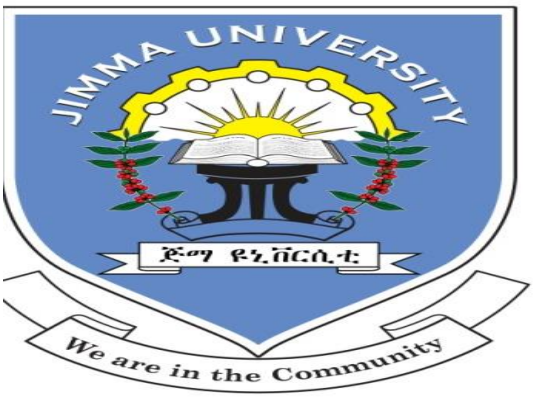

EVALUATION OF COMPREHENSIVE EMERGENCY OBSTETRIC CARE PROGRAM IN SHENAN GIBE HOSPITAL, JIMMA TOWN ADMINISTRATIVE, SOUTH WEST ETHIOPIA ,2017

EVALUATION THESIS SUMMITTED TO JIMMA UNIVERSITY, INSTITUTE OF HEALTH; DEPARTMENT OF HEALTH ECONOMICS, MANAGEMENT AND POLICY; HEALTH MONITORING AND EVALUATION UNIT IN PARTIAL FULFILMENT FOR THE REQUIREMENT OF MSC IN HEALTH MONITORING AND EVALUATION

BY: MEGERSA KELBESA (MSC student)

JUNE, 2017

JIMMA, ETHIOPIA

EVALUATION OF COMPREHENSIVE EMERGENCY OBSTETRIC CARE PROGRAM IN SHENAN GIBE HOSPITAL, JIMMA TOWN ADMINISTRATIVE, SOUTH WEST ETHIOPIA, 2017

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JUNE, 2017

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Abstract

Background: Comprehensive emergency obstetric care (CEmOC) program is the strategy used to reduce maternal mortality and morbidity. Ethiopia is one of the countries with high maternal mortality, 412/100,000 live births, and significant number of mothers attending comprehensive emergency obstetric care is missing opportunities for different recommended services.

Objective: To evaluate the implementation of comprehensive emergency obstetric care program in Shenan Gibe Hospital in, 2017

Method: Single case study design using both Quantitative and Qualitative methods were conducted from March 1 to 30. The evaluation was focused on the process of Comprehensive emergency obstetric care program and the approach of evaluation was formative. Availability, compliance and acceptability dimensions were employed. Exit interview was conducted with a total of 293clients and Resource inventory and documents were reviewed from October1/2016 to March 30/2017 and 30 observation session were conducted. Qualitatively, a total of 5 in-depth interviews were conducted with different stake holder. Quantitative data for exit interview was entered to Epidata 3.1 and analyzed by SPSS version 20. Qualitative data was transcribed into text formats, translated to English language and then analyzed manually through content analysis.

Result: The process of CEmOC program service in Shenan Gibe hospital was measured to be 74.4% which is good according to the judgment parameter. However, there is intermittent supply of drug like magnesium sulfate; hydralazine and the compatible blood are not available as it is needed. In terms of dimensions the availability of resources and the compliance to standards of care were good with 73.8% and 84. 05% respectively and it requires improvement. However, the acceptability of the program found to be 62.4% which need urgent improvement. The proportion of clients satisfied with overall processes of the program services were 243 (82.9%).

Conclusion: The overall process of CEmOC program service in Shenan Gibe hospital was good requiring improvement according to judgment parameter. Thus program resources and back up equipment should be consistently available and supplied for the facilities. Performance of the midwife following the labor by partograph and Compliance of Surgical safety check list in operation room theatre during caesarean section should followed and correction should be given.

Key words: Comprehensive emergency obstetric care, availability, compliance, clients' satisfaction, Shenan Gibe Hospital.

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List of Abbreviations and Acronyms

AOR	Adjusted odd ratio
BEmOC	Basic Emergency Obstetric care
CBC	Complete Blood Count
CEO	Chief Executive Officer
CEmOC	Comprehensive Emergency Obstetric care
CI	Confidence interval
COR	Crude odd ratio
EA	Evaluability Assessment
EDHS	Ethiopian Demographic Health survey
EmONC	Emergency Obstetric and Neonatal Care
GTP	Growth and Transformation Plan
IESO	Integrated Emergency Surgical Officer
M and E	Monitoring and Evaluation
MDG	Millennium Development Goal
MMR	Maternal Mortality Ratio
MNH	Maternal Neonatal Health
MVA	Manual Vacuum Aspiration
ORT	Operation Room Theatre
PNC	Post Natal Care
SDG	Sustainable Development Goal
SVD	Spontaneous Vaginal Delivery
UN	United Nation
UNICEF	United Nation Children Fund
WHO	World Health Organization

Operational and Standard Definitions

Availability: The relationship of the volume and type of existing services (and re-sources) to the clients' volume and types of needs. It refers to the adequacy of the supplies, health care providers and service delivering infrastructures with their respective clients.

Acceptability: The relationship between client's attitudes about the personal and practice characteristics of providers to the actual characteristics of providers

Compliance: when the services are given according to the national implementation manual/any adapted local guideline for comprehensive emergency obstetric care for the respective clients

Emergency Obstetric Care: refers to care provided in health facilities to treat direct obstetric emergencies that cause the vast majority of maternal deaths during pregnancy, at delivery and during the postpartum period.

Basic Emergency Obstetric Care: refers to lifesaving services for maternal complication being provided by a health facility or professional which must include the following seven signal functions: administration of parenteral antibiotics; administration of parenteral oxytocic drugs; administration of parenteral anticonvulsants for pre-eclampsia and eclampsia; manual removal of placenta; assisted vaginal delivery and newborn resuscitation.

Comprehensive Emergency Obstetric Care: refers to basic emergency obstetric care plus two other signal functions: performance of caesarean section and blood transfusion.

EmOC Facility: refers to whether a facility is fully functioning as either a basic or comprehensive facility. Functioning is defined by nine signal function.

Availability of EmOC Services: Basic emergency obstetric care and comprehensive emergency obstetric care providing lifesaving obstetric procedures including surgery.

Skilled birth Attendant: An accredited health professional – such as a midwife, doctor or nurse who has been educated or trained in management of uncomplicated deliveries and post-natal care and in the identification, management and referral of complications in women and newborns(WHO).

Client Indication: Cases for which the use of particular signal function was indicated.

Client Satisfaction:-It is the satisfaction of mothers gained during service delivery. It is the care level gained that increases the likelihood of future utilization maternal health service

CHAPTER ONE: INTRODUCTION

1.1 Back ground

Emergency Obstetric and Newborn Care (EmONC) refers to a set of life saving interventions or signal functions used to treat direct obstetric complications that make up approximately 70–80 % of maternal deaths globally. Basic EmONC facilities are expected to provide the following seven services: administration of Parenteral antibiotics; Parenteral oxytocic drugs; Parenteral anticonvulsants for pre-eclamptia; manual removal of retained placenta; removal of retained products of conception; assisted vaginal delivery (vacuum extraction or forceps delivery) and neonatal resuscitation with bag or mask. Comprehensive EmONC facilities are expected to provide caesarean section and blood transfusion in addition to those services provided by the basic EmONC(1).

Globally, at least 585, 000 women die each year by complications of pregnancy and child birth (2). More than 70% of all maternal deaths are due to five major complications: hemorrhage, infection, unsafe abortion, hypertensive disorders of pregnancy, and obstructed labor. The majority of maternal deaths (61%) occur in the postpartum period, and more than half of these take place within a day of delivery. An estimated 40% of pregnant women (50 million per year) experience pregnancy-related health problems during or after pregnancy, and 13 child birth, with 14% suffering serious or long term complications. As a consequence, 300 million women suffer from pregnancy-related health problems and disabilities, including anemia, uterine prolapse, fistula, Pelvic inflammatory disease, and infertility (3).Nearly two-third of the 8 million infant deaths that occur each year was largely from poor maternal management of delivery, and lack of essential care of newborn (4).

The divide between the industrialized countries and developing regions, particularly the least developed countries, is perhaps greater on maternal mortality than on almost any other issue (5). Concerning maternal and child morbidity and mortality status, Ethiopia is one of six countries sharing 50% of total world burden of maternal mortality with maternal mortality ratio of 676/100,000 live births even if the recent 2016 estimate of United nation for Ethiopia shows 412 of maternal mortality ratio(MMR) per 100,000 live births from 700 in 2000(6). But the maternal mortality and morbidity in Ethiopia are still the highest in the world. The maternal mortality rate

was 420 per 100,000 live births in 2013(7) and the Ethiopia demographic and health survey of 2016 showed 412per 100000 MMR in Ethiopia (8).

Maternal health care coverage as measured by antenatal care, delivery service, postnatal care, and family planning improved from 2011 to 2014 by 32%, 15%, 12% and 28.8% respectively. Oromia regional state maternal health coverage in 2014 reaches family planning 43.6%, antenatal care is 48.6%, delivery 14.7% and postnatal care 11.2(9).

The sustainable development goal target of a global MMR below 70 will require reducing global MMR by an average of 7.5% each year between 2016 and 2030. This will require more than three times the 2.3% annual rate of reduction observed globally between 1990 and 2015. In 2015, the maternal mortality ratio (MMR) – the number of maternal deaths per 100 000 live births – was estimated at 216 global. Almost all of these deaths occurred in low-resource settings and could have been prevented. The global MMR declined by 44% during the MDG era, representing an average annual reduction of 2.3% between1990 and 2015 (10).

In order to achieve the sustainable development goal (SDG) target of 70 per 100 000 live births by 2030, the global annual rate of reduction will need to be at least 7.3%, attaining that rate requires a marked acceleration in progress in this area (10, 11). SDG Target 3.1 also includes skilled attendance at birth. Globally, coverage of skilled attendance at birth was estimated to have reached 73% in 2013. However, more than 40% of births in the World health organization African Region and WHO South-East Asia Region were not attended by skilled health personnel, and within countries large access disparities associated with differences in socioeconomic status persist (12).

The context and causes of maternal mortality and morbidity are well known, and strategies to ameliorate them were recently reported (13). One proven effective strategy is to provide access to provide basic emergency obstetric services (parenteral oxytocin, antibiotics and anticonvulsants; assisted deliveries; manual extraction of the placenta; removal of retained products) and, if necessary, to comprehensive emergency obstetric services (basic services plus Caesarean sections and blood transfusions) (14). Emergency obstetric care (EmOC) has been proven to help avert maternal deaths. Access to Emergency obstetric and newborn care (EmONC) is a primary strategy for the reduction of maternal and newborn mortality. In an effort to address the critical shortage of health man power for maternal and newborn health, the

government of Ethiopia also implemented task shifting strategy to improve access to CEmONC, reduce maternal deaths and ensure that the majority of emergencies and births are attended by appropriately trained and skilled healthcare professionals able to prevent, detect and manage obstetric complications and surgical emergencies (13, 15).

1.2 Statement of the problem

Ethiopia has a high MMR with 676/100000 live births at 2011, making it a priority for the Ethiopian government to drop this rate. In order to do so, in 2011, the government prepared a five-year plan, known as the GTP, with ambitious targets towards reducing maternal and child mortality rates while improving existing health systems(16). Most maternal deaths are preventable as the health-care solutions for preventing or managing the complications of pregnancy and child birth are well known. But there are Factors that prevent women from receiving adequate health care during pregnancy and childbirth include limited availability and poor quality of health services, a lack of information on available services, certain cultural beliefs and attitudes, and poverty (17).

More than 70% of all maternal deaths are due to five major complications: hemorrhage, infection, unsafe abortion, hypertensive disorders of pregnancy, and obstructed labor. The majority of maternal deaths (61%) occur in the postpartum period, and more than half of these take place within a day of delivery. An estimated 40% of pregnant women (50 million per year) experience pregnancy-related health problems during or after pregnancy, and childbirth, with 14% suffering serious or long term complications (2,18).

Timely care in a medical facility is very important to save the life of woman experiencing complications during childbirth. Trained health personnel should not only be able to assist with a normal delivery or a delivery with moderate complications, they should also be able to recognize serious complications that require referral for more specialized emergency care. Studies have shown that around 15 per cent of live births are likely to need emergency obstetric care and Caesarean sections may be required in 5–15 per cent of births. In Ethiopia, up to 15 per cent of mothers suffer serious complications that warrant referral to facilities providing comprehensive emergency obstetric services including caesarean sections, blood transfusions and emergency laparatomy (19). It is evident that there are many important gaps in coverage, especially in rural areas of sub-Saharan Africa, where rates of Caesarean section are around 2 per cent. To provide adequate assistance's, facilities must have sufficient medicines, supplies, equipment and trained personnel. Factors hindering the provision of and availability to emergency obstetric care include infrastructure, distance, lack of personnel, and cultural barriers (20).

The availability of CEmONC determines the ability of health care system to respond to obstetric and newborn complications and its contribution to reduce maternal and newborn mortality and morbidity. The study conducted to assess the availability of obstetric care in public-sector facilities and the constraints to programming comprehensive essential obstetric services in 2009 in rural areas of Khulna and Sylhet divisions, relatively high- and low-performing areas of Bangladesh respectively showed distribution of the functional EONC facilities satisfied the United Nation's minimum criteria. Human-resource constraints were the major barrier for maternal health. Sanctioned posts for nurses were inadequate in rural areas of both the divisions; however, deployment and retention of trained human resources were more problematic in rural areas of Sylhet. Other problems also weighed down care, including unavailability of blood in rural settings and lack of use of evidence-based techniques (21).

The study done in western Africa indicates, maternal mortality is highest in rural areas where access to emergency obstetric care is limited by large geographic distances to health facilities and scarce resources (22). There are many factors that affect the outcome of pregnancy from the onset of any obstetric complication. The outcome is most adversely affected by delayed treatment. Delay in treatment is the result of many factors. These delays are described as the three phases of delay (23).

Delay I: Lack of information and adequate knowledge about danger signals during pregnancy and labor; cultural/ traditional practices that restrict women from seeking health care;

Delay II: Out of reach of health facilities; poor road, communication network, community support mechanisms

Delay III: Inadequate skilled attendants; poorly motivated staff; inadequate equipment and supplies; weak referral system, procedural guides. The third delay is where the state of health facility takes on the destiny of the woman and where most care should be taken.

One of the millennium development goals is to improve maternal health and the target is reducing MMR by three quarters by 2015 from it 1990 level. The progress achieved yet is so small bringing doubt at the attainability the target. Since the mission of MDG 5A not accomplished, SDG have set having the objective to reduce maternal mortality to less than 70/100000 live births by the end of 2030 under three strategies (16, 24). One of the strategies is Comprehensive emergency obstetric care which has started in Shenan Gibe Hospital Since

December 2011. However, its consistent use, compliance, completeness of all the signal function, availability and acceptability of the utilization was not evaluated. In addition still there is gap considering the condition of referral system and the availability of blood transfusion at the time it needed and absence of primary intensive care unit for adult and neonate are the big issue which has great contribution in the life saving (25).

1.3 Significance of the study

Comprehensive emergency obstetric care service is essential for the improvement of maternal and child health. The finding of this evaluation helps to:

- Contribute on the improvement of comprehensive emergency obstetric care of Shenan Gibe Hospital by identifying strength and weakness of program implementation with how to sustain good achievement and how to address weakness of CEmOC service.
- It gives input information for program planner and implementers of Shenan Gibe Hospital and even to contribute Oromia regional health bureau and Jimma town administrative health office.
- In the other way a learning media for key stakeholders on some aspects of evaluation process of comprehensive emergency obstetric care service.
- Enhance every health care provider including hospital managers, were leaded actively the processes, deliberately enroll to the work, create an extensive multidisciplinary discussion and communication with the stake holder, arrange update training's on comprehensive emergency obstetric program, offer ongoing constructive feedbacks and conduct regular audits.
- Fill the gap mentioned above and further cover different dimension particularly compliance dimension as per standard, availability dimension and acceptability dimension
- Baseline data for further study.

