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Full title: The evolution of a quality of care approach for improving essential obstetric care in rural hospitals in Nepal

Authors: S. Clapham, I. Basnet, L. Pathak, M. McCall

Synopsis: The process of developing a quality of care approach to help improve utilization of essential obstetrics care in rural hospitals in Nepal is reviewed.

The evolution of a quality of care approach for improving essential obstetric care in rural hospitals in Nepal

S. Clapham[a], I. Basnet[a], R. Pathak[b], M. McCall[a]

[a] Nepal Safer Motherhood Project (NSMP)
[b] Family Health Division, Ministry of Health, His Majesty's Government of Nepal

Abstract

Objective: To describe the iterative process of developing a locally-appropriate quality of care approach and its role in essential obstetric care programming in Nepal.
Method: This descriptive paper reviews the context of maternal health issues in Nepal, the rationale for developing a quality of care approach within a model to improve essential obstetric care, and outlines the outcomes and ripple effects of the process. The lessons learned during the development of this approach are detailed.
Result: The development and implementation of a quality of care approach at three district hospitals in Nepal resulted in improvements in the structure, process and outcomes of essential obstetric care services in these institutions. The process also resulted in improved understanding of quality of care approaches on both local and national levels and the creation of a Nepalese quality of care evaluation framework for maternity services.
Conclusion: The theoretical concept of quality of care is difficult to translate into a concrete approach for improving the quality of essential obstetric care services. The process of developing a quality of care approach in rural hospitals in Nepal created highly motivated teams and resulted in improved overall functioning of these hospitals.

Keywords: Quality of Care; Safe Motherhood; Essential Obstetric Care; Developing Countries

1. Introduction

Improving the quality of care (QOC) of maternal health is an area that has gained significant interest in recent years. However, it remains a subject of debate with a range of opinions on such areas as the definition quality of care and the extent to which QOC determines utilisation levels. Furthermore, there remains more literature on models and approaches than on actual implementation experience.

This paper describes a QOC approach integrated into the efforts of His Majesty's Government of Nepal (HMG/N) and the Nepal Safer Motherhood Project (NSMP) to improve access to and the quality of essential obstetric care (EOC) in rural districts. The Nepal District EOC Model, the rationale for a QOC approach within that model and the process of developing a QOC approach over a five-year period (1997-2003) are presented.

When NSMP first began to explore the use of a QOC approach, most documentation about how to implement this type of approach pertained to the field of family planning[1]. The evolution of NSMP's quality of care approach occurred in parallel with the development of the international application of QOC to maternal health and has drawn upon the literature that addresses this theme.

As there is a paucity of documentation about the use of the QOC approach in improving maternity care[2], Nepal's experience is relevant to other low resource countries challenged with reducing unacceptably high maternal mortality rates.

2. Nepal Context

2.1 Maternal health and health services

Nepal is a small landlocked country of 23 million people[3], 71% of whom live below the poverty line[4]. Significant progress has recently been made in some areas of reproductive health: the total fertility rate is 4.1 and the contraceptive prevalence rate is 39% [5]. However, Nepal's maternal mortality rate remains one of the highest in the world—539 deaths per 100,000 live births[6]. It is estimated that 12 women die each day in Nepal due to pregnancy, labour and postnatal complications. Almost half of these deaths are attributable to post-partum haemorrhage[7] and most of these deaths are avoidable. Only 12% of births are attended by a skilled provider – a doctor or a nurse, and over 90% of births take place in the home [8]. Only 5% of the estimated need for essential obstetric care is currently being met as reflected in the fact that only 0.7% of deliveries are by caesarean section - set against the acceptable rate of five percent[9].

Nepal's health policy reflects a commitment to safe motherhood; however, this has yet to be translated into an adequate allocation of funds – a situation common in many low-resource countries. While the cost of an essential safe motherhood/child survival package in Nepal is estimated to cost US$ 4.73 per capita, at present only US$ 3.1 per capita is spent on all health care [10].

Nepal's doctor-to-population ratio is 4 per 100,000 compared to United Kingdom's ratio of 164 per 100,000[11]. However, the fact that most doctors, including 60% of obstetricians, are based in urban areas means that physician services are especially scarce for the 85% of Nepal's population that live in rural areas. Health care services for the majority of Nepal's population are provided by a complex network of rural healthcare providers - both allopathic and ayuravedic - with varying level of skills. Policy makers face the dual challenges of trying to better allocate available resources as well as to increase the level of these resources.

2.2 The national safe motherhood policy and program

Only within the last decade has HMGN begun to address maternal health as a serious health issue. Concerted efforts to reduce maternal mortality commenced in 1997 with the launch of the HMGN Safe Motherhood Program. This was followed a year later with the National Safe Motherhood Policy, a far-reaching, comprehensive policy that addresses health service needs (excluding post-abortion care) as well as the social barriers to achieving safe motherhood goals. HMGN has responded to international recognition that maternal mortality cannot be significantly reduced without access to lifesaving services [12]. Efforts to increase access to quality comprehensive and basic essential obstetric care (C/BEOC) are now central to the national program's strategy.

