluation.

TABLE 23: COMPARING MONITORING AND EVALUATION

Variable	Monitoring	Evaluation
Frequency	Frequent, regular	Periodic and planned
Action	Keeping track	Assessment
Overall purpose	Improve efficiency; Adjust work plan	Assess impact, Direct future programming
Focus	Inputs, process, outputs, outcomes	Effectiveness, relevance, impact, cost-effectiveness
Information sources	Records, observations, reports, supervisees	Records, observations, reports, supervisees surveys, studies
Undertaken by	Programme managers & beneficiaries, donors health workers	Best by external evaluators
Reporting to	Programme managers, beneficiaries, donors, health workers	Same + policy makers, government, etc

KEY POINTS

- Monitoring and evaluation are both management tools, but they have different purposes:
  - Monitoring is used to understand if the **outputs** and **outcomes** are moving in the right direction and according to plan.
  - Evaluation is used to understand what change occurred because of the intervention, and how the target group was affected and operational lessons learned during the process.
- Both monitoring and evaluation support implementation of the programme and produce information that management should use to readjust, refine, expand and so forth.

Module 5: Performance Assessment

Objective

Participants can identify existing areas of support functions that are focused on improving quality of health care.

MODULE 5

Performance Assessment

Session Performance Objectives

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

1. Discuss the role of performance assessment in improving quality health care
2. Interpret the indicators used in the performance assessment tool
3. List the benefits of the performance assessment exercise as a strategy for QI
4. Develop skills for self-assessment and routine monitoring for decision making
5. Illustrate the processes of performance assessment.

An Overview of Performance Assessment

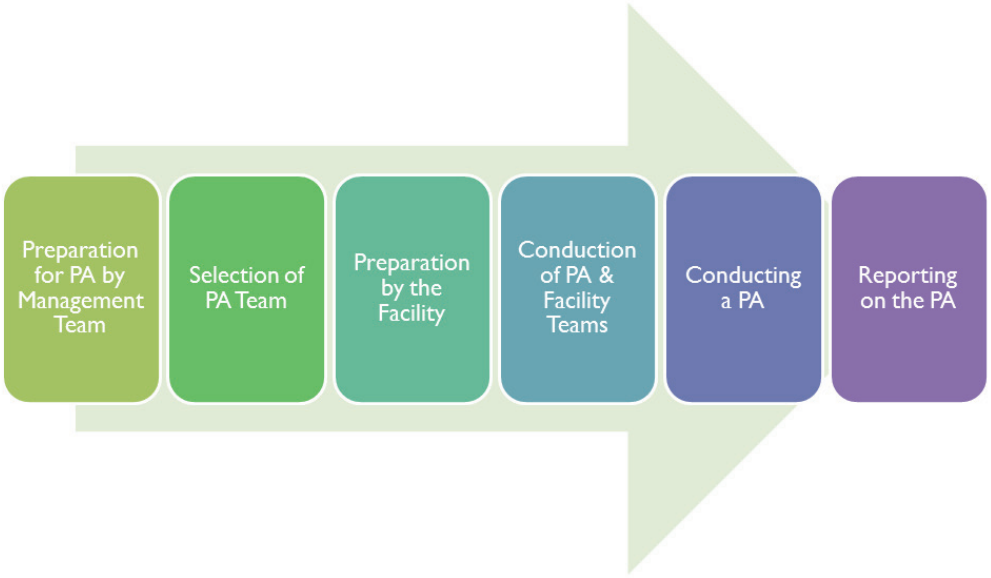
Definition: Performance assessment is a process that managers use to monitor and review performance levels:

- What is being done
- How is it being done
- What is the output

The objectives of performance assessment are to:

- Assess how effectively and efficiently the planned activities that are being implemented are making progress towards achieving the objectives of the National Health Strategic Plan (and therefore the Millennium Development Goals)
- Determine if defined standards are being met and monitor the validity of reports and data
- Identify major constraints and agree on what support is necessary to improve the progress towards the National Health Strategic Plan objectives
- Provide an opportunity for the supervisor and the supervisee to interact and strengthen the relationship between the two
- Expose peer assessors to similar facilities through peer review
- Provide a means of communicating achievements and challenges to the MOH
- Provide on-the-spot support in identified areas

Figure 23: Performance Assessment Process



Step 1: Preparation for Performance Assessment by Management Team

- The management team at the appropriate level meets to review and discuss the key issues that the performance assessment team should focus on during their visit, specific to the facility being visited.
- All relevant documents pertaining to the site that is to be visited need to be reviewed, namely:
  - Facility self-assessment using the revised performance assessment tool or simplified tool for smaller health centres and hospitals
  - Previous performance assessment reports
  - Technical support reports made since the last performance assessment visit
  - HMIS reports for the last six months
  - Original action plan plus quarterly revisions made for the last six months
  - Reports of special assessments that have been conducted since the previous performance assessment visit
  - Progress reports submitted in relation to special projects or programmes since the last performance assessment visit
  - Audit reports
  - Financial reports
  - Self-assessment reports submitted by the facility