CHEPTER TWO: PROGRAM DESCRIPTION OF COMPREHENSIVE EMERGENCY OBSTETRIC CARE

2.1 Stakeholders identification and engagement

Stakeholders are defined as individuals, groups, or organizations that can affect or are affected by an evaluation process or its findings (26). Each stakeholder has their own role with respect to the operation of the program and use of finding. They have contribution in the evaluation assessment and are likely to play unique roles during evaluation process. The Shenan Gibe CEmOC stakeholders identified during EA after discussion with key stakeholders and it ensure that the evaluation findings to be utilized, the role they have in programs and evaluation, the interest they have on evaluation and the level of importance of stakeholder according to their contribution in the evaluation is determined whether high, medium or low level of importance presented in the table below

Table 1: Stake holders' analysis matrix for Evaluation of Comprehensive Emergency Obstetric care Program in Shenan Gibe Hospital, 2017

S/No	Stake holder	Role in the program	Interest in evaluation	Role in the evaluation	Communication strategies	Level of importance H.M.L
1	ORH B(maternal and child health department)	Budget allocation Resources distribution Supportive supervision Technical and financial support and M&E	Knowing Area which need Improvement in CEmOC service	Describing program activities, context, priorities and outcomes. Selecting evaluation questions and indicators and methods, Provision of data for proposal development	Tele phone	H
2	Jimma town health office	Strengthen referral l linkage Community mobilization	Strength and gap identifying in CEmOC service, Capacity building and supportive supervision	Facilitation and coordination of evaluation process; problem identification; selection of indicators and evaluation questions ,data source for the evaluation	Face to face discussion Formal letter	H
3	Jimma Zonal health	Strengthen Health Development army & 1to 5 networks, Community	Strength and gap identifying in CEmOC service	Sources of data Problem identification	Face to face discussion	M

	Department	mobilization. Participate in referral linkage				
4	Shenan Gibe Hospital	give the nine signal function coordinate health professional on time reporting for any problem regarding CEmOC	Strength and gap identifying in CEmOC service Over all CEmOC service Improvement	Problem definition Indicator and evaluation questions selection Source of data Developing evaluation questions	Face to face discussion Formal letter	H
5	Health care provider	Implementer	Knowing implementation status and service Improvement	Indicators and evaluation questions selection, problem identification, Sources of data during the evaluation	Face to face discussion	H
6	IPASS	Donation of equipment and drug Provide training	Knowing Area which need Improvement in CEmOC service Enhance technical and material support	Problem identification Indicator selection Sources of data during the evaluation	Telephone	M
7	Primary beneficiary (pregnant mother)	Utilization of service Involvement during data collection	Receiving quality services Getting information	Sources of data	Face to face discussion	L
8	Pharmaceutical Fund and Supply Agency(PFSA)	Provision of Drug and supply	Use of funding for program improvement and further supply of the drugs and medical equipment	Problem identification Selection of indicators	Telephone	M

2.2 Expected program effects /Objectives

2.2.1 Program goal

To contribute for the reduction of maternal morbidity and mortality in Shenan Gibe Hospital 2017

2.2.2 Program objectives

- To treate100% obstetric complication by 2017 in Shenan Gibe Hospital
- To decrease direct obstetric complication case fatality rate to less than 1% in Shenan Gibe Hospital by the end of 2017.
- To increase institutional deliveries attended by skilled health workers from 91% to 100%, by the end of 2017.
- To increase proportion of labor and delivery followed (using partograph) from 98.2 to 100% by the end of 2017
- To increase the rate caesarean section from 8.4% to 15% by the end of 2017
- To identify gaps in service delivery and ultimately intervene to improve the barriers of CEmOC service in Shenan Gibe Hospital by the end of 2017

2.3 Major strategies

The program is supposed to achieve the above objectives through the following strategies.

- Exempted ANC & Delivery service for client
- Train health professional in the unit on CEmOC service.
- Mobilization of the community at grass root level.
- Excellence in health system capacity building.
- Avail continuous drugs and medical supply
- Expansion of Maternal Death Surveillance and Response
- Strengthen routine performance monitoring system
- Partnership with other governmental, religious and non-governmental institutions

2.4 Program activities and resource

2.4.1 Input

The input component of the CEmOC services program comprised of the human resource, financial resources, infrastructure, medical equipment and drug, budget and guideline, reporting and recording formats

The obstetric ward

- ❖ beds: mattress covered with clean rubber sheet, bed sheets and pillows
- ❖ bench or chair for attendant
- ❖ emergency drugs and IVs in the medicine cabinet
- ❖ functioning BP apparatus, stethoscope, thermometer
- ❖ IV stands, IV needles and cannulas filled oxygen cylinder with facemask, cylinder carrier and key
- ❖ two dilation and curettage sets

The operating theater

- ▪ at least three sets of sterilized Cesarean section instruments
- ▪ sterilized linen packs
- ▪ sterilized gloves, gowns, gauze, cotton balls
- ▪ sterilized suction tube and nozzle
- ▪ functioning O RT light with spare bulbs
- ▪ O RT table
- ▪ functioning suction machine
- ▪ emergency drugs, with list showing quantity and expiration dates
- ▪ resuscitator/ambu-bag
- ▪ laryngoscope with battery cells and spare bulbs
- ▪ endo tracheal tubes different size
- ▪ functioning anesthesia machine with spare, filled oxygen cylinders
- ▪ anesthetic agents, with list showing quantity
- ▪ spinal needles with different size
- ▪ antiseptics
- ▪ suture materials, with list showing quantity
- ▪ functioning BP apparatus, stethoscope, thermometer

- IV stands, IV needles and cannulas
- stretcher or trolley

Pharmacy

- EmOC drugs are in stock

Laboratory

- Reagents for blood screening, such as HIV, hepatitis B and syphilis
- blood type, cross matching reagents
- CBC machine
- blood collection bags

2.4.2 Program activity

- ✓ SVD and instrumental delivery service provision
- ✓ PNC Service provision
- ✓ C/S service provision
- ✓ Parenteral antibiotic administration provision
- ✓ Parenteral anticonvulsant administration provision
- ✓ Parenteral uterotonic drug service provision
- ✓ Blood transfusion service provision
- ✓ Training for health care provider
- ✓ Budget allocation
- ✓ Recording and reporting
- ✓ Supportive super vision

2.4.3 Program out put

- Number of health care providers trained
- Number of delivery attended
- Number of women delivered under c/s
- Number of women received antibiotic and anti- convulsant
- Number of women received blood transfusion
- Number of complete report sent

2.4.4 Program out come

- Improved knowledge and practice
- Improve service quality
- Improved service utilization
- Improve data quality

2.4.5 Program impact

- Reduced maternal morbidity and mortality

2.5 Program logic modal

PROBLEM STATEMENT: maternal mortality rate is still highest in Ethiopia which is 412/100,000 live births in year 2016. Skilled delivery is 28% in Ethiopia and 19.7% in Oromia region according to EDHS 2016. In Shena Gibe hospital there is a shortage of supply like magnesium sulphate, hydralazine, blood and un necessary referral (25).

GOAL: To contribute for reduction of maternal morbidity and mortality in Shenan Gibe Hospital, Jimma town administrative

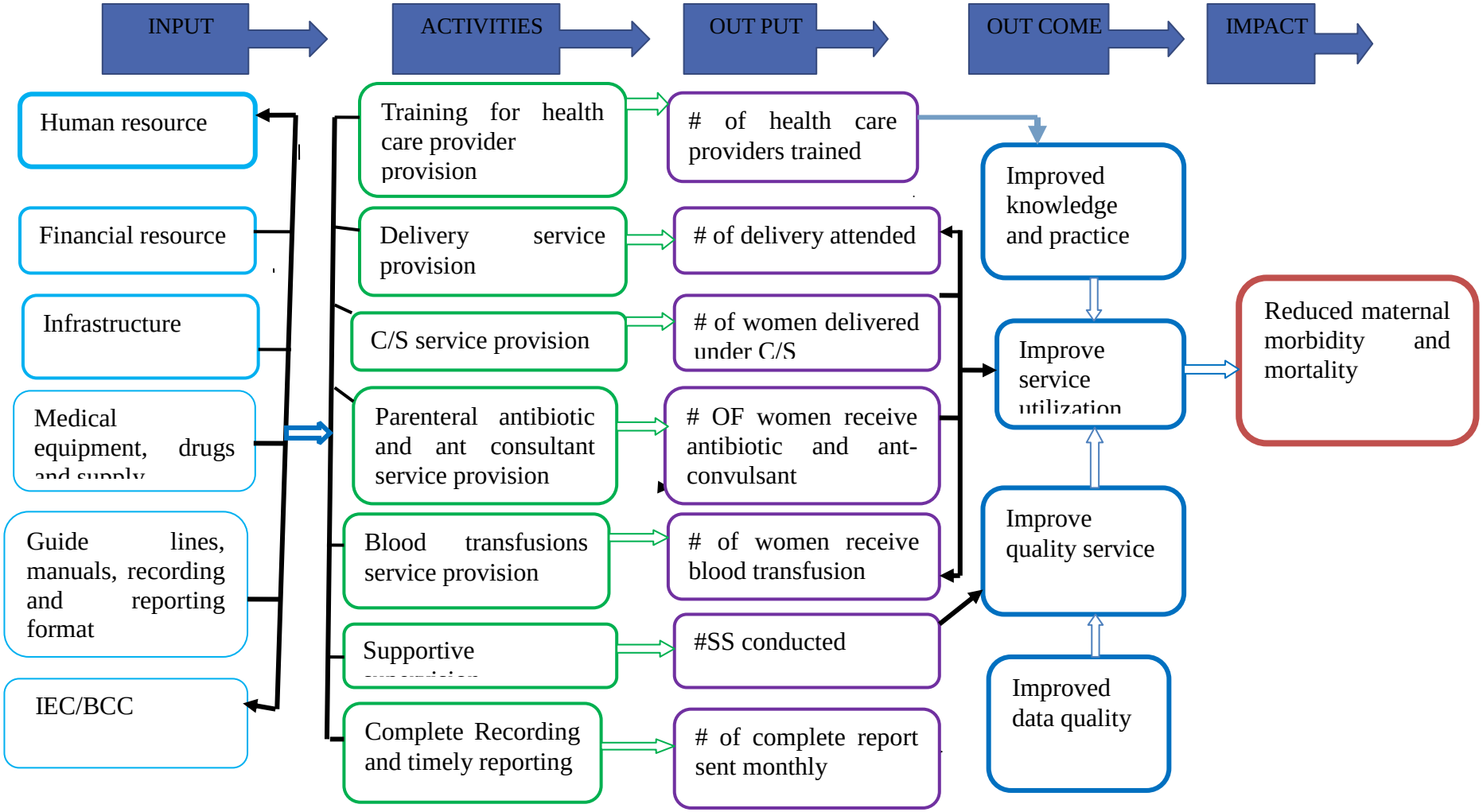

Figure 1: Logic model for comprehensive emergency obstetric care program in Shenan Gibe Hospital, Jimma town administrative 2017

2.6 Stage of program development

Comprehensive emergency obstetric care program has long lasting history in the world as well as in Ethiopia. But to monitor the availability, utilization, and quality of EmOC services, it is organized on scientific base and informs of manual and guide line in 1992 and finally published in 1997. It was developed by experts from the Mailman School of Public Health at Columbia University, with support from the United Nation's Children Funds (UNICEF) and the World Health Organization (WHO)

The CEmOC contains eight different care packages, referred to as 'signal functions', which were described as lifesaving. Six of the eight care packages constituted basic emergency obstetric care (BEmOC): antibiotics (inject able), oxytocin (inject able), anticonvulsants (inject able), manual removal of placenta, removal of retained products, and assisted vaginal delivery (23, 24).

These six care packages in addition to the provision of caesarean and blood transfusion services make up comprehensive emergency obstetric care (CEmOC).

In 2009 it up dated to nine signal function adding neonatal resuscitation to the BEmOC package and brings BEmOC to seven signal functions. Now day there are seven BEmOC signal functions and nine CEmOC signal functions (28). CEmOC is started in Shenan Gibe Hospital since 2011 with all nine signal function.

CHAPTER THREE: LITRE TURE REVIEW

In the post-2015 era, the SDGs form the basis for development initiatives. The SDG 3 which aims to ensure healthy lives and promote well-being for all at all ages has as one of its targets to reduce the global maternal mortality ratio to less than 70 per 100,000 live births by 2030 (29). EmOC is central to any strategy aimed at reducing maternal mortality (30). The availability of EmONC determines the ability of health care system to respond to obstetric and newborn complications and its contribution to reduce maternal and newborn mortality and morbidity (31).

The study done in china shows the maternal mortality ratio (MMR) in 2005 and 2006 was 47.7 and 41.1 per 100,000 live births respectively. This steadily declined to 34.2 in 2008. Despite the progress that the Chinese government has made in reducing maternal mortality, the gaps between rural and urban areas are critical. For example, the MMR in rural area was double the MMR in urban areas (69.6 vs 29.3 per 100,000 live births in 2000 and 53.8 vs 25.0 per 100,000 live births in 2005(32).

3.1 Program resource availability and CEmOC

Program resource availability shows the relationship of the volume and type of existing services (and re-sources) to the clients' volume and types of needs. It refers to the adequacy of the supplies, health care providers and service delivering infrastructures with their respective clients (12, 19).

According to a study done on seven hospitals of the China province, one had adequate oxytocin, magnesium sulphate (MgSO4), antibiotics and syringes readily available in labor room. All the hospitals could perform C/S, however, the C/S rates varied across the hospitals. Six hospitals had a relatively low rate of C/S (6.8%-21.7%) and one hospital had a higher rate (41%). All the hospitals conducted vacuum extraction, but none conducted forceps delivery although the equipment was available. In the study five of the seven hospitals kept blood in their own facilities and the other two hospitals asked nearby hospitals for blood when needed. Generally it took one to three hours to get blood from other hospitals. Interviews with hospital leaders found the blood bank in the city delivered blood once a week and it was hard for them to predict how many bags of blood they needed. The hospitals would have to bear the cost for expired blood if they asked more blood than they needed (33).

The cross-sectional study done on hospitals and health centers to examine the availability of maternal health services at health facilities in Eritrea in 2009 Showed, all hospitals and all health centers provided Basic Obstetric Emergency Care however; there is shortage of some basic supplies especially in health centers providing basic EmONC and only 11 of the 18 hospitals provided Comprehensive Obstetric Emergency Care including caesarian section. The national referral hospital treated 54 percent of obstetric complications, while health centers and health stations are not proportionally sharing the burden of work (34).

The study done in Somalia reveals, Blood typing and cross-matching reagents were available in all the hospitals as blood transfusion is a CEmONC signal function. However, blood bank facilities were not available at any of the hospitals due to infrastructure constraints. The blood was kept in laboratory refrigerators, and the items used for drawing and testing blood and performing transfusions were available and functional (35).

3.2 Process of CEmOC (Compliance dimension)

The EDHS provides a single MMR estimate for the entire country based on 11 determinants under the categories of reproductive status, health status and the use of maternal health services including caesarean section delivery. The MMR is higher than the national average of 676 deaths for every 100,000 live births in five of the 11 regions; the highest being in Somali and Afar at 747 and 717, respectively. SNNP, Amhara, and Oromia also had marginally higher MMRs than the national average, but Benishangul-Gumuz, Tigray and Gambela were slightly lower than average and Harari and Dire Dawa were significantly lower. Although Addis Ababa had the lowest MMR of any region and much below the national average, 234 deaths per 100,000 live births is unacceptably high by any standard (36).

According to *Special Bulletin* in Ethiopia, the factors related with delay one are the top ones contributing for 72% of the cases, followed by factors on the second and third delays Delay in 37% and 35% respectively. Among delay three factors, lack of blood is the leading (45%) followed by lack of ICU service (18%). Majority of deaths were due to hemorrhage (77%), HDP (57%) occurred in the postpartum period. The deaths were preventable in 82 % of the cases. Moreover highest numbers of maternal deaths were reported from Somali region (37).

In addition to the MDG targets of reducing the MMR to 267 per 100,000 live births, the Federal Ministry of Health (FMOH) has also set other ambitious targets for 2015 including availability of Basic and Comprehensive Emergency Obstetric and Neonatal Care (BEmONC and CEmONC) at 100 per cent of hospitals and health centers in the country; increase skilled birth attendance rate to 62 per cent of total deliveries (38)

3.3 Acceptability of CEmOC

A study conducted in Srilanka revealed mothers' satisfaction with perinatal care received during hospitalization for delivery and the proportion of mothers who were fully satisfied varied from 10.8% to 31.4% for inter-personal aspects, and from 10.1% to 28.9% for technical aspects of care. The satisfaction rates were lower with physical environment (6.1–10.1%) and higher without come of care (41.0–48.0%). Multivariate analyses indicated that mothers were more satisfied with the services available from lower level hospitals in which multi Para mother were more satisfied than primipara. Determinants of satisfaction included providing immediate mother–newborn contact, information after examination and counseling on family planning. Higher satisfaction with the physical environment was associated with being Moor or Tamil as opposed to Sinhalese and with lower family income (39).

The study done in Jimma zone health facility shows the overall mean clients' satisfaction with EmONC services was 79.4 % with the availability component of adequate number of health staffs , water & toilet facilities, examination equipment, drugs and supplies ,Distance from home to the health facility, transportation & communication Availability of are the major component for clients satisfaction (40).

Another study conducted in Public Health Facilities of Debra Markos Town, reveals that, more than 95% of mothers were satisfied with the helpfulness of staff and health facility waiting time to be seen by health workers. And less than 85% of mothers were satisfied by accessibility of transportation and accessibility and cleanliness of toilet. Regarding their interaction with staff, more than 95% of reported that they were satisfied with use of delivery position of their choice and communication among health care providers. However, 73% and 57% of mothers were satisfied with explanation of health providers about the drugs prescribed and their side effects, respectively (41).