The major focus of HMGN's effort to increase access to EOC services over the past few years has been in the area of expanding the role of nurses, recognising this as one of the keys to expansion of EOC. HMGN has defined clinical protocols for health workers, developed and implemented midwifery courses, enabled nurses to provide postabortion care (PAC) and

endorsed an anaesthetic course for nurses which will allow them to expand the spectrum of BEOC services that they can provide. The recent passage (2002) of a bill legalizing abortion under certain circumstances has been accompanied by a training strategy that will include nurses as comprehensive abortion care providers for early gestations. A national assessment of the performance of HMGN's lowest cadre of health care providers, Maternal Child Health Workers (MCHW), as skilled birth attendants is currently underway. HMGN has also added EOC monitoring data to the national health information management system reporting formats. Coupled with these efforts to provide more - and better - care, the HMGN has greatly improved its understanding of strategies to address the complex barriers to accessing care including the development of behaviour change communication strategy.

2.3 The Nepal Safer Motherhood Project

In 1997, the Nepal Safer Motherhood Project (NSMP), funded by DFID and managed by Options UK, began with the explicit purpose of promoting access to essential obstetric care (EOC) through the development of a District EOC Model to address the availability and quality of care, as well as the complex barriers to EOC-seeking behaviour in project communities. Within its supported districts, the project aims to bring about a sustained increase in utilisation of quality midwifery and basic and comprehensive essential obstetric care (BEOC and CEOC) services. In order to do this NSMP works in the areas of service provision (facility level), demand creation (community level) and national policy (central government).

The Nepal District Model to Improve EOC is graphically represented in Figure 1. At the hospital or health care facility level, support has been provided to “software” and "hardware" components. Software support has provided a range of training for clinical and non-clinical staff, e.g. training on infection prevention, essential newborn care, post-basic midwifery and midwifery refresher, use and maintenance of equipment, and anaesthetic assistance. Hardware support has ensured adequate infrastructure to allow for full EOC services, e.g. construction and renovation of operating theatres, labour wards, and maternity wards; adequate safe hospital equipment and supplies; and facilities for a 24-hour blood transfusion service. At the community level, the project has focused on addressing client needs and satisfaction issues, behaviour change communication and community education on the importance of birth preparedness through its work with a number of partner organisations. The clients’ experiences of care at the facility are sought out via exit interviews and during individual feedback and focus group discussions in the community. Both positive and negative feedback from clients are anonymously shared the hospital staff as another barometer of quality improvement.

During Phase One of the project (1997-2000), NSMP operated in three districts expanding to a total of ten districts in Phase Two (2001-2004), representing 15% of Nepal’s (2001) population. The total NSMP programming budget for both phases is 2.2 million Pounds Sterling, equivalent to 3.7 million US dollars.

3. Quality of Care approach

The premise for NSMP's Quality of Care (QOC) approach is that improved quality of care will significantly contribute to better patient care and maternal outcomes. The relation between QOC and service utilisation has been proven for family planning related to services

utilisation[13] and there is significant evidence that sub-standard obstetric care is an important contributor to maternal mortality[14].

NSMP recognised that simply supporting staff training and upgrading facilities would not necessarily lead to improved EOC service provision. The project also recognized that many staff were demotivated for a range of reasons and that there is an "implicit" health system culture in Nepal that views the health system as the means to provide income to health care workers rather than health care to patients[15]. The use of a QOC approach presented the possibility of exploring the mindset of providers and encouraging them to participate in a meaningful way in finding ways to overcome the barriers to good quality services. The three general steps in the approach are to 1) set local standards for quality of EOC services, 2) take actions to achieve the agreed-upon standards and 3) monitor changes over time.

3.1 Development of the QOC Process – 1997 to 2000

The first step in the development of a QOC approach was a baseline assessment using tools modified from the WHO Mother-Baby Package[16]. These tools (Table 1) were used in 1997 to assess the three Phase One supported hospitals and were slightly revised in 2000 to assess the seven Phase Two hospitals and five Primary Health Care Centres (PHCCs). The original QOC monitoring tools were a set of yes/no checklists that reviewed 10 elements that touched on resources available, practices to ensure effective use of resources, mortality and morbidity outcomes and the availability of EOC services.

Next, two teams were created at each district hospital, one for maternity care and another for infection prevention – and collectively called the QOC team. The maternity team consisted of the nursing staff, a medical doctor, and support staff. The infection prevention committee consisted of a medical superintendent, the charge nurse, the head of central supply, an administrator, support staff, cleaners and a representative for each hospital unit. These QOC teams were facilitated by Human Resources Development Officers (HRDOs) - experienced midwives with sound understanding of safe motherhood principles working as project staff in each district hospital. The technical training received by members of both teams also assisted them to determine and set their own standards for maternal healthcare and infection prevention practices.

