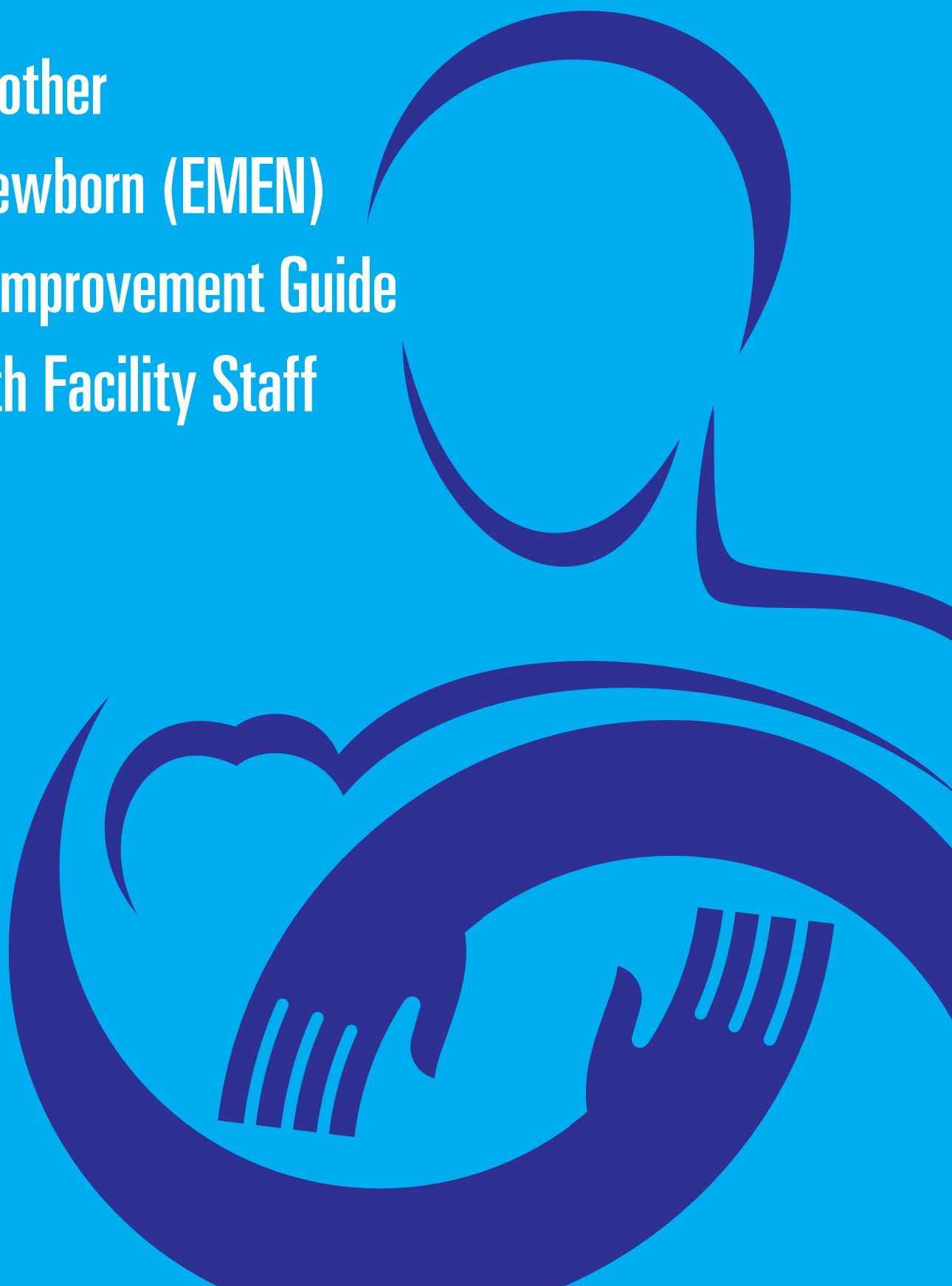


Every Mother Every Newborn (EMEN) Quality Improvement Guide for Health Facility Staff

Guide



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Abbreviations

CFA	Client Flow Analysis
EMEN	Every Mother Every Newborn
ENAP	Every Newborn Action Plan
IHI	Institute for Healthcare Improvement
MMR	Maternal Mortality Ratio
MOH	Ministry of Health
NMR	Neonatal Mortality Rate
PDSA	Plan, Do, Study, Act
QI	Quality Improvement
SBA	Skilled Birth Attendant
USAID	U.S. Agency for International Development
WHO	World Health Organization

Introduction



Investing more in maternal care and the care of small and sick newborns during labour and childbirth is perhaps the most important step in saving the lives of mothers and newborns. Even though evidence-based practice interventions for decreasing maternal and neonatal mortality have become available during the past two decades, research indicates that these interventions are frequently not scaled up.¹ It has been projected that by 2020 if every woman that delivered a newborn in a facility received recommended care, 1.325 million newborn infants, 531,000 stillbirths and 113,000 women could be saved every year.²

These projections suggest that quality care at the time of labour and childbirth can have the highest impact on reducing maternal and neonatal deaths and stillbirths, as most of these deaths are concentrated in this time period.³ The increasing rate of facility deliveries offers a golden opportunity to achieve the best clinical outcomes through the use of evidence-based, high-impact interventions.⁴ Therefore, the primary intent of the Every Mother Every Newborn (EMEN) standards is to provide high-impact, evidence-based interventions that prevent mortality and morbidity during labour, childbirth and immediate postnatal care (up to 24 hours after birth before discharge from the facility).

PURPOSE

The purpose of this guide is to provide facility staff with the necessary tools to use a systematic quality improvement (QI) approach to implement and achieve EMEN standards.

USING THIS GUIDE

This guide will enable a health facility to organize a QI team, conduct assessments, and develop effective approaches to implementing the EMEN standards in order to improve the quality of care for every mother and newborn receiving care in the health facility.

The guide provides basic information to get started and a set of tools that can be adapted to meet the particular needs of the health facility. Reference documents are located in Section II and include **appendices** which offer examples, such as QI team terms of reference; and **templates** that can be used to guide root cause analysis or the development of policies and procedures.

DEFINING QUALITY CARE

Quality involves meeting and exceeding an acceptable level of performance in a health facility through the provision of safe and effective health services. Improving the quality of health care has become an integral component of effective health care delivery and is a continuous cycle. The Quality Triangle (Figure 1) represents three facets of this cycle of quality management: defining, measuring and improving quality.^{5,6} QI therefore is one aspect of overall quality management and also an end in itself.

The World Health Organization (WHO) **defines** quality of care as “the extent to which health care services provided to individuals and patient populations improve desired health outcomes. In order to achieve quality, health care needs to be safe, effective, timely, efficient, equitable, and people-centered.”^{7,8,9} Quality health care is defined through setting healthcare standards.

A **measurement** is required to determine whether the standards are met. The EMEN criteria can be used to assess, measure and monitor quality of care in terms of input, processes and outcomes.

- **Input:** What needs to be in place for the desired care to be provided (e.g., physical and human resources, policies, guidelines)?
- **Process:** How does the system work? What methods and procedures are in place to ensure quality of services?
- **Output/outcome:** What was the effect of provision and experience of care on health and people-centred outputs or outcomes?

QI is a process through which the individuals who provide care adopt various approaches to understanding and addressing the reasons for poor quality and to identifying areas where quality can be improved.¹⁰

Understanding the EMEN standards

The EMEN standards for QI were conceptualized in response to a key global initiative called Every Newborn Action Plan (ENAP). The EMEN standards are in line with WHO standards for facility-based maternal and newborn care around the time of childbirth.

The nine EMEN standards focus on clinical interventions performed within the context of a health care system. The standards support the implementation of quality clinical care such as governance, resources (supplies, equipment, competent staff) and a safe environment. The EMEN standards (Table 1) define the quality expected for mother and newborn care within the first 24 hours of birth.

