

**Strategic Planning on
Quality of Care
for Health Service Delivery
in Bangladesh**

Ministry of Health & Family Welfare

National Strategic Planning on Quality of Care for Health Service Delivery Bangladesh

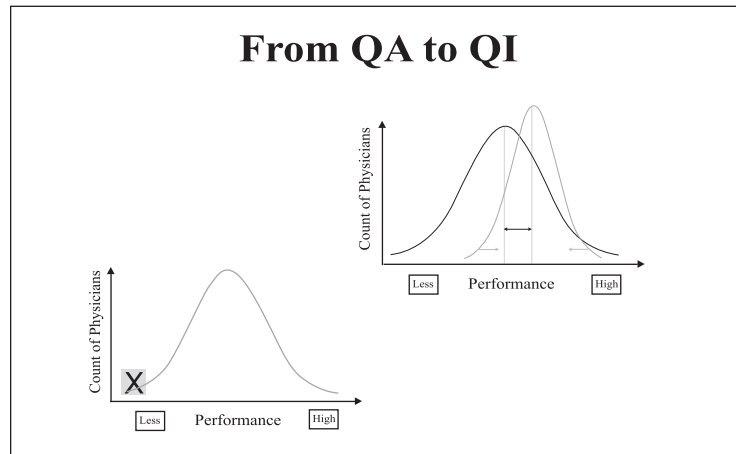


Quality Improvement Secretariat
Ministry of Health & Family Welfare
4th Floor 14/2, Topkhana Road
Ansari Bhaban, Dhaka, Bangladesh.
www.heu.gov.bd

Developed by
Quality Improvement Secretariat

Published by
January 2015

Printed by
Bersha (Pvt.) Ltd.
8/3 Babupura Nilkhet, Dhaka-1205
Tel: 8617158, 01712713985
E-mail: bersha_123@yahoo.com



National Strategic Planning on Quality of Care for Health Service Delivery Bangladesh

Core Committee for Development of National Strategic Planning on Quality of Care

1. Md Ashadul Islam, Director General, Health Economics Unit. MOHFW-Chairperson
2. Prof Dr Md. Abul Kalam Azad, Additional Director General (Planning). DGHS-Member
3. Dr SAJ Md. Musa, Director, Primary Health Care, DGHS-Member
4. Dr Md Sajedul Hasan, Joint Secretary, HRM- MOHFW-Member
5. Prof Dr. Aktarunnahar, Director, NIPSOM, DGHS-Member
6. Dr. Chad Sultana, Director, Planning, DGHS-Member
7. Director, Hospital & Clinics, DGHS-Member
8. Director (MCH), DGFP-Member
9. President/ Secretary General, Bangladesh Medical Association-Member
10. Dr. Md. Jamal Uddin Chowdhury, EC member BMA & Secretary General BPMPA-Member
11. Dr. Khandokar ATM Forhad Hossain, Programme Manager, QAP, DGHS-Member
12. Dr Md Aminul Hasan, Deputy Director HEU & Co-ordinator Quality Improvement Secretariat MOHFW- Member Secretary

Preface

Quality is an integral part of health care in every country and at all time in the history of health care, Quality improvement remains a major focus. This has become more important with the growth of knowledge and technologies in health care, as well as growing awareness and public pressure for improved services.

Like many other health systems, health sector in Bangladesh is committed to provide quality healthcare to its citizens. As part of its efforts, it has been implementing different initiatives to improve the quality of care. After adoption of the Health Care Financing Strategy (2012-2032)- roadmap to achieve the Universal Health Coverage (UHC) - the issue of quality has become more important as UHC requires optimizing the resource use and expanding coverage with quality care. It essentially necessitates that the process of quality improvement should be based on practical and sound strategy so that the best possible outcomes are achieved.

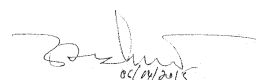
This Strategic Planning on Quality of Care sets the basis for a focused and coordinated framework for implementing quality improvement activities. It is equally significant to the decision makers and to the health providers as it is designed to guide their actions.

This Planning has been developed through a collaborative and participatory process. Based on the available and updated literatures, documents and discourses; and taking the experiences of previous quality assurance initiatives into active consideration, a draft document was prepared. A core committee comprising the main stakeholders of health and population services worked on the draft document for quite some time. It was then put in the web site to reach out to a range of stakeholders for comments.

The Planning has attempted to address the issue of quality from both the technical and service oriented perspectives. It suggests combined and continuous efforts of everyone in the system to make the changes that will lead to better patient outcomes, better system performance and better professional development. This approach is based on the premise that healthcare will not realize its full potential unless change making becomes an intrinsic part of everyone's job, every day, in all parts of the system. This approach of quality improvement involves a substantial shift in idea of the work in healthcare and suggests the use of a wide variety of modern tools and methods.

Drawing everyone actively into the process of change, presumes that everyone will develop a basic understanding of the standards of their work, as well as the skills they need to make changes in their work towards achieving the common goal. The strategy also recognizes that making improvement happen also requires leadership that enables connections between the aims of changes and the design and testing of those changes. It also underlines the requirement of linking the performance to the policies and practices of reward and accountability.

The strategy will be implemented throughout the health population nutrition sector, in phases over time, both in public and private sector.



Syed Monjurul Islam

Secretary

Ministry of Health & Family Welfare
Dhaka, Bangladesh

Table of Contents

Executive Summary	vi
Part-One : Concept of Quality	1
Part-two : Strategic Framework	6
<i>Strategic objective 1</i> : Introduce consumer and patient-centered services	6
<i>Strategic objective 2</i> : Improve patient safety	7
<i>Strategic objective 3</i> : Improve clinical practice	8
<i>Strategic objective 4</i> : Improve leadership management systems	10
<i>Strategic objective: 5</i> : Improve public health & preventive services	11
<i>Strategic objective 6</i> : Ensure all necessary inputs for quality improvement	11
<i>Strategic objective 7</i> : Ensure all necessary support services	11
<i>Strategic objective 8</i> : Develop effective outcome measurement system for QI	11
Part-Three : Implementation Plan	12
Part-Four : Organizational Framework	30
<i>Section A</i> : Overview of the committees	30
<i>Section B</i> : Organizational level committees	33
<i>Section C</i> : Facility level committees	43
Part-Five : Implementation modality, Monitoring & Supervision	50
Part-Six : Pay for performance (P4P)	55
Annexures:	57

Executive Summary

This Strategic Planning for Quality of Care is developed with the dual purposes of promoting the focus on quality in healthcare and health systems; and guiding the policy makers, planners and providers of care with an opportunity to improve quality in their respective parts in order to enhance the impact on outcomes. This initiative combines and synergizes all the quality improvement and quality assurance efforts in health, population and nutrition sector in Bangladesh and attempts to synchronize with the targets of achieving universal health coverage by 2032 with affordable and quality health care to all citizens

This plan has taken into account all the dimensions and determinants of quality and attempted to address the issue of quality from both the technical and service perspectives. Based on the experience in implementing quality assurance program in Bangladesh health services, and the comparative advantages among different approaches, this plan has adopted the 'Quality Improvement Approach' and thus, has made a paradigm shift from its earlier pattern of quality assurance program.

This document has taken a comprehensive stance on the issue and included both conceptual and practical aspects including the organizational framework for implementation. It is organized over six parts including an introduction which focuses on the vision, mission, purpose and approach that have been adopted in the plan.

The second part describes the strategic framework of the Quality Improvement Plan. The strategic framework comprises five major strategic objectives and three intermediate objectives. Each intermediate objective has several indicators which are set to guide the services and performance at different level of public and private service settings to have quality of care. However, each implementing unit will need to spell out additional details depending on the local situation (availability and expertise of QI team, financial resources, previous experience with the defined cluster of indicators etc). The development of standards guidelines and policies will be done at the national level but division and districts will be responsible for training, dissemination and monitoring compliance.

In third part, based on the strategic framework, an action plan matrix is developed with summary of activities, baseline status, indicators, output and responsibility. Facilities will be responsible to develop their own action plan based on the national implementation plan.

Part four describes the organizational setup for effective implementation, monitoring & supervision of the Quality Improvement (QI) activities across the country which is organized in a cascading pattern starting from national level through division, districts, up to upazila level. In addition, there will be Quality Improvement Committees at all level of service delivery.

The whole process of implementation will be facilitated by Quality Improvement Secretariat (QIS) which will coordinate the activities with Line Director, Hospital Service Management & Line Director

Essential Service Delivery of DGHS & Line Director Maternal & Child Health of DGFP for effective implementation, monitoring & supervision. The National Steering Committee (N-QISC) is headed by the Secretary, MOHFW, will provide the overall policy directives for QI activities. The facility level committee will play the direct role for QI implementation with the help of different organization level committees.

Implementation modality is described in part five which includes among other things, adaptation of strategic planning, training and capacity building, formation of different facility level team, internal assessment, conduct patient satisfaction survey, development of key performance indicators, conduct clinical audit, introduce Standard Operating Procedure (SOP), External Quality Assessment etc. Part six deals with the incentive issue and how this can be best utilized for improving the performance.

Finally, The strategy takes in view that building a culture of quality needs consistent efforts and investments. It has focused on one of the key initiative for building Quality culture and motivation which through 'rewards and recognition' and continuing handholding support from the central & district administration.

Part-One: Concept of Quality

Quality in health care is commonly agreed as the delivery of timely, safe and effective care acceptable to the service recipients. The Institute of Medicine (IOM) has defined quality of health care as "the degree to which health service for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge (2001).

This document has taken into account all the dimensions and determinants of quality and also the subsets of it that has been put forward by the World Health Organization (WHO). Among other things considered are the dimensions of quality identified by the Quality Assurance Project (QAP) (Franco et al. 2002), i.e., technical performance, access to services, effectiveness of care, efficiency of care, interpersonal relations, continuity of services, safety, physical infrastructure/ comfort, and choice.

Besides, this has reflected on all the six determinants of quality care, e.g., staff motivation, staff competence, adequate resources, appropriate content of care, good flow and organization of care and participation of client/ community in the process of care, which must be available at the point of service delivery.

The planning has also attempted to address the issue of quality from both the technical and service oriented perspectives as the former is an input that determines outcome and end result of the services, e.g., infection control; clinical protocols; emergency care; reduction in morbidity, mortality and disability limitation; investigation reports are available on time, drugs are available in the dispensary' and patients are getting cured without delay.

WHO defines quality of healthcare services in terms of the following six subsets:

1. Patient-Centeredness
2. Equitability
3. Accessibility
4. Effectiveness
5. Safety
6. Efficiency

The other perspective -service quality on the other hand, is related to patient satisfaction, e.g., provider behavior, choice to select provider, access to social support, promptness of service provision, dignity and autonomy, basic amenities, privacy, confidentiality, harmlessness and safety, good effect of service, affordability, clean and inviting atmosphere and personalized approach etc.

1.1 Quality Assurance Program in Bangladesh health sector:

The issue 'quality' is quite old and there have been a number of initiatives to address this important aspect of health care in Bangladesh. "Quality Assurance Project (QAP)" was piloted for sometimes in the health system (1994-1998) and some SOPs were developed and piloted in some hospitals

(Munshigonj District Hospital and Nilphamari District Hospital Shirajdikhan Upazilla Health Complex, Munshiganj, Jaldhaka UHC, Nilphamari).

Later, utilizing the experience of this pilot project, QA program was included in the Health and Population Sector Program (HPSP 1998-2003) of the Government, to ensure quality healthcare in every sphere of health service delivery. Subsequently, QA continued its activities during 2003-2010 under the Health, Nutrition, and Population Sector Program (HNPS). During this period, QA Program of DGHS was mainly involved in awareness building among health care providers and managers of govt. health sector. Around 600 persons were developed as trainer and 332 Upazilla and District level service centers had been covered.

1.2 Strategic Approach:

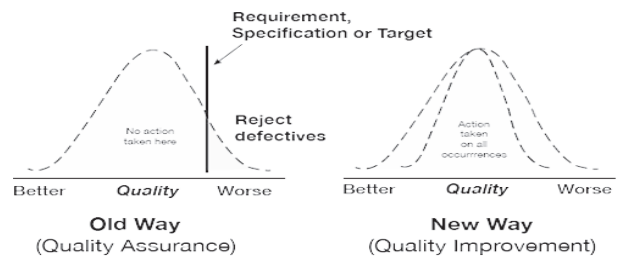
Like any other quality strategy, this document focuses on defining quality, measuring quality and improving quality as the core activities. However, based on the experience in implementing quality assurance program in Bangladesh health services and the comparative advantages among different approaches of quality development programs, this strategic plan has adopted the 'Quality Improvement Approach' of the process and thus it has made a paradigm shift from its earlier pattern of quality assurance program.

Quality improvement (QI), also known as the total quality management (TQM) has been increasingly need in health care. QI, developed and extensively used in industry with great success, combines a scientific methodology with a management philosophy of improving the processes continuously. It is based on the knowledge that statistical methods can be used to analyze quality related data, characterize a process and ultimately limit the inappropriate variation that exists in it. This methodology is known as statistical process control. The second component of QI is the quality management, or 'plan, do, check, act' (PDCA) cycle originally described by Shewhart. With this cycle, processes can be continuously revised and improved on the basis of the data derived from them, as described above. Thus the 'two fundamental principles of QI are the elimination of inappropriate variation and constant effort to reduce waste, repetition in work, and inefficient processes.

Quality Improvement (QI) is a method of management by fact, which offers physicians data without blame. This stimulates curiosity and learning, making Continuous Quality Improvement educational rather than punitive. Its objective is to continuously improve health care processes that will lead to improved outcomes, rather than to focus on the outcomes alone. Because QI deals with process, its focus is on the whole group, not just the statistical tail, leading to the philosophy of quality being what is "the best possible," as opposed to QA's philosophy of accepting what is "good enough." The most effective way to improve quality is to prevent quality failures before they happen by building quality into the process rather than adding it on at the end. Adding quality on at the end is analogous to relying on terminal inspection to improve manufactured products as they come off an assembly line.

QI is being widely adopted in health care organizations and facilities as it has clear edge over the

earlier practiced QA approach. The customary approach to hospital QA is to have an individual, group of individuals, or a committee assess quality in a treatment or procedure against a standard which is based on local historical data, data derived from the literature or consensus among experts. An individual provider, group of providers, physicians, or hospital whose performance fails to meet the standard is identified, and then action is taken to improve performance.



Source: Robert Lloyd, Ph.D.

©Copyright 2012 IHI/R. Lloyd

QA activities based on this approach have resulted in modest improvements in health care quality. In many cases the standards or thresholds are inherently arbitrary and tend to become artificial quality floors or ceilings. As such, they establish a statistical tail, and improvement efforts are concentrated within that tail. QA hence cannot be the last word. A typical QA review for example, might likely conclude, based on certain level of quality of care (QoC), that nothing needed to be done. Another aspect of quality concern may, on the other hand, go further. Quality Improvement (QI) endeavors to improve the process further. This means, while quality assurance ends at what is "good enough," QA is what is 'the best possible'.

1.3 Guiding Principles:

This Strategic plan for quality improvement in health care services is anchored in a core set of principles shared by all stakeholders and derived from the core documents that guide the whole health sector program. The main principles are:

- I. People centeredness and public engagement, including understanding and valuing patient preferences, will guide all improvement efforts.
- II. Equity in health care provisions
- III. Uniformity in health care standard across the sector (both in public and private)
- IV. Primary care will become a bigger focus,

Paradigmshift:

QI management needs to shift their present paradigm. It requires that: (i) one reduces the size of one's ego to increase the importance of all others, (ii) it is not only external customer alone but both external and internal customers, who need nurturing, (iii) marketing assignment should first assess customer's needs and then go for satisfying them, (iv) workers are hand and feet of an organization. The feelings and brains have to be told what to do, (v) people do not like to work or produce, but enjoy working and producing good quality. They will, if trained properly and given responsibility, do as much as possible; provided they are treated with respect, (vi) quality is everybody's responsibility, although principally of producers (Concept of TQC).

with special attention toward the challenges faced by vulnerable populations, including children, older adults, and those with multiple health conditions.

- V. Quality improvement will be driven by supporting innovation, evaluating efforts around the country and disseminating evidence about what works.
- VI. Consistent national standards will be promoted, while maintaining support for activities that are responsive to local circumstances.
- VII. Coordination among clinical, behavioral and other aspects of health care services and building blocks of health systems will be enhanced to ensure it takes a comprehensive approach.
- VIII. Providing patients, providers, and payers with the clear information they need to make choices that are right for them will be encouraged.

1.4 Challenges:

Improvement of quality in health services is a formidable challenging task, specially given the cultural and resource poor context under which our health system operates. Despite efforts to improve quality of care over the past decades several challenges remain, e.g. users routinely complain of: abusive and humiliating treatment by health providers, long waiting time, poor communication with patients, lack of privacy, poor autonomy, inadequate basic amenities, unaddressed patients dignity, high cost of care and illegal charges. Health providers describe working conditions as difficult and demoralizing. Shortage of equipment, consumable supplies and some essential drugs undermines facility functioning, damages reputation, inflates out-of-pocket costs to patients and fuels a spiral of distrust and alienation. Poor coordination between different parts of the health care delivery system (even in the same health facility) continues to be a major hindrance to efficient service delivery and poses inconvenience to clients as they shuttle between different departments. Virtually, there are numerous challenges in the journey towards improving health care quality pertaining to capacity, health systems issues, accountability framework, human resources, finance and leadership. The training imparted to improve the professional competence of health care providers and compliance with guidelines on basic patient care, workplace safety and staffs working have met with limited success.

Referral systems are weak or non-existent even within the same hierarchical health facilities. This compounds the poor coordination between different levels of care, which further compromises care of seriously ill patients.

Given the overall context, implementation of the strategic plan on Health Care Quality will require substantial and strong leadership support, involvement, consistent commitment to continuous quality improvement. The inevitability of resource demands associated with changing process require senior leadership to ensure adequate financial resources, and facilitate and enable key players to be actively involved in the change processes.

Quality Assurance of the Family Planning Program of Directorate General of Family Planning DGFP

The government of Bangladesh has started clinic based Family Planning Program in early 60's and later expanded throughout the country in later 60's. The program has been revised to include the broader definition of sexual and reproductive health according to the United Nations International Conference on Population and Development (Cairo, Egypt, 1994).

Family planning service delivery differs from health service delivery as contraceptives are provided to apparently healthy eligible couples. Therefore quality of care is a vital issue to make the program acceptable and sustainable.

To ensure the quality of the program, The Directorate General of Family Planning (DGFP) has created a Sterilization Surveillance Team (SST) in 1982 as a part of the voluntary sterilization program which was reorganized as Family Planning Clinical Supervision Team (FPCST) & Quality Assurance Team (QAT) in 1986. From 1994, FPCST & QAT also look after the quality of MCH services delivered by the DGFP.

At present, there are ten regional FPCST & QATs working in Dhaka, Mymensing, Chittagong, Comilla, Sylhet, Rangpur, Rajshahi, Faridpur, Jessore and Barisal regions. They work under the guidance of Line Director, CCSDP and report to him on administrative and technical matters related to clinical family planning services (sterilization, IUD, Implant) and also report to Director, MCH services & Line Director, MCRAH on technical matters related to EOC-RH services.