Arriving at the ideal definition of what constitutes QOC at the three district hospitals proved difficult as there was no internationally accepted definition at that time despite two decades of addressing QOC.[17] Despite the lack of consensus on what constituted acceptable quality of care, there was general agreement that the QOC concept must move from a focus on biomedical outcomes to a more inclusive definition that addresses both provider and client satisfaction[18]. “Quality of Care” meant something different to each hospital group as service providers needed to be flexible in considering local standards and local solutions to problems.

Each hospital reviewed QOC issues on a continuous basis through a monthly assessment (using the 1997 checklists) performed by both the maternity and infection prevention teams that identified barriers to quality healthcare and analysed their causes; developed local action plans (copies of plans were posted in the maternity unit to encourage all staff members to participate in the assessment process) and then worked to implement these plans over the following month. A quarterly review of the previous 3 months’ action plans was then undertaken by both teams. Areas of improvement were noted and, in cases where activities

had stalled, follow-up actions were planned. Efforts were made to solve problems with local resources. Uncompleted actions were carried over to the next period. Findings were recorded and one report was sent to the project office in Kathmandu with a copy retained at the hospital. In September 1999, six months into this process, an assessment and review meeting involving all hospital staff and incorporating feedback from hospital clients on QOC took place. The review meeting enabled the entire hospital staff to better understand the QOC approach and evaluate the overall quality of maternal healthcare: identifying their own problems, learning about possible solutions from each other and sharing assessment findings in a non-threatening environment. The meeting also allowed the QOC teams to share with other staff the progress made towards improving the quality of care in their units; to assess basic health services that affect the quality of maternal healthcare, e.g. laboratory, drug management, and emergency services; and develop solutions. While each of the three hospitals was encouraged to draw upon local resources to resolve identified problems, the reality was that the project provided almost all of the required resources during the first 2-3 years.

Integral to this process was the adoption of processes to engender a spirit of accountability, respect and desire to provide a service amongst every staff member that will ultimately result in greater self respect and respect for clients enabling the concept of responsible care giving to become meaningful. Approaches adopted were:

- integration of a appreciative approach to all interactions - seeking strengths and achievements in work and building on these rather than overly focusing on problems;
- involving everyone as equals for example in staff meetings and planning processes thereby challenging inherent caste and gender barriers to team work; and
- engendering a belief that staff themselves are able to develop their own potential and challenges many inherent limitations due to caste and sex.

3.2 Development of the QOC Process – 2001 to 2003

Three things happened at the end of the first phase of NSMP to accelerate the evolution of the QOC process as the project was preparing to scale up its support from three districts to ten. First, the Infection Prevention and Maternity Care teams in each hospital decided to merge into one general QOC team. Second, local ownership of the process dramatically increased as hospital management committees assumed full responsibility for providing essential supplies and services that had previously been supported by NSMP and the leadership of this team shifted from the project-supported HRDO to one of the hospital nurses identified as a "change agent". Third, Pittroff and Campbell[19], Hulton, Matthews and Stones[20] and Graham[21] published documents that were particularly helpful in defining QOC and how to monitor its progress in the context of maternity services.

Since 1997 the Family Health Division (FHD) of the Department of Health Services (DOHS) has closely observed the progress and experiences from NSMP's District EOC model and QOC approach. In 2001, the FHD and NSMP held a joint review of the QOC approach in light of the learning from 5 years implementation experience plus new evidence-based international learning. The approach was revised with the new version produced in a Nepali language "Guide for Quality Obstetric Care" (published March 2002). This includes locally-appropriate tools for monitoring the quality of EOC. The tools in this guide, jointly developed with HMGN, have received consensus approval from a number of other agencies managing projects with a safe motherhood focus (UNFPA, UNICEF, GTZ and USAID). In addition the

Guide provided one agreed upon defination of QOC – that proposed by Pitroff and Campbell[22]

> High quality of care maternity services involve: i) providing a minimum level of care to all pregnant women and their newborn babies and ii) a higher level of care to those who need it; iii) obtaining the best possible medical outcome, iv) providing care that satisfies women and their families and care-providers, and (v) maintaining sound managerial and financial performance and developing existing services in order to raise the standards of care provided to all women.(2000:6)

The revised model placed emphasis on better monitoring of process in QOC improvement and linked to this produced more user-friendly, Nepali language, monitoring tools. NSMP's original QOC approache's checklists were missing guidelines on how to monitor the process of change over time. The revised model adopted the use of criterion-based audit processes into the QOC approach. These criteria assist staff to quantify the technical performance of care in each facility. Each facility has chosen two or three technical practises to audit over a 6 month period - for example induction rates, episiotomy rates, and post operative infection rates.

The Guide for Quality Obstetric Care, now in use in two zonal hospitals, nine district hospitals, and four primary health care centers, provides background information on quality of care and a set of 13 criteria-based monitoring tools that can assist facilities to measure their progress on improving quality of care in both the areas of provision of care and how clients/patients experience the care provided at the facility (Table 2). These tools are now used to perform, at minimum, a regular quarterly review and develop an action plan with copies forwarded to FHD and NSMP.