In summary the conceptual frame work used to measure the process of comprehensive emergency obstetric care program was depicted in figure 2 below. It is developed by referring international guide line, national guide line and different previous literature conducted on this program

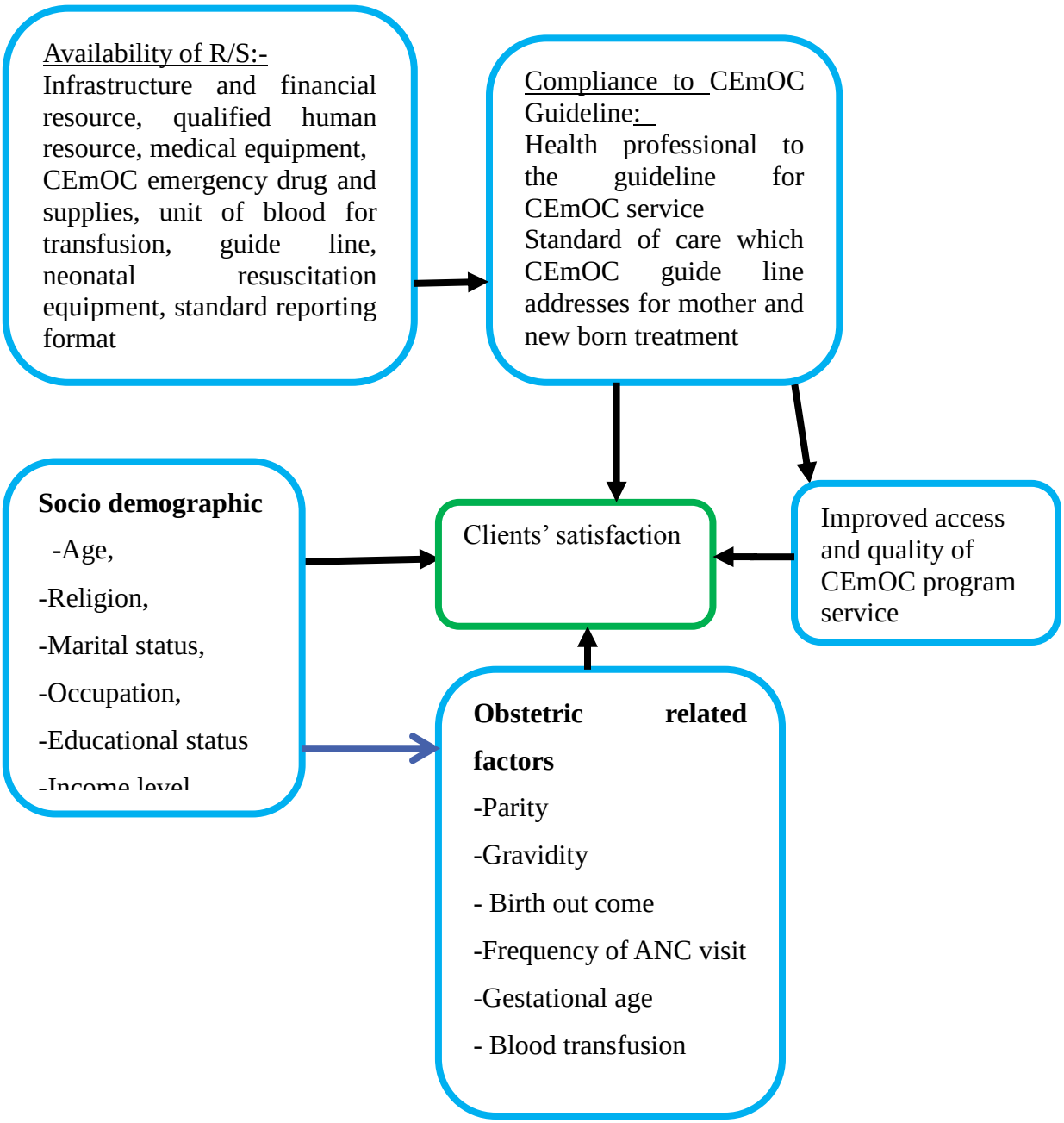

Figure 2**:** Conceptual frame work of the evaluation of comprehensive emergency obstetric care program in Shenan Gibe Hospital, 2017

CHAPTER FOUR: EVALUATION QUESTION AND OBJECTIVES

4.1 Evaluation questions

1. Are the required program resources available to implement the CEmOC program in Shenan Gibe Hospital 2017? If not why?

2. Do the health care providers in Shenan Gibe Hospital congruent to national implementation guideline in implementation of CEmOC program 2017? If not why?

3. Do the clients have satisfied to the CEmOC program service in Shenan Gibe Hospital 2017? If not why?

4.2 Evaluation objectives

4.2.1 General objective

To evaluate the implementation of comprehensive emergency obstetric care program in the Shenan Gibe Hospital in 2017

4.2.2 Specific objectives

1. To assess the availability of the required resource of CEmOC program in Shenan Gibe Hospital in 2017

2. To evaluate compliance of health care providers/implementers to national guideline in providing CEmOC services in the Shenan Gibe Hospital in 2017

3. To assess clients satisfaction on CEmOC program service in Shenan Gibe Hospital in2017.

4. To identify factors associated with client satisfaction to CEmOC services in Shenan Gibe Hospital in 2017.

CHAPTER FIVE: EVALUATION METHOD AND MATERIALS

5.1 Evaluation area

The evaluation was conducted in Shenan Gibe Hospital, Jimma town administrative which was one of Oromia Regional administrative town located to south west Ethiopia and 352 km far from Addis Ababa. Shenan Gibe Hospital serves 25% of Jimma town populations as the catchment population. It consist one operation room theatre, one labor ward with three delivery coach, two gyn and maternity ward. It is the only Hospital known by MDR TB in Jimma town Oromia region south west Ethiopia. It runs an annual governmental budget of 16,296380 Birr with bed capacity of 63 and had more than 192 staff. It was established in 2003 by Oromia regional state and give service under four major areas, 22680 inpatients, 29,940 outpatient attendants, 10,873 births attended and 12,963 emergency services (25).

5.2 Evaluation period

The EA was conducted in Shenan Gibe Hospital from December 1-7 /2016 and the data was collected for evaluation from March 1-30 /2017

5.3 Evaluation approach

The evaluation approach was formative. Because, this evaluation seeks to strengthen or improve CEmOC program by examining, among other things, the delivery of the program, the process of its implementation and the organizational context, personnel, structures and procedures. As a change oriented evaluation approach, it is especially attuned to assessing in an ongoing way, any discrepancies between the expected direction and outputs of the program and what is happening in reality, to analyzing strengths and weaknesses, to uncovering obstacles, barriers or unexpected opportunities, and to generating understandings about how the program could be implemented better(43)

5.4 Evaluation design

Single case study design, with both qualitative and quantitative data was used. Clients of Comprehensive emergency obstetric care and Shenan Gibe hospital were primary and secondary

unit of analysis. The reason for choosing a case study design was that, this evaluation was intended to get extensive, explorative reports of what has happened over time with in the program and would explore process of the implementation of the program under evaluation (19, 43). So, this was better answered with a case study than other design

5.5 Focus of evaluation and dimension

5.5.1 Focus of evaluation

The evaluation was focused on the process of the CEmOC implementation to examine the extent to which a program is operating as intended. Focus on understanding, describing, testing and improving components of CEmOC programs' implementation theory components: program's organizational plan (activities to be accomplished, resources to be used and expected outputs) and Service acceptability or satisfaction was involved in the focus of evaluation

5.5.2 Dimension of evaluation

The CEmOC program was evaluated using availability, Compliance, and acceptability dimensions. Those dimensions can address this evaluation objective and evaluation questions. Based on this dimension it is better to assess the availability of all the nine signal faction and how the health care providers of the unit are compliance to the standard of the service delivery. Also the satisfaction levels of the clients to the service provided were measured by these dimensions.

5.6 Indicators /variables

5.6.1 Indicators

The focus of this evaluation was on the process CEmOC program implementation. So, it is well known that the evaluation indicators need to be process indicators. Those indicators were developed with engagement of different stakeholders like: Shenan Gibe Hospital, health care provider of the unit, HMIS head of the hospital and, maternity ward coordinator are prone for the development of indicators. There is also an indicator which derived from CEmOC national guide line.

Availability indicators

- ✧ Number of MVA set available in delivery room of Shenan Gibe hospital
- ✧ Numbers of Ambubage available in delivery room of Shenan Gibe hospital
- ✧ Number of IESO in Shenan Gibe hospital

- ✧ Number of drug items without stock out for six month in Shenan Gibe hospital
- ✧ Number of delivery coach in delivery room of Shenan Gibe hospital
- ✧ Number of Health workers in the unit, who received training on CEmOC program in Shenan Gibe hospital
- ✧ Proportion of blood unit available in the hospital for laboring mothers of Shenan Gibe hospital
- ✧ Numbers of ambulance giving services in Shenan Gibe hospital

Compliance indicator

- ✧ Proportion of women having given birth by caesarean section in Shenan Gibe hospital
- ✧ Proportion of pregnant mother who receive blood transfusion based on indication for transfusion in Shenan Gibe hospital
- ✧ Proportion of early birth neonate resuscitated based neonatal resuscitation algorithm in Shenan Gibe hospital
- ✧ Proportion of pregnant mother indicated for referral and referred to specialized hospital in Shenan Gibe hospital
- ✧ Proportion of health professional who show courtesy for pregnant mothers in Shenan Gibe hospital
- ✧ Proportion of pregnant mother whose v/s measured in Shenan Gibe hospital
- ✧ Proportion of pregnant mother whose partograph filled in Shenan Gibe hospital
- ✧ Proportion pregnant mother who gave birth by assisted vaginal delivery in Shenan Gibe hospital
- ✧ Proportion of mother who got post delivery service counseling in Shenan Gibe hospital
- ✧ Proportion of pregnant mother who counseled about the postpartum visit in Shenan Gibe hospital
- ✧ Proportion of pregnant mother who receive parenteral anti –consultant in Shenan Gibe hospital
- ✧ Proportion of pregnant mother who undergone manual removal of placenta in Shenan Gibe hospital
- ✧ Proportion of women who receive comprehensive abortion care services in Shenan Gibe hospital

Acceptability indicator

- ✧ Proportion of pregnant mother who satisfied to waiting time for CEmOC service in Shenan Gibe hospital
- ✧ Proportion of pregnant mother who satisfied to explanation provided or treatment given in Shenan Gibe hospital
- ✧ Proportion of mother who satisfied to health care provider open mindedness or greeting them while treating them in Shenan Gibe hospital
- ✧ Proportion pregnant mother who satisfied to visual privacy during examination (that other clients could not see them) in Shenan Gibe hospital
- ✧ Proportion pregnant mother who satisfied to auditory privacy during discussion (that other clients could not hear them) in Shenan Gibe hospital
- ✧ Proportion pregnant mother who satisfied to the cleanliness of the delivery room in Shenan Gibe hospital
- ✧ Proportion pregnant mother who satisfied to the pain management during delivery care in Shenan Gibe hospital
- ✧ Proportion pregnant mother who satisfied to duration of time for consultation in Shenan Gibe hospital
- ✧ Proportion pregnant mother who satisfied to the interaction with health care provider in Shenan Gibe hospital

5.6.2 Variables

Dependent variables

Client satisfaction to CEmOC service

Independent variable

- ❖ Socio demographic (Age, Religion, Marital status, Occupation, Educational status, Income level)
- ❖ Numbers of parity
- ❖ Pain management
- ❖ Birth out come
- ❖ Frequency of ANC visit
- ❖ Gestational age

- Blood transfusion
- Privacy of the clients
- Cleanness of the room
- Choice of facility
- Distance to the facility
- Consultation time

5.7 Populations and sampling

5.7.1 Target population

All mothers who gave birth in the catchments area of Shenan Gibe hospital in the study period

5.7.2 Source population

- All pregnant mothers with term gestational age or all pregnant mothers indicated for CEmOC in Shenan Gibe Hospital in the study period
- All mothers who retained conception or need MVA and manual removal of the conception in Shenal Gibe Hospital in the study period
- Health care professionals in the unit and some key informant of the hospital like CEO, medical director, IESO and midwife head.

5.7.3 Study population

- All pregnant mothers those come for delivery service in Shenan Gibe Hospital with and without referral in the study period
- All mothers those come for the removal of retained conception in Shenan Gibe Hospital in the study period.
- All key informants those assigned for the in-depth interview in Shenan Gibe Hospital and Jimma town health office

5.7.4 Study unit

Pregnant mother those gave birth by spontaneous vaginal delivery, assisted delivery and caesarian section delivery, MVA, manual removal of placenta and service documents (C/S log book, CEmOC register, labor ward document, stoke card) and selected health care provider for observation in Shenan Gibe Hospital and key informant of the hospital and Jimma town health office

5.7.5 Inclusion and exclusion criteria

Exclusion criteria

- Any CEmOC patients with critical condition like Eclampsia patient and any unconscious patients not capable to respond were excluded.
- Key informant stay in Shenan Gibe Hospital and Jimma town health office less than one year experience was excluded.

5.8 Sample size and sampling technique

5.8.1 Sample Size determination

For exit interview: The sample size was determined by using single population proportion formula, by considering 79.4% patients who is satisfied by the service given, 95% confidence level and 0.05 margin of error:

$$n = \frac{z\frac{\alpha^2}{2} * p\ (1 - p)}{d^2}$$

Where; n= the maximum possible sample size

d^2= margin of error of 0.05

$Z_{\alpha/2}$ =standard score for 95% confidence level

P= 79.4% patients who is satisfied by the service given in study done on satisfaction with emergency obstetric and new born care services among clients using public health facilities in Jimma Zone (40) .

Because the source population is less than 10,000 population correction formula was used and the source population was 1732. By considering 10% non-response rate the total sample size was became 293.

Observation: A total of 30 observations were conducted in which:

- 20 in delivery ward while the health professionals were conducting delivery
- 10 observation sessions were conducted in operation room theatre to saw team adherence to surgical safety check list.

In this evaluations the team of health professionals in the operation room theatre, were observed based on the WHO surgical check list. Totally 10 observation session were conducted which addresses and summarize the all activity of the team and enables us to judge the strength and weakness of a single health care providers and the team as a whole.

In the labor ward four health care providers were selected by lottery method by coding their name. Then those selected health care providers were observed while they were providing services for five clients' consecutively and totally 20 clients' observation were conducted in labor ward. The overall observations in operation room theatre and labor ward were30 and it took 8 days to cover the whole sessions.

In-depth interview: A total of 5 in-depth interviews were conducted in which:

- 4 in-depth interviews were conducted in Shenan Gibe hospital with those purposively selected health care providers in the unit and CEO.
- 1 in-depth interview with the MCH coordinator of Jimma town health office.

The criteria used for selection of the study participants were being: head of labor ward, seniority, manager of the hospital and being coordinator MCH in Jimma health office.

Document review: The document reviewed includes CEmOC register; C/S log book, delivery log book and stoke balance cards. All documents from October 1/2016 till the end of evaluation period (March 30, 2017) were reviewed.

Resource inventory: Availability of resources (staff, test kits, drugs, guidelines, supplies, etc.) and infrastructures like, communication media, electricity and water supply availability were checked according to the set criteria. The overall the six month resources were audited from October 1/2016 to march 30/2017 including the study period.

5.8.2 Sampling procedure /technique

Exit interview: The sampling techniques used to select samples for survey was consecutive sampling technique in which all clients of CEmOC were interviewed until the sample size reached.

Direct observation: An observation at labor ward and operation Room theatre sessions were conducted. The purpose is to assess the compliance of health care providers to national standards of CEmOC guideline and surgical safety check list. All health care providers conducting delivery and team adherence to surgical safety check list during caesarian section in operation room theatre were participated in direct observation. The data was collected but if unfortunately their turn won't be during data collection period, by communicating with midwife coordinator, managers of the facilities and by asking the providers consent of participation.

In operation room theatre, the teams of health professional were observed based on the WHO surgical check list. Each item of the check list address the role of each individual profession, the adherence to the standard, and the availability of the resource to undergo the operation assessed prior to start the operation. So that the first team who conduct the operation on the day of the first morning observation start were observed consecutively until the proposed sample reached.

Document review: All suggested documents were reviewed to ensure that the program was implemented with appropriate technical and material resources. For this reason, starting from October 1/2016 to March 30/2017, C/S document, labor ward document and CEmOC register and the stock balance card was reviewed for the reason that the six month back document assumed to be enough sample size .

Resource inventory: At convenient time for head of the facility or his representative all the data concerning structure were observed and when necessary concerned body was interviewed according to the operational definition of the items to be observed.

Sampling procedure for qualitative data

In-depth interview: Purposive sampling technique was used for key informant's interview. The reason to select those five groups were; they are better information sources for the issues related CEmOC program, such as resources availability with its functionality, compliance of health care providers to CEmOC national guide line and the strength and weakness of the program process.

Among the five key informants, three of them are health care providers; the other two are hospital CEO and Jimma health office MCH coordinator respectively. Seniority of the health professionals were considered as selection criteria.