The Directorate General of Family Planning also puts emphasis on other elements of quality of care. To provide option in choosing FP methods, the DGFP has introduced new contraceptive in FP program (different types of implants, non-scalpel vasectomy, laparoscopic tubectomy, oral contraceptive pills, emergency contraceptive pill etc.). To assure service provision by the skilled service providers, DGFP often conducted the basic and refresher trainings on different topics related to the service delivery. The training manuals on different subjects, Standard Operating Procedures (SOP) on FP methods, UH&FWC and MCWC Operation Manual have been developed to ensure comparable servicedelivery and quality care.

Part-Two: Strategic Framework

Vision: Universal Health Coverage with Quality Health Care by 2032

Mission Statement: Achieving an effective health system which provides the highest Quality of Care by Quality Improvement approach.

Purpose: To implement and promote better Quality of Care through developing a strategic framework

Core Strategic Objectives:

The strategic plan comprises five major strategic objectives and three additional objectives. These objectives have intermediate objectives under each category with several indicators. Implementation at all facilities and service delivery points will be guided by these indicators so that there is a standardized approach to the quality improvement programme. However each implementing unit will need to spell out additional details depending on the local situation (availability and expertise of QI team, financial resources, and previous experience with the defined cluster of indicators, etc). The development of standards, guidelines and policies will be done at the national level but divisional and district level will co-ordinate for training, dissemination and monitoring compliance with additional support from the national level.

Strategic Objective 1: Introduce consumer and patient-centered services

The use of the word patients is considered to underrate the status of the individual, as it implicitly creates a hierarchy. Owens and Batchelor (1996) suggest that the patient should be defined as a consumer, a rationale that originates from the emphasis on the market mechanism. Sitzia and Wood (1997) argue that the term consumer dignifies the professional/patient relationship in a way that the traditional term patient with its association of powerlessness against the medical establishment does not. Using the word client, customer or service user similarly moves away from the idea of the user of medical services being passive and dependent.

“Consumer / Customer (or client) care” is used to describe the process of taking care of consumer /customers or clients in a positive manner. The term may be used in place of complaint handling and is a reminder that consumer care is a priority. A well -functioning programme, patient involvement in its design is prime concern. It is not a simple undertaking, especially in the current environment of a public sector social service with limited experience in consumer care, and it requires that marketing and management expertise be engaged to help set up the programme.

Intermediate Objective 1.1: Introduce a ‘Consumer Care’ programme and ‘patient-centered service’ in health facilities

The primary aim of this objective is to promote patient /consumer satisfaction. Complaint is an expression of dissatisfaction by a consumer. It is therefore useful to design ways of finding out clients complaints and their suggestions about the services provided. This provides a basis for developing an effective consumer care programme. The set of resources, procedures and outputs put in place to enable service providers find out and address clients complaints constitutes a feedback system.

Indicator: Number of health facilities with consumer care programme and patient-centered service introduced

Intermediate Objective 1.2: Establish a system of accountability in all facilities

This intermediate objective contributes to the improvement of patient focused services by giving patients an active role in service provision. The intention is to enable patients and the general public to participate in the improvement of patients-centered services through provision of appropriate information on service providers and representation in the management of health services.

Indicators: Numbers of facilities establish accountability system

Intermediate Objective 1.3: Ensure that facilities have systems for informed-consent for medical & surgical procedures

Informed consent is a requirement of a well-functioning health services. It ensures that the patient is adequately informed about his/her conditions and can participate in discussion and choice on appropriate interventions. This level of participation can alleviate patient anxieties and can improve care and subsequent healing. Informed consent may also be an ethical and statutory requirement and provides a safeguard against legal suits.

Indicators: Number of health facilities using standardized informed consent forms

Strategic objective 2: Improve patient safety:

Patient safety is an integral part of quality of care and includes initiatives designed to reduce medical errors thus making healthcare safer. Patient safety is also an important indicator of quality of services. Furthermore good patient safety will enable management to avoid preventable deaths, unnecessary injuries.

The objective is to raise awareness on patient safety, establish national patient safety standards, system of monitoring and documenting unsafe events and introducing interventions to continuously reduce the incidence of such events during the plan period.

Intermediate objective 2.1: Develop patient safety standards

Patient safety as a discipline began in response to evidence that adverse medical events are widespread and preventable, and as noted above, that there is “too much harm.” The goal of the field of patient safety is to minimize adverse events and eliminate preventable harm in health care.

Patient safety must be an attribute of the health care system. Patient safety seeks high reliability under conditions of risk. Illness presents the first condition of risk in health care and patient safety applies to the second condition: the therapeutic intervention.

Patient safety demands design of systems to make risky interventions reliable. Two tenets of complexity theory apply: First, the greater the complexity of the system, the greater is the propensity for chaos. Second, in open, interacting of the culture among people operating in the system.

Indicator: Number of health facilities introduced patient safety standards

Intermediate objective 2.2: Establish standardized adverse events management system that also capture near-miss events

An adverse event is an unintended injury or complication caused as a result of health care activity rather than the disease which a patient originally present. It may lead to prolonged stay in hospital, in disability or death. A patient safety reporting and learning systems is primarily intended to enhance patient safety by learning from failures of the health care system. Most problems that occur are not random but are provoked by weak system. When adverse events are reported, analyzed and actions are taken to prevent re-occurrence patient care is improved.

Indicators: Number of health facilities with established adverse/near-miss event management system

Intermediate objective 2.3: Introduce Safe Surgery Checklist (WHO)

Surgical care has been an essential component of health care worldwide for over a century. WHO has undertaken a number of global and regional initiatives to address surgical safety. The Global Initiative for Emergency and Essential Surgical Care and the Guidelines for Essential Trauma Care focused on access and quality.

The checklist identifies three phases of an operation, each corresponding to a specific period in the normal flow of work: Before the induction of anesthesia (“sign in”), before the incision of the skin (“time out”) and before the patient leaves the operating room (“sign out”). In each phase, a checklist coordinator must confirm that the surgery team has completed the listed tasks before it proceeds with the operation. This Safe surgery checklist needs to be customized in our perspective.

Indicator: Number of facilities that use safe surgery checklist

Intermediate Objective 2.4: Establish Risk Management system in facilities

Clinical risk management is an approach to improving the quality and safe delivery of health care by placing special emphasis on first identifying circumstances that put patients at risk of harm and then acting to prevent or control those risks. Such events are monitored and analyzed to identify strategies that will minimize risk to patients. A key element in managing risk is developing within the health staff an attitude that prompts them to be continuously on the look out for actual and potentially dangerous situations or procedures to and to their clients and themselves.

Indicators: Number of health facilities where risk management system introduced

Intermediate Objective 2.5 Strengthen Infection Prevention and Control (IPC) system in clinical service

Health care associated infections affect many patients every year. These infections may cause serious illness leading to prolonged hospital stay and long term disability. In addition they lead to unexpected health care costs for patients and their families and an increased financial burden on the health system. Hand hygiene is the primary measure for reducing infections. In addition to improve hand hygiene standards and practices the strategic plan also emphasizes waste management and sterilization of equipment.

Indicators: Number of facilities established IPC system in clinical service

Intermediate Objective 2.6: Establish effective Medical waste management system

Medical Waste has been defined as all waste generated from health care or health related facilities. The management of waste poses to be a major health problem in Bangladesh like developing countries, especially the hospital waste. It also invites serious health problem. Healthcare wastes pose a serious public health problem. The main purpose of any health care institution is to provide health care services to prevent the diseases and also to cure people who are suffering from various kinds of illness. When visiting health care facilities, patient should not become more ill than they already are. Hence it is very important to ensure patient safety by keeping the health centre clean and environmentally sound. On the other hand the service providers safety during providing health care also to look at meticulously.

Indicators: Number of health facilities practice standard MWM system and use the selected colour bins.

Strategic Objective 3: Improve clinical practice

Good clinical practice involves a set of activities that lead to the correct diagnosis and successful treatment of illness presented by a patient. The first part involves making the right diagnosis through

history taking, physical examination and laboratory investigation and interpreting the information obtained to reach a correct diagnosis. The second part involves the treatment and care of the patient; this includes referral of the patient to a health facility or level of care that can best deal with his or her needs. Worldwide, clinical practice has well-developed standards and guidelines. Good clinical practice also depends on availability of good infrastructure, equipment, drugs and supplies. This strategic objective focuses first on selected health problems contributing significantly to the poor health indices presented in the situational analysis, and second on a set of essential management practices (e.g. auditing and in-house supervision) that lead to improved clinical care.

Intermediate objective 3.1: Improve knowledge and skills of clinical staff on patient management

This intermediate objective covers the necessary skill which can only be achieved by the determined and conscious efforts of the clinical staff who have the appropriate support of their organization to deliver best practice by utilizing guideline and protocols. They have to need continuous quality improvement which is the route to clinical excellence. Clinical excellence can only be achieved by having efficient & effective system of communication with staff and patients.

Indicators: Number of facilities practicing standard clinical management guidelines and tools

Intermediate Objective 3.2: Establish clinical/death audit systems

This is a quality improvement process that seeks to improve patient care and outcomes through a systematic review of care against standards. If well conducted clinical and death audits are able to identify underlying reasons for unacceptable outcomes of clinical management; e.g. death. It enables the health team to avoid similar events in future not only on case by case basis but also provides a basis for defining or adapting policies for overall improved patient care. To be effective it must be conducted regularly as integral part of patient management and should involve all members of the health team and should avoid the danger of being a fault-finding or finger-pointing exercise. There should also be a commitment by management to correct problems that emerge from the audit.

Indicators: Number of facilities with established clinical/ death audit system

Intermediate Objective 3.3: Improve structured referral system.

Referral is a set of activities undertaken by a health care provider in response to its inability to provide the necessary intervention to meet the patient's need. It requires a two-way system i.e. from the community to the appropriate level of care (upward) and back (downward). It includes both direct patient care and the support services to provide the appropriate care at the right facility, e.g. transport. The health referral system is weak as a result of absence of standard procedures for referral, non-use or non-enforcement of existing forms and standards, delays in referral, poor reception of patients and lack of feedback. Service providers may be poorly-trained and ill-equipped to provide effective referral services. This has resulted in patients seeking direct care at secondary and tertiary health facilities and often leading to congestion and work overload at these facilities, under-utilization of first level facilities and increased cost to both the patient and the health service.

Indicators: Number of facilities practicing standard referral guidelines, protocols and tools

Intermediate Objective 3.4: Establish use of Standard Operating Procedures for support services in facilities

Standard operating procedures (SOP) are a detailed explanation of how a policy is to be implemented. The SOP may appear on the same form as a policy or it may appear in a separate document. An effective SOP communicates who will perform the task, what materials are necessary, where the task will take place, when the task shall be performed, and how the person will execute the task

Indicators: Number of facilities practise SOPs for support services

Intermediate Objective 3.5 Develop and introduce standards, SOP for laboratory and imaging services

Over the years there has been rapid expansion in the various branches of health care services. As part of this expansion process and explosion of scientific medical knowledge, laboratory diagnosis has gained tremendous importance in today's practice. Through the use of quality control (QC) the laboratory can ensure that the results being issued by it are reliable enough to allow decisions to be taken with confidence. Incorrect laboratory results may lead to wrong management decisions with possible fatal results. The reliability of laboratory results is therefore most important. It is not sufficient to 'think' that 'my' results are satisfactory. This has to be proved with scientific evidence

Indicators: Number of health facilities introduce Standards, SOP for lab services

Strategic Objective 4: Improve Leadership Management systems

Management in this context refers to the processes used to improve the quality of clinical care. The key components are planning, organizing (i.e. mobilizing and allocating human and other resources for assigned tasks), leading and supervising; and, monitoring, evaluating and correcting deviations.

At the national level responsibility for some of these processes and the resources involved lie with other divisions and departments of the health service. For example leadership and supervision, in-service training, staff performance appraisal system, and workplace safety are responsibility of Human Resources Development.

Intermediate Objective 4.1: Introduce Total Quality Management (TQM) approach in health facilities

Total Quality Management is a strategic management approach also a strategic thinking which is description of culture, attitude and organization of a health facility that strives to provide clients with services that satisfy their needs. The culture requires quality in all aspects of facility operation, with process being done right the first time, defects and waste eradicated from operations. Strong navigation process for implementation of TQM is mandatory. Navigation through 3 steps(5S-CQI-TQM) process should be used for change management, team building and Kaizen(CQI). The new participatory stepwise approach 5S-CQI-TQM will be the norms of gradually developing positive mindset, team building & organizational culture. TQM approach will create the leadership from bottom to top level by team building, which is also known as bottom up approach. This approach is very much effective for team building & developing organizational culture in health service delivery.

Indicators: Number of facilities practice 5S-CQI-TQM tool

Intermediate Objective 4.2 Strengthen clinical supervision and monitoring within all facilities and at all levels

Supervision & Monitoring are central component of effective human resource management. Policy level attention is crucial to ensure a systematic, structured process that is based on common understandings of the role and purpose of supervision & monitoring. This is particularly important in a context where the majority of staff are mid-level for whom regulation and guidelines may not be as formalized or well-developed as for traditional staff, such as doctors & nurses. Supervision needs to be adequately resourced and supported in order to improve performance and retention at the district level.

Indicators: Numbers of facilities use composite clinical supervision and monitoring tools

Intermediate Objective 4.3: Improve use of health information for quality improvement within an integrated HMIS themselves to other health centers

Indicator: Number of facilities conducted yearly survey for service provider's satisfaction

Strategic Objective: 5: Improve public health & preventive services

Public Health covers the active collaboration between facilities (Both PHC facilities & Hospitals) and with relevant healthcare and other organizations and with local communities to ensure an integrated and effective health care system. The aim is to ensure the design and delivery of programme to promote, protect and improve health; and which will protect health inequalities and help people to live healthy and independent lives.

Intermediate Objective: 5.1: *Promote, protect the health of the community, reduce health inequalities and improve accessibility to achieve UHC*

Indicator: Policy guideline to promote, protect the health of the community, reduce health inequalities and improve accessibility to achieve UHC

Intermediate Objective 5.2: *Strengthen partnership and co-ordination of facilities with other ministries/departments & communities in the development, implementation and evaluation of health programme*

Indicator: Strategic action plan for partnership and coordination in place

Intermediate Objective 5.3: *Introduce and implement outbreaks, epidemics, Disaster management activities in facilities*

Indicator: Management plan in place to deal with outbreaks, epidemics, disaster

Strategic Objective 6: Ensure all necessary inputs for quality improvement

The facility input means facility infrastructure, physical safety for infrastructure, adequate qualified health workforce, drugs and consumables necessary equipment & instruments etc

Intermediate Objective 6.1: *Ensure standard infrastructure for delivery of quality services Sound infrastructural maintenance plan should be achieved by the mobilizing proper resources. Maintenance fund should be kept for timely action taken*

Indicator: Infrastructure Maintenance plan in place

Intermediate Objective 6.2: *Ensure physical safety and maintenance of the infrastructure*

Indicators: Physical safety and maintenance plan in place.

Intermediate Objective 6.3: *Ensure adequate qualified, trained staffs required for providing the assured services*

Indicator: Plan for required training of service providers in place

Intermediate Objective 6.4: *Ensure adequate and essential drugs and logistics in facilities*

Indicator: Number of facilities with no stockout of essential drugs and equipments

Strategic Objective 7: Ensure all necessary Support services

The facilities will have a plan for inspection, testing, calibration, storage & inventory management, provide safe & comfortable environment to the service providers & patient, alternate power supply, dietary services, clean linen to patients, etc.

Intermediate Objective: 7.1: *Ensure system for inspection, testing and maintenance and calibration of equipment*

Indicator: Logistics maintenance plan in place

Intermediate Objective 7.2: *Establish defined procedures for storage, inventory management and dispensing of drugs in pharmacy and patient care areas*

Indicator: SOP for storage, inventory management and dispensing of drug in place

Intermediate Objective 7.3: *Ensure safe, secure and comfortable environment to staff, patients and visitors*

Indicator: Safe & comfortable environmental plan in place

Strategic Objective 8: Develop effective outcome measure system for QI

Intermediate objective 8.1: *Ensure system to measure KPI and endeavors to reach National Benchmark.*

Indicator: Facility report on KPI indicator in place

Part-Three: Implementation Plan

Narrative summary	Baseline	Indicator	Out put	Remarks/ Responsible
Strategic Objective 1: Introduce consumer and patient-centered services				
Intermediate Objective 1.1: Introduce a 'Consumer Care' programme and patient-centered service in health facilities	Nil	Number of health facilities with consumer care programme and patient-centered service introduced	Consumer care programme and patient-centered service established in health facilities	
1.1.1 Assess patient satisfaction and consumer care needs in sampled health facilities	Nil	-Patient satisfaction survey tool -Consumer care survey tool	Consumer Care survey report published	Facility QIC/Div-QIC/D-QIC/Uz-QIC/QIS
1.1.2 Design and test a consumer care programme and guidelines for patient feedback system using survey results	-	-Document of a Consumer care programme -A patient feedback guideline	Tools and guideline developed	QIS
1.1.3 Develop IEC materials (display board, poster, leaflets, video tapes etc) for awareness of the public about the patient feedback system.	Nil	Number of IEC materials	IEC materials developed	QIS/ N-QITC/ N-TFC
1.1.4. Develop a system for receiving and responding to in-patient and out-patient complaints (e.g: Grievance mechanism. information desks, boxes etc) at all facilities	Nil	Grievance mechanism document	Grievance mechanism document developed	QIS/N-QITC/N-TFC
1.1.5 Establish a system for receiving and responding to in-patient and out-patient complaints (e.g: Grievance mechanism. information desks, boxes etc) at all facilities	Nil	Number of facilities established a system for receiving and responding to in-patient and out-patient complaints	Grievance mechanism system developed	Facility QIC/ Div-QIC/D-QIC
1.1.6 Printing and distribution of CCP document, guidelines for patient feedback grievance mechanism document, IEC materials	-	Number of facilities received the CCP document, guidelines on patient feedback, grievance mechanism document, IEC materials	Documents are available in facilities	N-TFC/Div-QIC/D-QIC/Uz-QIC/facility QIC
1.1.7 Train staff on the CCP and patient feedback system	Nil	Number of facilities where training has been conducted	Capacity building of service providers completed	Facility QIC/ Div-QIC/D-QIC N-TFC
1.1.8 Provide resources including – space, communication gadgets (telephones), registers and stationery for the information desks to function	Nil	Resource distribution plan	Ensure resource availability	Facility QIC/Div-QIC/D-QIC