4. Results

NSMP has adopted Donabedian's framework[23] to assess progress under the headings of structure, process and outcome. Significant evidence for positive changes in the quality of EOC at supported facilities has come from the self-assessment workshops held in the autumn of 1999 and an independent review of NSMP in June 2000. In addition, NSMP has received considerable anecdotal evidence of the impact of the QOC approach.

4.1 Structure - resources, equipment and the people who provide care

Availability of all necessary infection prevention materials

In 1997, of the 8 essential materials needed for infection prevention only 2 were available in all three NSMP-supported hospitals - and only then periodically. The project provided the materials required for two years until the hospital staff lobbied the hospital management committees to provide the resources to sustain theses supplies. By the year 2001, all three hospitals were able to sustain these supplies using local resources only. Now, 18 months into Phase Two, the seven project-supported district hospitals have also managed to become self-sustaining in the area of infection prevention materials.

Provision of 24 hour blood supply service

None of the NSMP-supported hospitals has a 24 hour blood transfusion service in place in 1997; by the end of the second year of project support, all did. None exempted poor women from paying for this service but by the end of year 3 all provided free blood to poor women in need of transfusion. The total number of units of blood supplied per facility in 2001 ranged from 279 to 984 units with about 50% of those were for EOC cases and 7-9% of all blood being provided free to poor women[24].

Provision of essential obstetric drugs

Initially, none of the hospitals had an on-site supply of magnesium sulphate or oxytocics. The project supported the supply of these at first and within two years the hospital management committees valued these drugs sufficiently that they are now continuously available on site.

Availability of nurses

The chronic under filling of sanctioned posts coupled with a high transfer rate results in a constant state of understaffing. Before 1997, only 30% of government sanctioned posts were filled at the three district hospitals, by 2002 this proportion had risen to 50% and by 2003 90-100% of these posts were filled. However, even when all sanctioned posts are filled, there were still insufficient numbers of nurses to meet hospital needs. The hospital management committees responded by hiring more local level nurses (who would be outside the government system and therefore, not transferable) to boost the number of nurses by an additional 20-50%. While these local nurses are not government workers and receive no long-term government benefits (they are paid by the hospital management committees), they benefit professionally from project-sponsored in-service training and lower level nurses (assistant nurse midwives) have the opportunity to receive formal nursing training to advance up the career ladder is their performance is exceptional.

Availability of midwifery and EOC services

In 1997, no nurses at any of the three district hospitals had received any training (beyond their basic training) on critical areas of essential obstetric care. By 2003, of the 15-31 nurses working at each of the three hospitals, over three quarters had received midwifery training and approximately one fifth were trained as PAC providers.

Improved training approach

The project's original needs assessment recommended that training of individuals had not been effective in motivating staff to improve the quality of care; staff at the three district hospitals expressed their view that individual training created jealousy and a high level of resistance to any new ideas and practices that were attempted to be introduced by colleagues that had benefited from training opportunities.

Therefore, based on these findings, NSMP adopted a 'whole site training approach' with training critical to the improvement of quality of care provided to support staff, the administration/management team, and hospital management committees members all at the same time. One advantage of this approach is that at the end of the training every member has the same level of involvement and knowledge creating a sense of responsibility and support. Another is that the training takes place in the workplace saving travel time and money and allowing staff to continue with some of their regular responsibilities even while the training is

in progress. The training areas implemented using the 'whole site approach' have included infection prevention, communication skills, and management.

4.2 Process - the way in which health care is delivered

Client-Provider Interaction

The 1997 needs assessment revealed that hospital staff blamed their poor interpersonal communication skills on time constraints due to high patient loads. There are a number of examples of how this has been addressed over the years. Foe example, analysis revealed that the antenatal care (ANC) clinics opened very late (around 11.30 am), creating overcrowding and a long waiting time for pregnant women. Therefore, to the staff it appeared as though there was little time or space to respond to women's concerns or explain procedures to them.

In 1998, a whole site workshop on "interpersonal communication skills" gave staff the opportunity to learn how to utilise time effectively in addition to the practicing new counselling skills. After this workshop major changes occurred - the ANC clinic was opened at 10.00 am and there was a great improvement noted in obtaining verbal consent for obstetric procedures, responding to women's concerns and questions and supporting women to make decisions informed by factual information.

Integration of Reproductive Health Services

Before 1997, ANC and antenatal tetanus toxoid (TT) immunisations were provided separately and only once a week. ANC services were restricted to the hours of the outpatient department and reproductive health services such as postnatal care, family planning (FP), and STD/RTI all functioned separately. Family planning services were often not provided on the same days as other reproductive health clinic services.

Currently, all three hospitals have integrated ANC and TT and PAC services are integrated with other maternity and FP services and the numbers of ANC clinics per week have increased. There is also now a referral link between the ANC clinic and the general medicine clinic to manage STD/RTI cases.