5. 9 Data collection tools

Tool for exit interview

Semi-structured questionnaire containing of specific components on background characteristics of respondents, reproductive history, accessibility to the service and satisfaction were prepared and consulted with stakeholders. It contains both open-ended and close-ended questions related to acceptability dimension. It adapted by referring different literature with similar studies (18, 40)

Direct observation check list:

Observation checklist was used for provider-clients interaction and assessment of compliance to CEMOC guidelines. Semi-structured checklist has covered interpersonal relationship, provider information gathering, provider information giving, and content of CEmOC guidelines given to CEmOC mothers and adherence of surgical safety check list. The check list adopted from WHO surgical safety check list, 2009 (41)

CEmOC Resource Inventory tool:

An inventory checklist, containing three parts: infrastructure, human resource, laboratory tests and equipment for CEmOC /supplies, were used to assess the availability of the required resources for the delivery of CEmOC service. Adopted from (International Journal of Gynecology and Obstetrics, 2005)

In-depth interview guide

For in-depth interview, interview guide was prepared for deferent level of key informant (for CEO, Medical director, midwifery head, IESO and Jimma town MCH coordinator) which contain barriers and facilitators of the implementation of CEmOC service in Shenan Gibe Hospital, Jimma town administrative in relation to availability, compliance and client satisfaction.

Document Review template:

This checklist contains service specific procedure, diagnosis and if any missed signal faction of the CEmOC was checked if there could be any reason behind not providing the services for the respective mothers and the services and information ticked as given was checked and C/S document, labor ward procedure document was reviewed.

5.10 Data collection procedures

Data were collected through face to face interview by three female diploma nurses and supervised by two BSc midwifes. Both the data collectors and supervisors were recruited from Jimma University Specialized Hospital. Resource inventory, observation and in-depth interviews were conducted by the principal evaluator. Exit interview and document review were conducted by trained data collectors.

Data collection field work

Resource inventory was done in the labor ward, Pharmacy, laboratory, operation room theatre and overall physical environment by using the resource inventory tool to collect facility data on the availability of resources required providing CEmOC service of Shenan Gibe Hospital.

For document review, C/S document, and labor document, CEmOC register book and stock balance card were reviewed for their completeness, clarity and monitoring pattern. Trained data collectors conducted exit interview for clients' who gave births during the data collection period. Data collection was started based on the patient pain and consciousness condition. Then data were collected without any interruption up to the final day of the data collection period. Similarly, for observation, the health care providers were consented at the very beginning and as soon as the client enters the room, the observer asked the consent of client and observed any process of service delivery according to the checklist. The observer was not interrupt/compromise any communication between the client and provider so that the health care provider won't be ashamed of doing anything he/she thinks and the clients were not lost confidence on providers. The first two observations were dropped from each health care provider in order to minimize Hawthorne effect.

For key informants' interview, was conducted by the use of in-depth interview guide. They were interviewed on their convenient time according to the guiding interview questions by taking note and audio recording.

5.11 Data Quality Assurance

Data collectors were provided two day training on the content of the data, ethical issues, how to communicate with respondents, how to use the data collection guide and tools prior to data collection. Supervisors were also trained for one day on the content to be covered, how to manage data collection process and the way to monitor the quality of data. Questionnaires and interview guidelines were translated into the local language (Afan Oromo and Amharic) by language experts, and then back to English by another expert for the purpose of simplicity.

Pre-test was done in Seka Chekorsa Hospital taking 5% of the total sample size. Based on the pre-test result clarifications and corrections were done on inconsistency, ambiguity, comprehension and exhaustiveness questions. The process of data collection was supervised daily by supervisors. Problems encountered were discussed with data collectors and solved immediately.

5.12 Data processing and analysis

5.12.1 Data cleaning

The data were checked manually for completeness and consistency, and coded. Any incomplete, inconsistent or invalid data was discarded and corrections were made according to the original data.

5.12.2 Data entry

After checking for completeness and consistency, quantitative data entered to Epidata 3.1 and exported to SPSS version 20 where recoding, categorizing, transforming, and counting were computed. Qualitative data transcribed into text formats and translated to English language and then analyzed manually through content analysis.

5.12.3 Data analysis

Univariate analysis like measures of central tendency and measures of deviation were done for continuous variables. Frequency distributions and percentages were done for categorical variables.

Bivariate analysis was done to select candidate variables and those variables with p<0.25 were considered as a candidate for multivariate logistic regression.

Multivariable logistic regression was done to identify the independent predictors that influence the client satisfaction of the CEmOC program. Finally reports were presented using figures and tables.

Satisfaction of clients on CEmOC was measured by 9 items each having five point Likert scales from strongly dissatisfied (1) to strongly satisfied (5). The total score of each respondent were summed and categorized clients satisfaction in to satisfied and dissatisfied by using cut of point by demarcation threshold formula (Total highest score- Total lowest score)/2+Total lowest score (42). Clients were categorized as not satisfied if they scored below the mean satisfaction score and satisfied if they scored above or equal to the mean satisfaction score.

The qualitative data were analyzed manually using thematic and content analysis with respective dimensions and results were presented in narrative form. The final interpretations of results were based on evaluation weights and statistical analysis result of the evaluation

5.13 Ethical issues

Ethical clearance was received from Jimma University, Ethical review board. Official Permission was taken from Jimma Town Administrative Health Office and Shenan Gibe Hospital. Informed verbal consent was obtained from the study subjects, by explaining the purpose of the interview and benefits from participation. Names and other personal information which can affect the confidentiality of the respondents were not be taken or recorded rather codes may be used. Any information was kept confidential and only used for evaluation purpose.

5.14 Evaluation dissemination

The finding of this evaluation will be presented to the Jimma University, Institute of health science and department of health Economics, Management and Policy, Health Monitoring and Evaluation Unit. In addition the result will be communicated with Jimma Town Administrative Health Office, Shenan Gibe Hospital and other stakeholders in soft copy and hardcopy as it is help them to identify their area of strength and weakness and use it for their performance improvement.

CHAPTER SIX: RESULTS

The study employed multiple data collection methods such as exit interview, direct observation, document review, in-depth interview and facility program resource inventory. Thus, a total of 293 mothers responded the exit interview, stock card, labor ward document and CEmOC registries were reviewed, 5 key informants interviewed (Male=3, Female=2), and 30 client-provider interaction observed. In general findings of the evaluation were presented under each dimension as shown below.

6.1 Availability resources

Infrastructure, like electricity, water, latrine, incinerator and equipment for CEmOC /supplies, were available and functional in the past six month and before. The hospital had 24 hour running water and electric power including in operation room theatre, labor ward and maternity ward, and the overall hospital infrastructures were good.

6.1.1 Human resource

To save resources, improve quality of care and save lives, training needs to be evidence-based to update clinical practices. In Shenan Gibe hospital, out of the total 86 health professionals, only 6 health care providers have trained on comprehensive emergency obstetric care. Out of this there were three physicians (one general surgeon and two general practitioners), two Integrated Emergency Surgical Officer and one midwife were trained on this issue. Only 7% (6/86) of providers at Shenan Gibe hospital reported having completed one or more components of CEmOC training during the six months preceding the survey and only two (2.3%) health professionals had completed all in service components of CEmOC training.

Table 2: Human resource for health and training status on the comprehensive emergency obstetric care program in Shenan Gibe hospital south west Ethiopia 2017

s/No	Health professional	Available	Trained about CEmOC (%)
1	Surgeon	1	1(100)
2	GP	11	2(18.2)
3	HO	1	0
4	B.Sc nurse	19	0
5	Nurse diploma	24	0
6	Midwife	9	1(11.1)
7	Lab.tech	9	0
8	Pharmacist	5	0
9	Environmental	1	0
10	Radiology professional	1	0
11	Anesthetist	3	0
12	IESO	2	2(100)
TOTAL		86	6(7%)

This quantitative finding is supported by qualitative finding in which key informants revealed that their institution lacked sufficient trained personnel to respond to obstetric emergencies and identified weaknesses in both pre-service and in-service training. Recurrent themes included inadequate attention to obstetric emergencies in pre-service training, the need for regular in-service training in obstetric emergencies to update knowledge, and that available trainings and mechanisms for selecting providers for training opportunities are not standardized.

"Not only; is the absence of training, but also there is a problem on selecting the health professional who is appropriate for the training given. Example neonatal resuscitation is given redundantly for the same health workers of the hospital but those health workers have no any contact with neonatal resuscitation. We have nine midwives here, but no one is trained on neonatal resuscitation." (28 years, female, midwife)

Other providers had been trained to manage obstetric emergencies as part of their pre-service degree program but expressed the need for refresher trainings to ensure the retention of skills, provider confidence, and that the most recent standard of care guidelines are being used.

"So much has changed since we were first trained. There is no refresher course to ensure we are up to date on the best standards of care." (28 years, Female, Midwife)

6.1.2 CEmOC Equipment's and supply

The assessments indicated that the hospital had functional equipment necessary for obstetric surgeries, including fully stocked operation theaters backed up with generators. But, still there is irregular availability and functionality of some equipment's like auto clave, laundry machine, one delivery coach and the ambulance also sometimes interrupt the service. Qualitative result reveals the mal functionality of the ambulance challenges in referral and contributes to delays in providing emergency obstetric services.

"When ambulances are not available, referred women have to make their own way to the hospital. This could endanger the pregnant mother till they facilitate another means of transportation to another hospital "(34years, male, physician,)

Currently there is also problem with supply like disposable glove, surgical glove and different size syringes were not available at the hospital as before and it was an average one month since they were stocked out in the past six month. Most supplies and equipment's required to provide CEmOC services were available and functional in all rooms like maternity ward, labor ward, and operation room theatre and on the gate of the emergency except those suggested above.

Regarding CEmOC emergency drugs, the hospital had no problem of emergency drug stock out in its store. But drugs like magnesium sulfate and hydralazine were not always available. They were an average one month since they stocked out in the past six month. "*However, it cannot be said that there were insufficient CEmOC drug supply" (*40years, male, IESO)

6.1.3 Availability of delivery equipment

The resource inventory finding reveals delivery equipment's like MVA set, forceps, delivery coach, different stitches, line packs, drapes and fully stocked operation room theatre were available in delivery room and operation room theatre.

6.1.4 Laboratory capacity

For CEmOC services, laboratory capacity was defined based on the provision of cross-matching tests, which determine the compatibility between donor and recipient blood prior to blood transfusion. The qualitative result suggests, Shenan Gibe hospital had critical shortage of blood. The reason is the laboratory has only one refrigerator which contains 5-6bag at the same time but the blood has not always available.

"*Not only the availability, the compatibility also again the big issue. So the best option is referring the patient to the nearby hospital*" *(*40years, male, IESO)

Summary of Availability dimension indicators:

Overall, the availability of CEmOC resources in Shenan Gibe hospital is judged as 73.8 require improvement according to judgment parameter set (Table 3).

Table 3: Summary analysis and judgment matrix for evaluation of availability of resources for comprehensive emergency obstetric care in Shenan Gibe hospital, 2017

Indicators	Weight given	Recommended standard	Result	Score	Judgment parameter
Number of MVA set available in delivery room	10	10	5/10=5	50%	≥85%:V. Good 70-84 good 55-69 fair <55poor
Number of IESO in the Hospital	13	2	2/2=13	100%	≥85%:V. Good 70-84 good <69 poor
Number of delivery coach in delivery room	14	3	3/3=14	100%	≥85%:V. Good 70-84 good <69 poor

Numbers of ambulance giving services		9	1	1/1=9	100	≥85%:V. Good 70-84 good 55-69 fair <55 poor
Number of Ambubag available in delivery room		11	5	5/5=11	100	≥85%:V. Good 70-84 good 55-69 fair <55poor
Number of Health workers in the unit, who received training on CEmOC program		13	10	6/10=7.8	60	≥85%:V. Good 70-84 good 55-69 fair <55poor
Proportion of blood unit available in the hospital for laboring mothers		10	3/5	0	0	≥85%:V. Good 70-84 good 55-69 fair <55poor
Number of drug items without stock out for six month	Oxytocin	5	No stock out	5	100	≥85%:V. Good 70-84 good 55-69 fair <55poor
	Ergometrin	1.5		1.5	100	
	Magnesium sulphate	4		0	0	
	Diazepam	1.5		1.5	100	
	Hydralazine	3		0	0	
	Ceftriaxone	3		3	100	
	Metronidazole	2		2	100	
Total score of availability indicators		100		73.8%		≥85%:V. Good 70-84 good **-need improvement** 55-69 fair <55poor

6.2 Compliance dimension of CEmOC program

6.2.1 Observation of CEmOC process

A total of 30 observation sessions were directly observed while the health care providers were providing service to the CEmOC clients. Among the 30 observation sessions, 10 observations were conducted in operation room theatre while the operation team health care providers were giving the services for the clients. Twenty observation sessions were conducted in the labor ward when delivery services were conducted. Those observations evaluate their level of how they gave CEmOC service with respective of CEmOC guide line and surgical safety standard. Thus, more than half of the observations (60%) didn't follow the surgical safety check list standard during operation time. and (40%) of them follow the surgical safety list standard.

Eighty five percent(85%) of participants greets and calls client by her name and introduce her /himself/, reviews patient record before starting the procedure and check about previous pregnancy, number, and outcome , take pulse rate, blood pressure , temperature and respiratory rate, document information on partograph and register, informs mothers about her and fetus's health condition, Informs mothers about any complication and management, Records all findings, assessments, diagnosis ,and care with clients, and consult the senior on time.70% and 75% Provider used partograph to follow labor and perform neonatal resuscitation based on algorithm respectively.

The qualitative findings reveal that, there is the culture of undermining surgical safety check list in Shenan Gibe operation room theatre. This is because of routine health professionals and routine procedures are customized in our operation room and the team is not bothered to strictly follow the check list and even not used.

"So long we are emphasizing on this issue and even we try to train them and give the responsibility of heading this surgical safety check list based on the circumstances" (34 years old, male, physician). Accordingly the runner or circulating nurse has the sole duty to head this surgical safety check list despite the circulating nurse expected to be free of hands than the others.

Table 4: Direct observation of CEmOC practice for process evaluation of CEmOC in Shenan Gibe Hospital Jimma town administrative, 2017

	Observation(N=20)	Practice performed No (%)
1	Check for the availability of washing facilities (water, soap, towel)	20(100%)
2	Greets and calls client by her name and introduce her /himself/	17(85%)
3	Reviews patient record before starting the procedure and check about previous pregnancy, number, and outcome	18(90%)
4	Provider used partograph to follow labor	14(70%)
5	Take pulse rate, blood pressure , temperature and Respiratory rate	19(95%)
6	Provider document information on partograph and registers	17(85%)
7	Do neonatal resuscitation performed based on algorithm	15(75%)
8	informs mothers about her and fetus's health condition	20(100%)
9	Informs mothers about any complication and management	19(95%)
10	Records all findings, assessments, diagnosis ,and care with clients	20(100%)
11	The care provider referred the client those classified as specialized care needed to higher facility? Or consult the senior	20(100%)
I.	**Laboratory investigation requests weather they see or not observation**	
12	Coagulopathy test (platelet counts)	16(80%)
14	Urine analysis	18(90%)
15	Serum blood sugar test	20(100%)
16	HGB/HC	20(100%)
17	X-match	14(70%)
18	Blood group and Rh factor	19(95%)
19	HIV test	20(100%)
	Observation operation room theatre(N=10)	
20	Proportion of pregnant mother whose surgical safety check list filled during c/s	4(40%)

21	Has the patient confirmed his/her identity, site, procedure, and consent?	6(60%)
22	Is the site marked?	0
23	Is the anesthesia machine and medication checked complete?	10(100%)
24	Is the pulse oximetery on the patient and functioning?	7(70%)
25	Does the patient have a: Known allergy?	0
26	Difficult airway or aspiration risk?	5(50%)
27	if yes equipment/assistance available	0
28	Confirm all team members have introduced themselves by name and role?	0
29	Confirm the patient's name, procedure, and where the incision will be made.	5(50%)
30	Has antibiotic prophylaxis been given with in the last 60 minutes?	0
31	Anticipated blood loss	7(70)
32	Has sterility (including indicator results) been confirmed?	8(80%)
34	Are there equipment issues or any concerns?	0
35	Nurse Verbally Confirms: The name of the procedure, Completion of instrument, sponge and needle counts, Specimen labeling (read specimen labels aloud, including patient name) Whether there are any equipment problems to be addressed?	0
36	What are the key concerns for recovery and management of this patient?	0

6.2.2 Availability of CEmOC and Performance of The Signal Functions:-The past six month document review report revealed that all signal functions were available and functional. The least performed signal functions were administration of parenteral anticonvulsants, manual removal of placenta, and performing blood transfusion. But, the most performed signal function was administration of uterotonics and parenteral antibiotic signal functions (figure3)