Narrative summary	Baseline	Indicator	Out put	Remarks/ Responsible
1.1.9 Monitoring & supervision plan CCP and patient feedback system	Nil	M & E tool for CCP and patient feedback system	M&E Tool developed	QIS
1.1.10 Establish a system for monitoring of CCP and patient feedback system	Nil	Number of facilities where staffs are trained on M&E tools on CCP and patient feedback system Number of facilities providing M& E reports	M&E mechanism for CCP and patient feedback system established	Facility QIC,Div-QIC,D-QIC,N-TFC
1.1.11a Conduct surveys to assess CCP & patient satisfaction in health facilities twice a year	Nil	CCP survey tool Patient satisfaction survey tool	CCP & patient satisfaction survey report published	Facility QIC/Div-QIC/D-QIC/QIS
1.1.11b. Conduct community surveys on service delivery annually regarding client expectation status	Nil	Community Survey tool	Community survey report published	Facility QIC/Div-QIC/D-QIC/QIS
Intermediate Objective 1.2: Establish a system of accountability in all facilities	Nil	Number of facilities establish accountability system	Accountability system established in all health facilities	
1.2.1 Institutionalize use of name tags /ID cards for all staff identification through repeated administrative directives	-	Administrative order for using ID	Use of name tag & ID institutionalised	Facility QIC/Div-QIC/D-QIC/Uz-QIC/N-TFC
1.2.2 Printing and distribution of Code of Ethics/citizen charters to all facilities	-	Number of facilities received the Code of Ethics/citizen charters	Code of Ethics/citizen charters are available in facilities	N-TFC/Div-QIC/D-QIC/Uz-QIC/facility QIC
1.2.3 Train staff on the citizen Charter/Code of Ethics and Code of Conduct at all health facilities.	-	Number of facilities where training on citizen charter/ Code of Ethics is done	Training has been completed	Facility QIC/D-QIC/Div-QIC/ N-TFC
1.2.4 Ensure accountability to facility management committee with community representation for health facilities to improve accountability to the communities.	Committees formed by the MOHFW	Number of Management committee meeting held	Management committee functional	Facility QIC
1.2.5 Conduction of regular annual performance reviews of health facilities including community representation	-	Annual performance review plan in place	Annual performance review report published	Facility QIC

Narrative summary	Baseline	Indicator	Out put	Remarks/ Responsible
Intermediate Objective 1.3: Ensure that facilities have systems for informed-consent for medical & surgical procedures	Consent taken for operational procedures	Number of health facilities using standardized informed consent forms	System for using informed consent form developed and implemented	
1.3.1 Review and develop a standard informed consent form for medical and surgical procedures	Consent form	Standard informed consent form in place	Standard Informed consent form developed	QIS
1.3.2 Printing and distribution of standard informed consent form	-	Number of facilities received standard informed consent form	Standard informed consent forms are available in facilities	N-TFC/Div-QIC/D-QIC/Uz-QIC/facility QIC
1.3.3 Train staff on the standard informed consent form	Nil	Number of facilities where training has been conducted	Capacity building of service providers completed	Facility QIC/ Div-QIC/D-QIC N-TFC
1.3.4 Monitoring & supervision plan for standard consent form	Nil	M & E tool for use of standard consent form	M&E Tool developed	QIS
1.3.5 Establish a system for monitoring of standard consent form	Nil	Number of facilities where staffs are trained on M&E tools on use of standard consent form	M&E mechanism for CCP and patient feedback system established	Facility QIC,Div-QIC,D-QIC,N-TFC
Strategic Objectives 2: Improve patient safety				
Intermediate objective 2.1: Develop patient safety standards	Nil	Number of health facilities introduced patient safety standards	Patient Safety standard developed & implemented	
2.1.1 Review & finalize the patient safety standards document	Draft patient safety doc	Patient safety standard document in place	Patient safety standard doc finalised and made available	QIS/N-TFC
2.1.2 Printing and distribution of patient safety standards document	-	Number of facilities received patient safety standards document	patient safety standards document are available in facilities	N-TFC/Div-QIC/D-QIC/Uz-QIC/facility QIC
2.1.3 Train staff on the patient safety standards document	Nil	Number of facilities where training has been conducted	Capacity building of service providers completed	Facility QIC/ Div-QIC/D-QIC N-TFC
2.1.4 Monitoring & supervision plan for patient safety standards document	Nil	M & E tool for use of patient safety standards document	M&E Tool developed	QIS

Narrative summary	Baseline	Indicator	Out put	Remarks/ Responsible
2.1.5 Establish a system for monitoring of patient safety standards document	Nil	Number of facilities where staffs are trained on M&E tools on patient safety standards	M&E mechanism on patient safety standards developed	Facility QIC,Div-QIC,D-QIC,N-TFC
Intermediate objective 2.2: Establish standardized adverse events management system that also capture near-miss events	Nil	Number of health facilities with established adverse/near-miss event management system	Adverse/near-miss event management system established	
2.2.1 Conduct baseline survey to review and identify various types of adverse/near-miss events in health facilities	-	Survey tool	Survey completed	QI S//DQIC/DIV-QIC/Uz-QIC/Facility committees
2.2.2 Develop policy guidelines on adverse /near-miss events management	-	Policy guidelines on adverse/near-miss event management	Policy guideline on adverse/near-miss event developed	QIS
2.2.3 Develop adverse events register /incident register	-	Adverse event register/incident register in place	Adverse event /incident register has been developed	Facility QIC/QIS
2.2.4 Printing and distribution of adverse/near-miss event policy guidelines, registers	-	Number of facilities received adverse/near-miss event policy guidelines, registers	Adverse/near-miss event policy guidelines, registers are available in facilities	N-TFC/Div-QIC/D-QIC/Uz-QIC/facility QIC
2.2.5 Train staff on the adverse/near-miss event policy guidelines, registers	Nil	Number of facilities where training has been conducted	Capacity building of service providers completed	Facility QIC/Div-QIC/D-QIC N-TFC
2.2.6 Monitoring & supervision plan for adverse/near-miss event management	Nil	M & E tool adverse /near-miss event management	M&E Tool developed	QIS
2.2.7 Establish a system for monitoring of adverse/near-miss event management	Nil	Number of facilities where staffs are trained on M&E tools on adverse/near-miss event management	M&E mechanism on patient safety standards developed	Facility QIC,Div-QIC,D-QIC,N-TFC
Intermediate Objective 2.3: Introduce Safe Surgery Checklist (WHO)	Safe surgery checklist in some selected facilities	Number of facilities that use safe surgery checklist	Safe Surgery checklist introduced & implemented in health facilities	
2.3.1 Review WHO Safe Surgery check list	WHO Check list	Safe surgery check list in place	Safe Surgery check list finalized	QIS/N-TFC

Narrative summary	Baseline	Indicator	Out put	Remarks/ Responsible
2.3.2 Printing and distribution of safe surgery check list	-	Number of facilities received safe surgery check list	safe surgery check list are available in facilities	N-TFC/Div-QIC/D-QIC/Uz-QIC/facility QIC
2.3.3 Train staff on the safe surgery check list	Nil	Number of facilities where training has been conducted	Capacity building of service providers completed	Facility QIC/Div-QIC/D-QIC N-TFC
2.3.4 Monitoring & supervision plan for safe surgery check list use	Nil	M & E tool on safe surgery check list in place	M&E Tool developed	QIS
2.3.5 Establish a system for monitoring of safe surgery check list use	Nil	Number of facilities where staffs are trained on M&E tools safe surgery check list use	M&E mechanism on safe surgery check list use developed	Facility QIC,Div-QIC,D-QIC,N-TFC
Intermediate Objective 2.4: Establish Risk Management system in facilities	Risk Management tools in some selected facilities	Number of health facilities where risk management system introduced	Risk management system established in all facilities	
2.4.1 Conduct baseline survey to assess risks and its management in health facilities	-	Survey tool	Survey report published	QI S//DQIC/DIV-QIC/Uz-QIC/Facility QIC
2.4.2 Develop policy ,guidelines & tools (i.e, incident register, risk identification report format) on risk management based on survey findings	-	Policy guideline & tools on risk management in place	Policy Guideline& tools developed	QIS
2.4.3 Printing & distribution of risk management guidelines and tools	-	Number of facilities received risk management guidelines and tools	Risk management guidelines and tools available in facilities	QIS/N-TFC
2.4.4 Train staff on risk management guidelines and tools	-	Number of facilities where orientation of staffs has been conducted	Capacity building of service providers completed	Facility QIC/Div-QIC/D-QIC N-TFC
2.4.5 Monitoring & supervision plan for risk management in facilities	Nil	M & E tool risk management in place	M&E Tool developed	QIS/N-QITC
2.4.6 Establish a system for monitoring of risk management in facilities	Nil	Number of facilities where staffs are trained on risk management Number of facilities providing M& E reports	M&E mechanism on risk management developed	Facility QIC,Div-QIC,D-QIC,N-TFC

Narrative summary	Baseline	Indicator	Out put	Remarks/ Responsible
Intermediate Objective 2.5: Strengthen Infection Prevention and Control (IPC) system in clinical service	IPC guidelin. Hand hygiene guideline	Number of facilities established IPC system in clinical service	Infection prevention & control(IPC) system established	
2.5.1 Review & finalise existing Hand hygiene guideline	-	IPC guideline. Hand hygiene guideline in place	IPC guidelines, hand hygiene guidelines finalized	QIS
2.5.2. Develop IEC material, video clip, poster, and booklet on hand hygiene programme	-	Number of IEC material	IEC material developed.	QIS/N-TFC
2.5.3 Printing & distribution of IPC guidelines and tools	-	Number of facilities received IPC guidelines and tools	IPC guidelines and tools available	QIS/N-TFC
2.5.4 Conduction of baseline survey to assess hospital acquired infection occurrence	-	Survey tool	Survey report published	QIS/facility QIS
2.5.5 Train staff on IPC guidelines and tools	-	Number of facilities where orientation of staffs has been conducted	Capacity building of service providers completed	Facility QIC/ Div-QIC/D-QIC N-TFC
2.5.6 Monitoring & supervision plan for IPC guidelines and tools use in facilities	Nil	M & E tool plan and tool	monitoring plan and necessary tools in place	QIS/N-QITC
2..5.7 Establish a system for monitoring on use of IPC guidelines and tools in facilities	Nil	Number of facilities where staffs are trained on use of IPC guidelines and tools Number of facilities providing M& E reports	M&E mechanism on IPC guidelines and tools developed	Facility QIC,Div-QIC,D-QIC,N-TFC
2.5.8 Conduction of annual survey to assess hospital acquired infection occurrence	-	Survey tool	Survey report published	QIS/Facility QIC
Intermediate Objective 2.6: Establish effective Medical waste management system	MWM doc	Number of health facilities practice standard MWM system and uses the selected colour bins.	Esatblished Medical Waste Management system in each health facility	
2.6.1.Review & finalise MWM guidlines and tools	-	MWM guideline in place	MWM guideline finalized	QIS/N-QITC
2.6.2 Printing & distribution of MWM guidelines and tools	-	Number of facilities received MWM guidelines and tools	MWM guidelines and tools available	QIS/N-TFC

Narrative summary	Baseline	Indicator	Out put	Remarks/ Responsible
2.6.3 Introduce colour-coded waste bins in facilities	-	Number of facilities use colour coded medical waste bins as per guideline	Colour coded wastebins available in all facilities	N-TFC
2.6.4 Train staff on MWM guidelines and tools	-	Number of facilities where orientation of staffs has been conducted	Capacity building of service providers completed	Facility QIC/ Div-QIC/D- QIC N-TFC
2.6.5 Monitoring & supervision plan for MWM guidelines and tools use in facilities	Nil	M & E tool plan and tool	monitoring plan and necessary tools in place	QIS/N-QITC
2.6.6 Establish a system for monitoring on use of MWM guidelines and tools in facilities	Nil	Number of facilities where staffs are trained on use of MWM guidelines and tools Number of facilities providing M& E reports	M&E mechanism on MWM guidelines and tools developed	Facility QIC,Div- QIC,D- QIC,N-TFC
Strategic Objective 3: Improve clinical practice				
Intermediate objective 3.1: Improve knowledge and skills of clinical staff on patient management		Number of facilities practicing standard clinical management guidelines and tools	Skills and knowledge of clinical staffs improved	
3.1.1 Review and list (stocktaking) of available protocols/SOPs/guidelines/EBM modules	List of existing protocols/SOP/guidelines/monitoring tools/EBM modules	Tool for data collection	Stock taking report published	QIS
3.1.2 Identify need for developing new protocols/SOPs/EBM or reviewing available ones	-	Number of workshop	Plan finalized for develop new protocols/review available ones	QIS/N- TFC/N-QITC
3.1.3 Review and update of existing protocols SOP,EBM & Develop new protocols/SOPs/Guidelines	-	Number of reviewed protocol Number of new developed protocol	Finalization of required protocols	QIS
3.1.4 Printing & distribution of Clinical protocols/guideline, SOP &EBM	-	Number of facilities received Clinical protocols/guideline/SOP &EBM	Clinical protocols/guideline, SOP &EBM available	QIS/N-TFC

Narrative summary	Baseline	Indicator	Out put	Remarks/ Responsible
3.1.5 Train staff on Clinical protocols/guideline, SOP &EBM	-	Number of facilities where orientation of staffs has been conducted	Capacity building of service providers completed	Facility QIC/ Div-QIC/D-QIC N-TFC
3.1.6 Monitoring & supervision plan for Clinical protocols/guideline, SOP &EBM use in facilities	Nil	M & E tool plan and tool	Monitoring plan and necessary tools in place	QIS/N-QITC
3.1.7 Establish a system for monitoring on use of Clinical protocols/guideline, SOP &EBM use in facilities	Nil	Number of facilities where staffs are trained on use of Clinical protocols/guideline, SOP &EBM Number of facilities providing M& E reports	M&E mechanism on Clinical protocols/guideline,SOP&E BM developed	Facility QIC,Div-QIC,D-QIC,N-TFC
3.1.8 Introduce Clinical Indicators for different areas(OPD, IPD, Emergency, OT, ICU, CCU etc.)	Clinical indicator of HSM, DGHS	Tool in place to measure the clinical indicators	Clinical indicators introduced in all units	Facility QIC/N-TFC/QIS
Intermediate Objective 3.2: Establish clinical/death audit systems	Death audit system in some place(HSM, DGHS)	Number of facilities with established clinical/ death audit system	Clinical & death audit system established in facilities	
3.2.1 Review and develop clinical &death audit guidelines, tools	Death audit tools	Clinical audit tool in place Death audit tool in place	Clinical/death audit tools developed and finalized	QIS
3.2.2 Printing & distribution of Clinical/death audit guidelines, necessary tools	-	Number of facilities received Clinical/death audit guidelines necessary tools	Clinical/death audit guidelines, necessary tools available	QIS/N-TFC
3.2.3 Train staff on clinical/death audit guidelines, necessary tools	-	Number of facilities where orientation of staffs has been conducted	Capacity building of service providers completed	Facility QIC/ Div-QIC/D-QIC N-TFC
3.2.4 Monitoring & supervision plan for clinical/death audit guidelines, necessary tools used in facilities	Nil	M & E tool plan and tool	Monitoring plan and necessary tools in place	QIS/N-QITC
3.2.5 Establish a system for monitoring on use of clinical/death audit guidelines, necessary tools in facilities	Nil	Number of facilities where staffs are trained on use of clinical/death audit guidelines, necessary tools Number of facilities providing M& E reports	M&E mechanism on clinical/death audit guidelines, necessary tools developed	Facility QIC,Div-QIC,D-QIC,N-TFC

Narrative summary	Baseline	Indicator	Out put	Remarks/ Responsible
3.2.6 Establish a confidential audit committee at the national level (identify members, define clear TOR, provide secretarial support, and other resources)	-	National Audit committee composition and TOR in place	National audit committee formed	QIS/NQITC/ NTFC
3.2.7 Annual review on clinical/death audit system in facilities	-	Annual Review plan	Annual Review completed	QIS/N- QITC/N-TFC
Intermediate Objective 3.3: Improve structured referral system.	Referral system exist	Number of facilities practicing standard referral guidelines, protocols and tools	Structured and standard Referral system established in facilities	
3.3.1 Define and identify levels of care and mix of services for each type of facility	-	A document of level of care in place	Level of care document available	QIS/N- QITC/N-TFC
3.3.2 Review existing referral guideline and update as required	-	Referral guidelines	referral guidelines updated	QIS/N- QITC/NT- FC/Facility QIC
3.3.3 Printing & distribution of referral guidelines and tools	-	Number of facilities received referral guidelines and tools	referral guidelines and tools available	QIS/N-TFC
3.3.4 Train staff on referral guidelines, necessary tools	-	Number of facilities where orientation of staffs has been conducted	Capacity building of service providers completed	Facility QIC/ Div-QIC/D- QIC N-TFC
3.3.5 Monitoring & supervision plan for referral guidelines, necessary tools used in facilities	Nil	M & E tool plan and tool	Monitoring plan and necessary tools developed	QIS/N-QITC
3.3.6 Establish a system for monitoring on use of referral guidelines, necessary tools in facilities	Nil	Number of facilities where staffs are trained on use of referral guidelines, necessary tools Number of facilities providing M& E reports	M&E mechanism on referral guidelines, necessary tools developed	Facility QIC,Div- QIC,D- QIC,N-TFC
Intermediate Objective 3.4: Establish use of Standard Operating Procedures for support services	SOP in some places	Number of facilities practise SOPs for support services	Facility established the implementation of SOP for support services	
3.4.1 Develop new and review available SOPs for support services.	-	Number of SOPs for support services	SOPs for support services developed	QIS
3.4.2 Printing & distribution of SOP for support services	-	Number of facilities received SOPfor support services	SOPfor support services available	QIS/N-TFC

Narrative summary	Baseline	Indicator	Out put	Remarks/ Responsible
3.4.3 Train staff on SOP for support services	-	Number of facilities where orientation of staffs has been conducted	Capacity building of service providers completed	Facility QIC/ Div-QIC/D- QIC N-TFC
3.4.4 Monitoring & supervision plan for implementation of SOP for support services	Nil	M & E tool plan and tool	Monitoring plan and necessary tools developed	QIS/N-QITC
3.4.5 Establish a system for monitoring use of SOP for support services	Nil	Number of facilities where staffs are trained on use of SOP for support services Number of facilities providing M&E reports	M&E mechanism on use of SOP for support service is developed	Facility QIC,Div- QIC,D- QIC,N-TFC
Intermediate Objective 3.5: Develop and introduce standards, SOP for laboratory and imaging services	Draft SOP	Number of health facilities introduce Standards, SOP for lab services	Standards & SOP are developed & introduced	
3.5.1 Review and develop standards & SOP for laboratory and imaging services	-	Laboratory and imaging service standards, SOP in place	Laboratory and imaging service standards & SOP developed	QIS/N- QITC/N-TFC
3.5.2 Printing & distribution of standards & SOP for laboratory and imaging services	-	Number of facilities received standards & SOP for laboratory and imaging services	standards & SOP for laboratory and imaging services available	QIS/N-TFC
3.5.3 Trainstaff on standards & SOP for laboratory and imaging services	-	Number of facilities where orientation of staffs has been conducted	Capacity building of service providers completed	Facility QIC/ Div-QIC/D- QIC/ N-TFC
3.5.4 Monitoring & supervision plan for implementation of standards & SOP for laboratory and imaging services	Nil	M & E tool plan and tool	Monitoring plan and necessary tools developed	QIS/N-QITC
3.5.5 Establish a system for monitoring use of standards & SOP for laboratory and imaging services	Nil	Number of facilities where staffs are trained on monitoring use of standards & SOP for laboratory and imaging services Number of facilities providing M& E reports	M&E mechanism on use of standards & SOP for laboratory and imaging services developed	Facility QIC/Div- QIC/D- QIC/N-TFC