Continuous monitoring of quality improvement

The joint development and adoption of the Nepali language Guide for Quality Obstetric Care and its regular use by 17 institutions across the country speaks to an increased awareness of and interest in improving the quality of obstetric care services. In 2003, NSMP brought the entire group of local "change agents" together to review their experiences with the guide. This meeting resulted in a number of proposed changes in the monitoring tools and prompted plans for a more strategic review of the manual to be followed by translation into English within the next six months.

4.3 Outcome - beneficial or adverse events (short or long term)

Process data are usually more sensitive to measures of quality than outcome data (eg EOC ulitisation data) and outcomes may be affected by a range of non-facility QOC issues[25].

Addressing sustainability

The local ownership of the QOC approach is evident in the ability of the hospital staff to maintain QOC improvements as the on-site support by NSMP has gradually been reduced as planned. The degree of training and hardware support has decreased by 50% and the mentoring and support provided by the HRDOs is now only 30% of their original input with the HRDOs explicitly focusing on transferring their skills to the aforementioned "change agents". NSMP has been monitoring the level of QOC provided since this reduction in project support and are broadly satisfied that standards are being reasonably maintained.

The Phase One hospital management committees' ability to gather local resources for sustained support of essential supplies and services has meant that NSMP has planned to engage with the Phase Two management committees from the outset of project activities to ensure their support.

Developing teamwork and a desire to provide care

Due to the hierarchical nature of Nepali culture, the concept of teamwork has been very difficult to put into practice. Traditionally, staff are expected to follow instructions without question and abstain from expressing their concerns or opinions to their seniors. The result of this type of institutional climate was apathy. However, through the QOC development process, this environment has changed. A team mentality developed with support staff and service providers working alongside each other with common purpose. For example, a cleaner now attends the monthly infection prevention meeting alongside the hospital superintendent and feels comfortable enough to give his suggestions on infection prevention practices, knowing that quality is everyone's responsibility. Management skills have improved, as has communication amongst colleagues. There is a discernable pride now among providers and a respect shown towards each other and clients that is appreciable.

The reputation and high profile that the three Phase One supported hospitals now have in the national Safe Motherhood Program adds to the continuing pride that these hospitals place in the quality of their services.

EOC utilisation data

All three sites have made progress in increasing the met-need for EOC and CS. Although progress is slow and the gap in met-need against the unmet-need is vast, the flow of patients and hospital workload has significantly increased.

Replication of model

In addition to NSMP's own scale up of application of the District EOC model (and QOC approach) from 3 districts to 10; the FHD began to replicate the model in one non-project supported district in 2002. A few important changes have already occurred in this hospital, e.g. clear job descriptions have been drafted, the management committee mobilising resources more effectively and the maternity team has developed a strong team of the doctors, nurses, and support staff.

5. Conclusions

NSMP provided a “package of inputs” in its District EOC model and QOC approach - improved physical facilities, upgraded equipment and supplies, extensive training and attention to community-level barriers to accessing EOC. The QOC approach is one component part of this model. It is difficult to know what weighting should be given to each input in understanding its contribution to the overall improved service, however, NSMP believes that each input's value is increased through being part of a holistic package. Arguably, introducing a QOC approach in the absence of other inputs might not be effective. However, as a central management approach set among other inputs it appears to have maximised the overall effect.

As a result of the holistic QOC approach, service providers and managers have gained a degree of self-confidence that allows them to manage resources more effectively and to resolve local problems without external interventions. As a result, hospital management committees are impressed with the improvements they see and are responding to requests for support. They are allocating additional resources for essential drugs, for increased staffing, for replacement of infection prevention supplies, and for blood for needy women.

The success of this approach ultimately contributed to an increase in EOC utilisation at facility level and to HMGN appreciation of how to realistically address QOC improvement. The newly revised QOC approach (as presented in the manual Guide for Quality Obstetric care) - and the HMGN's commitment to replicating the same - is testament to this. As seen in this report, the process of developing a QOC approach can itself act as a catalyst in bringing about change. NSMP believes the use of a QOC approach within a model to increase access to EOC services is of great value to other countries committed to enhancing the quality of services – even where resources are scarce.

Table 1: Quality of Essential Obstetric Care Monitoring Tools – 1997

Q1. Accessibility and availability of services

	Indicator: 1 **1. BEOC facility is providing the following services 24 hours a day**		
Q1.1.0	Injectable oxytocic	Y	N
Q1.1.1	Injectable antibiotics	Y	N
Q1.1.2	Injectable sedatives/ anticonvulsant	Y	N
Q1.1.3	Injectable anti-hypertensives	Y	N
Q1.1.4	Plasma expanders	Y	N
Q1.1.5	Instrumental delivery (Forceps/ Vacuum)	Y	N
Q1.1.6	Manual Removal of Placenta	Y	N
Q1.1.7	D&C	Y	N
Q1.1.8	MVA/Post Abortion Care	Y	N
Q1.2	**Indicator: 2** **CEOC facility is providing the following services 24 hours a day**		
Q1.2.1	All of the above	Y	N
Q1.2.2	Caesarean Section	Y	N
Q1.2.3	Laparotomy	Y	N
Q1.2.4	Blood Transfusion	Y	N