Each standard includes an intent statement, which explains the rationale and supporting evidence of the standard. This information will assist the users to better understand the importance of each standard. Following the intent statement, a list of criteria outlines the elements that need to be in place to meet the standard. These details guide the implementers toward specific actions.

Appendix 1. Every Mother Every Newborn standards and criteria for facility based care around the time of birth

FIGURE 1. Quality triangle



TABLE 1. EMEN standards

EMEN STANDARDS
Clinical care
STANDARD 1. Evidence-based safe care is provided during labour and childbirth.
STANDARD 2. Evidence-based safe postnatal care is provided for all mothers and newborns.
Respect and dignity
STANDARD 3. Human rights are observed and the experience of care is dignified and respectful for every woman and newborn.
Governance
STANDARD 4. A governance system is in place to support the provision of quality maternal and newborn care.
Essential physical resources
STANDARD 5. The physical environment of the health facility is safe for providing maternal and newborn care.
STANDARD 6. Essential medications, supplies, functional equipment and diagnostic services are consistently available for maternal and newborn care.
Competent and motivated human resource
STANDARD 7. Qualified and competent staff are available in adequate numbers to provide safe, consistent and quality maternal and newborn care.
Actionable information system
STANDARD 8. Health information systems are in place to manage patient clinical records and service data.
Functional referral system
STANDARD 9. Services are available to ensure continuity of care for all pregnant women, mothers and newborns.

District and health care facility staff are integral to the implementation and measurement of compliance with EMEN standards and criteria. A quality system, e.g. QI policies, methodology and committees, needs to be in place to accomplish these tasks. One of the supportive strategies is to train external (district supervisors, Ministry of Health [MOH]) and internal (facility staff) facilitators to assist health care providers to measure and meet the standards.

Appendix 2. EMEN Standards Assessment Tool

Introducing and creating awareness at all levels

Introducing the standards and creating buy-in is a key step in gaining acceptance of EMEN standards and QI. Moving to a quality management approach requires a fundamental shift in decision-making for the quality teams. The leaders and managers therefore need to be the first to be engaged and trained in this quality approach.

The main message that this new approach reinforces is the significance of implementing EMEN standards to reduce maternal and neonatal mortality. Appendix 3 provides a set of slides for introducing EMEN standards. The following steps are recommended:

- Introduce the standards and their purpose to key leaders and stakeholders
- Identify and prepare QI trainers
- Introduce the EMEN standards and their importance to the staff
- Provide the facility with the standards and guidance documents
- Discuss how to get organized to implement the standards
- Secure commitment of those trained to achieving EMEN standards

➔ APPENDIX 3. Introduction to quality and EMEN standards (PowerPoint Slides)

Setting direction through leadership

Leadership support at all levels — MOH, district, facility and unit leaders — is crucial to the success of QI activities. Each needs to understand their roles and responsibilities and QI methods. The most effective leaders work well with people and have excellent communication skills. They create the vision and values for implementing QI. Much has been learned about the impact of health care leaders on QI, and the following points provide guidance to leaders in setting the direction for QI.¹¹

Point 1. Establish and oversee specific system-level aims

The overall aim is to decrease maternal and newborn mortality. Box 1 provides the indicators for measuring maternal mortality rates (MMR) and neonatal mortality rates (NMR). Leaders need to:

- set specific targets to achieve each year, e.g., decrease CFR by x per cent;
- review data at least monthly in management meetings;
- use quality dashboards or scorecards (Template 1) to review the progress of all indicators.

BOX 1. Facility-based MMR and NMR

MMR: Number of maternal deaths per year per 100,000 deliveries in the facility

Early NMR: Number of live born infants per year who died before or within 24 hours of birth, per 1,000 live births (ENAP, Impact)

NMR: Number of live born infants per year dying before reaching 28 days of age per 1,000 live births (ENAP, Impact)

Stillbirth rate (SBR): Number of babies with no signs of life born at or after 28 weeks' gestation per year (ENAP, Impact)

Point 2. Develop a strategy to achieve the aims

- Develop a plan: What needs to be put in place to achieve the aims?
- Assign capable leaders to the QI team.
- Monitor and respond to data to steer implementation of the strategy.
- Identify and develop strategies to respond to cultural patterns of behavior, values, habits and beliefs that may jeopardize the process of change.

Point 3. Pay attention to the QI activity

- “What leaders pay attention to tends to get the attention of the entire organization.”
- Make time to attend meetings, motivate for results and help teams reduce barriers in carrying out QI activities
- Talk about the achievements with the local, district and central leaders — key QI results should be at their fingertips.

Point 4. Engage patients in health facilities and their families in QI

- Talk with a few patients on a daily basis.
- Put patients and family members on the QI team.
- Ask patients and families to share their stories with staff at meetings.

Point 5. Make the chief financial officer a quality champion

- Ensure financial officers understand the link between improved quality and decreased cost.
- Let financial officers know they can encourage investment in QI.

Point 6. Engage physicians¹²

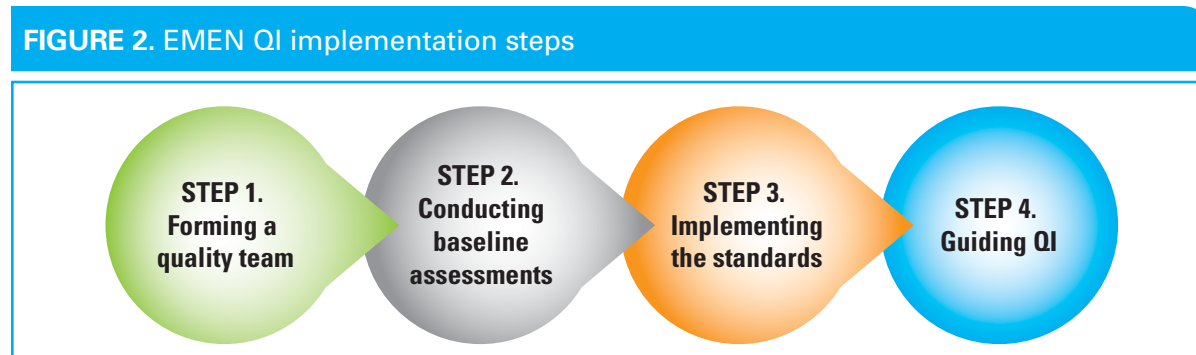
- Discover a common purpose: reducing mortality and morbidity.
- Identify and activate champions.
- Educate and inform physician leaders.
- Involve physicians from the beginning.
- Choose messengers and messages carefully.
- Value the physicians’ time.
- Communicate often and candidly.

Point 7. Build capacity in improvement

- Ensure leaders have the knowledge and skills to teach quality and safety improvement.

THE STEPS OF THE QI PROCESS

As noted in Point 1 above, the leaders are responsible for putting a quality structure in place. Figure 2 illustrates the steps of the EMEN QI process. These steps are discussed in detail through the rest of this guide.





Step 1. Forming a quality team

When working on any task, having the right people and tools makes all the difference in getting the job done efficiently and correctly. First, organize a **maternity and newborn quality team** that will take the lead in implementing the EMEN standards. A QI programme may already be in place, which will be helpful. The terms of reference for this QI team need to be established (Appendix 4).

➔ **APPENDIX 4: Sample QI team terms of reference**

CHOOSE QI TEAM MEMBERS

A team of six to eight members will be most effective. However, some departments are small and the team may consist of as few as three members. The following types of professionals are recommended:

- Obstetrician
- Neonatologist or doctor responsible for newborn care
- Midwife
- Maternity in-charge and neonatal ward in-charge
- Maternity and neonatal nurse
- District supervisor

Input from pregnant women, mothers and their families is highly desired. A previous patient who wants to volunteer can be added to the team as well as a community representative who may be an existing member of the community health committee.