Narrative summary	Baseline	Indicator	Out put	Remarks/ Responsible
Strategic Objective 4: Improve Leadership Management systems				
Intermediate Objective 4.1: Introduce Total Quality Management (TQM) approach in health facilities	TQM programme in 7 facilities	Number of facilities practice 5S-CQI-TQM tool	TQM programme established in all facilities	
4.1.1 Review TQM strategic documents, action plan QI- ,training manuals	-	TQM strategic document TQM training manual	TQM strategic documents, action plan, training manuals finalized	QIS
4.1.2 Printing & distribution of TQM strategic documents & action plan	-	Number of facilities received TQM strategic documents & action plan	TQM strategic documents & action plan available	QIS/N-TFC
4.1.3 Train staff on 5S-CQI-TQM tool in all facilities	-	Number of facilities where orientation of staffs has been conducted	Capacity building of service providers completed	Facility QIC/ Div-QIC/D-QIC N-TFC
4.1.4 Form facility QIC and WIT & assign QIT focal person in all health facilities	-	Number of health facilities forming facility QIC and WIT	TQM committees developed	Facility QIC/ Div-QIC/D-QIC/QIS
4.1.5 Monitoring & supervision plan for TQM implementation activities	Nil	M & E tool plan and tool	Monitoring plan and necessary tools in place	QIS/N-QITC
4.1.6 Capacity development training of the service provider on monitoring and evaluation.	Nil	Number of facilities where staffs are trained on monitoring of TQM implementation activities Number of facilities providing M& E reports	M&E mechanism on TQM implementation activities developed	Facility QIC, Div-QIC, D-QIC, N-TFC
4.1.7 Annual review on TQM implementation activities in facilities		Annual review plan	Annual Review completed	QIS/N-QITC/N-TFC
Intermediate Objective 4.2: Strengthen clinical supervision and monitoring within all facilities and at all levels	Nil	Number of facilities use composite clinical supervision and monitoring tools	Establish good monitoring & supervision mechanism.	
4.2.1 Review available clinical guidelines and develop new guidelines for clinical supervision and monitoring	-	Guidelines for clinical supervision and monitoring in place	Guidelines for Clinical supervision and monitoring finalized	QIS/N-TFC/N-QTIC
4.2.2 Printing & distribution of guidelines for clinical supervision and monitoring all facilities	-	Number of facilities received guidelines for clinical supervision and monitoring	Guidelines for clinical supervision and monitoring available	QIS/N-TFC

Narrative summary	Baseline	Indicator	Out put	Remarks/ Responsible
4.2.3 Train staff on guidelines and tools for clinical supervision and monitoring	-	Number of facilities where orientation of staffs has been conducted	Capacity building of service providers completed	Facility QIC/ Div-QIC/D- QIC N-TFC
4.2.4 Monitoring & supervision plan for implementation of clinical supervision and monitoring guidelines	Nil	M & E tool plan and tool	Monitoring plan and necessary tools in place	QIS/N-QITC
4.2.5 Establish a system for monitoring on implementation of clinical supervision and monitoring guidelines	Nil	Number of facilities where staffs are trained on monitoring on implementation of clinical supervision and monitoring guidelines Number of facilities providing M& E reports	M&E mechanism on clinical supervision and monitoring guidelines developed	Facility QIC,Div- QIC,D- QIC,N-TFC
Intermediate Objective 4.3: Improve use of health information for quality improvement within an integrated HMIS	HMIS functioning	Plan for Health information system for quality improvement in place	Integrated HMIS developed	
4.3.1 Assess needs for periodic training in patient records keeping, data management and provide training to address those needs	-	Periodic training plan	Training completed and report published	QIS/D- QIC/Div- QIC/Facility QIC
4.3.2 Continually assess the efficiency and effectiveness of the MIS to generate data that is useful for monitoring quality of care	-	Efficiency & effectiveness assessment tools	Quality data produced	QIS/N- QITC/N- TFC/ Facility QIC
4.3.3 Provide regular and timely feedback of aggregated data to all levels	-	Feedback plan	Regular feedback completed	Facility QIC/N- TFC/N-QITC
4.3.4 Encourage use of reliable data for planning and decision making	-	Database in place	Reliable data produced	QIS/N- QITC/N-TFC
4.3.5 Supervise and monitor adherence to guidelines	-	Monitoring tools	Monitoring report published	QIS/N- QITC/N-TFC
Intermediate Objective 4.4: Ensure that all facilities meet the national health care standards	Nil	Number of health facilities practice NHCS	National health care standards has implemented	
4.4.1 Develop new and review available National Health Care Standard guidelines	-	National health care standard guidelines in place	National health care standard guidelines developed	QIS/N-QITC
4.4.2 Printing & distribution of National Health Care Standard Guidelines	-	Number of facilities received National Health Care Standard Guidelines	National Health Care Standard Guidelines available	QIS/N-TFC

Narrative summary	Baseline	Indicator	Out put	Remarks/ Responsible
4.4.3 Train staff on National Health Care Standard Guidelines	-	Number of facilities where orientation of staffs has been conducted	Capacity building of service providers completed	Facility QIC/ Div-QIC/D- QIC N-TFC
4.4.4 Monitoring & supervision plan for implementation of National Health Care Standard Guidelines	Nil	M & E tool plan and tool	Monitoring plan and necessary tools in place	QIS/N-QITC
4.4.5 Establish a system for monitoring implementation of National Health Care Standard Guidelines in facilities	Nil	Number of facilities where staffs are trained on monitoring on implementation of National Health Care Standard Guidelines Number of facilities providing M& E reports	M&E mechanism on National Health Care Standard Guidelines developed	Facility QIC,Div- QIC,D- QIC,N-TFC
Intermediate Objective 4.5: Develop hospital accreditation system	Nil	Hospital Accreditation system in place.	Hospital Accreditation system developed & implemented	
4.5.1 Formation of a core committee for hospital Accreditation system	-	Core committee in place	Core committee formed	N-QISC/QIS
4.5.2 Develop Hospital Accreditation standards	-	Document on Standards for Hospital Accreditation	t Standard for Hospital Accreditation document finalised	QIS/N-TFC
4.5.3 Formation of assessor team	-	Assessor team in place	Assessor team formed	QIS/N-TFC
4.5.4 Formation of Hospital Accreditation board	-	HA board in place	HA board formed	NSC/QIS
4.5.5 Introduce HA system	-	Number of hospital accredited	HA system established	HA board/QIS
Intermediate Objective 4.6: Collaborate with the various regulatory & professional bodies to ensure that all staff are of good standing on yearly basis	Nil		Collaboration mechanism established with different regulatory bodies	
4.6.1 Develop collaboration policy	-	Collaboration policy document in place	Collaboration policy developed	QIS/Regulatory bodies
4.6.2 Introduce collaboration mechanism with professional regulatory bodies and associations by task team	-	Task team in place	Collaboration mechanism introduced	QIS/N-TFC/Regulatory bodies
Intermediate Objective 4.7: Establish system for assess and improve Service provider's satisfaction		Number of facilities conducted yearly survey for Service providers satisfaction	Service providers satisfaction status assessed	

Narrative summary	Baseline	Indicator	Out put	Remarks/ Responsible
4.7.1 Survey to assess Service provider's satisfactions	-	Survey tool in place	Survey report published	Facility QIC/QIS
Strategic Objective 5: Improve public health & preventive services				
Intermediate Objective 5.1: Promote, protect the health of the community, reduce health inequalities and improve accessibility to achieve UHC		Policy guideline to promote, protect the health of the community, reduce health inequalities and improve accessibility to achieve UHC	Community health improved. Health equalities ensured	
5.1.1 Conduction of survey to assess community needs and demands	-	Survey tool	Report published	QIS/N-QITC/N-TFC/acility QIC
5.1.2 Develop communication strategy to promote, protect the health of the community, reduce health inequalities and improve accessibility to achieve UHC	-	Communication strategy guidelines in place	Communication strategy guidelines printed and distributed	QIS/N-QITC/N-TFC
5.1.3 Printing & distribution of Communication strategy guidelines	-	Number of facilities received Communication strategy guidelines	Communication strategy guideline available	QIS/N-TFC
5.1.4 Regular awareness program in facilities	-	Awareness plan in place	Awareness developed	N-TFC/QIS
5.1.5 Prepare strategic plan for diseases prevention and health promotion programme	-	Strategic plan in place	Strategy implemented	N-TFC/QIS
5.1.6 Train staff on communication strategy to promote, protect the health of the community and strategic plan for diseases prevention and health promotion programme	-	Number of facilities where orientation of staffs has been conducted	Capacity building of service providers completed	Facility QIC/Div-QIC/D-QIC N-TFC
5.1.7 Monitoring & supervision plan for implementation community strategy guidelines, strategic plan for diseases prevention and health promotion programme and awareness programme	Nil	M & E tool plan and tool	Monitoring plan and necessary tools in place	Facility QIC
5.1.8 Establish a system for monitoring implementation of community strategy guidelines, strategic plan for diseases prevention and health promotion programme	Nil	Number of facilities where staffs are trained on monitoring on implementation of community strategy guidelines, strategic plan for diseases prevention and health promotion programme Number of facilities providing M& E reports	M&E mechanism developed for implementation of community strategy guidelines, strategic plan for diseases prevention and health promotion programme	Facility QIC,Div-QIC,D-QIC,N-TFC

Narrative summary	Baseline	Indicator	Out put	Remarks/ Responsible
Intermediate Objective 5.2: Strengthen partnership and co-ordination of facilities with other ministries/departments & communities in the development, implementation and evaluation of health programme		Strategic action plan for partnership and coordination in place	Partnership & collaboration established among the ministries and community	
5.2.1 Develop policy guideline on inter-ministerial co-ordination to promote health programmes	-	Policy guideline on inter-ministerial co-ordination in place	Policy guideline on inter-ministerial co-ordination developed	QIS/N-QITC/N-TFC
5.2.2 Develop the Community participation plan	-	Community participatory plan developed at local level	Community participation plan developed	D-QIC/ Div-QIC/Uz-QIC/Facility QIC/QIS
Intermediate Objective 5.3: Introduce and implement outbreaks, epidemics, Disaster management activities		Management plan in place to deal with outbreaks, epidemics, disaster	Public health protected during emergency	
5.3.1 Develop guidelines and tools for outbreaks, epidemics, disaster management in facilities	-	Guidelines and tools in place	Guidelines and tools developed	
5.3.2 Printing & distribution of guidelines and tools for outbreaks, epidemics, disaster management	-	Number of facilities received guidelines and tools for outbreaks, epidemics, disaster management	guidelines and tools for outbreaks, epidemics, disaster management available	QIS/N-TFC
5.3.3 Train staff on guidelines and tools for outbreaks, epidemics, disaster management	-	Number of facilities where orientation of staffs has been conducted	Capacity building of service providers completed	Facility QIC/ Div-QIC/D-QIC N-TFC
5.3.4 Monitoring & supervision plan for implementation of guidelines and tools for outbreaks, epidemics, disaster management	Nil	M & E tool plan and tool	Monitoring plan and necessary tools developed	QIS/N-QITC
5.3.5 Establish a system for monitoring guidelines and tools for outbreaks, epidemics, disaster management	Nil	Number of facilities where staffs are trained on guidelines and tools for outbreaks, epidemics, disaster management Number of facilities providing M&E reports	M&E mechanism on use of SOPs, guidelines and tools for outbreaks, epidemics, disaster management	Facility QIC, Div-QIC, D-QIC, N-TFC

Narrative summary	Baseline	Indicator	Out put	Remarks/ Responsible
Strategic Objective 6: Ensure all necessary inputs for quality improvement				
Intermediate Objective 6.1: Ensure standard infrastructure for delivery of quality services	Poor infrastructure plan	Infrastructure Maintenance plan in place	Good infrastructure ensured to meet the prevalent QI norms	
6.1.1: Ensure adequate space among departments within facilities.	-	Floor plan according to workload	Space for patients ensured	Facility QIC, Div-QIC, D-QIC, Uz-QIC
6.1.2 Ensure Patient amenities as per patient load.	-	List of standard amenities	Patient amenities ensured	Facility QIC, Div-QIC, D-QIC, Uz-QIC
6.1.3: Ensure appropriate layout and demarcated areas among departments within facilities	-	Layout plan	Plan implemented	Facility QIC, Div-QIC, D-QIC, Uz-QIC
6.1.4: Ensure adequate circulation and open spaces among departments within facilities	-	Layout plan	Adequate circulation ensured	Facility QIC, Div-QIC, D-QIC, Uz-QIC
Intermediate Objective 6.2: Ensure physical safety and maintenance of the infrastructure	Nil	Physical safety and maintenance plan in place.	Safety of Service provider & service recipient ensured	
6.2.1 Ensures the seismic safety of the infrastructure of facilities	-	Seismic safety assessment checklist	Seismic safety ensured	facility QIC
6.2.2 Ensures safety of electrical establishment in facilities	-	Electrical safety checklist	Electrical safety ensured	facility QIC
Intermediate Objective 6.3: Ensure adequate qualified, trained staffs required for providing the assured services	Training plan exists	Plan for required training of service providers in place	Skilled health care workforce ensured	
6.3.1 Ensure adequate specialist doctors as per service provision.	-	Number of specialist doctors against requirement	Adequate specialist ensured	facility QIC/QIS /N-QITC
6.3.2 Ensure adequate general duty doctors as per service provision and work load.	-	Number of general duty doctors against requirement	Adequate general duty doctors ensured	facility QIC/QI S/N-QITC
6.3.3 Ensure adequate nursing staff as per service provision and work load.	-	Number of nurses against requirement	Adequate nurses ensured	facility QIC/QIS /N-QITC
6.3.4 Ensure adequate lab technicians/paramedics as per requirement.	-	Number of lab technicians/paramedics against requirement	Adequate lab technician/paramedics ensured	facility QIC/QIS /N-QITC
6.3.5 Ensure adequate support/general staff.	-	Number of support staff against requirement	Adequate support staff ensured	facility QIC/QIS /N-QITC
6.3.6 Ensure required training/skill of service providers	-	Training plan	Service providers received training.	facility QIC/Div-QIC/D-QIC/Uz-QIC/N-TFC

Narrative summary	Baseline	Indicator	Out put	Remarks/ Responsible
6.3.7 Review job description and ensure their availability in facilities	-	JDs in place	Facility has JDs for services by staffs	facility QIC/QIS
Intermediate Objective 6.4: Ensure adequate and essential drugs and logistics in facilities	Drug list	Number of facilities with no stockout of essential drugs and equipments	Supply of essential drugs and logistics ensured in the facility	
6.4.1 Ensure availability of adequate drugs at point of use.	-	Updated drug inventory register in place	Essential drugs are available	facility QIC/Div- QIC/D- QIC/QIS
6.4.2 Ensure adequate consumables at point of use.	-	List of available consumables	Consumables availability ensured	facility QIC/Div- QIC/D- QIC/QIS
6.4.3 Ensure maintenance of emergency drug trays at each point of care	-	Checklist for maintenance of emergency drug tray	Emergency drug tray regular maintenance ensured	facility QIC/Div- QIC/D- QIC/QIS
Strategic Objective 7: Ensure all necessary Support services				
Intermediate Objective 7.1: Ensure system for inspection, testing and maintenance and calibration of equipment	Nil	Logistics maintenance plan in place	System for logistic maintenance ensured	
7.1.1 Establish system for maintenance of logistics/equipments	-	Logistic/equipment maintenance tool in place	Logistic/equipment maintenance system established in health facilities	facility QIC/QIS
7.1.2 Ensure availability of operating and maintenance instructions with the users of equipment.	-	Operating and maintenance instruction in place	Staffs are aware of operational aspects and maintenance of logistic and equipments	facility QIC/QIS
Intermediate Objective 7.2: Establish defined procedures for storage, inventory management and dispensing of drugs in pharmacy and patient care areas	nil	SOP for storage, inventory management and dispensing of drug in place	SOP implemented for storage, inventory management and dispensing of drugs	
7.2.1 Ensure system for forecasting and indenting drugs and consumables.	-	Forecasting plan in place	Forecasting mechanism established	facility QIC/Div- QIC/D- QIC/Uz-QIC/ QIS
7.2.2 Ensure system for procurement of drugs.	-	Drug Procurement guideline	Drug procurement guideline followed	facility QIC/Div- QIC/D- QIC/Uz-QIC/ QIS
7.2.3 Ensures proper storage of drugs and consumables.	-	Storage guideline in place	Drug storage guideline followed	facility QIC/Div- QIC/D- QIC/Uz-QIC/ QIS
7.2.4 Ensure management of expiry and near expiry drugs.	-	Expiry drug checking tools in place	Expiry drug checking tools followed	facility QIC/Div- QIC/D- QIC/Uz-QIC/ QIS

Narrative summary	Baseline	Indicator	Out put	Remarks/ Responsible
7.2.5 Establish system for inventory management techniques.	-	Inventory management plan in place	Inventory management mechanism system established	facility QIC/Div-QIC/D-QIC/Uz-QIC/QIS
Intermediate Objective 7.3: Ensure safe, secure and comfortable environment to staff, patients and visitors.	<u>nil</u>	Safe & comfortable environmental plan in place	System developed to ensure safety and security	
7.3.1 Ensure adequate illumination at patient care areas.	-	Plan to identify areas need appropriate illuminations in place	Adequate illumination ensured in facilities	facility QIC/Div-QIC/D-QIC/Uz-QIC/QIS
7.3.2 Ensure provision of visiting hours	-	Visiting time plan in place	Patient safety from cross-infection and appropriate environment ensured	facility QIC/Div-QIC/D-QIC/Uz-QIC/QIS
7.3.4 Ensure security system in place at patient care areas.	-	Security plan in place	Security system ensured	facility QIC/Div-QIC/D-QIC/Uz-QIC/QIS
7.3.5 Ensure orientation on SOPs by staff for ensuring safety measures	-	SOP in place	SOP practiced and safety ensured by all service providers	facility QIC
7.3.6 Ensure system to display work instructions at Point of use.	-	Work instruction in place	Work instruction followed by service providers	facility QIC, Div-QIC, D-QIC, Uz-QIC, QIS
Strategic Objective 8: Develop effective outcome measure system for QI				
Intermediate Objective 8.1: Ensure system to measure KPI and endeavors to reach National Benchmark.	<u>Nil</u>	Facility report on KPI indicator in place	Facility KPI ensured as per national benchmark	
8.1.1 Develop list of KPI and measurement tools	-	List of KPI in place Tool for measurement in place	KPI and tool for measurement developed	QIS
8.1.2 Printing & distribution of list of KPI, tools for measurement	-	Number of facilities received list of KPI, tools for measurement	list of KPI and tools for measurement available	QIS/N-TFC
8.1.3 Train staff on KPI and measuring tools	-	Number of facilities where orientation of staffs has been conducted	Capacity building of service providers completed	Facility QIC/Div-QIC/D-QIC N-TFC
8.1.4 Establish system for measuring KPI in alternate quarters	-	Tools for measurement in place	Regular measurement on KPI progress ensured	facility QIC/Div-QIC/D-QIC/Uz-QIC/QIS
8.1.5 Establish system for measuring compliance of KPI with National Benchmarks	<u>Nil</u>	Compliance plan of KPI	Compliance report published	QIS/N-TFC

Note: Activities of the implementation plan will be implemented by Director Hospital & Clinics & Line Director HSM, Director Primary Health Care & Line Director ESD of DGHS, under the supervision of Quality Improvement Secretariat (QIS). QIS will be responsible mainly for development of guidelines, protocols, standards & other necessary tools for Quality Improvement & monitoring of the activities. Line Director HSM will be responsible for implementation of the activities in the secondary, tertiary level & Line Director ESD will be responsible for primary level. Director MIS, DGHS will provide technical assistance for developing web based monitoring & supervision framework for QIS.