Q2. Safe Blood Transfusion Services

Indicator: **The blood transfusion facility has the following provision always**			
Q2.2.1	All types of donors (blood?) are available	Y	N
N	A skilled technician available 24 hours/day	Y	N
Q2.2.3	Screening tests are always available	Y	N
Q2.2.4	There is a provision of exemption from payment if a woman needs blood but unable to pay	Y	N

Q3. Availability of essential supplies and equipment

	Indicator1: **The following provisions are always available**		
Q3.1.1	Running water in the delivery room	Y	N
Q3.1.2	Running water in the OT	Y	N
Q3.1.3	OT with clean and dirty layout	Y	N
Q3.1.4	Screens in delivery room	Y	N
Q3.1.5	Functioning OT light	Y	**N**
Q3.1.6	Functioning light in delivery	Y	N
Q3.2	**Indicator 2: The following equipment are always available**		
Q3.2.1	Functioning steriliser for equipment & supplies	Y	N
Q3.2.2	Functioning vacuum extractor	Y	N
Q3.2.3	Functioning suction in OT	Y	N
Q3.2.4	Functioning suction in delivery	Y	N
Q3.2.5	Sterile Pack for normal delivery		N
Q3.2.6	Sterile Pack for C/S	Y	N

Q4.Promotion & Protection of Health

Q4	**Indicator: 1. All pregnant women attending ANC and before discharge are always alerted to the warning signs of obstetric emergencies**:		
Q4.1.1	Verbally during antenatal care	Y	N
Q4.1.2	Verbally during the postnatal period before discharge.	Y	N
Q4.2	**Indicator: 2. IEC materials on warning signs are always used to reinforce safe motherhood messages**		
Q4.2.1	Available	Y	N
Q4.2.2	Used	Y	N

Q5. Acceptability of Services

Q5	**Indicator: The following provisions are made to improve the acceptability of services to women and their families**		
Q5.1	Screens are used to ensure privacy during labour and physical examination.	Y	N
Q5.2	A companion was allowed with the client during 1st stage of labour.	Y	N
Q5.3	A female companion was allowed with the client during 2nd & 3rd stage of labour.	Y	N
Q5.4	A female attendant tends to the woman during delivery.	Y	N

Q6. Technical Competence of Health Care Providers

Q6.1	**Indicator: Protocols/ Guidelines are available and used for the following care**		
Q6.1.1	Normal care during labour.	Y	N
Q6.1.2	Care of the normal neonate (immediately following delivery)	Y	N
Q6.1.3	Care of the woman with pre-eclampsia	Y	N
Q6.1.4	Care of the woman with obstructed labour	Y	N
Q6.1.5	Care of the woman with an incomplete abortion	**Y**	N
Q6.1.6	Care of the woman with puerperal sepsis	Y	N
Q6.1.7	Care of the woman with a PPH	Y	N
Q6.1.8	Infection control procedure	Y	N
Q6.1.9	Waste disposal	Y	N
Q6.1.10	Referral to another centre	Y	N
Q6.1.11	Post natal care of mother and baby	Y	N

Q7. Client- Provider Interaction

Q7	**Indicator: There is evidence of:**		
Q7.1	Procedures are explained to woman/families	Y	N

Q7.2	Verbal consent for procedures is obtained	Y	N
Q7.3	Clients are actively involved in conversations about care (e.g. they ask questions, give opinions, staff check for understanding)	Y	N

Q8. Comprehensiveness of Care and Linkages to other Reproductive Health Services

Q8	**Indicator: The MCH clinic offers a comprehensive reproductive health services 5-days/ wk. This should include:**		
Q8.1	Antenatal care	Y	N
Q8.2	Tetanus Toxoid immunisation	Y	N
Q8.3	STD diagnosis & treatment	Y	N
Q8.4	Postnatal clinic	Y	N
	Family planning advice & services	Y	N
Q8.4	Depo-Provera	Y	N
Q8.5	Contraceptive Pills	Y	N
Q8.6	Norplant	Y	N
Q8.7	Intra Uterine Device	Y	N
Q8.8	Condoms	Y	N
Q8.9	Female sterilisation	Y	N
Q8.10	Male sterilisation	Y	N

Q9. Continuity of Care & Follow Up

Q9.1	**Indicator: Protocols/ guidelines for referral to follow up services are available for:**		
Q9.1.1	Referring postnatal women for family planning	Y	N
Q9.1.2	Referring post natal women for childhood immunisation	Y	N
Q9.1.3	Referring EOC cases which cannot be handled at the hospital to the next referral centre	Y	N
Q9.1.4	**Feedback to peripheral staff who have referred a woman for EOC to the hospital**	Y	N
Q9.2.1	Referring postnatal women for family planning	Y	N
Q9.2.2	Referring postnatal women for childhood immunisation	Y	N
Q9.2.3	Referring EOC cases which cannot be handled at the hospital to the next referral centre	Y	N
Q9.2.4	Feedback to peripheral staff who have referred a woman for EOC to the hospital	Y	N