Step 2: Selection of the Performance Assessment Team

- The management team should select the members for the performance assessment visits, including identification of peer reviewers. Additional factors that need to be taken into account when selecting members for performance assessment teams are the following:
    - The candidate has expertise in the areas of focus.
    - Selection assures an opportunity for all staff to participate over time.
    - Each team should have at least one staff member who participated in the previous performance assessment visit.
    - Specific expertise, where required, should also be sought from other health institutions.

Step 3: Preparation by the Facility

In preparation for the each team, each health care facility is responsible for:

- Conducting and submitting a facility self-assessment
- Notifying the Health Centre (Advisory) Committee (HCAC/HCC) Chairperson of the performance assessment date to assure presence at the health centre on the day of the visit
- Compiling all relevant reports: HMIS registers, reports of community visits, financial reportsAssure all staff are present on scheduled date

Training institutions must compile lesson plans, student registers, examination results, student attendance records, clinical allocations and master training plans.

Step 4: Behaviour of the Performance Assessment and Facility Team

Performance assessment team members should be aware that they probably do not have all the answers to all the problems or situations the facility they are visiting is facing; therefore, team members should show interest and respect in discussions with facility staff. Equally important is the fact that the facility staff need to be committed to solving a problem, they must be convinced that there is a problem and they must participate in finding practical solutions.

Step 5: Conducting a PA

During the visit the performance assessment team must assure that:

- Their approach is to learn. The team does not know the problems or situations the facility they are visiting and so they should not take an 'I know it all' approach.
- The focus of the visit is on actions, not on personalities.
- Performance assessment is built on mutual respect of all those involved.
- Facility staff need to be committed to solving a problem and must participate in finding practical solutions.
- Problems identified are everyone's collective responsibility and therefore decisions on what should be done to correct the situation should me made jointly.

Step 5: Conducting a Performance Assessment Visit

The following activities should be carried out during each performance assessment visit:

- A courtesy call should be made to relevant authorities.
- Performance assessment team members should introduce themselves and explain to facility staff the purpose and objectives for the visit.
- Agreement should be reached on an agenda for the visit that minimises disruption to patient care.
- The host institution should debrief the visiting team using the report of their latest self-assessment exercise. This will inform the performance assessment team about what the facility has done since the last assessment visit.
- The team should collectively visit functional areas identified based on:
    - Findings of the facility self-assessment
    - Concerns identified by a team member
    - Specific issues that need focus during the visit

Problems that can be addressed on site should be dealt with immediately:

- Assess provider performance by observation and provide immediate feedback assuring privacy – do not give feedback in front of patients!
- Assess client satisfaction by conducting exit interviews.
- Review all findings with facility staff and agree with them on the necessary follow-up actions, time frame and responsible officer.
- Give a copy of the follow-up action plan to the facility before leaving the facility.

Step 6: Reporting on the Performance Assessment

After the performance assessment visit, the performance assessment team should prepare a consolidated report of the findings. This report should be presented at the next technical committee meeting.

Note: A plan for technical support including when the support should be provided and who should provide it should be prepared.

Once all facilities have been visited as part of the six-month cycle, the provincial health office or district management team, as appropriate, is responsible for preparing a summary report for submission to the level above

Tool used in Performance Assessment

The performance assessment **tool can be used to assess various functional areas. Following are the 12 major areas**:

1. General administration/systems strengthening/governance
2. Human resources
3. Quality of care and curative services
4. Integrated child health and nutrition
5. Integrated reproductive health
6. HIV/AIDS, STIs and blood safety
7. TB
8. Malaria
9. Epidemic control and public health surveillance

10. Environmental health and food safety

11. Essential drugs and medical supplies

12. Infrastructure and equipment

Each functional area has sections which are assessed according to minimum acceptable standards.

Linking Performance Assessment to Quality Improvement

Performance assessment facilitates the identification of quality and performance gaps in our health care delivery system and mitigates potential performance issues.

The performance assessment process is a mechanism to identify those quality and performance gaps, employ different interventions or strategies to fill these gaps and improve the quality of health care.

Key Points

- Performance assessment must be well planned to be effective.
- The results of the performance assessment must be analysed and addressed in the shortest possible time; for more complex issues, a plan for taking corrective action must be developed and implemented.
- Performance assessment is a very important aspect of QI.