SELECT A QI TEAM LEADER

The maternity/newborn QI team leader initiates the process of organizing a team within the department, conducting assessments and implementing EMEN standards. The success of these efforts depends on selecting someone who is interested in improving quality and learning, and is respected by the staff.

The team leader is not the decision maker. Team members come together to share their expertise and knowledge to improve patient care. The team leader's role is to elicit information from all team members throughout the improvement process, manage scheduling and recordkeeping within the team, mentor, train other staff who are not in the team, and maintain communications and a working relationship with management.

Various approaches have been used to select team leaders. Either of the following methods is acceptable.

- Senior management or a department head may appoint a knowledgeable individual to lead the team.
- Team members may elect the team leader from their own ranks during the first meeting.

DEFINE EXPECTATIONS OF THE QI TEAM MEMBERS

All team members contribute to the success of implementing the EMEN standards. It is therefore important to select maternity and newborn staff members who have a definite interest in QI. Team members are expected to:

- Share responsibility for work of the team
- Share ideas, knowledge and expertise
- Reinforce team members' rights (ground rules)
- Consider their participation a priority
- Learn about QI
- Carry out their assignments
- Support team decisions
- Communicate QI activities with peers/staff

SELECT AND TRAIN QI FACILITATORS

Most countries engage the MOH and district supervisors to provide support to facility QI teams; these are the **external facilitators**. This support is needed but it is equally important to have **QI champions** within the facility to support the effort: the **internal facilitators**. The internal facilitators are on-site, allowing for immediate accessibility for problem solving and guidance; and ultimately, the knowledge and skills that the internal facilitators gain through this experience support the sustainability of QI efforts. *Both internal and external QI facilitators will need training to fulfil their roles.*

The QI facilitators need to think about the type of external and internal support required by the staff to implement the standards to determine who might best serve these support roles. The QI facilitator can benefit by forging partnerships with in-country professional associations, non-governmental organizations, medical schools and nursing schools.

BUILD CAPACITY OF QI FACILITATORS AND TEAM

Building capacity of the QI team begins with understanding the EMEN standards and learning how to assess whether they are met. Implementation of QI may be a new experience for both the QI team members and facilitators; thus, building their capacity in quality concepts and techniques will be important. This can be done over time.

As the facilitators and team gain experience and skills in QI, they can begin to train additional staff members outside the team. Providing comprehensive QI workshops to all staff members at the onset is not recommended; it is better to train staff when they need the information and they can apply the skills.

CONDUCT EFFECTIVE MEETINGS

The team leader is responsible for arranging (scheduling, informing/reminding participants and arranging the room) and conducting team meetings. Having a well-defined meeting process helps the entire team focus on the meeting tasks. Tips for how to plan a meeting are presented in Table 2.

The following are useful pointers to make a meeting effective and productive.

1. **Provide an effective environment for the meeting.**
Team members need to be in a room or area that is conducive to good communication. They should be seated at a table or in an open-ended circle where all team members can easily see each other. The size of the room needs to be comfortable for all present.
2. **Anticipate possible tools** that could be used in the meeting — e.g., flipchart, projector, documents — and include time in the meeting schedule to review the appropriate steps in using these tools. Make sure there are adequate materials, e.g. paper, markers, to carry out the planned activities.
3. **Clarify the purpose and objectives of the meeting.** Verify that everyone on the team understands the purpose of the team and that all team members are in agreement.
4. **Review the prior meeting's action list.** This step ensures team accountability for carrying out assignments and brings relevant information to the current agenda.
5. **Review the meeting agenda** (Template 2) in detail and make sure that all team members understand and agree with the agenda and its time frames. If there is disagreement, the chair needs to obtain agreement from the team on how the agenda should be changed.
6. **Work through the agenda items** within the time allotted to each. If time runs out on any item, the team must follow the ground rules to agree on how to proceed.
7. **Identify the items that should be included on the next meeting agenda** and make assignments to prepare for the next meeting.
8. **Evaluate the meetings** on a regular basis by asking what the team did well and what the team could do differently to improve the meeting process. This is an important step. Any improvement opportunities should be noted in the meeting minutes and incorporated into the next meeting. Appendix 5 provides an example of QI meeting minutes.

TABLE 2. How to plan a meeting

1. Make an agenda
2. Schedule the meeting room
3. Prepare the meeting materials
4. Prepare the meeting room
5. Set ground rules with team
6. Select a recorder and timekeeper
7. Take minutes
8. Agree on next steps
9. Keep meetings short
10. Schedule next meeting
11. Evaluate meetings

➔ **TEMPLATE 2.** Agenda

➔ **APPENDIX 5.** Example of meeting minutes

The **first team meeting** is used to undertake the following:

- Review the team's purpose
- Understand the assignment and process

- Define the roles of the chairperson and members
- Set ground rules
- Explain that the assignment is to work with the staff to conduct an assessment of the EMEN standards (or use the results of a baseline assessment that has already been completed) and then assist the team to find ways to achieve the EMEN standards.

STAGES OF TEAM GROWTH

Teams go through some predictable stages of growth as they learn to work effectively together.¹³ The stages include forming, storming, norming and performing. It is important for the team leader to understand the stages of team growth to guide the team through these stages, because strong teams make the QI process successful. When forming a new team, members typically show an initial interest and question what is expected of them; storming occurs when there is a lack of progress or differences in opinion on how to proceed. In the later stages of norming and performing, the team members begin to trust one another and work effectively together.

Stage 1: Forming

At this stage, team members are trying to establish their position within the team. Team members may feel pleased to be asked to participate; or concerned about extra work or not understanding expectations. It is normal at this stage to see little progress, as the team may have non-productive discussions. The team leader assists the group by clarifying goals and expectations and training them in QI methods.

Stage 2: Storming

At this stage the team members realize that the task is more difficult than first imagined. Some may become impatient and begin to assert their ideas rather than collaborate. Some simply withdraw if discussions become argumentative. Storming takes on many different forms, but it commonly occurs before progress can begin. The team leader needs to be skilled in managing conflict (refer to conflict management below).

Stage 3: Norming

This is the stage when team members are accepting the individuality of each person, beginning to trust and hold each other to the ground rules. The team begins to cooperate with one another and a team spirit begins to develop. The team can now begin to make significant progress. The team leaders need to step back and allow the group to take on additional responsibilities for team process.

Stage 4: Performing

Team members now have insights into personal and group processes. They know how they can each contribute to the mission and can identify and resolve interpersonal communication problems. At this stage, the team can make rapid progress. The team leader may identify some members to mentor into leadership roles.

TEAM BUILDING

The quality team leader and facilitators can build team spirit by planning activities that encourage team members to learn about each other and appreciate each other's talents and contributions to the team.

Some tips for effective team building are as follows:

- There must be a shared vision and the team goals should be clear and completely understood and accepted by each team member.
- All new team members must be well-oriented to expectations, other team members and their roles.
- There should be no communication gaps and everyone should stay fully informed.
- Team leaders should identify and address potential conflicts between staff members as early as possible.
- Team members must meet regularly with a clear agenda for the meetings.
- Team leaders need to acknowledge publicly the contributions and accomplishments of all team members.

CONFLICT MANAGEMENT

Conflicts will occur within a team and usually happen as teams go through the stages of growth. Three critical characteristics of effective conflict prevention have been identified: (1) trust among team members, (2) collaboration and joint decision-making or 'teamness' and (3) constructive communication. An assessment of the team climate can reveal whether there is trust among team members and if they feel safe in sharing their ideas. When trust does not exist, misunderstandings and wrong assumptions occur.¹⁴

When forming a team, the QI facilitator can stress the importance of differences in personality styles and opinions. Communication is central to understanding one another: it includes what you say and how you say it. The QI facilitator has a role using these insights to assist the team to learn how to manage conflict.