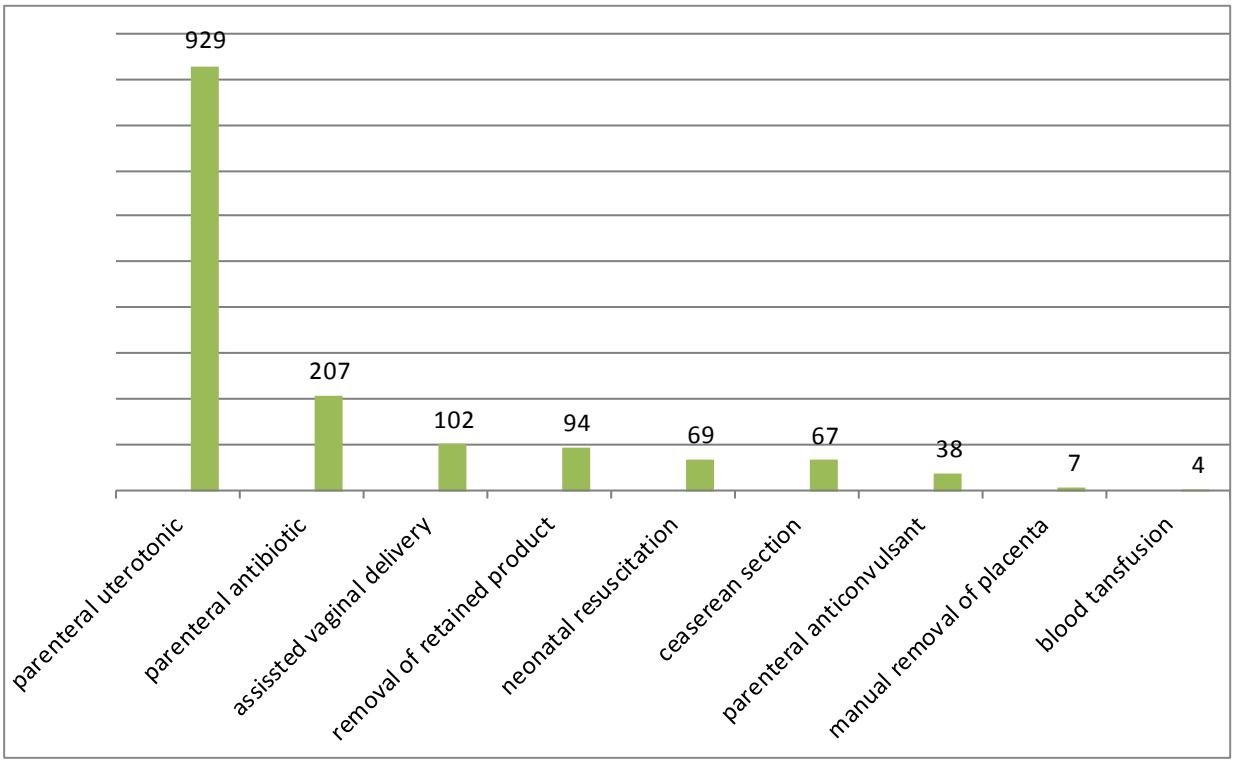

Figure 3 : CEmOC performance in the past six month in Shenan Gibe hospital, Jimma town administrative, 2017

The qualitative findings revealed that the most common reasons for not performing the signal functions were no patient indication (no eligible patients), and lack of drugs/equipment's/supplies are the mostly suggested.

"*Starting from the formation of this hospital, CEmOC program is implemented and handled by IESO as a senior. But still there is some time interruption due to absence of on time supply of the resource like magnesium sulfate, hydralazine, blood, sometimes absence of anesthesia drug, stiches and currently even there is a shortage of disposable and surgical gloves*" (40years old, Male, IESO,)

Table 5: Summary analysis and judgment matrix of compliance for process evaluation of comprehensive emergency obstetric care program in Shenan Gibe Hospital, Jimma town administrative, 2017

Indicator	Weight given	Observed value/ result	Score	Judgment parameter
Proportion of women giving birth by caesarean section based on indication	8	8	100	≥85%:V. Good 70-84 good 55-69 fair <55poor
Proportion of pregnant mothers who Informed about any complication and management	7	6.65	95	≥85%:V. Good 70-84 good 55-69 fair <55por
Proportion of early birth neonate resuscitated based neonatal resuscitation algorithm	9	6.75	75%	≥85%:V. Good 70-84 good 55-69 fair <55 poor
Proportion of pregnant mother indicated for referral and referred to specialized hospital	8	8	100	≥85%:V. Good 70-84 good 55-69 fair <55 poor
Proportion of health professional who greet and calls by name the pregnant mothers	10	8.5	85%	≥85%:V. Good 70-84 good 55-69 fair <55 poor
Proportion of pregnant mother whose v/s measured	12	11.4	95%	≥85%:V. Good 70-84 good 55-69 fair <55 poor

Proportion of pregnant mother whose partograph filled	13	11.05	85	≥85%:V. Good 70-84 good 55-69 fair <55 poor
Proportion of pregnant mother whose surgical safety check list filled during c/s	10	4	40	≥85%:V. Good 70-84 good 55-69 fair <55 poor
Proportion of pregnant mother whose record reviewed before starting the procedure and check about previous pregnancy, number, and outcome	8	7.2	90	≥85%:V. Good 70-84 good 55-69 fair <55poor
Proportion of pregnant mother whose X-match is done	7	4.9	70	≥85%:V. Good 70-84 good 55-69 fair <55 poor
Proportion pregnant mother whose Blood group and Rh factor done	8	7.6	95%	85%:V. Good 70-84 good 55-69 fair <55 poor
Total indicators score	100	84.05		≥85%:V. Good 70-84 good 55-69 fair <55 poor

6.3 Acceptability of CEmOC (Client satisfaction)

6.3.1 Socio-demographic characteristic of the clients for exit inter view

Majority of the clients, 69.6 percent were in the 20-29 age groups and the mean age was 24.96 years (SD ± 5.23). More than half of the clients those attended CEmOC were urban, 270(92.2%) were married women and more than two third of them were spoken afan Oromo language.

The result also revealed that 201(68.6%) were Muslim followers followed by Orthodox Christians 55(18.8 percent).In summary the socio-demographic characteristics of the respondents is presented in (table 6)

Table 6: Socio-demographic and Economic characteristics of clients of comprehensive emergency obstetric care in Shenan Gibe hospital, Jimma town administrative, 2017

Variables	Frequency (N=293)	Percent
Age		
<19	40	13.6
20-29	204	69.5
30-39	43	14.6
>39	6	2
Educational status		
Uneducated	84	28.7
Read and write	41	14
Primary	79	27
Secondary	57	19.5
Collage and above	32	10.9
Residence		
Rural(out of Jimma)	115	39.2
Urban(Jimma town)	178	60.8
Occupational		
House wife	184	62.8
Government employee	32	10.9

NGO Merchant	3 55	1 18.8
Other occupation	19	6.5
Marital status		
Married Unmarried Divorced Widowed	270 20 1 2	92.2 6.8 3 7
Religion		
Protestant Orthodox Muslim Catholic Other (Jehovah)	30 55 201 3 4	10.2 18.8 68.6 1 1.4
Language		
Afan oromo Amharic Other	216 76 1	73.7 25.9 3
monthly house hold income		
<500 500-1000 >1000	14 92 185	5.5 31.4 63.1

6.3.2 Obstetric Characteristics of Respondents. More than half of clients197 (66.8%) were multi gravida and prime Para (61.5%). Most of mothers, 185 (62.7%), were delivered by SVD, and did not have previous at this hospital delivery experience 56.3%.But 267 (91.1%) of them had visited health facilities for ANC for the recent pregnancy, and 116 (39.3%) of them visited ANC at this hospital (Table 7).

Table 7: Obstetric characteristic tics of the respondents in Shenan Gibe Hospital, Jimma town administrative, 2017 (n = 293)

Obstetric history	Frequency	Percent
Gravidity		
Prime gravid	96	32.5
Multi gravid	197	66.8
Parity		
Prime para	182	61.5
Multi-para	111	37.6
Mode of delivery/ termination of pregnancy		
C/S	25	8.5
SVD	185	62.7
instrumental delivery	49	16.6
manual removal of placenta	7	2.4
MVA	27	9.2
Birth out come		
alive	259	87.8
stillbirth	1	0.3
other	33	11.2
Frequency of visit including this visit		
Two times	1	0.3
Three times	13	4.4
Four times	21	7.1
More than four times	92	13.2
Reasons for the visit		
Pregnancy check up	9	3.1
ANC follow-up	56	19.0
To give birth	201	68.1
ANC follow-up for this pregnancy		

at this hospital	116	39.3
at another hospital	3	1
at health center	128	43.4
at health post	11	3.7
Other	9	3.1
ANC follow up for the current pregnancy		
one times	5	1.7
two times	37	12.5
three times	143	48.5
four times	79	26.8
More than four times	29	9.8
10. Willing to receive blood if the physician suggests		
Yes	287	98
No	6	2

6.3.3 Health Facility Related Characteristics. About 183 (62%) participants travelled for less half an hour, 29 (9.8%) travelled for half an hour to one hour, and 81 (27.5%) travelled for more than one and half an hour to come Shenan Gibe hospital to give birth.

More than two thirds of client 231(78.6%) used public transport like Bajaj and car and Most of the clients, 188(64.2%), waited for less than ten minutes until being observed or examined by health professional (see Figure 4 and 5).None of the clients (100%) didn't pay for any of the services they received because CEmOC services are exempted.

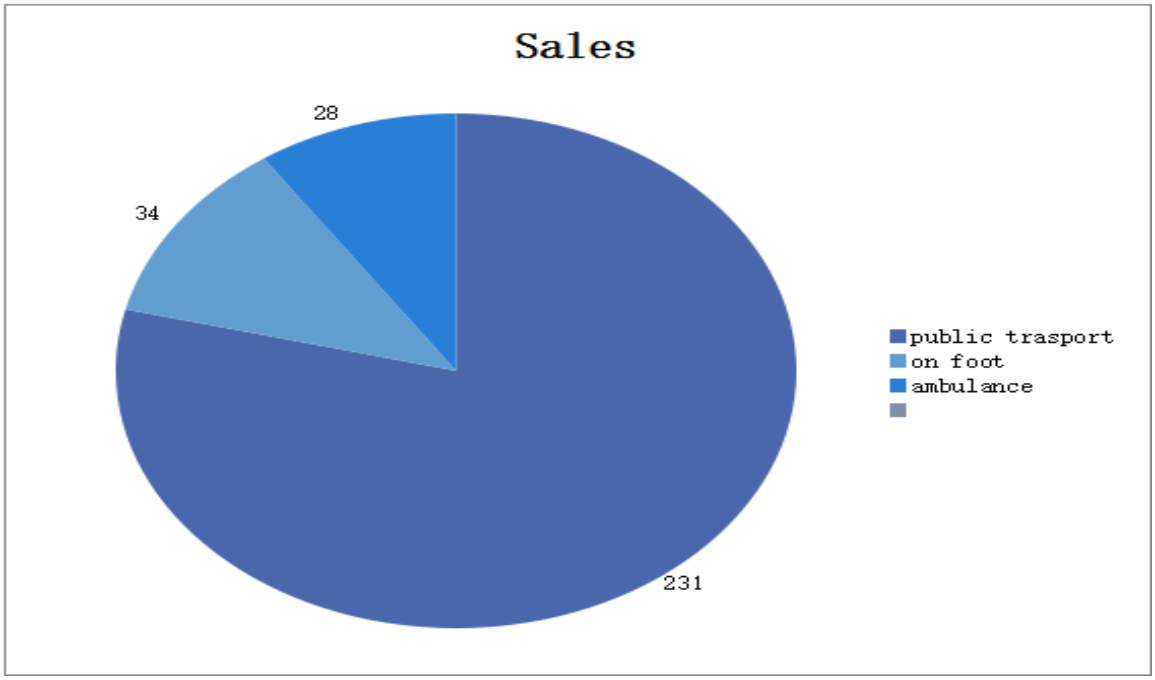

Figure 4: Mode of transportation used by clients to reach facility where they received CEmOC service in Shenan Gibe hospital, Jimma town administrative, 2017

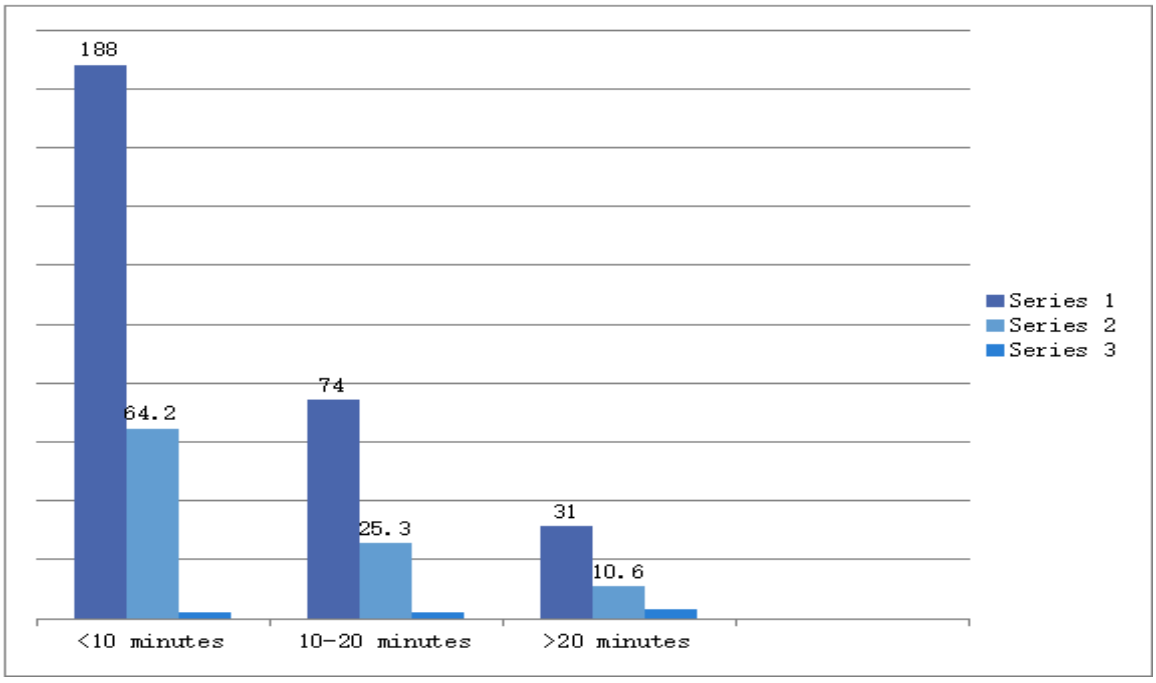

Figure 5: CEmOC clients waiting time to receive the services in Shenan Gibe hospital, Jimma town administrative, 2017

6.3.4 Client satisfaction CEmOC

The level of clients' satisfaction as measured by composite score of 9 items in decreasing orders were: strongly satisfied 1012 (38.4%), satisfied 633 (24.0%), neither satisfied nor dissatisfied (neutral) 102 (3.9%), dissatisfied 787 (29.8%) and strongly dissatisfied 103 (3.9%) (Fig6).

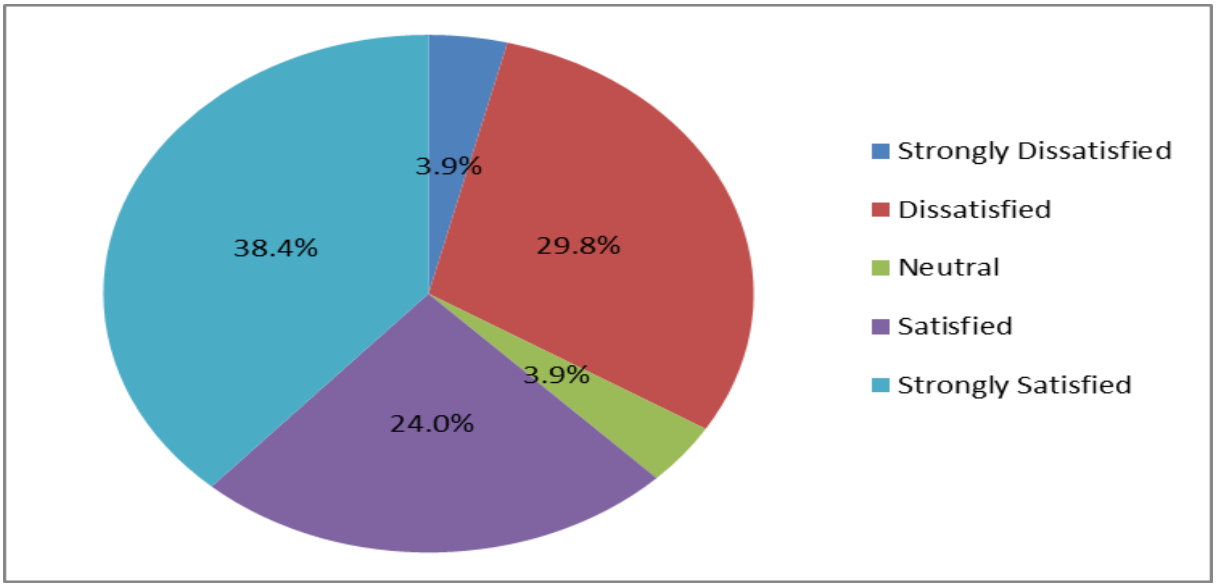

Figure 6: Percentage level of satisfaction to comprehensive emergency obstetric care services in Shenan Gibe hospital, March 2017 (n =293)

In relation to client satisfaction per sub-component satisfaction items, the majority of clients (68.3%) were satisfied with the interaction with health care provider, (67.9%%)satisfied to explanation provided or treatment given, (65.9%) health care provider open mindedness or greeting them while treating them, (64.2%) duration of time for consultation and (62.8%) were satisfied to the cleanliness of the delivery room. The least proportion clients were satisfied with waiting time for CEmOC service (61.1%), pain management during delivery care (59.4%), auditory privacy during discussion (that other clients could not hear them (58%) and the most least satisfied were visual privacy during examination (that other clients could not see them (53.9%). In this study the overall mean clients' satisfaction with CEmOC services was 82.9 %.