Part-Four: Organizational Framework

Section A: Overview of the committees

The committees that are set up for QI initiatives and activities are as follows:

A. Organizational level committees:

At national level, there is one central committee (National QI committee) and there supporting committees (National QI Steering committee, National QI Technical committee, & National Task Force Committee). The primary role of the committees at the national level is to provide overall guidance, mentoring and monitoring of QA efforts all over country.

- i. **National Steering Committee (N-QISC)** consists of representatives from MOHFW, DGHS, DGFP, with Secretary of MOHFW as the chair.
- ii. **National QI committee (N-QIC)** consists of representatives from MOHFW & different line directors of DGHS, DGFP, Nursing Directorate, BMA and other professional stakeholder.

The QI secretariat housed within the Health Economics Unit (HEU) of MOHFW serves as a formal management body of National QI committee. The Secretariat supports to accomplish QI initiatives across the country and strengthen and coordinate QI activities in health sector both public and private.

- iii. **National Technical Committee (N-QITC)** consists of representatives from DGHS, Professional bodies, DPs and other organizational bodies, with the DG, DGHS as the chair.
- iv. **The National Task Force Committee (N-TF)** consists of representatives from DGHS and Director hospitals as the chair person.

B. Facility level committees:

The facility level committees are organized at different tiers of health facilities and serve as means of carrying out the quality initiatives at individual facility level. The following table summarizes the committees by level :

Different QI committees at a glance

Administrative levels	Committees by organizational level	Committees by facility level (public)
MOHFW (National)	a. National QI Steering committee (N-QISC) b. National QI Committee (N-QIC) QI Secretariat (QIS)	a. Specialized Hospital Committee (SPH-QIC) b. Medical College Hospital Committee (MCH-QIC)
DGHS (National)	a. National QI Technical committee (N-QITC) b. National Task Force Committee (N-TFC)	
DGFP (National)		
Division	Divisional Quality Improvement committee (Div-QIC)	
District	District Quality Improvement committee (D-QIC)	District Hospital QIC (DH-QIC)
Upazilla	Upazila Quality Improvement Committee(Uz-QIC)	Upazilla Health Complex QIC (UHC-QIC)
Private Health Facility Quality Improvement Committee (PQIC) *QIC at Private Specialized Hospital, QIC at Private Medical College Hospitals, QIC at Private Hospitals/Clinics)		

Reporting mechanism and co-ordination of Organizational Level Committees

The national level committees are liable to update and report to the N-QIC/QI secretariat on their routine activities. There will be scheduled co-ordination meetings among national committees as follows:

- Bi-annual review meeting between N-QIC & N-QITC & N-TFC
- Quarterly review meeting among N-QIC & N-TFC

Moreover, the national level committees will conduct their internal review meetings bi-monthly on progress and updates whereas the divisional and below committees will conduct monthly internal review meetings. Apart from these, the divisional committee (Div-QIC) will arrange a quarterly co-ordination meeting involving the district and upazila committees.

The committees will follow web-based reporting mechanism and regularly report to higher bodies as per the following plan:

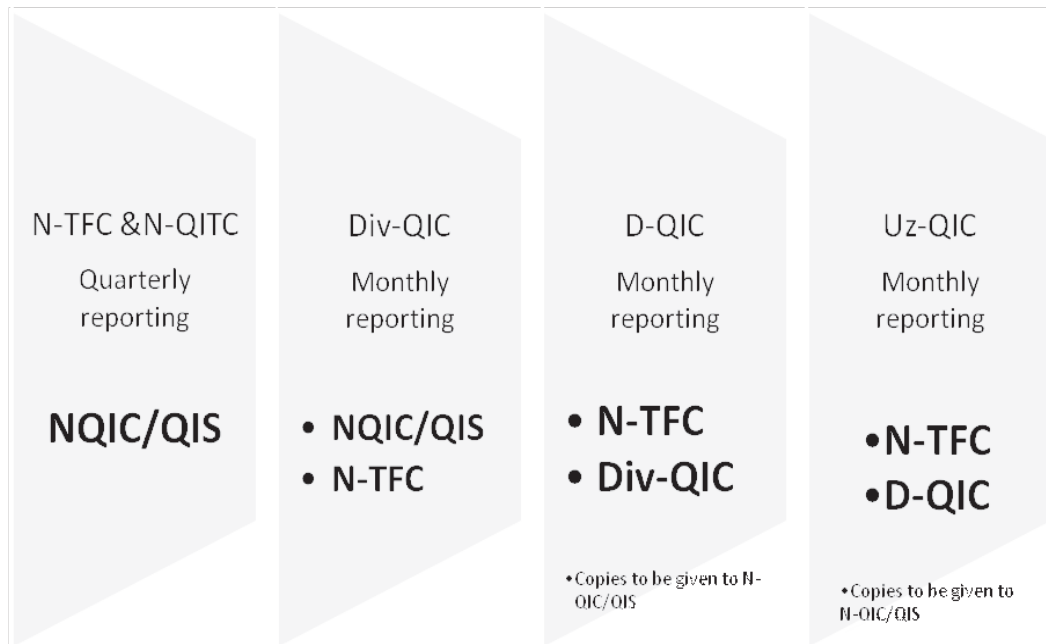


Fig: Reporting channel of Organizational Level Committees

Similarly, facility level committees are to submit a monthly report to higher reporting bodies and will receive a feedback as per need. These committees will also conduct internal review meeting on a monthly basis to share the feedbacks and address the needful interventions.

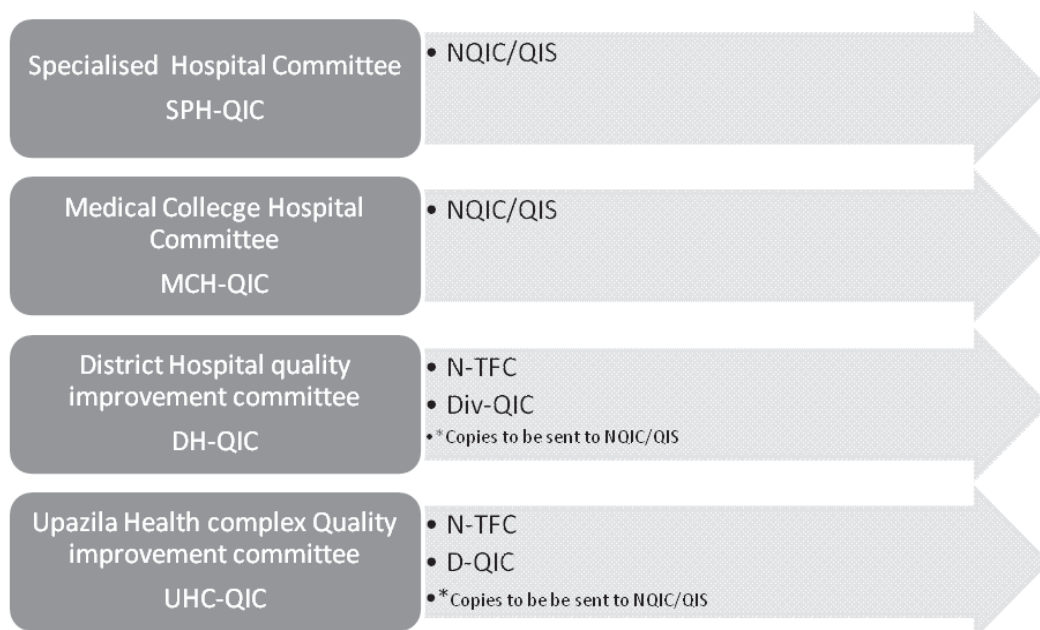


Fig: Reporting channel of Facility Level Committees

In general, monitoring and supervision visits will be made in line of chain of command. The higher level will conduct supervision and monitoring of lower level as external assessors. At district and upazila level, managers and service providers will plan for monthly field visits following structured checklist of monitoring and supervision. As external assessors, there will be quarterly visits by the divisional authority. Similarly, the divisional field supervision and monitoring visits will be done by the divisional managers as well as service providers. As external assessors, the national team (N-QIC/N-TFC) will accompany on a quarterly basis. Every quarterly, field finding will be thoroughly reviewed and appropriate actions will be taken based on the findings.

Section B: Organizational Level Committees

National QI Steering committee (N-QISC)

This is the highest level committee at the ministry level to provide policy guideline and support to the QI Program.

Composition of N-QISC

Chairperson: Secretary, MOHFW

Member Secretary: Program Manager, QA Program, DGHS

Members:

- Director General, DGHS
- Director General, DGFP
- Joint Secretary (Development), MOHFW
- Joint Secretary (Hospital), MOHFW
- Joint Chief Planning, MOHFW
- Director PHC, DGHS
- Director Hospital, DGHS
- Director MIS, DGHS
- Director Planning, DGHS
- Line Director, IST, DGHS
- Director CMSD
- Project director, Community Clinic, MOHFW
- Director (MCH-Services), DGFP
- Director MIS, DGFP
- Line Director, Clinical Contraception, DGFP
- Chief Health Officer, Dhaka City Corporation
- Project Director, UPHCP (urban PHC)
- Director, Nursing
- Representative from Dhaka Medical College Hospital
- Representative from CMMU
- Director, Bangladesh Medical College
- President, BMA
- President, Bangladesh Nursing Association
- President, Private Clinic Association

Terms of references for N-QISC

- Act as a top management advisory body for QI Program
- Enhance top management commitment to QI of health services
- Approve the products developed by the QI Program
- Follow up the progress of QI program implementation and impact

National Quality Improvement Committee (N-QIC)

The main role of the NQIC is to co-ordinate among national committees, monitor and review organization and facility level committees.

Composition of N-QIC

Chair person: Joint Secretary/ DG HEU

Member Secretary: Deputy Director-HEU / Focal Person SSK Cell

Members:

- ADG, Planning
- Director PHC, DGHS
- Director Hospital&Clinics, DGHS
- Program Manager, QA, DGHS
- Director MCH DGFP
- Director NIPSOM
- President/ Secretary General, BMA
- President/ Secretary General, BPMPA
- President, BMDC
- Director, Nursing, BNC
- CHO, Dhaka City Corporation
- Director Drug Administration
- President/ Secretary General Clinic owners association

Terms of References for N-QIC:

- Support to harmonize and improve the Quality of Care in performing both the clinical and managerial responsibilities of the HPN workforce.
- Ensure quality practices in health facilities (both govt.& private), ensure professional accountability, develop organization culture.
- Provide guidance & necessary direction to QI secretariat.
- Coordinate among organizational & facility level QI committees.
- Ensure the P4P in each facility level.
- Responsible for update the QI strategy in regular interval.
- Co-opt any member in the committee.

Modalities of internal review meeting

- a. The N-QIC will meet quarterly for internal reviewing.
- b. The Member Secretary will issue meeting notice at least 7 days before the scheduled date of meeting with the approval of the Chairperson/ Vice Chairperson.
- c. While every attempt should be made to ensure that the Chairperson and/or the Vice-Chairperson are able to attend the meeting, however, in the absence of the Chair, the Member Secretary shall have the right to convene the meeting and conduct it according to the set agenda. Under such circumstances, the minutes of the meeting should be sent to all members before finalization.
- d. The Member Secretary will ensure the preparation of the agenda and notes for the meeting, minutes of the last meeting and Action Taken Report (ATR), which will also be circulated in advance to all committee members, at least seven days before the scheduled date for the meetings.
- e. An attendance by at least one-third of the Committee members will constitute the quorum required for a valid meeting.
- f. Member Secretary will ensure follow-up actions with responsibilities and time lines for the same.

QI secretariat

Since the NQIC itself may not have the sufficient time to accomplish all these responsibilities, it establishes a formal management office known as QI Secretariat. QI Secretariat has full-time staffs reporting to the NQIC.

Composition of QI Secretariat:

Director-1
Deputy Director-1
Assistant Director-2
Coordinator/Focal Person-1
Consultant-2
Medical Officer-4
Administrative officer/ Accountant-1
Data operator/ Computer operator-3
MLSS-4

Terms of references for QI Secretariat:

- Provide administrative support to the N-QIC & perform tasks under the guidance and supervision of N-QIC
- Develop a coordination mechanism nationwide among organization and facility level committees to ensure attainment of standards and quality of care.
- Develop a supervisory and monitoring plan to be implemented by committees to oversee the quality improvement activities and ensure its functionality
- Monitoring and supervision of QI activities in both the public and private facilities with specific attention to conduct supervision and monitoring visits to be arranged jointly by N-TFC and N-QIC
- Ensure attainment of standards for Quality of Care by the facilities with coordination of organization & facility level committees.
- Perform task on quality initiatives in coordination with DGHS & DGFP (LD, HSM/ESD/MCH)
- Review periodically QI activities for both public & private facilities.
- Review QI related protocols, guideline, SOP, tools & Indicators in co-ordination with DGHS
- Organize meeting according to the TOR of national committees
- Organize ongoing review of standards and proposed updating as per need
- Develop new tools, guidelines, SOPs, standards
- Develop KPI and other indicators
- Ensure quality of surveys (monitor the survey standards, review reports)
- Support Quality Improvement training and orientation of the facility staffs
- Conduct research on quality issue
- Disseminate the Quality strategy with clarification as needed from health care facilities or different QI committees
- Develop a framework for regular client satisfaction survey to be conducted by the facility at regular interval and orientation of the staffs
- Yearly client satisfaction survey
- Provide and/or support training courses (including printing) on national standards.
- Support process for acknowledgement of the best performer among the service providers.

National QI Technical Committee (N-QITC)

Primary responsibility of this group is to provide technical guidance and support to the QA Task Group

Composition of N-QITC

Chairperson: Director General, DGHS
Co-chair: Director General, DGFP
Member Secretary: Program Manager, QAP

Members:

- Director, Administration, DGHS
- Director PHC, DGHS
- Director Hospital, DGHS
- Director MIS, DGHS
- Director, Planning, DGHS
- Line Director IST, DGHS
- Director CMSD
- Director (MCH-Services), DGFP
- Line Director, Clinical Contraception, DGFP
- Chief Health Officer, Sylhet City Corporation
- Director, DNS
- Representative from JICA
- Representative from GIZ
- Representative from UNICEF
- Representative from UNFPA
- Representative from WHO
- Representative from Smiling Sun Clinics
- Representative from Engender Health
- Representative from Private Clinic Association

Terms of references for N-QITC

- Guide and support the Task Group for priority setting and action plan development
- Coordinate the quality management issues with various stakeholders including the development partners
- Oversee the activities of the QA Task Group
- Approve the plan and activities of the QA Task Group except for policy issues
- Recommend the QA Task Group activities to the higher level committee (National Steering Committee) as and when required

National Task Force Committee (N-TFC)

The primary responsibility of the Task Force Committee is to develop/adopt/update the guidelines, check lists and SOPs etc for the QAP and to monitor the activities in the field.

Composition of N-TFC

Chairperson: Director, Hospitals & Clinics, DGHS

Co-chairperson: Director PHC, DGHS

Member Secretary: DPM, Quality Assurance Program

Members:

- Program Manager, QAP, DGHS
- Deputy director, Administration, DGHS
- Deputy Director, PHC, DGHS
- Deputy Director, MIS, DGHS
- Deputy Director (training), IST, DGHS
- Asst. Director (Coordination), DGHS
- Deputy Director, MCH, DGFP
- Deputy Director, Clinical Services, DGFP
- DPM (Training), Hospital, DGHS
- DPM, EOC, DGHS
- Representative from JICA
- Representative from GIZ
- Representative from UNICEF
- Representative from UNFPA
- Representative from WHO

Terms of references for N-TFC

- Map out the current quality management mechanisms and initiatives within public, private and NGO health services
- Review and update the existing standard operating procedures (SPOs), checklists and guidelines etc. covering the primary, secondary and tertiary health care service facilities
- Develop the QA work plan with specific roles and responsibilities

Divisional Quality Improvement committee (Div. QIC)

The broad responsibility of this committee is to introduce, strengthen and oversee QI activities in all health facilities under the purview of the divisions. The committee is also responsible for the quality Improvement activities in accordance with the national guidelines and regular and accurate reporting of various key indicators.

Composition of Div- QIC

- **Chair Person:** Director, Divisional Health
- **Member Secretary:** AD- Divisional health
- **Members**
 - Divisional directorFP
 - Deputy director of MCH
 - Medicine Specialist-1
 - Surgery Specialist -1
 - Gynae& Obs Specialist 1
 - Anesthetist-1
 - Metron-1
 - Representative from medical professional bodies e.g. BMA
 - Representatives City corporation
 - Representatives from private hospitals/ Clinics
 - Representatives from private diagnostics lab

Terms of Reference for Div-QIC

1. Implement QI strategy & Guidelines in all health facilities at divisional level and below
2. Ensure attainment of the Standards for Quality of Care by Public & Private Health Facilities in division
3. Monitor and mentor health facilities at divisional level
 - Necessary support for implementation of QI initiatives at divisional facilities
 - Support and ensure hospital administrator/managers/service providers to mentor motivate and encourage quality improvement teams
 - Monthly supervisory visits to divisional health facilities
 - Ensure regular training and orientation of the QI teams
 - Ensure functioning of the QI teams in health facilities
4. Specific mentoring of district and upazila level units
 - Conduct quarterly routine supervisory and monitoring visits to the district and upazila facilities
 - Provide necessary support to establish a functional mechanism of QI activities at the district and upazila facilities including training and orientations
 - Establish a regular reporting system from the district and upazila QI facilities to divisional level and necessary feedback
 - Quarterly divisional co-ordination meeting with district and upazila facility level committees
 - Ensure 'quality initiatives' as an agenda in district and upazila monthly meeting
5. Regular reporting to higher level on divisional update on QI activities and share feedback in the internal review meeting
 - Monthly reporting to the NQIC/ N-TFC
 - Upload reviewed monthly report at divisional health website
 - Sharing of report in internal review meeting as well as with district and upazila committees and other stakeholders

6. Periodic Review of the progress of QI activities
 - Conduct divisional quarterly co-ordination meetings with district and upazila committees
 - Conduct monthly internal review meetings
 - Set targets, roadmaps and site example for best practices
 - Review Quality scores attained by different categories of Public Health Facilities.
 - Provide support for necessary corrections as per need
7. Support quality improvement process
 - Organize yearly QI festival
 - Recognize good performance by the facilities on QI activities
8. View and assess key performance indicators of quality
 - Encourage to follow national key indicator chart
 - Identify champions as model to encourage others
9. Co opt any member as per requirement

Modalities to conduct Divisional Co-ordination meeting

- a. The Divisional Quality Improvement Committee will arrange Divisional co-ordination meeting quarterly involving the district and upazila committees
- b. The Member Secretary will issue meeting notice at least 2 weeks before the scheduled date of meeting with the approval of the Chairperson/ Vice Chairperson. The district and upazila participants will be notified even earlier.
- c. While every attempt should be made to ensure that the Chairperson and/or the Vice-Chairperson are able to attend the meeting, however, in the absence of the Chair, the Member Secretary shall have the right to convene the meeting and conduct it according to the set agenda. Under such circumstances, the minutes of the meeting should be sent to all members before finalization.
- d. The Member Secretary will ensure the preparation of the agenda and notes for the meeting, minutes of the last meeting and Action Taken Report (ATR), which will also be circulated in advance to all committee members, at least seven days before the scheduled date for the meetings.
- e. An attendance by at least one-third of the Committee members will constitute the quorum required for a valid meeting.
- f. Member Secretary will ensure follow-up actions with responsibilities and timelines for the same.