Conflicts can be related to relationships, processes or tasks.¹⁵ Relationship conflict can be detrimental to a team. Often these problems occur when a member feels his or her concerns are not being heard. Process conflict can be prevented when each person adheres to the ground rules established by the team. When guidelines are broken, it is important that members of the team intervene to address the issue. Whereas, in task-related conflicts, when team members have different points of view on the task, conflict can be productive, leading to new ideas and creative solutions.

A team cannot function effectively with unresolved conflict. The facilitator can use various techniques to work through conflict; some basic steps are listed in Box 2 on next page.

BOX 2. Basic steps to resolve team conflict

1. Each person involved in the conflict needs to explain the situation as they see it, presenting their own perceptions of the situation. Specific facts and feelings should be expressed.
2. The facilitator should then describe how it is affecting team performance. Focus on the teamwork issues and avoid personality discussions.
3. Ask for the other person involved in the conflict to express their opinions and thoughts, agreeing to listen carefully and respect the opinions given.
4. The facilitator summarizes and gains agreement on the problem. Once agreement is reached it is much easier to focus on solutions.
5. The facilitator gets the team to explore and discuss possible solutions. In order to ensure ownership in a solution, all participants should be involved in developing solutions.
6. The facilitator helps the team come to an agreement on what each person will do to solve the problem. Each individual must accept responsibility for making the solution work.
7. The individuals involved in the conflict agree to follow up to make sure that the conflict is resolved and not just under control.

Step 2. Conducting baseline and ongoing assessments



After getting organized, the next step is to conduct a baseline assessment to determine how many of the standards and criteria are met — and then identify the gaps. The baseline may be conducted by or with the assistance of external facilitators. A complete assessment of the standards is conducted at baseline and then, at intervals (e.g., every one to two years) to measure progress toward meeting all of the standards and criteria. If a complete assessment is not feasible, it is recommended that the team start by assessing Standard 1 and 2.

PREPARE ASSESSMENT TEAM

The team (internal and/or external) that conducts the assessment may ask for assistance from any member of the staff. It is important that the assessment becomes a participative process, so that ownership of the QI process spreads throughout the organization. The assessors need to be oriented to the assessment tools, methods and scoring technique. The assessors will be more successful if they conduct a mock assessment by using each tool and present their findings to familiarize themselves with and standardize the assessment process. They could then divide the tasks amongst team members and provide them with the handouts, tools and schedule.

CONDUCT THE ASSESSMENT

The QI team leader plays a key role in conducting the assessment (Table 3).

Effective communication during the assessment is vital. The behaviours and communication of the assessors should be polite and empathetic. Assessment should be a fact-finding exercise and not a fault-finding one. If the staff perceive this as a negative experience, resistance to change will increase.

Assessors gather data and evidence to determine whether the EMEN standards have been met. Information may be gathered by using five primary methods: observation, document reviews, staff interviews, patient/client interviews and management interviews.

TABLE 3. Responsibilities of the QI team leader

1. Prepare an assessment plan and schedule.
2. Organize an assessment team.
3. Communicate and coordinate with all involved departments.
4. Oversee data collection.
5. Disseminate the findings of the assessment.
6. Guide preparation of the action plans in coordination with the quality team and respective departments.
7. Maintain assessment records.
8. Review effectiveness of the assessment process.

Observation

Some of the standards are assessed by direct observation; a few examples are given below:

- Environment — cleanliness, waste management, overcrowding, temperature control
- Procedures — normal delivery, early essential newborn care, postnatal care, counselling
- Handwashing
- Behaviour and attitude of staff showing respectfulness during maternity care, e.g., privacy, politeness.

Document review

Various documents are required by the standards, such as policies and procedures, and clinical records. The policies and procedures (or standard operating procedures) are the operational guides for staff. A list of the required documents is in Appendix 6 and a tool for checking for each required policy and procedure is in Appendix 7.

It will not be possible to observe all clinical procedures. Data can therefore be obtained from clinical records, and integrated with other assessment findings. For example, on the day of assessment, a drug tray in the labour room may have an adequate quantity of oxytocin, but a review of the drug expenditure register reveals a poor consumption pattern of oxytocin. More enquiries would be required to ascertain whether or not protocols are being carried out in the labour room, to explain this incongruity. Examples of document review are given below:

- Clinical records: delivery note, anaesthesia note, vital signs chart, operation notes, assessment and investigation findings, medical and nursing/midwifery plans and progress notes
- Policy and procedures
- Clinical protocols and treatment guidelines
- Department registers, e.g., admission and birth registers
- Department data and indicators
- Inventory and maintenance records
- Quality control records, e.g., laboratory equipment calculations

➔ **APPENDIX 6. List of required EMEN documents**

➔ **APPENDIX 7. Policy and procedure review tool**

Staff interviews

Interaction with the staff helps in assessing the knowledge and skill level required for performing job functions. The staff interview components may include:

- Competency testing: checking the knowledge level on topics such as management of pre-eclampsia and eclampsia
- Demonstration: asking staff to demonstrate skills like newborn resuscitation
- Awareness: asking staff about awareness of patients' rights, quality policies
- Feedback about adequacy of supplies, problems in performing work and safety issues.

Patient/client interviews

Interaction with patients/clients may be useful in obtaining information about quality of services and their experience in the hospital, including:

- feedback on quality of services regarding staff behaviour, quality of care and treatment, and waiting times;
- out-of-pocket expenditure incurred during hospitalization;
- effectiveness of communication, such as counselling services and health education during antenatal and postnatal period.

Management interviews

Interaction with management will be useful in obtaining information about policies and capability of the management staff to maintain quality of care at the health facility. It may include:

- hospital policies about respectful maternity care;
- capability of facility leadership for creating and implementing appropriate policies and plans to meet the needs of women, newborns and staff;
- presence of an effective QI programme;
- policy of safe staffing, i.e., the availability of skilled birth attendants (SBA) on site 24 hours, seven days a week.

SCORING THE ASSESSMENT

The recommended assessment method and questions are presented in the EMEN Assessment Tool (Appendix 2). In a self-assessment, it is common to score 'met' or 'not met'. The reason is simply to identify where improvement is needed. Whereas, external assessments often include a 'partially met' category to show progress toward meeting a standard/criterion. If a standard/criterion is not fully met, a comment should be made about the missing element, so that the QI team can develop a plan to address the issue.

After scoring each standard/criterion, the data is entered into a database. The database included in this toolkit is simple to use (Template 3). For each standard/criterion, either enter a '0' (not met) or '1' (met) in the column. If the tool is entered into an Excel form, the formulas can be embedded in the database so that there will be a score for each standard and an overall score. Otherwise, the team can add up the scores manually.

→ TEMPLATE 3. Assessment Scoring Form

IDENTIFY GAPS AND SET PRIORITIES

Each item that is scored as 'not met' or 'partially met' is considered a 'gap' that will require an action. Priorities are set by selecting prioritization criteria. Common criteria for this type of priority setting are listed in Table 4.

TABLE 4. Prioritization criteria

CRITERIA	DESCRIPTION
Urgency of solving the problem	Is it one of the ten interventions that will decrease morbidity or mortality of mothers and newborns? Or does it pose a high risk for creating a negative impact on the woman or newborn?
Effectiveness	How sure are we that the intervention will work? (An evidence-based solution should rate high in this criteria.)
Cost	Is it affordable within existing resources?
Feasibility	Are systems in place to support this intervention? Is it realistic?
Cultural acceptability	Will community and clients respond favourably?
Within control	Does this group have the authority to implement this solution? (Often teams identify staff shortages and propose that the MOH obtain more staff — this is an example of a solution that is not within the control of the team.)