3.5 Factors Associated with clients satisfaction.

Bivariate analysis result of satisfaction survey

In the bivariate analysis independent variables such as Addresses of the client, Educational statues ,Gravidity ,Mode of delivery, Birth out-come, Service Waiting time, Previous ANC visit, gestational age, Number of ANC visit for current pregnancy and Receiving blood by physician suggestion related factors were significantly associated with overall satisfaction (Table 9). In order to control the effect of confounders, a multiple logistic regression was done. The factors included in the model were those that showed association at the binary logistic regression analysis at a cut-off value (value ≤ 0.25).

Table 8: Bivariate analysis of factors affecting satisfaction rate of clients on the overall CEmOC service in Shenan Gibe hospital, Jimma town administrative, 2017

S. No	Independent variable		Frequency n= 293		P-value	COR	95% CI	
			Satisfied	Dissatisfied			Lower	Upper
1	Addresses of the client	Rural	90	11	.045	2.086	1.01	4.276
		Urban	153	39		1		
2	Educational statues	Uneducated	72	4	.008	4.560	1.47	14.05
		Read and write	39	2	.038	4.940	1.09	22.30
		Primary	57	25	.118	.578	.290	1.150
		secondary and above	75	19		1		
3	Gravidity	Primi gravida	73	29		1		
		Multi gravida	170	21	.0001	.311	.166	.581
4	Mode of delivery	C/S	23	5	.009	4.600	1.470	14.393
		SVD	158	14	.0001	11.286	4.994	25.502
		instrumental	41	10	.003	4.100	1.63	10.27

		delivery					6	3
		MVA	21	21		1		
5	Birth out-come	Alive	216	25	.000 1	8.000	4.03 8	15.84 9
		Stillbirth	27	25		1		
6	Service Waiting time	<10 min	173	15	.000	20.97 0	8.48 0	51.85 2
		10-20min	59	15	.000	7.152	2.82 5	18.10 2
		>20min	11	20		1		
7	Where Health institution Previous ANC visit	at this hospital	93	10	.001	6.200	2.20 8	17.40 7
		at another hospital	13	3	.163	2.889	.652	12.80 2
		at health center	107	14	.001	5.095	1.92 2	13.50 8
		at health post	15	13	.638	.769	.258	2.292
		no ANC visit	15	10		1		
8	At term gestationalage	Yes	219	24	.000	9.885	4.92	19.84
		No	24	26				
9	Number of ANC visit on current pregnancy	one times	5	5		1		
		two times	29	11	.000	.032	.006	.173
		three times	115	31	.000	.084	.022	.322
		four times and above	94	3	.001	.118	.035	.399
10	Receiving blood	Yes	240	47	.050	5.106	1.00	26.07
		No	3	3		1		

N.B: Variable candidate for multivariate analysis at P-value <0.25 and 1 shows reference group.

Multivariate analysis result for satisfaction survey: In multivariate analysis the birth out-come, waiting time, ANC visit and gestational age are independently associated with satisfaction level of clients on comprehensive emergency obstetric care service. Accordingly mothers those who are alive birth outcome were 10 times more likely satisfied than those who are still birth out-come (AOR = 10.22 95% CI; 2.48-42.09) P<0.001 and clients who wait the service less than 10 minutes were 10 times more likely satisfied than those who wait >20 minutes(AOR=10.76,95%CI; 2.60-44.42) P<0.001. Clients with ANC visit of three times for current pregnancy were 99.9% less likely satisfied than those have four and above ANC visits (AOR = 0.001 95% CI; 0.000-0.021) P<0.00 and the mothers who delivered at term gestation age were 8.6 times more satisfied than those who are preterm or post term gestation age (AOR= 8.61 95% CI; 1.840-40.321) P<0.006. In general the multivariate analysis result was presented in table below.

Table 9: Predictors of satisfaction of clients in Shenan Gibe hospital, Jimma town administrative for CEmOC program service, 2017

S. No	Independent variable		Frequency n= 293		P-Value	AOR	95% CI	
			Satisfied	Dissatisfied			Lower	Upper
1	Birth out- come	Alive	216	25	.001	10.23	2.48	42.10
		Stillbirth	27	25		1		
2	Service waiting time	<10 min	173	15	.001	10.76	2.60	44.42
		10-20min	59	15	.016	6.79	1.44	32.07
		>20min	11	20		1		
3	Number of ANC visit on current pregnancy	one times	5	5		1		
		three times	115	31	.000	.001	.00	.02
		four times and above	94	3	.000	.005	.00	.09
4	Delivered at term of gestational age	Yes	219	24	.006	8.61	1.84	40.32
		No	24	26		1		

N.B: Variable at P-value <0.05 in multivariate analysis shows predictor for satisfaction on CEmOC service and 1 shows reference group

Table 10: summary of performance indicators on acceptability dimension for process evaluation of comprehensive emergency obstetric care program in Shenan Gibe Hospital, 2017

Indicator	Weight given	result	Score	Judgment parameter
Proportion of pregnant mother who satisfied to waiting time for CEmOC service	15	9.1	61.1%	≥85%:V. Good 70-84 good 55-69 fair <55 poor
Proportion of pregnant mother who satisfied to explanation provided or treatment given	12	8.1	67.9%	≥85%:V. Good 70-84 good 55-69 fair <55 poor
Proportion of mother who satisfied to health care provider open mindedness or greeting them while treating them	15	9.9	65.9%	>85%:V. Good 70-84 good 55-69 fair <55 poor
Proportion pregnant mother who satisfied to visual privacy during examination (that other clients could not see them	10	5.4	53.9%	≥85%:V. Good 70-84 good 55-69 fair <55 poor
Proportion pregnant mother who satisfied to auditory privacy during discussion (that other clients could not hear them	8	4.6	58%	≥85%:V. Good 70-84 good 55-69 fair <55 poor
Proportion pregnant mother who satisfied to the cleanliness of the delivery room	12	7.5	62.8%	≥85%:V. Good 70-84 good 55-69 fair <55 poor
Proportion pregnant mother who satisfied to the pain management during delivery care	10	5.9	59.4%	≥85%:V. Good 70-84 good

				55-69 fair <55 poor
Proportion pregnant mother who satisfied to duration of time for consultation	9	5.8	64.2%	≥85%:V. Good 70-84 good 55-69 fair <55 poor
Proportion pregnant mother who satisfied to the interaction with health care provider	9	6.1	68.3%	≥85%:V. Good 70-84 good 55-69 fair <55 poor
Total score of acceptability indicator	100	62.4		≥85%:V. Good 70-84 good <69 poor =Need urgent improvement

In summary based on the weight given for each dimensions of processes evaluation, the overall processes of CEmOC services is determined to be **74.4** requiring further improvement as shown in table below.

Table 11: summary of overall performance indicators process of CEmOC services in Shenan Gibe hospital, Jimma town administrative, 2017

s.no	Dimensions	Weight given	Observed value/result	Score	Judgment parameter
1	Availability	20	14.76	73.8%	
2	Compliance	45	37.8	84.05	
3	Acceptability	35	21.8	62.4%	
Summary of the above the dimensions		100	74.4		≥85%:V. Good=Acceptable 70-84 good **=need improvement** <69 poor=need urgent improvement

CHAPTER SEVEN: DISCUSSION

Indicator driven approach was used to judge the process of CEmOC. Thus, availability of essential CEmOC resources, Compliance of providers to standards and acceptability of service was judged. Accordingly, on average the overall implementation of process of CEmOC was judged to be 74.4 percent, requiring an improvement

Availability

Availability of resources for CEmOC program in Shenan Gibe hospital was good. Though most of resources and equipment's needed for implementation of the program were filled, but still there is a problem with some equipment's and supplies like disposable and surgical gloves, drug like magnesium sulfate and hydralazine, blood for transfusion, equipment like auto clave ,laundry machine and ambulance of the hospital has some time a problem with its functionality. These might be enhances unnecessary referral to the nearby hospital and challenges in CEmOC program delivery service. This dedicates that a facility's basic infrastructure can affect the standard of health services provided and influence clients' willingness to use the facility. Similarly the study done in Tigray region of some district hospitals shows that there was the shortage of basic requirements like anticonvulsant such as magnesium sulphate, oxytocin , blood bank, antibiotic and there is also a problem on operation theatre functionality (40). This similarity shows there is a limitation of resources even though the government is currently emphasizing on reduction of maternal mortality by setting comprehensive emergency obstetric care as one strategy.

Compliance dimension

The evaluation finding showed that the overall process of CEmOC program services in Shenan Gibe hospital was 74.4%.The processes sub-component CEmOC program services are measured by the use of congruence of program implementers (health care provider) to national standards and found to be 84.05%. While the availability and acceptability component of the CEmOC program services were 73.8%and 62.4% respectively.

In the processes of care good achievement is observed in consulting the senior (100%) and referring the patient (100%) in case of something expected complication. But low achievement observed in provider used partograph to follow labor (70%) and team adherence to surgical safety check list (40%) require immediate improvement.

The national guide line recommends that all labor should be followed with parthograph (40).Though in our study only 70% of deliveries were followed with partographs. This means delivery conducted using partogrophs were incongruent with national guide line and Shenan Gibe annual plan of 2017.

Another Survey done on public and private health facilities in rural northwest Bangladesh shows low utilization of the partograph in both sectors (7% in public facilities and 0% in private clinics (42). This difference might be the difference in study setting, negligence induced due to seniority, lack of knowledge and guide line using partograph.

Likewise the delivery conducted among public health institutions of Addis Ababa have showed that only 34.4% utilized partographs delivery follow up. The reason for this is being lack of adequate knowledge among health care providers in the use of partographs. In general there is inconsistent use of partographs among health care providers of labor ward in developing countries including Ethiopia, despite partograph is a universal tool used for monitoring labor progress (47). On the other hand WHO surgical safety check list guide line recommends that for any emergency and elective surgery, surgical safety check list should be completed before surgery start (48). But in our study team adherence to surgical safety check list is only (40%).The study done in university of Gondar hospital shows, the overall compliance and completeness rate were 39.7 and 63.4 % respectively. The main reasons cited for non-user were lack of previous training and lack of cooperation among surgical team members.

According to the national CEmOC guide line, a facility qualifies as functionally comprehensive EmOC if cesarean delivery and blood transfusion services are provided in addition to the seven basic signals (1). The past six month document review report that all signal function were available and functional in Shenan Gibe hospital. The least performed signal functions in Shenan Gibe hospital were administration of parenteral anticonvulsants, manual removal of placenta, and performing blood transfusion. But, the most performed signal function was administration of

uterotonic and parenteral antibiotic. This result is congruent with the study done in Dire Dawa, Ethiopia (41).

In our study there is also a shortage of health care providers trained on Comprehensive Emergency Obstetric care. Only 7% of health care providers at Shenan Gibe hospital reported having completed one or more components of CEmOC training during the six months preceding the survey and only two (2.3%) health professionals had completed all in service components of CEmOC training. This compromises health facilities ability to provide the needed services at the appropriate facility level. A review of global CEmOC training activities found that in service training is most effective when it is focused on hands-on experience and competency-based, whereas pre service education tended to remain knowledge-based. In service training for CEONC, however, is often hindered by poor pre service education and poor application of learning in the workplace, due in part to poorly equipped facilities and a lack of evidence-based clinical protocols

Acceptability (client satisfaction)

Outcomes are changes (desirable or undesirable) in individuals or populations that can be attributed to health care. It includes client's satisfaction to care given. In this evaluation outcome component of the processes of CEmOC service is measured with acceptability of service by served clients (satisfaction). With regards to satisfaction of clients to CEmOC program service; the lowest satisfaction of clients are observed on visual privacy during examination (53.9%) whereas the highest satisfaction the clients are provider client inter action (68.3%). The overall clients' satisfaction with CEmOC was 82.9%. This finding is comparable with the results of the studies conducted in selected public health facilities of Wolaita Zone (82.9 %), public health facilities in Jimma zone (79.4 %) and Assela Hospital (80.7 %). But, it is slightly higher than the finding of a study conducted in referral hospital of Amhara Region, Ethiopia (61.9%) (43-45). This difference may be due to some improvements in health care systems from time to time, a difference in quality of services provided, expectation of mothers or the type of health facilities.

Clients' satisfaction to health workers interaction ,explanation provided or treatment given, health care provider open mindedness or greeting them while treating them, duration of time for consultation and cleanliness of the delivery room were 68.3%,67.9%,65.9%,64.2% and 62.8% respectively. These results are greater than the findings of other similar studies such as the study

conducted in Amhara Region, in which clients' privacy related satisfaction was 46.7 % (44). The improvements in results of our study may be due to the currently established health care financing policy, which enabled clients to avail free delivery service at health institutions, especially at public hospital, and due to the type of health facilities, increment regular supportive supervision from regional and different agents doing on CEmOC program.

In multivariate analysis the birth outcome, waiting time, ANC visit and gestational age were independently associated with satisfaction level of clients on comprehensive emergency obstetric care service. Accordingly clients who Waite the cervices less than 10 minutes(shorter) were 10 times more likely satisfied than those who wait>20 minute (AOR=10.76,95%CI; 2.60-44.42) P<0.001.Similarly the study done in Asela hospital shows clients who wait shorter time than longer time to be seen by a care provider were more satisfied by delivery service (44). On the other hand mothers those who are alive birth outcome were 10 times more likely satisfied than those who are still birth outcome (AOR = 10.22 95% CI; 2.48-42.09) P <O.OO1.Clients with ANC visit of three times for current pregnancy were 99.9% less likely satisfied than those have four and above ANC visits (AOR = 0.001 95% CI; 0.000-0.021) P<0.001 .This study almost similar with study done in asela hospital in which those respondents who had ANC follow up were found to have two fold increased odds of maternal satisfaction compared to those who had no ANC follow up (44). The mothers who delivered at term gestation age were 8.6 times more satisfied than those who are preterm or post term gestation age (AOR= 8.61 95% CI; 1.840-40.321) P <0.006. This because of the fear induced before delivery and progress to post delivery by assumptions that there might be some abnormality happed and especially those deliver at preterm might have the chance of staying in the hospital till the infant reach maturity. This expectation could lead to dissatisfaction.

Limitations of the Study

Social desirability bias might have affected the quality of data collected because study subjects might face difficulty in responding to dissatisfaction in the presence of data collectors. But data collection was done in a private room by non-staff nurses to reduce the bias. The other limitation comes from the institution based nature of the study which makes inferring to all delivering mothers in the study area since most of the deliveries take place at night indicating a need for further study by using a more representative sample. Besides the above shortcomings, the study

generated important data that can be used as an input for improvement of maternal health services and with increased satisfaction in the study area.

CHAPTER EIGHT: CONCLUSION AND RECOMMENDATION

8.1Conclusions

The findings of this study depict that the availability of resources in Shenan Gibe hospital like infrastructure, human resources, supplies, drugs and equipment were good compromising the irregular malfunctioning of equipment like autoclave, laundry machine and the irregular supply of drug like magnesium sulfate, hydralazine and the blood. Overall processes of CEmOC program service in Shenan Gibe hospital is good, but further emphasize should be given to improve according to the judgment parameter. Similarly performance of Shenan Gibe hospital as per to compliance to national standard and program resource availability is good requiring improvement.

With regards to satisfaction of clients to CEmOC program service; the lowest satisfaction of clients are observed on visual privacy during examination (53.9%) whereas the highest satisfaction the clients are provider client inter action (68.3%). More over based on the finding of this evaluation the acceptability of this program service need urgent improvement based on the judgment parameter set. In this evaluation gestational age, service waiting time, ANC follow up and birth outcome are independent determinants of the client's satisfaction rate on over all process of comprehensive emergency obstetric care services. While socio-demographic characteristics, mode of delivery, educational status, parity, gravidity and their income didn't showed association in the multivariate analysis.