Modalities to conduct Divisional Internal Review meeting

- a. The Divisional Quality Improvement Committee will meet once in every month.
- b. The Member Secretary will issue meeting notice at least 7 days before the scheduled date of meeting with the approval of the Chairperson/ Vice Chairperson.
- c. While every attempt should be made to ensure that the Chairperson and/or the Vice-Chairperson are able to attend the meeting, however, in the absence of the Chair, the Member Secretary shall have the right to convene the meeting and conduct it according to the set agenda. Under such circumstances, the minutes of the meeting should be sent to all members before finalization.
- d. The Member Secretary will ensure the preparation of the agenda and notes for the meeting, minutes of the last meeting and Action Taken Report (ATR), which will also be circulated in advance to all committee members, at least seven days before the scheduled date for the meetings.
- e. An attendance by at least one-third of the Committee members will constitute the quorum required for a valid meeting.
- f. Member Secretary will ensure follow-up actions with responsibilities and timelines for the same.

District Quality Improvement Committee (D-QIC)

Composition of D- QIC

Chairperson: Civil Surgeon

Member secretary: DCS/MO, CS

Members

- DD, Family Planning
- UHFPO Sadar
- RMO/ RP/ RS
- Public Health nurse
- BMA
- Representatives from NGO
- Representatives from private hospital & diagnostics

Terms of references for D-QIC

1. Implement QI strategy & Guidelines in all health facilities at district level and below
2. Ensure attainment of the Standards for Quality of Care by Public & Private Health Facilities in district
3. Monitor and mentor health facilities at district level
 - Necessary support for implementation of QI initiatives at district facilities
 - Support and ensure hospital administrator/managers/service providers to mentor, motivate and encourage quality improvement teams
 - Monthly supervisory visits to district health facilities
 - Ensure regular training and orientation of the QI teams
 - Ensure functioning of the QI teams in health facilities
4. Specific mentoring of upazila level units
 - Conduct quarterly routine supervisory and monitoring visits to the upazila facilities
 - Provide necessary support to establish a functional mechanism of QI activities at the upazila facilities including training and orientations
 - Establish a regular reporting system from the upazila facilities to district level and necessary feedback
 - Ensure 'quality initiatives' as an agenda in upazila monthly meeting
5. Regular reporting to higher level on district update on QI activities and share feedback in the internal review meeting
 - Monthly reporting to the N-TFC/Div-QIC
 - Upload reviewed monthly report at district health website
 - Sharing of report in internal review meeting as well as with upazila committees and other stakeholders
6. Periodic Review of the progress of QI activities
 - Conduct monthly internal review meetings
 - Set targets, roadmaps and site example for best practices
 - Review quality scores attained by different categories of Public Health Facilities.
 - Provide support for necessary corrections as per need

- Review quality scores attained by different categories of Public Health Facilities.
- Provide support for necessary corrections as per need
- 6. Support quality improvement process
 - Organize yearly QI festival
 - Recognize good performance by the facilities on QI activities
- 7. View and assess key performance indicators of quality
 - Encourage to follow national key indicator chart
 - Identify champions as model to encourage others
- 8. Dissemination of QI policy and guidelines: The DQIC will be responsible for disseminating the QI guidelines to service providers and stakeholders.
- 9. Co opt any member as per requirement

Modalities to conduct internal review meeting

- a. The district quality improvement committee will meet once in every month.
- b. The Member Secretary will issue meeting notice at least seven working days before the scheduled date of the meeting with the approval of the Chairperson.
- c. While every attempt should be made to ensure that the Chairperson is able to attend the meeting, however, in the absence of the Chair, the Member Secretary shall convene the meeting. Under such circumstances, the minutes of the meeting should be sent to the Chairperson for information and ratification
- d. Member Secretary will ensure the preparation of agenda notes, and action taken reports, which will be circulated in advance to all committee members preceding the DQIC meetings.
- e. An attendance by at least one third of the Committee members will constitute the quorum required for a valid meeting.
- f. Member Secretary will ensure follow-up actions with responsibilities and timelines for the same.

Upazilla Quality Improvement committee (Uz-QIC)

Composition of Uz- QIC

Chairperson: Upazila Health& Family Planning Officer

Member secretary (Selected by UHFPO): Medical Officer

Members:

- Upazila Family Planning Officer
- MO, MCH
- Health Inspector
- FPI
- SACMO
- Representatives from private hospitals/clinics
- Representatives from private diagnostic lab

Terms of References for Uz-QIC

1. Implement QI strategy & Guidelines in all health facilities at upazila level and below
2. Ensure attainment of the Standards for Quality of Care by Public & Private Health Facilities in upazila
3. Monitor and mentor health facilities at upazila level
 - Necessary support for implementation of QI initiatives at upazila facilities
 - Support and ensure hospital administrator/managers/service providers to mentor, motivate and encourage quality improvement teams
 - Monthly supervisory visits to upazila health facilities
 - Ensure regular training and orientation of the QI teams
 - Ensure functioning of the QI teams in health facilities
4. Specific mentoring of facilities at union level facilities and below
 - Conduct quarterly routine supervisory and monitoring visits to the union facilities and below
 - Provide necessary support to establish a functional mechanism of QI activities at the union facilities and below including training and orientations
 - Establish a regular reporting system from the union facilities to upazila level and necessary feedback
5. Regular reporting to higher level on upazila update on QI activities and share feedback in the internal review meeting
 - Monthly reporting to the N-TFC/Div-QIC
 - Sharing of report in internal review meeting
6. Periodic Review of the progress of QI activities
 - Conduct monthly internal review meetings
 - Set targets, roadmaps and site example for best practices
 - Review Quality scores attained by different categories of Public Health Facilities.
 - Provide support for necessary corrections as per need
7. Support quality improvement process
 - Organize yearly QI festival
 - Recognize good performance by the facilities on QI activities
8. View and assess key performance indicators of quality
 - Encourage to follow national key indicator chart
 - Identify champions as model to encourage others
9. Co-opt any member as per requirement

Modalities to conduct upazila internal review meeting

- a. The Upazila Quality Improvement Committee will meet once in a month.
- b. The Member Secretary will issue meeting notice at least seven working days before the scheduled date of the meeting with the approval of the Chairperson.
- c. While every attempt should be made to ensure that the Chairperson is able to attend the meeting, however, in the absence of the Chair, the Member Secretary shall convene the meeting. Under such circumstances, the minutes of the meeting should be sent to the Chairperson for information and ratification
- d. Member Secretary will ensure the preparation of agenda notes, and action taken reports, which will be circulated in advance to all committee members preceding the DQIC meetings.

- a. An attendance by at least one third of the Committee members will constitute the quorum required for a valid meeting.
- b. Member Secretary will ensure follow-up actions with responsibilities and timelines for the same.

Section C: Facility level committees

QIC at Specialized hospital (Public & Private)

Composition of QIC at Specialized Hospital

Chairperson: Director/Super/CEO

Member secretary: DD/AD-1

Members:

- Senior level specialist-3
- RP/RS-1
- Medical officer-1
- Nursing In-Charge/Nursing Supervisor-1
- Lab-Manager-1

Terms of References for Specialized Hospital Committees (SPH-QIC)

1. Ensure adherence to the clinical protocols & quality standards:
Through regular internal assessments, audits, reviews etc the hospital QI committee members should ensure that the protocols, guideline & standards set are being met. Corrective action plans should be initiated for identified gaps.
2. Regular monthly reporting to the NQIC/QIS and sharing of feedback of report in internal review meeting
3. Ensure implementation of QI strategy & guidelines at hospitals to attain quality of care
4. Monitoring and mentoring QI teams
 - Regular inspection, review of QI activities and planning for continuous improvement-Provide support for activities of quality improvement teams
 - Ensure regular training and orientation of the QI teams with support from National Task force
 - Ensure interdepartmental coordination through liaison with various departments within the facility for effective implementation of QI activities.
5. Periodic Review of the progress of QI activities:
 - Conduct monthly review meetings.
 - Set targets, roadmaps and site example for best practices
 - Review Quality scores attained by teams
 - Provide support for necessary corrections as per need
6. Support quality improvement process:
 - Organize yearly QI festival
 - Recognize good performance by the facilities on QI activities
7. View key performance indicators of quality:
 - Encourage to follow national key indicator chart
 - Develop and maintain facility level indicators chart
 - Identify champions as model to encourage others
8. Co-opt any member as per requirement

Modalities to conduct monthly internal review meeting

- a. Once the Specialized hospital (facility) QI committee is formed, areas for an initial assessment need to be identified in the first meeting.
- b. For achieving the standards, the committee will undertake the process of filling the check list, scoring the measurable indicators, summing up area wise and services wise gaps.
- c. Assessment to be carried out and based on its findings follows up actions to be taken.
- d. Monitoring of the follow up actions has to be done in the subsequent meetings. A regular monthly meeting will be conducted
- e. Assessments should be followed by time bound action plans along with person responsible for each action shall be prepared.
- f. Facility in-charge and hospital manager should do daily rounds to supervise the QI activities and sustain the motivational level of the staff.

QIC at Medical College Hospital (MCH - QIC)

Composition of QIC at Medical College Hospital

Chairperson: Director/ Super/CEO

Member secretary : DD/AD

Members:

- Prof Medicine –1
- Prof Surgery – 1
- Prof Gyne- 1
- Prof Anesthesia-1
- Prof Pediatrics- 1
- RP/RS-1
- Nursing Supervisor
- Administrative Officer

Terms of References for QIC at Medical College Hospital (MCH - QIC)

1. Ensure adherence to the clinical protocols & quality standards:
Through regular internal assessments, audits, reviews etc the hospital QI committee members should ensure that the protocols, guideline & standards set are being met. Corrective action plans should be initiated for identified gaps.
2. Regular monthly reporting to the NQIC/QIS and sharing of feedback of report in internal review meeting
3. Ensure implementation of QI strategy & guidelines at hospitals to attain quality of care
4. Monitoring and mentoring QI teams
 - Regular inspection, review of QI activities and planning for continuous improvement
 - Provide support for activities of quality improvement teams
 - Ensure regular training and orientation of the QI teams with support from National Task force
 - Ensure interdepartmental coordination through liaison with various departments within the facility for effective implementation of QI activities.
5. Periodic Review of the progress of QI activities:
 - Conduct monthly review meetings.
 - Set targets, roadmaps and site example for best practices
 - Review Quality scores attained by teams
 - Provide support for necessary corrections as per need

1. Support quality improvement process:
 - Organize yearly QI festival
 - Recognize good performance by the facilities on QI activities
2. View key performance indicators of quality:
 - Encourage to follow national key indicator chart
 - Develop and maintain facility level indicators chart
 - Identify champions as model to encourage others
3. Co-opt any member as per requirement

Modalities to conduct monthly internal review meeting

- a. Once the Medical College QI committee is formed, areas for an initial assessment need to be identified in the first meeting.
- b. For achieving the standards, the committee will undertake the process of filling the check list, scoring the measurable indicators, summing up area wise and services wise gaps.
- c. Assessment to be carried out and based on its findings follows up actions to be taken.
- d. Monitoring of the follow up actions has to be done in the subsequent meetings.
- e. Assessments should be followed by time bound action plans along with person responsible for each action shall be prepared.
- f. Facility in-charge and hospital manager should do daily rounds to supervise the QI activities and sustain the motivational level of the staff.

QIC at District Hospital (DH - QIC)

Composition of QIC at District Hospital

Chairperson: DD/AD/Superintendent

Member Secretary: AD/RMO

Members:

- Surgery Consultant-1
- Medicine Consultant -1
- Gynae & Obs Consultant-1
- Anesthesia Consultant-1
- Pediatric Consultant-1
- Emergency Medical Officer-1
- Nursing Supervisor-1
- Medical Technologist-1
- Administrative Officer-1
- Ward Master-1

Terms of References for QIC at District Hospital (DH - QIC):

1. Ensure adherence to the clinical protocols & quality standards: Through regular internal assessments, audits, reviews etc the hospital QI committee members should ensure that the protocols, guideline & standards set for a district hospital are being met. Corrective action plans should be initiated for identified gaps.
2. Regular reporting to N-TFC/Div-QIC
 - Monthly reporting to the N-TFC/Div-QIC. A copy of the report will be set to N-QIC/QIS.
 - Sharing of feedback of report in internal review meeting
3. Ensure implementation of QI strategy & guidelines at hospitals to attain quality of care
4. Conduct formal training for the staff of facilities with support from the National Task force
5. Monitoring and mentoring QI teams
 - Regular inspection, review of QI activities and planning for continuous improvement
 - Provide support for activities of quality improvement teams
 - Ensure regular training and orientation of the QI teams

1. Ensure interdepartmental coordination through liaison with various departments within the facility for effective implementation of QI activities.
2. Periodic Review of the progress of QI activities:
 - Conduct monthly internal review meetings.
 - Participate in divisional co-ordination meeting at quarterly interval
 - Set targets, roadmaps and site example for best practices
 - Review Quality scores attained by teams
 - Provide support for necessary corrections as per need
8. Dissemination of QI policy and guideline to service providers
9. Support quality improvement process:
 - Organize yearly QI festival
 - Recognize good performance by the facilities on QI activities
10. Viewing Key performance indicators of quality:
 - Encourage to follow national key indicator chart
 - Develop and maintain facility level indicators chart
 - Identify champions as model to encourage others
11. Co-opt any member as per requirement

Modalities to conduct internal review meeting

- a. Once the district hospital (facility) QI committee is formed, areas for an initial assessment need to be identified in the first meeting.
- b. For achieving the standards, the committee will undertake the process of filling the check list, scoring the measurable indicators, summing up area wise and services wise gaps.
- c. Assessment to be carried out and based on its findings follows up actions to be taken.
- d. Monitoring of the follow up actions has to be done in the subsequent meetings.
- e. Assessments should be followed by time bound action plans along with person responsible for each action shall be prepared.
- f. Facility in-charge and hospital manager should do daily rounds to supervise the QI activities and sustain the motivational level of the staff.

QIC at Upazilla Health Complex (UHC-QIC)

Composition of QIC at Upazilla Health Complex

Chairperson: UHFPO

Member secretary: RMO

Members:

- a. Gynae&Obs Consultant-1
- b. Surgery Consultant-1
- c. Medicine Consultant -1
- d. Anesthesia Consultant-1
- e. Emergency Medical Officer-1
- f. Medical Technologist-1
- g. Administrative Officer-1
- h. Nursing supervisor-1

Terms of References for QIC at Upazilla Health Complex (UHC - QIC)

1. Ensure adherence to the clinical protocols & quality standards:
Through regular internal assessments, audits, reviews etc the hospital QI committee members should ensure that the protocols, guideline & standards set for a district hospital are being met. Corrective action plans should be initiated for identified gaps.
2. Regular monthly reporting to the N-TFC/D-QIC and sharing of feedback of report in internal review meeting
3. Ensure implementation of QI strategy & guidelines at UHC to attain quality of care
4. Conduct formal training for the staff of facilities with support from the district committees/divisional committees
5. Monitoring and mentoring QI teams
 - Regular inspection, review of QI activities and planning for continuous improvement
 - Provide support for activities of quality improvement teams
 - Ensure regular training and orientation of the QI teams
6. Ensure interdepartmental coordination through liaison with various departments within the facility for effective implementation of QI activities.
7. Periodic Review of the progress of QI activities
 - Conduct monthly internal review meetings.
 - Participate in divisional co-ordination meeting at quarterly interval
 - Conduct quarterly review meetings.
 - Set targets, roadmaps and site example for best practices
 - Review Quality scores attained by teams
 - Provide support for necessary corrections as per need
8. Support quality improvement process:
 - Organize yearly QI festival
 - Recognize good performance by the facilities on QI activities
9. View key performance indicators of quality:
 - Encourage to follow national key indicator chart
 - Develop and maintain facility level indicators chart
 - Identify champions as model to encourage others
10. Co-opt any member as per requirement

Modalities to conduct internal review meeting

- a. Once the Upazila Health Complex QI committee is formed, areas for an initial assessment needs to be identified in the first meeting.
- b. For achieving the standards, the committee will undertake the process of filling the check list, scoring the measurable indicators, summing up area wise and services wise gaps.
- c. Assessment to be carried out and based on its findings follows up actions to be taken.
- d. Monitoring of the follow up actions has to be done in the subsequent meetings.
- e. Assessments should be followed by time bound action plans along with person responsible for each action shall be prepared.
- f. Facility in-charge and hospital manager should do daily rounds to supervise the QI activities and sustain the motivational level of the staff.

QIC at Specialized Hospital (DGFP)

Chairperson: Superintendent/Director: 1
Member Secretary: Deputy Director/Junior Consultant: 1
Members:

- a. Senior consultant: 1
- b. Junior Consultant: 1
- c. Jr. Matron
- d. FWV: 1

Terms of Reference & modalities will be same for QIC at Specialized Hospital (Public & Private)

QIC at District (MCWC)

Chairperson: MO (Clinic)-1
Member Secretary: MO (MCH-FP)-1
Members:

- a. FWV-2
- b. Store-keeper-1

Terms of Reference & modalities will be same for QIC at District Hospital

QIC at Upazila (MCWC)

Chairperson: MO (Clinic)-1
Member Secretary: MO (MCH-FP)-1
Members:

- a. FWV- 2
- b. Store-keeper-1

Terms of Reference & modalities will be same for QIC at Upazila Health Complex

Quality Improvement initiatives for Private Health care facilities

Private Health Care facilities Quality Improvement Committees (P-QIC) will be formed at different tiers. Each registered Private Clinic/ General Hospital/ Medical College hospital/ Specialized hospital will form QI committee (5-7 members, similar to public facility committee) and implement the strategic objectives of Quality of Care with the special emphasis on patient centered service in their facilities. Similar to public facilities, the private facilities at district and upazila level will be monitored and mentored by divisional/district quality improvement committees.