Step 3. Supporting implementation of the standards

The QI team can support the implementation of standards in a variety of ways, including adapting or developing policies and procedures, communication of the standards, conducting training programmes, coaching/mentoring, providing supportive supervision and engaging the community to play their part in improving the quality of maternal and newborn health care. Prior to implementing these strategies, steps must be taken to prepare the health facility to make the changes needed to improve the quality of care and services.

MANAGING CHANGE

Implementing any change requires thoughtful planning. People resisting change is a common experience. The quality team therefore needs to expect resistance and take the necessary steps to minimize it. Staff may fear a change in their relationships with their coworkers, extra duties or learning new ways. They may also be concerned about a change in salary or even a loss of job.

- **Plan for change**
- **Create a need for the change**
- **Identify change agents**
- **Provide leadership**

People are more likely to accept change if they see the need: What is the benefit to them and to those they serve? A few staff should be selected as change agents. Change agents are the ambassadors who can smooth the road by helping staff understand the benefits of the EMEN standards. Change agents are staff members who are open to change, respected by their peers and can influence opinions. Barriers always occur during a change process, thus the change agent needs to be alert and ready to help the staff work through the problems. The change agent also will work with management to assure needed resources are available and the required approvals are obtained.

Leaders are instrumental in creating acceptance of the changes. A clear message needs to be sent: "Change is important, and we stand behind it."¹⁶ Staff are motivated through the support and recognition of leaders: being present and giving feedback and recognition are all important ways of encouraging staff. Leaders should also think of supporting the QI efforts through tangible resources such as space, additional staff, renovations and technology when possible.

ADAPTING/DEVELOPING POLICIES AND PROCEDURES

Some of the standards can be met easily by adapting/developing a policy and procedure, training staff and implementing the interventions. Policies and procedures (some call these standard operating procedures) guide staff in how to carry out specific technical tasks, e.g., how to perform a vaginal examination or wash hands. All clinical units, including the maternity/newborn ward, need policies and procedures specific to the tasks performed in their areas. In some countries, the policies and procedures have been developed by the MOH; these policies and procedures are commonly prepared for practices that are standard across facilities, such as infection prevention.

Some policies and procedures may be unique to a particular facility because the design of the physical structure or types of equipment and supplies are different. In which case, each facility may develop their own policies and procedures. For example, a team decides that components of essential newborn care are not recorded routinely and they develop a separate stamp that they put on the partograph to record missing elements, e.g., early initiation of breastfeeding.

Appendix 8 provides guidance to develop policies and procedures, and Template 4 provides the format for developing them; however, the country may already have a standard format for these documents; thus, these tools are designed for countries that do not have a system in place.

➔ **APPENDIX 8. Guidance to develop policies and procedures**

➔ **TEMPLATE 4. Policy and procedure format**

ADOPTING CLINICAL PRACTICE GUIDELINES

While procedures outline a step-by-step process for carrying out a technical activity, clinical practice guidelines present recommendations for managing patient conditions. If someone is describing the 'care' or management of a patient condition, they are describing the use of clinical practice guidelines.

Countries usually adopt or adapt internationally approved clinical practice guideline recommendations at the national level. The recommendations that are accepted by the country are written as clinical protocols or algorithms (in the form of a 'decision tree') so that they are easy for staff to follow. (Refer to the glossary for definitions of these terms). For the purpose of this guide, the recommended interventions have been determined and written into the standards, e.g., WHO obstetrical and newborn care guidelines. One of the roles of the QI facilitators is to ensure that the teams have the most current treatment guidelines and protocols readily available. If the country does not have the guidelines available, the team can use the most recent WHO guidelines. Appendix 9 provides a tool to review the status of the available treatment guidelines.

➔ **APPENDIX 9. Treatment guidelines/protocols review tool**

BUILDING CLINICAL SKILLS

Training staff how to meet the standards will help them gain new attitudes, knowledge and skills in clinical practice. The key individuals who will assist staff to implement the standards need to be well prepared to facilitate the process. All facility managers with oversight of the maternity and newborn departments will need to be oriented to the standards, including the nursing and clinical directors, so that they are well equipped to guide the teams.

The learning needs of specific groups, e.g., physicians, nurses and support staff, need to be identified for standards implementation. New employees, including students and residents, also need to be introduced to the standards, as do contracted workers. The plan needs to outline the teaching methods that match the needs for each group. When possible, it is best that general training sessions include all disciplines to foster team work and collaboration.

STAFF TRAINING NEEDS ASSESSMENT

A training needs assessment is the method of determining if a training need exists; and, if it does, what type of training is required. New procedures, new staff, and results of the QI assessments and performance appraisals reveal the training needs. Training needs are not a wish list but are based on the knowledge and skills seen as required to perform a job. Based on the results of a training needs assessment, the QI team can develop an action plan for building the capacity of staff.

Begin training staff in the new procedures per EMEN standards, evaluate staff abilities to consistently perform them, and then monitor implementation into everyday practice. The monitoring activity provides important information to the organization about how well the right thing is being done, in the right way (defined by policy, procedure or protocol).

In addition to the initial training, on-the-job training and application of learning will be critical to the success of implementation. If there is no system of facility-based in-service training, the QI team may dedicate a few hours a month for capacity building. An external facilitator may support this effort when the facility does not have internal capacity.

Mentoring is used as a means of developing specific competencies in individuals or groups. In addition to classroom training activities, clinical mentoring needs to be built into training plans. Implementing standards requires ongoing feedback and guidance until the practices become habit. Both internal and external facilitators may function as mentors. Some facilities find it useful to have two mentors — one to mentor staff development in QI methods and another to assist staff in implementing new approaches to clinical practice.¹⁷

For external facilitators, follow-up is not limited to site visits, as phone calls or e-mails are also effective ways of touching base with teams to track their progress. Initially, weekly contact by external facilitators is advisable. On-site visits are not meant to be an audit; the visits are intended to assist the staff implement the standards. Thus, on-the-job training and assisting the clinic staff in problem-solving is the main agenda. External facilitators can be most helpful if they have clinical expertise and skills in problem-solving techniques.

DISSEMINATING AND COMMUNICATING STANDARDS

Too often, documents are developed and distributed only to lie unused in someone's office. The standards need to be directly available to the health care providers. Staff should understand the need for the standards, whom they will affect and what tasks might be altered. Various factors affect whether staff accept change. Decisions need to be made regarding who is the best person to inform the staff about the standards, and revised or new protocols and procedures. The person selected needs to be someone with credibility, authority and effective communication skills, including the ability to communicate in the local language.

More than one method of communication is needed for everyone to hear the message and remember it. Consequently, holding a meeting or giving one in-service training and expecting staff to implement the practice is not realistic. It is best to plan on using three or four different methods of communicating these changes, both written and verbal. Messages may be communicated through existing scheduled or special meetings, or posting job aids on walls, the hospital's social media pages or employee newsletter. Positive reinforcement by rewarding best practices, such as nominating a staff person of the week, can be effective. When standards are revised, destroy the old standards so that the staff will not inadvertently refer to the wrong set.

ENGAGING THE COMMUNITY

People-centred care and community involvement is sometimes a neglected part of the quality of care initiatives. The QI teams can assist staff in developing strategies to engage the community in the QI process. The community can share in the pride of success if they have invested in the process. WHO has reviewed research on the effectiveness of community mobilization strategies and developed some guidelines specific to improving maternal and newborn health (Box 3).

BOX 3. WHO community mobilization recommendations

“Implementation of community mobilization through facilitated participatory learning and action cycles with women’s groups is recommended to improve maternal and newborn health, particularly in rural settings with low access to health services.” These activities “should focus on creating a space for discussion where women are able to identify priority problems and advocate for local solutions for maternal and newborn health.”