In general the evaluation finding showed the overall process comprehensive emergency obstetric care program in Shenan gibe hospital, Jimma town administrative was good, requiring improvement based on the judgment parameter of the evaluation. And based on this evaluation the following recommendations are drawn.

8.2 Recommendation

Shenan Gibe hospital

- ✧ There is a need for continuous and consistent supply of CEmOC commodities to keep resource availability up. Trained human power on the issue should be the main focus of the hospital, so that the in-service training should be given irrespective of their profession.
- ✧ The further emphasize should be given even though the program implementation was good but it is expected to be very good irrespective of program duration.
- ✧ The practice of using surgical safety check list should be customized.
- ✧ The hospital should emphasize on blood supply and make collaboration with the blood bank to save the life of the mother and to reduce referral
- ✧ Clients waiting time should be improved
- ✧ Counseling should be given those who deliver preterm and post mother to refresh from tension they experienced.

Oromia Regional State Health Bureau and Jimma town health office

- ✧ The RHB should coordinate the activities of its partners to ensure the continuous CEmOC equipment and supply for the Shenan Gibe hospital.
- ✧ Refresh training should be provided to update health workers on the major compliance problems that have been identified in this study.
- ✧ Updated training and guidelines should be on timely reach the hospital

CHAPTER NINE: META EVALUATION

Ensuring the quality of the evaluation is important to increase its acceptance and utility. And this was done by self-assessment through Meta evaluation standards.

9.1 Utility

Utility standard of this evaluation was reached by insuring the satisfaction of the practical information needs of intended users of the evaluation. Accordingly, a criterion as bases for judgment for the analysis was set in discussion with stakeholders and so, findings were judged fairly. In addition a clear plan on report writing and dissemination of the findings was identified.

9.2 Feasibility

These standards are intended to ensure that an evaluation to be realistic, prudent, diplomatic, and economical. This includes the practicality of the evaluation procedure in economic terms. Regarding this issue, the evaluation didn't face any difficulties. The budget taken to undertake the study was used efficiently according to the plan.

9.3 Propriety

Regarding this issue, the evaluation was conducted legally, ethically, and with due regard for the welfare of those involved in the evaluation, as well as those affected by its results. Thus, stakeholders involved in the study were treated with respect and fairness.

9.4 Accuracy

To maintain the accuracy standards; detail description of the program and its level of implementation was set during discussion with relevant stakeholders and review of appropriate document. Data for the evaluation was collected by trained data collectors and the principal investigator using a pre-tested questionnaire. This ensures that the evaluation to reveal and convey technically adequate information about the features that determine worth or merit of the evaluated program.

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Annex 1

Information matric

Based on the discussion with stakeholders and after review of program documents the following criteria and judgment parameter will be prepared and used to judge the process of the program

Table 12: Information matrix for process evaluation of comprehensive emergency obstetric program in Shenan Gibe Hospital Oromia region, south west Ethiopia, 2017

Evaluation questions	Indicators	Source of data	Data collection method	Data collection tool
Are the required program resources available to implement the CEmOC program in Shenan Gibe Hospital? If not why?	Number of MVA set available in delivery room.	Labor ward document	Document review	Document review check list
	Number of mask and bag available in delivery room.	Delivery ward co coordinator	Observation	Observation check list
	Number of gynecologist available in the Hospital Number of IESO in the Hospital	Hospital planning officer	Document review	Document review check list
	Number of drug items without stock out for six month	stock out	Review	Stock out review check list
	Number of delivery coach in delivery room	Delivery ward coordinator	Observation	Observation check list

	Number of Health workers in the unit, who received training on CEmOC program	Delivery ward coordinator	Document review	Document review check list
	Proportion of blood unit available in the hospital for laboring mothers	Blood bank	Document review	Document review check list
	Numbers of ambulance giving services	Hospital planning officer	Document review	Document review check list
2. Do health care providers in Shenan Gibe Hospital congruence to national implementation guideline in implementation of CEmOC the program? If not why?	Proportion of pregnant mothers who under gone c/s based on indication	c/s document gynecologists	Review Interview	Review and interview check list
	Proportion of pregnant mother who receive blood transfusion based indication for transfusion	Patient card	Patient card review	Card review Check list
	Proportion of early birth neonate resuscitated based neonatal resuscitation algorithm	Check list	Check list review	Check list review guide
	Proportion of pregnant mother indicated for referral and referred to specialized hospital	Delivery ward coordinator		
	Proportion of health professional who greet and calls by name the pregnant mothers	Observation	Observation	Observation guide
	Proportion of pregnant mother whose v/s measured	Patient card	Patient card review	Patient review check list
	Proportion of pregnant mother whose partograph filled	Partograph format	Format review	Format review check list

3. Do the clients have satisfied to the CEmOC program service in Shenan Gibe Hospital 2017	Number of mother who satisfied to caesarian section delivery	Client	Client interview	Interview guide
	Number of mother who satisfied to got post delivery service council	Client	Client interview	Interview guide
	Number of pregnant mother who satisfied to counseled about the postpartum visit	Client	Client interview	Interview guide
	Number pregnant mother who satisfied to instrumental delivery	Client	Client interview	Interview guide
	Number of pregnant mother who satisfied to received blood transfusion	Client	Client interview	Interview guide
	Number of pregnant mother who satisfied to receive parenteral anti –convulsant	Client	Client interview	Interview guide
	Number of pregnant mother who satisfied to manual removal of placenta	Client	Client interview	Interview guide
	Number of women who satisfied to receiving comprehensive abortion care services	Client	Client interview	

Relevance matric

Table 13: Relevance matrix for process evaluation of comprehensive emergency obstetric care program in Shenan Gibe Hospital, Jimma town administrative, south west Ethiopia 2017

S/N	Indicators	Dimensions		
		Availability	compliance	Acceptability
1	Number of MVA set available in delivery room.	RRR	RR	R
2	Number of mask and bag available in delivery room.	RRR	RR	RR
3	Number of gynecologist available in the Hospital	RRR	RR	RRR
4	Number of IESO in the Hospital	RRR	RR	RR
5	Number of drug items without stock out for six month	RRR	RR	RR
6	Number of delivery coach in delivery room	RRR	RR	RR
7	Number of Health workers in the unit, who received training on CEmOC program	RRR	RRR	RR
8	Proportion of blood unit available in the hospital for laboring mothers	RRR	RR	RR
9	Numbers of ambulance giving services	RRR	RR	RR
10	Number of women having given birth by caesarean section	RR	RRR	R
11	Proportion of pregnant mothers who under gone c/s based on indication	RR	RRR	RR
12	Proportion of pregnant mother who receive blood transfusion based indication for transfusion	RR	RRR	RR

13	Proportion of early birth neonate resuscitated based neonatal resuscitation algorithm	RR	RRR	RR
14	Proportion of pregnant mother indicated for referral and referred to specialized Hospital	RR	RRR	RR
15	Proportion of health professional who greet and calls by name the pregnant mothers	RR	RRR	RR
16	Proportion of pregnant mother whose v/s measured	RR	RRR	RR
17	Proportion of pregnant mother whose partograph filled	RR	RRR	RR
18	Proportion of neonates treated for birth asphyxia	RR	RRR	RR
19	Number of mother who satisfied to caesarian section delivery	RR	RR	RRR
20	Number of mother who satisfied to got post delivery service council	RR	RR	RRR
21	Number of pregnant mother who satisfied to counseled about the postpartum visit	RR	RR	RRR
22	Number pregnant mother who satisfied to instrumental delivery	RR	RR	RRR
23	Number of pregnant mother who satisfied to received blood transfusion	RR	RR	RRR
24	Number of pregnant mother who satisfied to receive parenteral anti –convulsant	RR	RR	RRR
25	Number of pregnant mother who satisfied to manual removal of placenta	RR	RR	RRR
26	Number of women who satisfied to receiving comprehensive abortion care service	RR	RR	RRR

Annex 2

Jimma university collage of public health and medical science; department of health service management and policy; health monitoring and evaluation unit.

1. Questionnaire developed to assess the implementation of comprehensive emergency obstetric care services provided in Shenan Gibe Hospital, Jimma town administrative, south west Ethiopia, 2017

Instructions for the interviewers:

Approach all women as they leave the area where comprehensive emergency obstetric care services are provided, and ask them whether they are willing to be asked some questions about the services they received today. If they accept, make sure that you are in a place that guarantees privacy and where the woman is comfortable. Ask them for their informed consent to be interviewed (read the form below). Please, interview only women who give their informed consent. For each item in the interview, circle the code of the appropriate response or describe, as appropriate.

Informed consent form for the client:

My name is _____, and I work as a data collector for the evaluation conducted on the comprehensive emergency obstetric care in Shenan Gibe Hospital, Jimma town administrative. The study is conducted to see what services and information, clients are given during their comprehensive emergency obstetric care. This information will help us to propose ways in which to improve the services offered. As a part of this study, we are interviewing women who received comprehensive emergency obstetric care today. In these interviews, we ask you about the services and information you obtained, your satisfaction with the services received, how you see facility and other health related issues. The interview will be private, and none of the providers that saw you today will be present. However, your participation in this study is voluntary, and you can choose not to let me interview you. If you choose not to participate in our study, you will not be penalized in any way but your participation has great contribution for the study. If you accept to participate and you change your opinion later, you can also ask me to interrupt the interview whenever you want.

Shall I proceed with the questions?

Yes----------No----------

Is the questionnaire for the client: A) completed B) Refused

Time at which interview started_____

1. **BACKGROUND INFORMATION OF THE CLIENT AND FACILITY IDINTIFICATION**

1. Client's identification number	_____
2. Date of interview DD/MM/YY	_____
3. Facility name	_____
4. Age of client	_____
5. Addresses of the client	1. Rural (out of Jimma town) 2.urban (Jimma town)
6. occupational status	1.house wife 2.government employee 3. NGO 4. Merchant 5.other,specify_____
7. Marital status of the client	1. Married 2.Unmarried 3. Divorced 4. Widowed 5.other _____
8. Educational grade completed by the client	1. Un educated 2. Read and write 3. Primary 4.Secondary 5.other_____
9. Income level per month. Add all the income of the household (not only the client's income)	1. <500 2.500-1000 3. >1000
10. Religion of the client	1. Protestant 2 Orthodox 3. Muslim 4. Catholic 5. Others_____
11. Communication language	1.Afan Oromo2. Amharic 3.Others_____

2. REPRODUCTIVE HEALTH HISTORY

1. parity	_____
2.gravidy	_____
3) Mode of delivery/ termination of pregnancy	1.C/S 2.SVD 3.instrumental delivery 4.mannual removal of placenta 5.MVA
4) birth out come	1. alive 2.still birth 3.other,specify_____
5) Is this the first time when you visit this hospital?	1.yes 2.no
6) If no, how many times did you visit including this visit?	1. Two times 2. Three times 3. Four times 4. More than four times
7) What are the reasons for the visit?	1. Pregnancy check up 2. ANC follow-up 3. HIV testing 4. To give birth
8) Where did you attend ANC follow-up for this pregnancy?	1. at this hospital 2. at another hospital 3. at health center 4. at health post 5. Other, Specify____
9) How many times did you attend for ANC follow up for the current pregnancy?	1. one times 2. two times 3. three times 4. four times 5. More than four times

10) How did you come to this hospital for this visit?	1. on foot 2. by transportation (Car, Bajaj etc…) 3.Other, specify_____
11) How long it took to reach to this hospital (in minutes or hour)?	_____
12) How long did you wait to receive service (in minutes or hour)?	_____
13) How long did you stay with health care providers (in hours)?	_____
14) How do you rate time you waited was too long, reasonable, or short?	1.Too long 2. Reasonable 3. Short 4. Don't know
15) Did you pay for the services or treatments you received at this facility today?	1.yes 2.No
16) If the answer for Q. No 15 yes, What do you think of the costs of your treatment?	1. It was ok 2. Too much 3. Don't know
17) Did you have the history of pregnancy before this pregnancy?	1.yes 2.No
18) If the answer for Q.NO 13 is yes, where was your previous delivery?	1 .at Hospital 2.at health center 3. at home
19) Did you delivered at term gestational age?	1. Yes 2.No
20) If the answer for Q. No 19 no? What was the reason?	_____
21) Did you receive the blood if the physician suggests you to receive the blood?	1. Yes 2.No
22) If the answer to Q. No 21 is No what was the reason?	_____

CLIENTS SATISFACTION ON THE SERVICES

21. How do you categorize your satisfaction level for the waiting time of services provided to you?	1. Strongly satisfied 2.satisfied 3.Neutral 4.Dissatisfied 5. Strongly dissatisfied
22. How do you experience the amount of explanation the providers gave to you about a problem or treatment?	1. Strongly Satisfied 2 .Satisfied 3.Neutral 4. Dissatisfied 5. Strongly dissatisfied
23. How do you experience the health care provider open mindedness and greeting you while treating you?	1. Strongly satisfied 2.Satisfied 3.Neutral 4. Dissatisfied 5. Strongly dissatisfied
24. How do you experience visual privacy during examination (that other clients could not see you?)	1. Strongly satisfied 2. Satisfied 3.Neutral 4. Dissatisfied 5. Strongly dissatisfied
25. How do you experience auditory privacy during discussion (that other clients could not hear you?)	1. Strongly satisfied 2.Satisfied 3.Neutral 4. Dissatisfied 5. Strongly dissatisfied

26. How do you experience the cleanliness of the delivery room care room?	1. Strongly satisfied 2 .Satisfied 3.Neutral 4. Dissatisfied 5. Strongly dissatisfied
27. How do you experienced the way the health care provider treating pain during delivery?	1. Strongly satisfied 2. Satisfied 3.Neutral 4. Satisfied 5. Strongly dissatisfied
28. How do you experienced the duration of time for consultation?	1. Strongly satisfied 2. Satisfied 3.Neutral 4. Dissatisfied 5. Strongly dissatisfied
29. How do you experience the ease of your interaction with health care provider to discuss problems or concerns about your pregnancy?	1. Strongly satisfied 2. Satisfied 3.Neutral 4. Dissatisfied 5. Strongly dissatisfied
30. What do you think the service components that, this health facility should improve in order to provide quality services for CEmOC clients?	_____ _____

Time at which data collection is finished_____ Signature of Data collector_____
Name of the supervisor _____signature_____ received date_____

Thank you!!

1.Gaaffiilee hojiirra oolmaa tajaajila qindoominaa da'umsaa fi da'umsaan walqabate hospitaala Shanan Gibe , naannoo Oromiyaa ,kibba lixa ithiopia ,2017 ilaalu qophaa'e

Qajeelfama nama gaafii gaafatuf qophaa'e:

Dubartoota tajaajila qindoomina da'umsaa fi da'umsaan walqabate argatan kamiyyuu akka isaan tajaajila argataniin ,gaaffii waa'ee tajaajilamuu isaanii ibsu gaafatamuuf akka isaan fedhii qaban gaafadhu.yoo isaan tole jedhan dursiitii bakka iccitii isaanii eegaamuu danda'uu fi isaanitti tolu filadhu.walii galtees barreeffamaan gaafadhu. Dubartoota gaafatamuuf walii galan qofa gaafadhu. Tokkoon tokkoo gaaffiitif ,deebii sirrii ta'etti itti mari ykn akka inni sirrii ta'e ibsi.

Walii galtee maamilaa:

Maqaan koo_____,kanan isin bira dhufeef raga maadaallii tajaalija qindoominaa da'umsaa fida'umsaan walqabate hospitaala shanan Gibe keessatti geeggeffamu funaanuun dhufe. Qorannoon kun kan geggeeffamuuf,tajaajila akkamii fi odeeffannoo maamiltoonni yeroo tajaajila qindoominana da'umsaa fi da'umsaan walqabate argatan ilaaluf ta'u. odeeffannoon kun kallattii ittiin tajaajila kennamu fooyyessuuf nugargaara. Akka kutaa qorannoo tokkootti nuti kan gaafannu dubartootota tajaajila qindoominaa da'umsaa fi da'umsaan walqabate guyyaa har'aa argatan gaafanna. Gaafilee kana keessatti kan isaan gaafannu waa'ee tajaajila isaan argatanii fi odeeffannoo isaan argatan,itti quufinsa isaan tajaajila irratti qaban ,waa'ee meeshaalee hospitaalichaa fi dhimmoota biro fayyaan walqabatan fa'i. gaaffiin godhamu icciitii keessan kan eegeee fi ogeessi har'a isin ilaale kamiyyuu irratti hin argamu. Haata'umalee qorannoo kana keessatti hirmaannan kee fedhiidhani fi akkan isin hin gaafanne illee filachuu dandeessa.yoo filannoon ke qonannoo kana keessatti kan si hin hirmaachifne ta'e,homaa si hin adabsiisu garuu hirmaannan ke qorannoo kanaaf gumaachaa guddaa qaba. Yoo himaannaa ke itti amantee fudhattee fi garuu booda yaadake jijjiiruu barbaadde, gaaffii addaan kutuuf yeroo barbaaddetti na gaafachuu dandeessa.

Gaaffii itti fufuu nan danda'aa?