Q10. Support to Health Care Workers

Q10.1		**Indicator** **All the following HMGN sanctioned posts are always filled in order to ensure 24 hours a day services**			
		Always	**Sometimes**	**Rarely**	**Never**
	GRADE OF STAFF				

Q10.1.1	Medical superintendent or DHO as appropriate				
Q10.1.2	Public Health Officer				
Q10.1.3	Medical officer				
	Anaesthetist				
Q10.1.4	Matron				
Q10.1.5	Sister in charge				
Q10.1.6	Staff nurse				
Q10.1.7	Auxiliary Nurse Midwife				
Q10.1.8	Auxiliary Health Worker				
Q10.1.9	Health Assistant				
Q10.1.10	Peons				
Q10.1.11	Sweepers				
Q10.1.12	Administrative Staff				

Sanctioned Posts =
Filled Posts =
In place posts (always or sometimes) =
Percentage sanctioned/filled =
filled/in place =

Table 2: Quality of Essential Obstetric Care Monitoring Tools - 2002

Part I: Provision of Care (need to add something where bullets are blank and clarify other highlighted points)

Element 1: Human resources

Criteria	*Indicators*
The HMGN sanctioned posts are filled by 100%	• Number of HMGN staff
The HMC (hospital management committee) have recruited staff in addition to the HMGN according to the facility needs	• Number of HMC staff
All clinical staff are competent to provide midwifery care and EOC according to the national standard	• Number of clinical staff trained midwifery • Number of clinical staff trained • Number of trained staff transfe • Number of trained staff remain in providing midwifery care an
All support staff are competent to maintain a working environment at the facility	• Number of support staff trained Infection prevention practices • Number of support staff use pr barriers to manage facility was
All staff are aware about a clear management structure and transparent lines of accountability	• Job descriptions for all staff • Staff knowledge of their respon and responsibilities of other sta members • Terms and conditions of staff (allowances, and personal devel • Frequency of supervision and s • Appropriate and fair system of and promotion

Element 2: Physical Resources

Criteria	**Indicators**
The maternity unit is adequately equipped, have the provision of electricity, power back up system and running water supply for 24 hour. The maternity unit is of sufficient size to cope with the demand of essential services e.g. waiting room, post delivery room, procedures room, sterilisation room, adequate dirty and clean layout.	• Layout of wards according to t services State of essential equi terms of its functionality • Quantity of essential drugs by s dates • Sterilization procedures • Number of toilets, hand washb with mattresses, blankets, and b • Running tap water • Electricity and power back syst functioning
The operating theatre is in good repair, fully equipped with drugs, and has surgical equipment to perform life saving procedures when required the facility needs. 24 hours access to safe blood	• Physical layout of operating theatre/location • Quantity &quality of surgical e • State of repair of equipment • Quantity of essential drugs by s dates • Access to safe blood

Element 3: Maternity Information Systems

Criteria	**Indicators**
Basic registers in facilities are designed to record data that is sufficient to monitor and evaluate effectively	• Registers are available

Staff enter complete, and accurate information in all facility registers (maternity, OT register, PAC, admission & discharge registers).	• Completeness of registers and p admission chart • Accuracy and consistency of re information • EOC reporting system is in pla
Criterion –based audit on five major life threatening obstetric complications is in place to establish evidenced based practices	• Frequency of criterion-based au data analysis • Examples from staff using audi information to improve practice
Maternal death, near missed death, and perinatal death review process is in place. Each complicated case (severe morbidity, or mortality, maternal or newborn baby) is effectively reviewed, analysed and avoidable factors if\identified.	• Examples by staff of lessons le past outcomes • District level stakeholders have information

Element 4: Availability of Essential services 24 hours a day

Criteria	**Indicators**
In addition to the normal delivery the following essential services are available 24 hours a day at a BEOC facility: 1. I/V antibiotics 2. I/V Oxytocics 3. I/V anticonvulsants & antihypertensives (magnesium sulphate & diazepam) 4. Manual Removal of Placenta (MRP) 5. Vacuum delivery 6. Post Abortion Care (PAC) The following essential services are available 24 hours a day at a CEOC facility All the above plus 7. C-Section (CS) 8. Safe blood transfusion services	• Facility is functioning 24 hours • Number of total deliveries in th • Number of EOC cases manage • Number of obstetric procedures

Element 5: Appropriate Technologies

Criteria	**Indicators**
The following procedures are not used routinely, or are rarely performed: • Fundal pressure • Enema & pubic shaving • Intravenous Infusion • Episiotomy for Primiparas • Supine position for delivery • Manual Revision of the uterus	• Staff provide care according to national RH clinical protocols • Percentage of staff following th protocols
The use of vaginal examination of the uterus to assess the progress of labour is kept to the minimum necessary	• Number of vaginal exams reco partograph (not more than once hours??)
I/M Oxytocin is not used to speed up labour	• Evidence of reported use by sta • Evidence of actual use (recorde notes)
Local anaesthesia is always used when repairing perineal wounds	• Evidence of actual use (recorde notes)
The partograph is used as a decision-making tool by assessing progress of labour	• Evidence of prolonged labour c