World Health Organization, ‘Recommendations on Community through Facilitated Participatory Learning and Action Cycles with Women’s Groups for Maternal and Newborn Health’, WHO, Geneva, 2014, ISBN: 978 92 4 150727.

Step 4. Guiding QI



What are we trying to accomplish? Decrease maternal and newborn mortality and morbidity. Changes will need to be made to close the gaps and meet the standards to achieve the aim. Start simple and show some immediate improvements to motivate the team.

SELECTING CHANGES

Before dipping your toe in the water, determine how deep you want to dive. Some teams become overwhelmed with all the new jargon and tools that go with QI. Start with simple approaches that will show fast improvements.

Getting started

Some of the gaps in meeting standards are quick fixes, as the solutions are obvious, such as putting up directional signs: “Just do it!”

Other gaps have clear evidence-based solutions, but need some tactics to implement them, e.g., capacity building. The team needs to review the baseline assessment and use Table 5 on the following page to get started on implementing the 10 key interventions that will have the greatest impact on decreasing maternal and neonatal mortality.

The baseline will reveal the issues with implementing the 10 key interventions as well as other areas that need improvement. Start with the key interventions. Use Table 5 to review each intervention asking the following questions:

1. Do we have an evidence-based protocol or procedure for caring for the patient with this condition?
2. Are all the staff who may be caring for the patient or performing the procedure competent to do so? Have they been trained?
3. Has monitoring been done to ensure that this practice is routinely done?
4. Are our outcomes for this practice effective?

Issues identified can be handled by agreeing on the actions that need to be taken and writing an action plan.

Using the 5-S quality method

Another simple approach and a good place to get unit staff members involved in QI is the 5-S quality method. The 5-S quality method originated in Japan from the words *seiri*, *seito*, *seiso*, *seiketsu* and *shitsuke*. English words have been identified that correspond with the meanings of the Japanese words (see below).¹⁸ This method focuses on the continuous improvement of the work environment. This is an excellent method for initiating staff to QI, as it is easy to understand and shows immediate results. Taking before and after pictures of improvements is recommended as they are motivating for staff.

Step 1: *Seiri*, or sort

Seiri is sorting through the contents of the workplace and removing unnecessary items. This is an action to identify and eliminate all unnecessary items from the workplace.

TABLE 5. Implementing the ten interventions

Ten key interventions	Is a current evidence-based clinical protocol or procedure available?	Are all staff trained? Physicians, Interns, Midwives, Nurses, Relief staff	Does monitoring show compliance?	Are outcomes effective?
Management of pre-term birth				
Skilled care at birth				
Basic Emergency Obstetric Care				
Comprehensive Emergency Obstetric Care				
Basic Newborn Care				
Neonatal Resuscitation				
Routine postnatal care (care of the normal newborn and mother)				
Kangaroo Mother Care				
Treatment of severe infections				
Inpatient supportive care for sick and small newborns				

Actions items:

1. Have staff in each department look around for items that may not be needed.
2. Ask these questions:
 - Is this item needed?
 - If it is needed, is it needed in this quantity?
 - If it is needed, should it be located here?
3. Disposal should be done in either of the following ways:
 - Move to another area where the items are required
 - Sell it
 - Discard and haul away
4. Dispose of all items that are broken or have no value.

This is a particular issue in developing countries that have received donated equipment that no longer functions. These items are simply stored somewhere. So, if you have a door that no one wants to open — see what is behind it.

Step 2: *Seiton*, or systematize

Seiton is putting every necessary item in good order, and focuses on efficient and effective storage methods. When items are not put in the same place, time is wasted searching for them, and errors can be made, e.g. medications.

Action items:

1. Study the work flow and decide where to put things so that they are easy to obtain.
2. Staff should answer these questions:
 - What do I need to do my job?
 - Where should I locate this item?
 - How many of this item do I really need?
3. Locate needed items so they can be accessed rapidly.
4. Inform all staff who use the item where they have been placed.
5. Make a list of items with their locations and put it on lockers or cabinets.
6. Label each storage unit to indicate what is inside.
7. Identify all needed items with labels.

Step 3: *Seiso*, or sweep

Seiso involves keeping everything clean and using cleaning to inspect the workplace and equipment for defects. This is an action to clean the workplace daily. "Cleanliness is next to Godliness."

Actions items:

1. Clean the workplace before starting and closing the job
2. Clean both inside and outside the facility on a daily basis.
3. In addition to daily cleaning, a monthly 5-S day is recommended.

Step 4: *Seiketsu*, or standardize

Seiketsu involves keeping the workplace organized, orderly and clean. Standardizing in a health facility includes standardizing sets of equipment, e.g., medication and emergency trolleys, so that staff can easily access items regardless of which unit they are working in.

Actions items:

1. Maintain a schedule for cleaning of the workplace.
2. Assign responsibility to individuals for a work area.
3. Establish a standard way of setting up and storing common items across units/ departments.

Step 5: *Shitsuke*, or self-discipline

Shitsuke involves training and discipline to ensure that everyone follows the 5-S steps.

Actions items:

1. Periodic involvement by facility management is required to check that the first four S's are being implemented.
2. Leaders can encourage staff to keep it up by recognizing improvements.

When fully implemented, the 5-S process increases morale, creates a positive impression on patients and their families and increases efficiency. Not only will employees feel better about where they work, the effect on continuous improvement can lead to less waste and better quality.

PROBLEM-SOLVING METHODS

QI is basically a problem-solving methodology. All QI approaches share some common steps as noted in Box 4. When the problem is not well understood and the solution is not clear, additional exploration of the problem is needed. In this case, there are more quality methods that can be used such as flow charting (process mapping) and cause and effect analysis (root cause analysis).

BOX 4. Problem-solving methodology

1. **Identify the problem: What is the problem?**
2. **Analyse the problem: What is the cause of the problem?**
3. **Find solutions: What are the most effective ways to solve the problem?**
4. **Implement the solutions: What actions needed? Who will do them? When will they be done?**
5. **Evaluate the effectiveness of the solutions: Have the changes made solved the problem?**
(Refer to PDSA cycle.)

Flow charts

Flow charting (also called process mapping) is a simple tool used to map the sequence of steps of a process, e.g., steps in registering a patient. The flow chart allows the team to consider each step and ask some questions. Is the flow efficient? Can some steps be eliminated and still achieve the desired outcome? (Appendix 10 provides an example of a flow chart used to investigate caesarean section surgical site infections.)

Client flow analysis (CFA) is a specific tool typically used in emergency and outpatient departments, to determine the time patients wait for services and spend with health care providers.¹⁹

CLIENT FLOW ANALYSIS: The purpose of the CFA is to gather information about care for pregnant women with complications in order to eliminate or reduce delays in receiving care. Long wait times is a common complaint and can deter women from seeking care. Instructions on conducting a CFA can be obtained through the EngenderHealth COPE manual. (Refer to Resource Directory.)

A **root cause analysis (or cause and effect analysis)** is commonly used to investigate more complex or serious events. Root cause analysis is a method that helps answer the question of why the problem occurred and seeks to identify the cause of a problem. It uses a specific set of steps, to find the primary cause of the problem to:

1. determine what happened
2. determine why it happened
3. find ways to reduce the likelihood that it will happen again.

There are typically three types of causes:

- **Physical causes:** Material items failed in some way (for example, the foetal monitor stopped working).

- **Human causes:** People did something wrong or did not do something that was needed. Human causes may lead to physical causes (for example, no one checked that maintenance was performed on the foetal monitor, which led to it failing).
- **Organizational causes:** A policy or procedure that people use to make decisions or do their work is faulty (for example, no one person was responsible for maintenance, and everyone assumed someone else had checked the foetal monitor).