Terms of References for Private health facility Quality Improvement Committee (PQIC)

1. Ensure adherence to the clinical protocols & quality standards:
Through regular internal assessments, audits, reviews etc the hospital QI committee members should ensure that the protocols, guideline & standards set are being met. Corrective action plans should be initiated for identified gaps.
2. Regular monthly reporting to similar to that of the public facilities and sharing of feedback of report in internal review meeting
3. Ensure implementation of QI strategy & guidelines at hospitals to attain quality of care
4. Monitoring and mentoring QI teams
 - Regular inspection, review of QI activities and planning for continuous improvement
 - Provide support for activities of quality improvement teams
 - Ensure regular training and orientation of the QI teams with support from National Task force
 - Ensure interdepartmental coordination through liaison with various departments within the facility for effective implementation of QI activities.
5. Periodic Review of the progress of QI activities:
 - Conduct monthly review meetings.
 - Set targets, roadmaps and site example for best practices
 - Review Quality scores attained by teams
 - Provide support for necessary corrections as per need
6. Support quality improvement process:
 - Organize yearly QI festival
 - Recognize good performance by the facilities on QI activities
7. View key performance indicators of quality:
 - Encourage to follow national key indicator chart
 - Develop and maintain facility level indicators chart
 - Identify champions as model to encourage others
8. Co-opt any member as per requirement

Part-Five: Implementation Modality, Monitoring & Supervision

Director, Hospital & Clinics and Director, Primary Health Care of Director General of Health Services will be responsible for overall implementation for Quality of Care in the facilities according to implementation plan for Public Health Facilities. Quality Improvement Secretariat will act as a central monitoring body for Quality Improvement in Health Care Service Delivery.

Set-up Organizational & facility level committees for Quality Improvement

Committees are to be formed following standard framework at all levels. These committees will follow the specific TORs and remain functional by implementing required set of recommended activities.

Adoption of QI standards

National Quality Improvement strategic planning has been finalized taking into consideration the existing relevant quality standards through a consultative process with experts and stakeholders by reviewing of global best practices. The facilities need to adopt the set standards and adhere to the developed guidelines, tools

Capacity Building

Successful implementation of quality improvement programme requires training of the service providers on a regular basis. The service providers (doctors, nurses, para-medical staffs & others) require trainings on clinical protocols, clinical/death audits tools as well as necessary other tools, checklist for improving quality of services. Moreover, support services also need to be strengthened through appropriate orientation, training of the relevant staffs. All implementation activities need to be monitored and supervised on both the internal and external basis. Training on supervision and monitoring tools and guidelines also need to be conducted.

Implement Quality Improvement initiatives

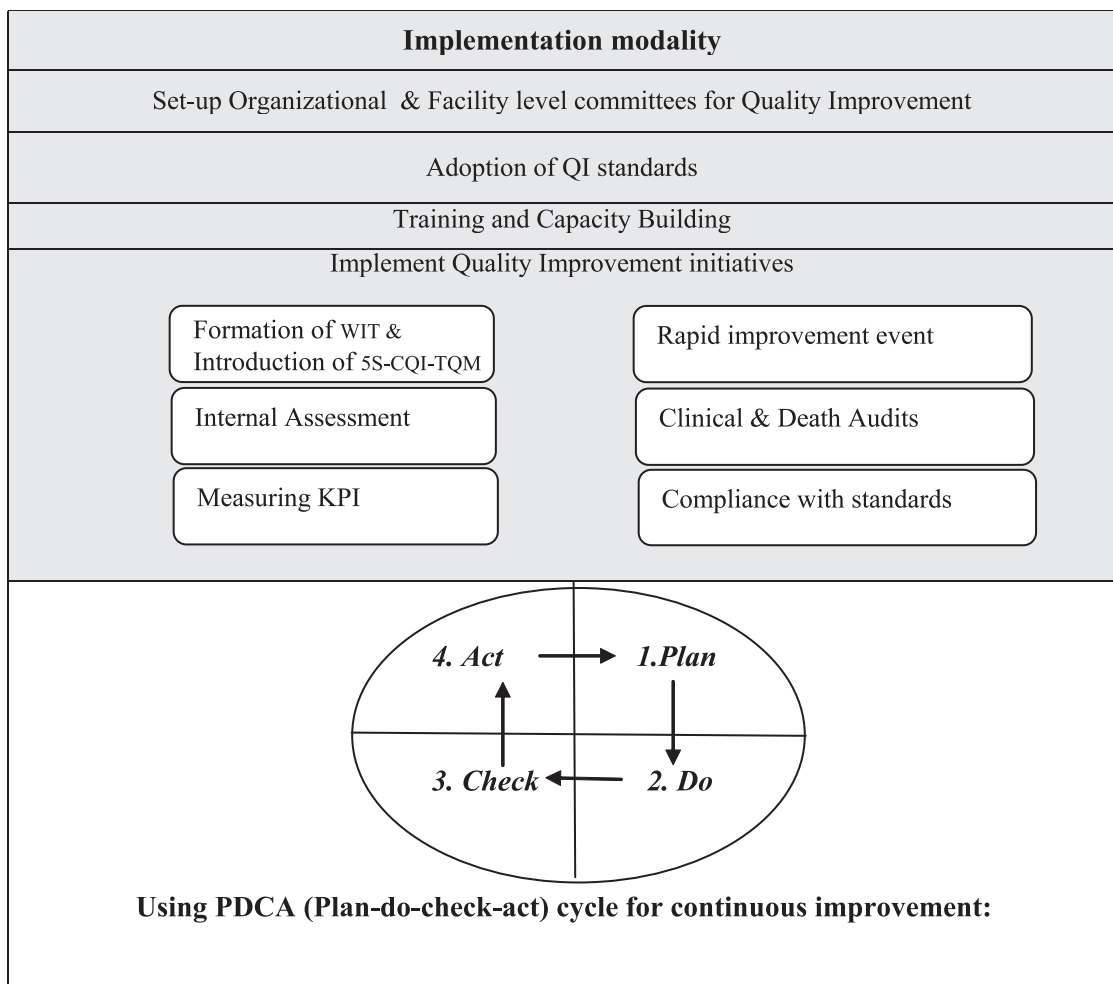
Quality improvement is a continuous, comprehensive and cyclic process. The following set of activities needs to be undertaken to improve quality at the facility level:

- a. **Formation of facility QIC and WIT:** Facility QIC committee is the pre-requisite of initiation of all quality related activities in a facility. Individual WIT (work improvement team) needs be formed comprising of staffs at various levels area wise. This team approach modality for QA implementation will enhance quality initiatives. The team should meet periodically to discuss the status of quality initiatives in their area of work. All these activities will have to be under guidance of the facility manager.
- b. **Internal Assessment through surveys:** Facility requires conducting a regular process of internal assessment at fixed interval in all critical departments. The assessment will essentially guide through identifying gap and deciding on subsequent activities such as: resource allocation for each gap, designating a person/team responsible for the corrective action and specific timeframe for completion of the task. Patient satisfaction survey is one of the very important surveys.
- c. **Measuring KPI and compliance:** Critical data from various departments of the facility will be gathered and analysed as per the national standards of KPI. This is a critical review and will guide through a continuous process of improvement.
- d. **Rapid Improvement Events:** Rapid improvement event is quality improvement methodology where one or more areas of hospital are chosen for a more focused quality interventions with specific problem solving tools. Every facility would choose one focused area for Rapid improvement event for every assessment cycle.
- e. **Clinical & Death Audits:** Under quality improvement programme all facilities should establish procedure for death and clinical audit. While death audits should be conducted for all deaths happening at the facility, clinical audit needs to be done on a representative sample drawn from medical records.
- f. **Compliance with standards:** Following orientation on guidelines, SOPs the clinical and management process needs to be strengthened through appropriate supervision and monitoring within the facility.

Using PDCA (Plan-do-check-act) cycle for continuous improvement

PDCA is a cyclical process of improvement. ‘Plan’ is to determine the process to identify the problem, set objectives and develop necessary plan for improvement. ‘Do’ is to implement the plan on a test basis and find out whether the execution of plan improves the scenario. ‘Check’ is to assess the plan if it is working and the goal is achieved or not. ‘Act’ is to institutionalize the improvement and continue the cycle with identification and solving new problems.

Monitoring & Evaluation Apart from periodic monitoring internally, the external monitoring is to be done from higher level. National team (N-QIC/N-TFC) as external assessors also will monitor through quarterly visits. Moreover, different components of quality initiatives will be assessed not frequently, but once or twice a year with guidance from the QIS.



Monitoring & Evaluation

Monitoring Quality involves evaluating current performance, including service-user perspectives, against a standard or expected level of performance. This consists of defining indicators, developing information systems and the analysis and evaluation of results.

The ability to monitor and report on quality is accepted as a basis for the improvement in the delivery of healthcare. Monitoring and reporting on quality assists health care providers improve performance through benchmarking, empowers consumers to make informed decisions and facilitates system-wide quality improvement by informing national policies. KPIs can be used for monitoring and reporting on performance through benchmarking, to identify areas for detailed attention in the assessment process and may even prompt risk-based assessments.

Monitoring is a continuing function that uses systematic collection of data on specific indicators to provide the management of an ongoing intervention with indications of the extent of achievement of objectives and progress.

According to Donabedian, healthcare quality can be assessed & monitored using a three-part model based on the structures, processes and outcomes of the healthcare system. This division of healthcare has allowed the identification of data across the full spectrum of healthcare that contributes to monitoring the quality of the various constituents of healthcare delivery.

Structure relates to the resources of the healthcare system that contribute to its ability to meet the healthcare needs of the population. Structural indicators refer to the resources used by an organization to deliver healthcare and include buildings, equipment, the availability of specialist personnel and available finances.

Process relates to what is actually done for the service user and how well it is done. Process indicators measure the activities carried out in the assessment and treatment of service users and are often used to measure compliance with recommended practice, based on evidence or the consensus of experts.

Outcome relates to the state of health of the individual or population resulting from their interaction with the healthcare system. It can include lifestyle improvements, emotional responses to illness or its care, alterations in levels of pain, morbidity and mortality rates, and increased level of knowledge.

Five key domains that can be used for monitoring the health care Quality:

Safety: The service protects the health and welfare of service users; it minimizes the risk associated with delivering care; it prevents adverse events, minimizes their impact when they occur and learns when things go wrong.

Effective: Care that delivers the best achievable outcomes through the evaluation and use of available evidence.

Patient-centred: Care that centres on the needs and rights of service users, respects their values and preferences and actively involves them in the provision of their care.

Equitable: The service enables fair access to care which is delivered based on need. It also addresses

identified health inequalities of the population served.

Efficient: The service manages and develops its available resources sustainably to deliver and maintain the best possible quality of care.

Indicators: An indicator is a quantitative or qualitative variable that allows changes produced by an intervention relative to what was planned to be measured. It provides a reasonably simple and reliable basis for assessing achievement, change or performance. An indicator is preferably numerical and can be measured over time to show changes. Indicators, which are determined during the planning phase of a project, usually have the following components:

1. What is to be measured? (What is going to change? e.g. Responsiveness & Patient satisfaction)
2. Unit of measurement to be used (to describe the change, e.g., percentage)
3. Pre-program status (sometimes called the “baseline”, e.g., 40 per cent in 2007)
4. Size, magnitude or dimension of intended change (e.g., 75 per cent in 2008)

The Strategic Planning on Quality Improvement has been developed for implementing quality improvement activities. Measuring quality of health care activities at health facilities is crucial to understand change of quality. This document therefore tries to attempt to develop a generic monitoring system that could be applicable commonly for a health facility irrespective of its size, nature, location or specialty.

As we proceed to design monitoring system it is important to identify patients` basic first line expectations towards a facility /hospital. Such as:

1. Health System Responsiveness & Patient satisfaction i.e. Dignity, Autonomy, Privacy, Communication, Cleanliness, Waiting time, Consultation time, basic Amenities etc
2. Improved outcome including timeliness
3. Low cost (Less out of pocket expenditure)

These are practically the basics but there are other things, for example, infection prevention, knowing about health condition, right to choose service (Informed consent) etc that contribute largely to produce patient satisfaction.

Further to these there are some ancillary things too to contribute final quality like laboratory services, supply services, laundry services, diet services, referral services etc. that directly or indirectly influence patient satisfaction.

Methods of monitoring and improving quality:

Monitoring performance is a key element of quality improvement. The activity of monitoring assists organizations to bench mark performance against identified targets or expectations in order to identify where there is room for improvement. There are anumber of methods through which the performance and quality of health care organizations can be monitored and improved and in practice monitoring is often acombination of methods, including:

- Regulatory inspection
- Surveys of consumer experiences
- Third-party assessments

Key performance indicators

In regards to quality issues we will designate most important quality issues as Key Performance areas and thus to identify Key Performance indicators (KPIs). KPIs cannot improve quality, however, they effectively act as flags or alerts to identify good practice, provide comparability within and between similar services, where there are opportunities for improvement and where a more detailed investigation of standards is warranted. The ultimate goal of KPIs is to contribute to the provision of a high quality, safe and effective service that meets the needs of service users.

Rest of the quality issues will be considered as additional quality issues and the indicators on these are to be used at facility level, i.e Facility level indicators additional to KPIs, which means Facility will work on all indicators but will have obligation to report KPIs to National body i.e. NQIC, QIS etc.

Therefore, at a glance the monitoring system will have:

1. Key Performance Indicators (KPI): Key Performance Indicators are common & general indicators. All health facilities (primary, secondary and tertiary) must stick with these, be it public or private, across the country. KPI will be developed by QIS with the consultation of related stake holders.
2. Facility level indicators: These indicators are mainly facility specific additional to KPIs. Facilities will have freedom to choose their indicators as fit for their QI initiative out of a list of indicators provided by QI Secretariat.

Mechanism Of Monitoring

As we know Quality Improvement Process always needs to be associated with constant and close monitoring at all levels and at frequent intervals. Monitoring will be conducted internally i.e. within facility, externally i.e. from outside and 3rd Party independent review

Internal Monitoring :

Monitoring to be done by the Quality Improvement Committee (QIC) by using the monitoring tools/ checklist which will be developed by Facility committee & QI Secretariat, jointly. They will summarize the data and will report to higher level and also make presentation at progress review conference.

External Monitoring :

A third eye view is important as long as 'Quality' is concerned. Monitoring would be done by teams of four kinds like:

- a. National QI Monitoring Team
- b. Divisional QI Monitoring Team
- c. District QI Monitoring Team
- d. Upazila QI Monitoring team

Independent Review :An independent review team will be developed by QIS with the aim to appraise the facility level & KPI indicators.

Part-Six:

Pay for performance (P4P)

Quality culture can be built up with consistent efforts and investments. It is not something which is inherent and cannot be changed. One of the key initiative for building Quality culture is through 'rewards and recognition' and continuing handholding support from the central & district administration. Both the monetary and non-monetary incentives can be provided at three levels: Institutional, Team and Individuals.

A. Financial Incentives:

Financial incentives can be rewards for individuals and quality team. A percentage of incentive money may be used for improving infrastructure and amenities for the staff and patients. Incentive money can be given to the health facility that succeeds in getting the National Certification. The amount should be proportionate to the size of the facility (Number of Beds). National Steering Committee will fix the amount of financial incentives. QIS will administer this financial incentives provision. However, this fund will not be spent on those activities for which support from the state's regular budget is available.

The incentive amount can be used for following purposes:

- 25% of fund can be spent on financial incentives for the staff, who have been active participants of quality assurance programme.
- Remaining 75% of such fund can be spent in improving working condition at the health facility.

Examples of few activities where this fund can be used are as follows:

- i. Welfare activities like organising recreation event (e.g. annual retreat, cultural function, etc.).
- ii. Strengthening of staff canteen/ rest room (e.g. Purchase of microwave for heating of food by duty staff).
- iii. Library with books, journals, periodical for doctors, nurses and paramedical staff.
- iv. Improvement in amenities in duty rooms.
- v. Health insurance for contractual employees and for those employees, who are not covered by any other scheme.
- vi. In organizing functions for recognition of staff, who were instrumental in promoting and sustaining quality assurance programme at the health facility.

B. Non- Financial Incentives

1. There can be many approaches for Non-financial incentives. Creating a sense of pride in being a part of the quality team would go a long way in sustaining such efforts. N-QIC will administer this non financial incentives provision
2. Facility getting external certification & national Certification should be facilitated atnational level function. The certificate should be displayed at the facility. In addition, facility in charge & Quality team could be given certificates of appreciation.
3. Achievements are published in local media, and government publication.
4. Staff of the quality certified hospital should be encouraged for higher education/training in reputed institutions.
5. While undergoing appraisal, due consideration should be given to those personnel, who worked actively in attaining the certified status and thereafter maintaining the quality status.
6. MOHFW will provide logo for quality accredited facility. Such logo can be displayed at the facility and can also be used on hospital stationary.

1. A national level Quality Excellence award can also be given by MOHFW to best performing facility (scoring the highest marks) in each category: Medical College Hospitals, Specialised Hospitals, District Hospitals & Upazila Health Complex, which is separate from the certification and given to exceptionally well performing health facility in the country.
2. Other non financial incentives such promotion, posting, appreciation and similar would be given for the better performance.

There should also be provision that any facility which is quality certified, which loses its quality certificate in a subsequent year would require thorough investigation and 'root-cause' analysis , and corrective and preventive actions are taken. If a number of facilities lose their certification, the Quality Assurance Committee at district and divisional levels must fix responsibility for whose action or non-action led to loss of certification and corrective actions is initiated on priority.

Annexures

Annex 1

References

1. National Healthcare Quality Report . Rockville, MD: Agency for Healthcare Research and Quality; 2006. [Accessed March 16, 2008]. <http://www.ahrq.gov/qual/nhqr06/nhqr06.htm>.
2. Institute of Medicine. Crossing the quality chasm: a new health system for the 21st century. Washington, DC: National Academy Press; 2001. pp. 164–80.
3. Lohr KN, Schroeder SA. A strategy for quality assurance in Medicare. *N Engl J Med*. 1990;322:1161–71.
4. Institute of Medicine. To err is human: building a safer health system. Washington, DC: National Academy Press; 1999.
5. McNally MK, Page MA, Sunderland VB. Failure mode and effects analysis in improving a drug distribution system. *Am J Health Syst Pharm*. 1997;54:17–7. [PubMed]
6. Varkey P, Peller K, Resar RK. Basics of quality improvement in health care. *Mayo Clin Proc*. 2007;82(6):735–9.[PubMed]
7. Marshall M, Shekelle P, Davies H, et al. Public reporting on quality in the United States and the United Kingdom.*Health Aff*. 2003;22(3):134–48. [PubMed]
8. Loeb J. The current state of performance measurement in healthcare. *Int J Qual Health Care*. 2004;16(Suppl 1):i5–9.[PubMed]
9. National Healthcare Disparities Report. Rockville, MD: Agency for Healthcare Research and Quality; 2006. [Accessed March 16, 2008]. Available at: <http://www.ahrq.gov/qual/nhdr06/nhdr06.htm>.
10. Schoen C, Davis K, How SKH, et al. U.S. health system performance: a national scorecard. *Health Affairs*.2006:w457–75. [PubMed]
11. Wakefield DS, Hendryx MS, Uden-Holman T, et al. Comparing providers’ performance: problems in making the ‘report card’ analogy fit. *J Healthc Qual*. 1996;18(6):4–10. [PubMed]
12. Marshall M, Shekelle PG, Leatherman S, et al. The public release of performance data: what do we expect to gain, a review of the evidence. *JAMA*. 2000;283:1866–74. [PubMed]
13. Schneider EC, Lieberman T. Publicly disclosed information about the quality of health care: response of the U.S. public. *Qual Health Care*. 2001;10:96–103. [PMC free article] [PubMed]
14. Hibbard JH, Harris-Kojetin L, Mullin P, et al. Increasing the impact of health plan report cards by addressing consumers’ concerns. *Health Affairs*. 2000 Sept/Oct;19:138–43. [PubMed]
15. Bentley JM, Nask DB. How Pennsylvania hospitals have responded to publicly release reports on coronary artery bypass graft surgery. *Jt Comm J Qual Improv*. 1998;24(1):40–9. [PubMed]
16. Ferlie E, Fitzgerald L, Wood M, et al. The nonspread of innovations: the mediating role of professionals. *Acad Manage J*. 2005;48(1):117–34.