Element 6: Good Practice

Criteria	**Indicators**
Magnesium Sulphate is the drug of first choice for the treatment of eclampsia	• Evidence of use from case note and supplies
Women are actively considered for a vaginal delivery after one Caesarean section.	• Number of vaginal exams reco partograph

Prophylactic antibiotics are used routinely at the time of an emergency Caesarean section.	• Evidence of reported use by sta • Evidence of actual use (recorde notes)
Ventouse vacuum? is the instrument of first choice for an instrumental delivery.	• Evidence of actual use (recorde notes)
When repairing perineal wounds polyglycolic acid suture should be the favored choice.	• Suture material most commonly staff
Women are always allowed social support of her choice during labour and birth	• Percentage of women reporting of delivery of her choice
Throughout labour a woman's physical well being should be regularly assessed.	• Number and timing of blood pr measures • Number and timing of tempera pulse measurements • Quantity of fluid intake vs outp

Element 7: Referral System

Criteria	Indicators
Staff always ensure the procedures such as timely examination, admission and making timely referral decision of a woman if requires.	• Staff knowledge on referral pro • Referral practice
Staff always ensure that woman's condition was stabilized before referring her at a higher level.	• Evidence of report by the refer on patient's condition
Reliable transport is available on a 24 hour basis.	• Availability of a functioning tra driver
Staff always use a written 'Referral Slip' to establish a reliable communication relationship with the referral hospital	• Evidence of report by the refer on referral slip
There is a provision of staff to accompany complicated cases to the referral hospital when necessary	• Percentage of referred women accompanied
There is a provision of emergency fund at the facility to mange the cost of transport and treatment if required by the needy women	• Percentage of referred women emergency fund

Part II: Experience of care

Element 8: Respect, Dignity and Equity

Criteria	Indicators
All women are treated with the same standard of care regardless of education, class, caste, age etc	• Percentage of women reporting a perceived care
Women do not have to undergo any unnecessary and humiliating procedures	• Percentage of women undergoing unnecessary procedures
Services are appropriately priced for the women	• Percentage of women reporting fi constraints as limiting access to s

Element 9: Emotional Support

Criteria	Indicators
All staff are aware of their supportive role in the provision of care during labour, delivery and immediate pot-partum care.	• Percentage of women who descri examples of supportive behaviou during labour, delivery and imme partum period
In the event of death or disability appropriate levels of professional and emotional care are made available to women and their facilities.	• Percentage of staff trained in inte communication skills • Percentage of women and their fa members understand the cause of or death

Element 10: Prompt Services, Accurate Information, and Clean Facility

Criteria	Indicators
All women with obstetric complications receive care immediately without	• Staff knowledge on referral proce

having to first pay for services or purchase supplies or drugs.	• Referral practice
All women requiring immediate obstetric care are evaluated within 15 minutes of arrival and provided care within 30 minutes of evaluation	• Evidence of report by the referral on patient's condition
Local language signs are directing women to examination room and labour and delivery rooms	• Availability of a functioning tran driver
On discharge staff inform woman about warning signs that need medical attention for mothers and infants	• Evidence of report by the referral on referral slip
In emergency situations, lifesaving procedures performed to stabilize woman's condition even if informed consent can not to be obtained	• Percentage of referred women ac

Element 11: Acceptability of Services

Criteria	**Indicators**
Examination and delivery rooms offer women visual and auditory privacy from others.	• Staff knowledge on referral proce • Referral practice
Staff keep exposure to a minimum duration and amount during vaginal examinations, and vaginal deliveries.	• Evidence of report by the referral on patient's condition
A companion is allowed with the woman during 1st stage of labour.	•
A female companion is allowed with the woman during 2nd & 3rd stage of labour.	•
Facility has the provision of a clean drinking water, hand washing facilities, and toilets for women and their family members.	• Availability of a functioning tran driver

Element 12: Comprehensiveness of Care

Criteria	**Indicators**
The following comprehensive RH services are available: • Antenatal care with TT • Family planning • Post-Abortion care • Sub fertility care • RTI care • Adolescent RH care • Elderly RH care	• Staff knowledge on a comprehen care
The above services are delivered in a integrated manner between hospital and district public health system	• Evidence of practice shown by th and MCH clinic

Element 13: Protection and Promotion of Health

Criteria	**Indicators**
Examination and delivery rooms offer women visual and auditory privacy from others.	• Staff knowledge on referral proce • Referral practice
Staff keep exposure to a minimum duration and amount during vaginal examinations, and vaginal deliveries.	• Evidence of report by the referral on patient's condition
A companion is allowed with the woman during 1st stage of labour.	•
A female companion is allowed with the woman during 2nd & 3rd stage of labour.	•
Facility has the provision of a clean drinking water, hand washing facilities, and toilets for women and their family members.	• Availability of a functioning tran driver

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