Maternal and perinatal mortality review

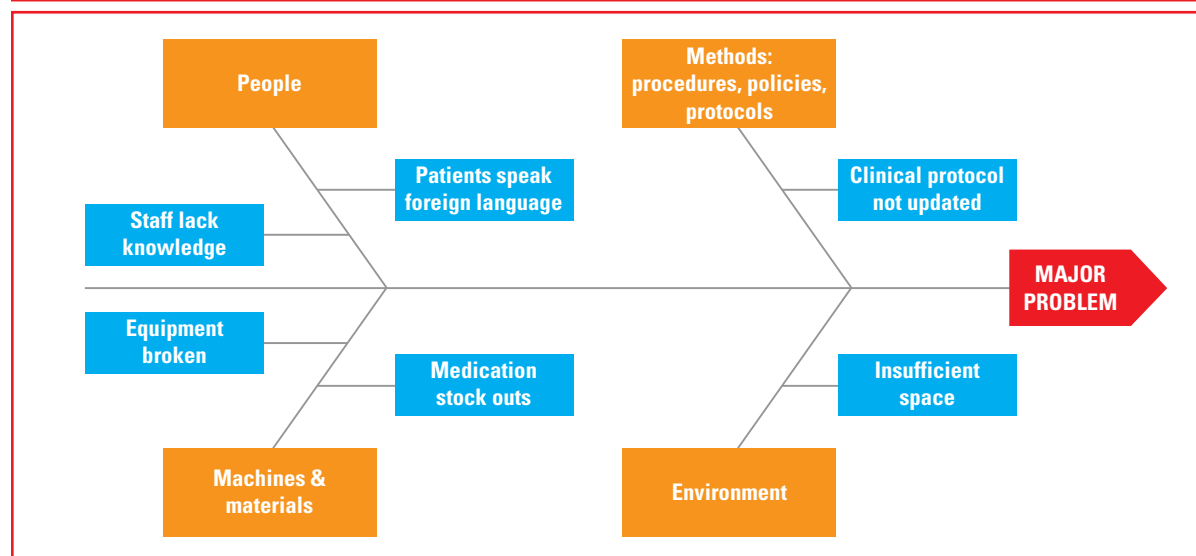
Inasmuch as decreasing maternal and neonatal mortality are the main aims of the EMEN standards, a 100 per cent review of maternal and neonatal mortality is recommended by trained practitioners. During the first review, cases may be eliminated that do not need further consideration (as the cause is known and accepted); selected cases are prepared for committee review. Structured, multidisciplinary review is required to identify system processes that may result in failures in care, adverse events and mortality. Action planning typically takes two forms: counselling of staff and/or a QI project to address systemic issues.

Maternal and neonatal mortality review tools are available through the WHO (see 'Maternal Death Surveillance and Response' in the Resource Directory). Two other useful cause and effect tools are the Fishbone diagram and the 5-Whys.

Fishbone diagram

The fishbone diagram is called such because it looks like the spine of a fish. When using this diagram, the effect (or problem) that is being discussed is written at the head of the fish. The team then identifies the various causes for the problem and places them under the categories. The most common categories are identified in Figure 3; however, the labels can be changed depending on the problem. This is not complicated — it is simply a way of brainstorming potential causes to the problem and sorting the ideas into categories to make them easier to review and discuss. The categories commonly used are: people, methods (including procedures, policies and protocols), machines and materials and the environment.

FIGURE 3. Fishbone diagram



This approach is used when the cause is not known or there are many causes. Sometimes the usual causes are identified in the literature and the team does not need to waste time trying to think of the reasons for the problem. Other times, the causes are geographically or culturally specific and need local brainstorming to better understand the situation. (Appendix 11. Example of fishbone diagram on neonatal fatality rates)

The 5-Whys

The 5-Whys is a simple brainstorming tool that can help QI teams identify the root cause(s) of a problem (Template 6). Once a general problem has been recognized, either using the Fishbone Diagram or Process Mapping, ask 'why' questions to drill down to the root causes. Asking the 5-Whys allows teams to move beyond obvious answers and reflect on less obvious explanations or causes. (It is not recommended to use the 5-Whys alone, as it can lead to biased or narrowly focused conclusions.)

Example:

A woman undergoing a caesarean-section did not receive antibiotic prophylaxis. WHY?

The antibiotic was not available in the theatre. WHY?

The physician did not write a prescription. WHY?

The physician was unaware of the current protocol. WHY?

The physician was new and had not been oriented to the clinical protocols. WHY?

The facility does not have an orientation programme for new physicians.

→ APPENDIX 10. C-section flow chart example

→ APPENDIX 11. Fishbone Diagram example of increased sick newborn fatality rates

→ TEMPLATE 6. The 5-WHYs Worksheet

ESTABLISHING MEASURES

Indicators are needed to measure whether the changes that are planned have achieved the target. A simple indicator is depicted in Table 6.

The QI teams can set a target each month. If the intervention is new, the baseline might be zero per cent; in which case, the team might set a target of improving by 50 per cent the first month, 75 per cent the second month and at least 95 per cent the third.

Even though 100 per cent is desired, the target is usually not set that high, as when a target is not met, action should be taken. Therefore, when a reasonable level of achievement has been reached, the time intervals between monitoring can be increased.

TABLE 6. Indicator example

Numerator: Number of women who received oxytocin during the third stage of labour

Denominator: Total number of records reviewed

Numerator = 20
Denominator = 30

$20/30 = 66\%$ of the women received oxytocin

IMPLEMENTING CHANGES

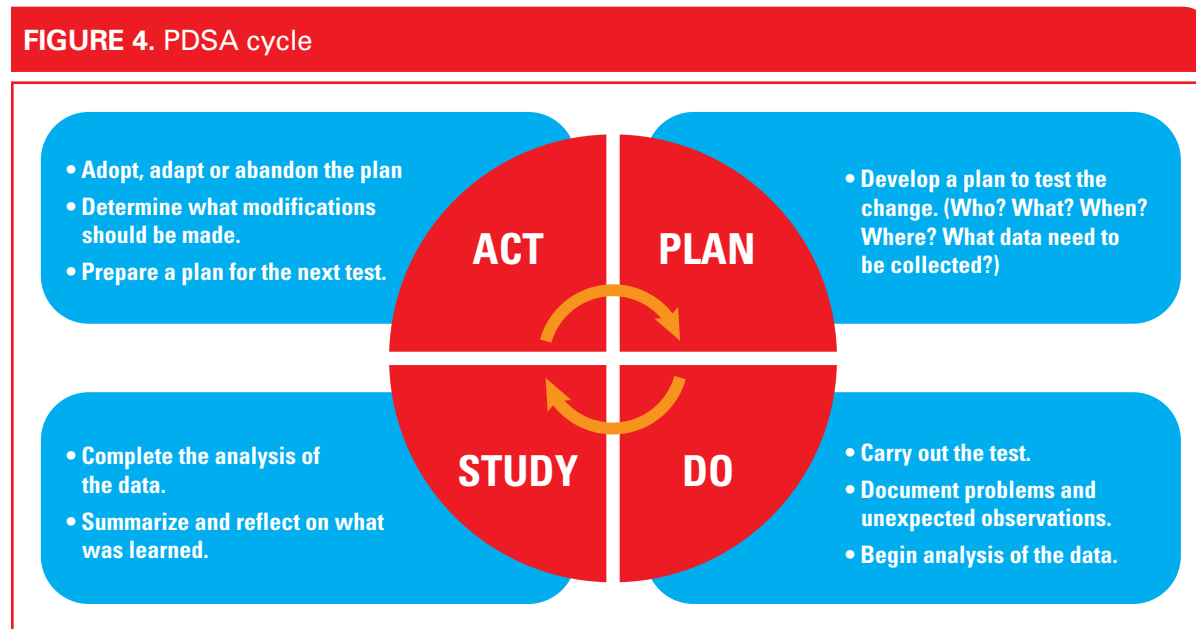
When the solutions have been selected, the team develops a plan to implement the solutions. The action plan sets the contract for improvement and establishes the mandate, priorities and resource availability. Thus, when solutions to meeting the standards have been selected, an action plan is written including: (a) the activity, (b) who is responsible and (c) the timeframe for completion (Template 7).