35. Nwabueze U, Kanji GK. The implementation of total quality management in the NHS: how to avoid failure. *Total Quality Management*. 1997;8(5):265–80.
36. Jackson S. Successfully implementing total quality management tools within healthcare: what are the key actions? *Int J Health Care Qual Assur*. 2001;14(4):157–63.
37. Rago WV. Struggles in transformation: a study in TQM, leadership and organizational culture in a government agency. *Public Adm Rev*. 1996;56(3)
38. Shojania KG, McDonald KM, Wachter RM, et al. Closing the quality gap: a critical analysis of quality improvement strategies, Volume 1–Series Overview and Methodology Technical Review 9 (Contract No 290-02-0017 to the Stanford University–UCSF Evidence-based Practice Center) Rockville, MD: Agency for Healthcare Research and Quality; Aug, 2004. AHRQ Publication No. 04-0051–1.
39. Furman C, Caplan R. Applying the Toyota production system: using a patient safety alert system to reduce error. *Jt Comm J Qual Patient Saf*. 2007;33(7):376–86. [PubMed]
40. Womack JP, Jones DT. *Lean thinking*. New York: Simon and Schuster; 1996.
41. Lynn J, Baily MA, Bottrell M, et al. The ethics of using quality improvement methods in health care. *Ann Intern Med*. 2007;146:666–73. [PubMed]
42. Reinhardt AC, Ray LN. Differentiating quality improvement from research. *Appl Nurs Res*. 2003;16(1):2–8.[PubMed]
43. Blumenthal D, Kilo CM. A report card on continuous quality improvement. *Milbank Q*. 1998;76(4):625–48.[PMC free article] [PubMed]
44. Shortell SM, Bennet CL, Byck GR. Assessing the impact of continuous quality improvement on clinical practice: what it will take to accelerate progress. *Milbank Q*. 1998;76(4):593–624. [PMC free article] [PubMed]
45. Lynn J. When does quality improvement count as research? Human subject protection and theories of knowledge. *Qual Saf Health Care*. 2004;13:67–70. [PMC free article] [PubMed]
46. Bellin E, Dubler NN. The quality improvement-research divide and the need for external oversight. *Am J Public Health*. 2001;91:1512–7. [PMC free article] [PubMed]
47. Choo V. Thin line between research and audit. *Lancet*. 1998;352:1481–6. [PubMed]
48. Harrington L. Quality improvement, research, and the institutional review board. *J Healthc Qual*. 2007;29(3):4–9.[PubMed]
49. Berwick DM. Eleven worthy aims for clinical leadership of health care reform. *JAMA*. 1994;272(10):797–802.[PubMed]
50. Berwick DM. Improvement, trust, and the healthcare workforce. *Qual Saf Health Care*. 2003;12:2–6. [PMC free article] [PubMed]
51. Langley JG, Nolan KM, Nolan TW, et al. *The improvement guide: a practical approach to enhancing organizational performance*. New York: Jossey-Bass; 1996.
52. Pande PS, Newman RP, Cavanaugh RR. *The Six Sigma way*. New York: McGraw-Hill; 2000.

17. Glouberman S, Mintzberg H. Managing the care of health and the cure of disease— part I: differentiation. *Health Care Manage Rev.* 2001;26(1):56–9. [PubMed]
18. Degeling P, Kennedy J, Hill M. Mediating the cultural boundaries between medicine, nursing and management—the central challenge in hospital reform. *Health Serv Manage Res.* 2001;14(1):36–48. [PubMed]
19. Gaba DM. Structural and organizational issues in patient safety: a comparison of health care to other high-hazard industries. *Calif Manage Rev.* 2000;43(1):83–102.
20. Lee JL, Change ML, Pearson ML, et al. Does what nurses do affect clinical outcomes for hospitalized patients? A review of the literature. *Health Serv Res.* 1999;29(11):39–45. [PMC free article] [PubMed]
21. Taylor C. Problem solving in clinical nursing practice. *J Adv Nurs.* 1997;26:329–36. [PubMed]
22. Benner P. *From novice to expert: power and excellence in nursing practice*. Menlo Park, CA: Addison-Wesley; Publishing Company; 1984.
23. March JG, Sproull LS, Tamuz M. Learning from samples of one or fewer. *Organizational Science.* 1991;2(1):1–13. [PMC free article] [PubMed]
24. McGlynn EA, Asch SM. Developing a clinical performance measure. *Am J Prev Med.* 1998;14(3s):14–21.[PubMed]
25. McGlynn EA. Choosing and evaluating clinical performance measures. *Jt Comm J Qual Improv.* 1998;24(9):470–9. [PubMed]
26. Gift RG, Mosel D. *Benchmarking in health care*. Chicago, IL: American Hospital Publishing, Inc.; 1994. p. 5.
27. Donabedian A. Evaluating quality of medical care. *Milbank Q.* 1966;44:166–206. [PubMed]
28. Deming WE. *Out of the Crisis*. Cambridge, MA: Massachusetts Institute of Technology Center for Advanced Engineering Study; 1986.
29. Berwick DM, Godfrey AB, Roessner J. *Curing health care*. San Francisco, CA: Jossey-Bass; 2002.
30. Wallin L, Bostrom AM, Wikblad K, et al. Sustainability in changing clinical practice promotes evidence-based nursing care. *J Adv Nurs.* 2003;41(5):509–18. [PubMed]
31. Berwick DM. Developing and testing changes in delivery of care. *Ann Intern Med.* 1998;128:651–6. [PubMed]
32. Chassin MR. Quality of Care—part 3: Improving the quality of care. *N Engl J Med.* 1996;1060–3. [PubMed]
33. Horn SD, Hickey JV, Carrol TL, et al. Can evidence-based medicine and outcomes research contribute to error reduction? In: Rosenthal MM, Sutcliffe KN, editors. *Medical error: what do we know? What do we do?* San Francisco, CA: Jossey-Bass; 2002. pp. 157–73.
34. Joss R. What makes for successful TQM in the NHS? *Int J Health Care Qual Assur.* 1994;7(7):4–9. [PubMed]

53. Barry R, Murcko AC, Brubaker CE. The Six Sigma book for healthcare: improving outcomes by reducing errors .Chicago, IL: Health Administration Press; 2003.
54. Lanham B, Maxson-Cooper P. Is Six Sigma the answer for nursing to reduce medical errors and enhance patient safety? *Nurs Econ*. 2003;21(1):39–41. [PubMed]
55. Shewhart WA. Statistical method from the viewpoint of quality control . Washington, DC: U.S. Department of Agriculture; 1986. p. 45.
56. Pande PS, Newman RP, Cavanagh RR. The Six Sigma was: team field book . New York: McGraw-Hill; 2002.
57. Sahney VK. Generating management research on improving quality. *Health Care Manage Rev*. 2003;28(4):335–47. [PubMed]
58. Endsley S, Magill MK, Godfrey MM. Creating a lean practice. *Fam Pract Manag*. 2006;13:34–8. [PubMed]
59. Printezis A, Gopalakrishnan M. Current pulse: can a production system reduce medical errors in health care? *Q Manage Health Care*. 2007;16(3):226–38. [PubMed]
60. Spear SJ. Fixing health care from the inside, today. *Harv Bus Rev*. 2005;83(9):78–91. 158. [PubMed]
61. Johnstone PA, Hendrickson JA, Dernbach AJ, et al. Ancillary services in the health care industry: is Six Sigma reasonable? *Q Manage Health Care*. 2003;12(1):53–63. [PubMed]
62. Reason J. *Human Error* . New York: Cambridge University Press; 1990.
63. Kemppainen JK. The critical incident technique and nursing care quality research. *J Adv Nurs*. 2000;32(5):1264–71. [PubMed]
64. Joint Commission. 2003 hospital accreditation standards. Oakbrook Terrace, IL: Joint Commission Resources; 2003.
65. Bogner M. *Human Error in Medicine* . Hillsdale, NJ: Lawrence Erlbaum Associates; 1994.
66. Rooney JJ, Vanden Heuvel LN. Root cause analysis for beginners. *Qual Process* . 2004 July [Accessed on January 5, 2008]; Available at: www.asq.org.
67. Giacomini MK, Cook DJ. Users' guides to the medical literature: XXIII. Qualitative research in health care. Are the results of the study valid? Evidence-Based Medicine Working Group. *JAMA*. 2000;284:357–62. [PubMed]
68. Joint Commission. Using aggregate root cause analysis to improve patient safety. *Jt Comm J Qual Patient Saf*. 2003;29(8):434–9. [PubMed]
69. Wald H, Shojania K. Root cause analysis. In: Shojania K, Duncan B, McDonald KM, et al., editors. *Making health care safer: a critical analysis of patient safety practices*. Evidence Report/Technology Assessment No. 43. Rockville, MD: AHRQ; 2001. AHRQ Publication Number: 01–058. [PubMed]
91. Germaine J. Six Sigma plan delivers stellar results. *Mater Manag Health Care*. 2007;20–6. [PubMed]
92. Semple D, Dalessio L. Improving telemetry alarm response to noncritical alarms using a failure mode and effects analysis. *J Healthc Qual*. 2004;26(5):Web Exclusive: W5-13–W5-19.

93. Erdek MA, Pronovost PJ. Improving assessment and treatment of pain in the critically ill. *Int J Qual Health Care*.2004;16(1):59–64. [PubMed]
94. Burgmeier J. Failure mode and effect analysis: an application in reducing risk in blood transfusion. *J Qual Improv*.2002;28(6):331–9. [PubMed]
95. Mutter M. One hospital’s journey toward reducing medication errors. *Jt Comm J Qual Patient Saf*.2003;29(6):279–88. [PubMed]
96. Rex JH, Turnbull JE, Allen SJ, et al. Systematic root cause analysis of adverse drug events in a tertiary referral hospital. *J Qual Improv*. 2000;26(10):563–75. [PubMed]
97. Bolch D, Johnston JB, Giles LC, et al. Hospital to home: an integrated approach to discharge planning in a rural South Australian town. *Aust J Rural Health*. 2005;13:91–6. [PubMed]
98. Farbstein K, Clough J. Improving medication safety across a multihospital system. *J Qual Improv*.2001;27(3):123–37. [PubMed]
107. Esmail R, Cummings C, Dersch D, et al. Using healthcare failure mode and effect analysis tool to review the process of ordering and administrating potassium chloride and potassium phosphate. *Healthc Q*. 2005;8:73–80.[PubMed]
108. van Tilburg CM, Liestikow IP, Rademaker CMA, et al. Health care failure mode and effect analysis: a useful proactive risk analysis in a pediatric oncology ward. *Qual Saf Health Care*. 2006;15:58–64. [PMC free article] [PubMed]
109. Eisenberg P, Painer JD. Intravascular therapy process improvement in a multihospital system: don’t get stuck with substandard care. *Clin Nurse Spec*. 2002:182–6. [PubMed]
110. Singh R, Servoss T, Kalsman M, et al. Estimating impacts on safety caused by the introduction of electronic medical records in primary care. *Inform Prim Care*. 2004;12:235–41. [PubMed]
111. Papastrat K, Wallace S. Teaching baccalaureate nursing students to prevent medication errors using a problem-based learning approach. *J Nurs Educ*. 2003;42(10):459–64. [PubMed]
112. Berwick DM. Continuous improvement as an ideal in health care. *N Engl J Med*. 1989;320(1):53–6. [PubMed]
113. Pexton C, Young D. Reducing surgical site infections through Six Sigma and change management. *Patient Safety Qual Healthc [e-Newsletter]* 2004. [Accessed November 14, 2007]. Available at: www.psqh.com/julsep04/pextonyoung.html.
114. Salvador A, Davies B, Fung KFK, et al. Program evaluation of hospital-based antenatal home care for high-risk women. *Hosp Q*. 2003;6(3):67–73. [PubMed]
115. Apkon M, Leonard J, Probst L, et al. Design of a safer approach to intravenous drug infusions: failure mode and effects analysis. *Qual Saf Health Care*. 2004;13:265–71. [PMC free article] [PubMed]
116. Kim GR, Chen AR, Arceci RJ, et al. Computerized order entry and failure modes and effects analysis. *Arch Pediatr Adolesc Med*. 2006;160:495–8. [PubMed]
117. Horner JK, Hanson LC, Wood D, et al. Using quality improvement to address pain management practices in nursing homes. *J Pain Symptom Manage*. 2005;30(3):271–7. [PubMed]

118. van Tiel FH, Elenbaas TW, Voskuilen BM, et al. Plan-do-study-act cycles as an instrument for improvement of compliance with infection control measures in care of patients after cardiothoracic surgery. *J Hosp Infect.*2006;62:64–70. [PubMed]
119. Dodds S, Chamberlain C, Williamson GR, et al. Modernising chronic obstructive pulmonary disease admissions to improve patient care: local outcomes from implementing the Ideal Design of Emergency Access project. *Accid Emerg Nurs.* 2006 Jul;14(3):141–7. [PubMed]
120. Warburton RN, Parke B, Church W, et al. Identification of seniors at risk: process evaluation of a screening and referral program for patients aged > 75 in a community hospital emergency department. *Int J Health Care Qual Assur.* 2004;17(6):339–48. [PubMed]
121. Nowinski CV, Mullner RM. Patient safety: solutions in managed care organizations? *Q Manage Health Care.*2006;15(3):130–6. [PubMed]
122. Wojciechowski E, Cichowski K. A case review: designing a new patient education system. *The Internet J Adv Nurs Practice.* 2007;8(2)
123. Gering J, Schmitt B, Coe A, et al. Taking a patient safety approach to an integration of two hospitals. *Jt Comm J Qual Patient Saf.* 2005;31(5):258–66. [PubMed]
124. Day S, Dalto J, Fox J, et al. Failure mode and effects analysis as a performance improvement tool in trauma. *J Trauma Nurs.* 2006;13(3):111–7. [PubMed]
125. Johnson T, Currie G, Keill P, et al. New York-Presbyterian hospital: translating innovation into practice. *Jt Comm J Qual Patient Saf.* 2005;31(10):554–60. [PubMed]
126. Aldarrab A. Application of lean Six Sigma for patients presenting with ST-elevation myocardial infarction: the Hamilton Health Sciences experience. *Healthc Q.* 2006;9(1):56–60. [PubMed]

Annex 2

Resource Persons for finalization of “National Strategic Planning on Quality of Care for Health Service Delivery, Bangladesh (not according to warrent of precedence).

1. Prof. Dr. Md. Abul Faiz
Former DG, DGHS
2. Prof. Dr. Shah Monir Hossain
Former DG DGHS
3. Prof. Dr. Akhtarun Naher
Director, NIPSOM, Mohakhali
4. Brig. Gen. Md. Abdus Subur Miah
Director, M A G Osmani Medical College Hospital
5. Brig. Gen. A. K. M. Nainuddin
Director, Rajshahi Medical College Hospital
6. Dr. Chand Sultana
Director, Planning & Research, DGHS.
7. Dr. Mamun Parvez
Director Health, Khulna.
8. Dr. Alauddin Mazumder
Director, Chittagong Division
9. Brig. Gen. Zakir Hassan
Director, SSMC Mitford Hospital
10. Dr. Mahmood-uz-Jahan
Director, BMRC, Dhaka.
11. Suleman Khan
Director, Health Economics Unit
12. Dr. Md. Ridwanur Rahman
Prof. Medicine, Shaheed Shohrawardee Medical College Hospital
13. Dr. Md. Jamal Uddin Chowdhury
Secretary General, Bangladesh Private Medical Practitioner Association (BPMPA)
14. Dr. Sukumar Sarker
D.D, DGHS
15. Dr. Swapan Kumar Tapdder
Deputy Director (Hospital), DGHS
16. Abdul Hamid Moral
Sr. Assistant Chief, GNSP Unit.
17. Dr. Ashish Kumar Saha
AD, MIS, DGHS
18. Dr. Shimul Koli Hossain
PM(ATRH), DGFP.
19. Dr. Nurun Nahar Begum
PM (QA) CCSDP, DGFP
20. Dr. Md. Saiful Islam Robin
Asst. Prof. IHT, Mohakhali
21. Dr. Md. Shafiqul Alam
IPH, Mohakhali
22. Dr. Shah Ali Akbar Asrafi
DPM, MIS, DGHS
23. Dr. Yeasmin Jaman
DPM (EOC) MSM, DGHS

24. Dr. Ayesha Afroz Chowdhury
DPM, (HSM) DGHS
25. Dr. Ashrafi Ahmed
DPM (HSM) DGHS
26. Dr. Md. Nazrul Islam
Deputy Director, SNL Save the Children. BD
27. Dr. Lal B Rawal
Sr. Associate, icddr'b, Mohakhali
28. Dr. M. Zakirul Karim
CEO, Gastro Liver Hospital, Panthopah, Dhaka.
29. Dr. Indrani Chakma
Health Manager (MNCM), UNICEF
30. Md. Tariqul Islam
Technical Advisor, JICA
31. Prof. AKM Fazlur Rahman
Executive Director, (CIPRB), Mohakhali. Dhaka.
32. Dr. Gazi Masum Ahmed
SPO, SMPP, JICA
33. Dr. Abul Kalam Azad
Associate Director, Research & Lab, FHQ-360.
34. S M Tafazzal Hossain
GIZ, TAQA
35. Dr. A M Zakir Hossain
Adviser, PSSMRTD, Dhaka.
36. Yukie Yoshimura
CA, SMPP, JICA
37. Dr. F. A. M. Anjuman Ara Begum
CHO, RCC
38. Emranul Haq
Sr. Advisor, GIZ
39. Dr. Rafiqul Alam
Sr. Project Officer, SMPP, Dhaka, JICA
40. Md. Nuruzzaman
TA, HRM, Unit, MOHFW
41. AFM Jilhaj Azam Chowdhury
Technical Advisor, QA GIZ
42. Dr. Md. Atiquzzaman
Team leader, ABDC/GIZ, Sylhet
43. Md. Azmal Kabir
GFA Consulting Group
44. Hundmkeo
EPOS/GIZ (ABDC)

Facilitator: Dr. Md. Aminul Hasan, Deputy Director, Health Economics Unit. MOHFW

Annexe 3 :

Reviewed & Compiled by QIS

Dr. Md. Aminul Hasan

Dr. Md. Harun-or-Rashid

Dr. Shayema Khorshed

Quality Improvement Secretariat
Ministry of Health & Family Welfare
4th Floor 14/2, Topkhana Road
Ansari Bhaban, Dhaka, Bangladesh.
www.heu.gov.bd