→ **TEMPLATE 7. Quality Improvement Action Plan**

TESTING THE CHANGES

Plan-Do-Study-Act cycle

The Plan-Do-Study-Act (PDSA) cycle (Shewhart's Cycle for Learning and Improvement²⁰) is a process to test whether the changes are achieving the expected results (Figure 4). After the staff have developed and implemented the new or revised policies, procedures and protocols, the next step is to monitor how well the new processes are being implemented. A PDSA worksheet is available in Template 9.



There is no way to know the core improvement without data. The team needs to plan for each monitoring activity, answering questions about what we are monitoring, how data are collected, who collects it and when, and so on. Appendix 12 provides an example of how to complete a monitoring activity worksheet and Template 8 can be used to develop a monitoring plan.

Regular (daily or weekly) measurement is the only way to know if a change has led to improvement. Charts and graphs are necessary to track performance of a process over time and document the story of improvement.

At the end of the day, the most important question that the team should ask is “why?” The numbers offer the data but the team must answer the question. There are only three ways to interpret the data — it improved, stayed the same or got worse. In some cases, the answer is

obvious, other times it is not. Quality tools such as the cause and effect diagram can be useful when a problem persists and the why is difficult to answer or there is more than one opinion on the underlying causes.

Monitoring clinical practice

The tools used for monitoring clinical practice are typically simple checklists that are designed based on the key steps of the procedures and protocols. Clinical practice can be monitored through direct observation or clinical record review. Observations are more time consuming; thus, they are more frequently used to review the competency of staff members than to monitor changes in practice. Clinical record review is the common method used to monitor changes in practice.

As a rule, 30 data points (e.g., 30 records reviewed) is a reasonable sample for drawing conclusions regarding how well a practice is being performed. For example, the QI team may decide to monitor implementation of a new protocol on essential newborn care. In this case, the checklist may simply list the key interventions (e.g., skin to skin, cord care) and 30 records may be randomly sampled at the end of the month to assess whether they were routinely performed. Template 5 provides a clinical record review tool that can be used to conduct such a review.

Some teams prefer to monitor practice on a daily basis rather than pull records at the end of the month. This approach also allows for immediate feedback to staff to encourage them to document the care provided.

The data on the checklists are then added, entered into an Excel file (or computed by hand) and graphed to show the progress over time. The monitoring continues until the QI team feels comfortable that the new practice is being sustained. Thereafter, monitoring of that particular intervention may be done about every six months to ensure ongoing compliance.

➔ **TEMPLATE 5. Clinical Record Review Tool**

➔ **TEMPLATE 8. Monitoring Activity Worksheet**

➔ **TEMPLATE 10. PDSA Worksheet**

➔ **APPENDIX 12. Monitoring Activity Worksheet (example)**

COMMUNICATING FINDINGS

Open, transparent communication of the gaps identified and the work of the QI team is critical to the success of QI efforts. A good way to ensure that QI activities are communicated is to add a routine agenda item to staff meetings and post committee minutes and results graphs on the unit bulletin board. QI efforts should also be shared with the community in a manner that they can understand and enable them to participate in the process. The key message that “EMEN standards will save lives of mothers and babies” is communicated to all stakeholders. Messages should not be limited to providing information — ask for help in achieving the aims, as each stakeholder can contribute. Communication planning, then, needs to be incorporated into the routine process of QI (Appendix 13).

➔ **Appendix 13. Communication Plan**

Sustaining the gain

Successful QI solutions need to be built into everyday activities. This can be done by writing the new approaches into relevant policies, procedures and protocols. In some cases, the expectations may be written into job descriptions and/or staff performance appraisals.

Sustainability has been and continues to be a major concern for the majority of health care organizations. When improvements are not sustained, the cost of the initial improvement programme and the rework is then added to the overall cost of poor quality such as medical errors and mishaps. The added rework costs include redoing process steps to regain improvement and also includes the possibility of staff disengagement when they see that quality and safety revert back to old ways and improvements are not sustained. Concerted effort must focus on using data to monitor improvement and providing feedback to staff and management regarding the successful and continued improvements achieved.

Scaling up

The **quality collaboratives** approach involves different clinics and hospitals, supporting each other on common aims to improve the particular aspect of the quality of care. Facility collaboratives encourage health facilities to share their experiences and lessons learned; eventually, helping each other to bring change in the overall health system.²¹ The QI teams can form collaboratives with nearby health facilities and can learn from each other and compare results. (For more information on how to implement quality collaboratives, refer to M.R. Massoud et al., 2006, in the Resource Directory.

Documenting the QI activities

The main purpose of documentation is to analyse and share the most important work of QI teams. Documentation focuses on achievements and captures challenges, lessons learned and future opportunities. This approach will help countries learn and sustain the efforts of the EMEN project. Thus, a QI documentation journal is highly recommended.²²

Celebrating success!

Celebrate small successes — celebrate big successes — celebrate each other!

Glossary

Algorithm	<p>Recommended patient management strategies designed to direct decision-making. An algorithm may take the form of a flowchart, decision tree or decision grid. Algorithms are often used in areas requiring rapid decision-making, such as an emergency department. (Examples: cardio-pulmonary resuscitation and Integrated Management of Childhood Illnesses)</p>
Clinical practice guidelines Synonyms: practice guidelines, guidelines, practice parameters	<p>A set of systematically developed statements, usually based on scientific evidence, to assist practitioners and patient decision-making about appropriate health care for specific clinical circumstances.¹</p>
Criteria Synonyms: measurable elements, quality statements	<p>In relation to the EMEN standards, criteria are the elements necessary to meet the standards.</p>
Evidence-based practice	<p>The conscientious, explicit and judicious use of current best evidence in making decisions about the care of the individual patient. It means integrating individual clinical expertise with the best available external clinical evidence from systematic research.²</p>
Inputs Synonym: structure standards	<p>The resources an organization uses to provide a service. (Examples: finances, physical structures [buildings], supplies and equipment, personnel and clients)</p>
Job description	<p>A document outlining the roles, responsibilities, purpose and qualifications of a particular position.</p>
Outcome	<p>Results of a process. Includes outputs, effects and impacts.</p>
Policy	<p>Statements that give direction to the organization on behavioural expectations, guidance on decision-making and parameters of authority.</p>
Procedure Synonym: standard operating procedure	<p>Step-by-step instructions on how to perform a task based on technical and theoretical knowledge.³</p>

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2. Sackett, D., W. Rosenberg, et al., "Evidence-based medicine: what it is and what it isn't," *BMJ* 1996; 312:71-72.

3. Marker, C. G., 'The Marker Model: a hierarchy for nursing standards', *Journal of Nursing Quality Assurance*, vol. 1, no. 2, 1987, pp. 7-20.

Process	A series of related activities and tasks that transform the inputs (resources) to produce a desired outcome.
Protocol	A plan or set of steps to be followed in a study, investigation, or intervention, as in the management of a specific patient condition.
Qualifications	Characteristics — such as education, background, and experience — that a person brings to a specific position or task.
Standard	In the context of EMEN, it is a description of what is expected to be provided to achieve high quality care around the time of childbirth.

Resource directory

The following documents are excellent resources for additional guidance in implementing QI. The guidelines listed in the directory are the most current for this publication; however, countries must be diligent in checking to ensure that they are working from the most current versions. Also, check posters that are hung in the clinical areas that may not be in sync with the current guidelines.

QUALITY IMPROVEMENT METHODOLOGY

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