Eeyyee_____Lakkii_____

Gaaffileen maamiltootaa: A/xumurameera

B/ni didani

Yeroo itti gaaffiin jalqabame_____

1. Odeeffannoo Walii Galaa Kan Maamilafi Dhaabbata Fayyaa Adda Baasu.

1. Lakkoofsa kaardii maamilaa	_____
2. Guyyaa gaaffiin itti geggeeffame	_____
3. Maqaa dhaabbata fayyaa	_____
4. Adda baastuu dhaabbata fayyaa	_____
5. Umrii maamilaa	_____
6. Teessoo maamilaa	1. baadiyyaa (magaala Jimmaa ala) 2.Magaala
7. Akkaataa da'umsaa	1. baqaqsanii deessisuu 2. meeshaa osoo hin fayyadamiin deesse 3.Meeshaalee fayyadamuun deesse 4.Obbaatiin haarkaan bahe 5.Qaamni ciccitee hafe harkaan bahe 6.tajaaji ulfa baasuu qulqullina qabu
8. Akkaataa gaa'ila maamilaa	1. heerumteetti 2.hin heerumne 3. walhiikteetti 4. abbaan warraa irraa boqoteera 5.kan biraa _____
9. Gulantaa barnoota maamilaa	1. hin baranne 2. baarreessuu fi dubbisuu ni dandeessi 3. gulantaa tokkoffaa baratteetti 4. gulantaa lammaffaa baratteetti 5.collage _____
10. Galii waggaa abbaa warraa waggaan	1. <5000 2.5000-10000 3. >10000
11. Amantii maamilaa	1. Protestant 2 Orthodox 3. Muslim 4. Catholic 5. Others_____
12. Afan wal qunnamtii	1. Afan Oromo 2. Amharic 3.Others_____

2. SEENAA WAL HORMAATA FAYYAA

1. yeroo jalqabaaf ati hospitaala kana dhuftee?	1. Eeyyee 2. Lakkii
2.Deebbiin ke lakkii yoo ta'e ,kan ammaa dabalatee almeeqa dhufte?	1. Yeroo lama 2. Al sadii 3. Al afur 4. Al afurii ol
3. Sababii maaliif ilaalamuu dhuftee?	1 .ulfaa'uu qoratamuu 2. hordoffii ulfaa 3. HIV qoratamuu 4. da'umsaaf
4. Hordoffii ulfaa kan ammaa eessatti hordofaa turtee?	1. Hospitaala kanatti 2. Hofpitaala biraatti 3. buufata fayyaatti 4. keellaa fayyaa 5.kanbiraa,addabaasi_____
5. Ulfa ammaa kanaf almeeqa hordoffii ulfaa taasiftee?	1.Altokko 2.Yeroo lama 3.Alsadii 4.Al afur 5.Yeroo afurii ol
6.Yeroo hospitaala kana dhuftu maalin dhuftee	1. Miilaan 2. geejibaan(konkolaataa, bajaajii etc…) 3. Kan biraa, adda baasi _____
7. Hospitaala kana ga'uuf yeroo hagamii sitti fudhate(daqiiqaan ykn sa'aatiin)?	_____
8. Tajaajila argachuuf yeroo hagamii eegdee (daqiiqaan ykn sa'aatiin)?	_____
9. Yeroo hagamiif ogeessa fayyaa wajjiin turtee (sa'aatiin)?	_____

10. Yeroo tajaajila argachuuf egde akkamiin shallagde?	1.baay'ee dhiiraa 2.hamma murtaa'e 3.yeroo gabaabaa 4.hin beeku
11. Tajaajila kanaaf qarshii hagam baastee?_____ yoo hin baasne ta'e gara gaafii 12tti darbi	
12. Waa'ee baasii yaalii kanaa maal jettaa?	1.madalawaa 2.baay'ee 3. hinbeeku
13. Asiin dura garaatti baattee beektaa?	1. Eeyyee 2. Lakkii
14.Yoo deebiin lakk.13 eeyyee ta'e eeyyee ta'e, eessatti deessee?	1. Hospitaalatti 2.buufata fayyaatti 3. manatti
15. Da'umsa duraa sana ga'eetu deessee?	1. eeyyee 2. Lakkii
16. Yoo deebiin lakk.15 lakkii ta'e sabibiinisaa maal turee?	_____
17. Hamma deesse?	_____
18. Hamma garaatti baatte?	_____
19. Dhiiga namaa ni fudhattaa osoo ogeessi fayyaa dhiiga fudha chuu qabdi jedhee si ajajee?	1. Eeyyee 2. Lakkii
20. **Yoo deebiin lakk. 19 lakkii ta'e sabibiin isaa maali ?**	_____

ITTI QUUFINSA MAAMILLI TAJAAJILA IRRATTI QABU

21. Tajaajila sif kennameefi tajaajila argachuu yeroo eegde ilaalchisee itti quufinsa ke akkamiin ibsataa?	1.baay'ee itti quufera 2.itti quufera 3.giddu galeessa 4.itti hin quufne 5.baay'ee itti hin quufne
22. Waa'ee rakkookee fi yaalii siif godhame ilaalchisee ibsa ogeessi fayyaa sif kennetti itti quufinsi kee akkam ture?	1.baay'ee itti quufera 2.itti quufera 3.giddu galeessa 4.itti hin quufne 5.baay'ee itti hin quufne
23.Iftoominaa ogeessa fayyaa si yaale laalchisee itti quufinsi kee akkam turee?	1.baay'ee itti quufera 2.itti quufera 3.giddu galeessa 4.itti hin quufne 5.baay'ee itti hin quufne
24. Yeroo qorannoon sif godhamu ilaalchisee icciitiin ke eegamuu irratti itti quufinsi kee maal ture?	1 .baay'ee itti quufera 2.itti quufera 3.giddu galeessa 4.itti hin quufne 5.baay'ee itti hin quufne
25.Yeroo qorannoon sif godhamu akka namni baraa sin dhageenyeef icciitiin keetti quufteettaa?	1.baay'ee itti quufera 2.itti quufera 3.giddu galeessa 4.itti hin quufne 5.baay'ee itti hin quufne
26.Qulqullina kutaa da'umsaa ilaalchisee itti quufinsa qabdu akkamiin ibsitaa?	1.baay'ee itti quufera 2.itti quufera 3.giddu galeessa 4.itti hin quufne 5.baay'ee itti hin quufne
27. Akkaataa itti ogeessi fayyaa dhukkubbii yeroo da'umsaa sirraa ittisuuf yaalii sif godhe ilaalchisee itti quufinsi ke akkam turee?	1.baay'ee itti quufera 2.itti quufera 3.giddu galeessa 4.itti hin quufne 5.baay'ee itti hin quufne
28. yeroo turtii konsalteeshinii ilaalchisee itti quufinsi kee akkam turee?	1.baay'ee itti quufera 2.itti quufera 3.giddu galeessa 4.itti hin quufne 5.baay'ee itti hin quufne

29.Walitti dhufeenyi si fi ogeessa fayyaa gidduu ture wa'ee rakkoo ke fi dhimmoota ulfa kee ilaalchisee itti quufinsi ke akkam ture?	1.baay'ee itti quufera 2.itti quufera 3.giddu galeessa 4.itti hin quufne 5.baay'ee itti hin quufne
30.waa'ee gosa tajaajilaa fi hospitaalli kun gara fuuldura tajaajila qindoomina da'umsaafi da'umsaan walqabate qulqullina qabu akka kennuf maal yaadda ykn maal jetta?	_____

Sa'aatii itti ragaa funaanun jalqabame_____

mallattoo nama ragaa funaanuu_____

Maqaa to'ataa _____mallattoo_____guyyaa itti fudhate_____

Galatoomaa!!

የተቀነጀ የድንገተኛ የማዋለድ አገልግሎት ህደትን በተመለከተ በሸነን ጊቤ ሆስፒታል ላይ ለሚደረገዉ ጢናት የተዘጋጀ መጠይቅ

የጠያቂዎች መመሪያ፡

እናቶች የተቀናጀ ድንገተኛ የማዋለድ አገልግሎት ወሰደዉ እንደተመለሱ ቅረባቸዉና ዛሬ ስለተሰጣቸዉ አገልግሎት አንድዳንድ ጥያቄዎችን ለመጠየቅ ያላቸዉን ፈቃደኝነት ጠይቅ፤ ቀጥሎም ፈቃደኛ ከሆኑ ያላችሁበት ቦታ ለተገልጋዩዋ ምቹ መሆኑን በማርጋገጥ ጥያቄዎችን ቀጥል፡፡ ከነዝህ እናቶች መካከል ለመጠየቅ ፈቃደኛ የሆኑትን ቢቻ ነዉ መጠየቅ ያለብህ/ሽ፡፡

<u>የተገልጋዮች ፈቃደኝነት መጠየቅያ ፎርም፡፡</u>

ስሜ ----------ይባላል፡፡

እዚህ የምሰራዉ በሸነን ጊቤ ሆስፒታል ላይ **የተቀነጀ የድንገተኛ የማዋለድ**አገልግሎት **ህደት** ላይ በሚደረገዉ ጥናት እንደ መረጃ ሰብሳቢ በመሆን ሲሆን፤ ይህ ጥናት የሚደረገዉ በሸነን ጊቤ ሆስፒታል ለእናቶች **የተቀነጀ የድንገተኛ የማዋለድ** የአገልገሎትና የመረጃ አሰጣጥ ህደት ለመለየት ነዉ፡፡ ከዘህ ጥናት የሚገኝ መረጃ ለህደት ላለዉ**የተቀነጀ የድንገተኛ የማዋለድ** አገልግሎት እንዴት መሰጠት እንደለበት እንድንጠቁም ይረደናል፡፡ እንደ ጥናቱ አካል አድርገን ዛሬ ወደ **ሸነን ጊቤ ሆስፒታል የተቀነጀ የድንገተኛ የማዋለድ** አገልጎሎት የመጡትን እናቶች ስለተሰጣቸዉ አገልግሎት፡ መረጃ፡ በአገልግሎቱ ላይ ስለነበራቸዉ እርካታና እንዳናድ የጤና ተጓዳኝ መጠይቆችን እያደረግን ነዉ፡፡የምናገረገዉ መጠይቅ ያለርስዎ ፈቃድ ለማንም የማይነገር ከመሆኑም ባሻግር እረስዎን ያዩዎት ባለሞያዎችም ቢሆኑ አንዳቸዉም እዚህ ሊገኙ አይችሉም፡፡ ነገር ግን በጥናቱ ላይ የርስዎ ተሳትፎ በፈቃደኝነት ላይ የተመሰረተና በጥናቱ ላይ ላለመሳተፍ ከፈለጉ ጥያቄዎችን እንዳልጠይቅዎ ማስቆም ይቸችላሉ፡፡በጥናታችን ላይ ባይሳተፉ ምንም አይነት የሚደረስብዎ ቅጣት የለም ነገር ግን የርስዎ መሳተፍ ለጥናታችን ከፈተኛ አስተዋፆ አለዉ፡፡ለመሳተፍ ፈቃደኛ ከሆኑ በኋላ እንኳ ሀሳብ መቀየር ቢፈልጉ መሀል ላይ ሊያስቆሙኝና ከጥናቱ ራስዎን ሊያገሉ ይችላሉ፡፡

ጥያቄዎቹን መቀጠል እችላለሁ?

1. አዎ 2. እይደለም

መጠይቁ

የተጀመረበት ሠዓት-_____

1. ተጠናቋል 3. ተቋርጧል

1.የጤና ድርጅቱና የተጠያቂዋ መለያ መረጃዎች

1.የተገልጋዩዋ መለያ ቁጥር----------	
2.መጠይቁ የተደረገበት ቀን_____ ወር _____ዓ.ም _____	
3. የጤና ጣቢያዉ ስም _____	
4. የጤና ጣቢያዉ መለያ ቁጥር _____	

5.የተገልጋዩዋ ዕድሜ _____	
6. የተገልጋዩዋ አድራሻ	ነ. ገጠር 2. ከተማ
7.የተገልጋዩዋ የጋብቻ ሁኔታ	ነ.ያገባች 2. ያላገባች 3. የተፋታች 4. ባሏየሞተባት 5. ሌላ
8.ተገልጋዩዋ ያጠናቀቀችበት የትምህርት ደረጃ	ነ. ምንም ያልተማረች 2. መጻፍና ማንበብ የምትችል 3. አንደኛ ደረጃ 4. ሁለተኛ ደረጃ 5. **ሶስተኛ ደረጃ**
9.አማታዊ ገቢ በድምር (የቤተሰብ አጠቃላይ አመታዊ ገቢ እንጂ የተገልጋዩዋን ብቻ አይደለም)	ነ. <5000 2. 5000-10000 3. >10000
10.የተግልጋዩዋ ሐይማኖት	ነ. ፕሮቴስታንት 2. ኦርቶዶክስ 3. ሙስሊም 4. ካቶሊክ 5. ሌላ
11.ተገልጋዩዋ የምትግባበበት ቋንቋ	ነ. አማርኛ 2. ሀዲዩሳ 3. ካምባቲሳ 4. ሌላ

2. የስነ ተዋልዶ ጠፍ ታሪክ

1.ለመጀመሪያ ጊዜ ነዉ እዝህ ሆስፒታል መጣሺዉ ነ.አዎን 2.አይደለም

2.አይደለም ካልሽ ከዝህኛዉ ጋር ለስንተኛ ጊዜ ነዉ የመጣሽሁ ነ.ሁለተ 2.ሦስተ 4.አራተ 5.ከአራት በላይ

3.የመጣሽበት ሚክንያት ነ.ለ እርግእና ምርመራ 2.ለ ቅድመ ወልድ ከትትል 3. HIV ምርመራ 4.ለመውለድ

4.የት ነበር ቅድመ ወልድ ከትትል ስታደርጊ የነበረዉ ነ.እዝህ ሆስፒታል 2.በ ለላ ሆስፒታል 3.ጤና ኬላ 4.በ ለላ

5.ለዝህ እርግዚና ስንት ጊዜ የቅድመ ወልድ ክትትል አደረክሽ ነ.አንደ 2.ሁለተ 3.ሦስተ 4.አራተ 5. ከአራት በላይ

6.በዝህ ሆስታል ለመታየት በምን ነበር የመጣሽሁ ነ.በእግር 2.በተሽከርካሪ(መክና፣ባጃጅ ወዘተ) 3.ለላ

7.እዝህ ሆስፒታል ለመድረስ ምን ያህል ጊዜ ይፈጅብሻል ----------

8. አገልግሎቱን ለማግኘት ምን ያህል ጊዜ ትጠብቅያለሽ(በደቅቃ ወይም በሰዓት)----------

9. አገልግሎቱን ከምሰጥሽ ባለሙያ ጋር ምን ያህል ጊዜ ትቆያለሽ(በሰዓት)----------

10.የቆየሽበትን ጊዜ ስትገምቺ፣በጣም ረጅም ነዉ፣ሚከኒያታዊ ነዉ፣ወይስ አጭር ነዉ 1.በጣም ረጅም 2.ሚከኒያታዊ 3.አጭር 4.አይታወቅም

11. ዛሬ ስለተደረገልሽ አገልግሎት ና ህኪምና ምን ያክል ገንዘብ ከፈልሽ --------ክፍያ ከለለዉ ወደ ጥያቄ ይለፉ_____

12. 12.ስለህኪምናዉ ና ክፍያዉ ምን ትያለሽ 1.ምንም አይል 2.በጣም ብዙ ነዉ 3.አይታወቅም

13. 13.ከዚህኛዉ እርግዚና በፍት አርግዜሽ ታውቅያለሽ 1.አዎን 2. አይደለም

14. የነ3 ጥያቄ አዎን ካልሽ የት ነበር የወለድሽሁ 1.በሆስፒታል 2.ጤና ጣብያ 3.በቤት

15.በትክክለኛ መውለጃ ጊዜ ነበር የወለድሽሁ 1.አዎን 2. አይደለም

16. 15ኛ ጥያቄሽ አይደለም ከሆነ ሚከንያቱ ምንድነዉ----------

17.የወለድሽሁ_____

18. ያረገዝሽሁ_____

19.በኪምና በለሙያ ትዛዝ ደም ተለግሶልሽ ያውቃልን 1.አዎን 2. አይደለም

20.የነ9ኛ ጥያቄ መልስሽ አዎን ከሆነ ሚከንያቱ ምንድ ነዉ----------

5. በአገልግሎቱ ላይ ያላቸዉ የተገልጋዮች እርካታ

21.በአጠቃላይ የተሰጠዉን የቅድመ ወሊድ አገልግሎት ጥራትን በሚመለከት እርካታሽን እንዴት ትመድብያለሽ?

1. በጣም አረካሁም 2. አልረካሁም 3. ገለልተኛ ነኝ 4.ረክቻለዉ 5.በጣም ረክቻለዉ

22. ስለ ችግሩ ወይም ስለ ሚያስፈልግሽ ህክምና ከባለሞያ የተሰጠዉ ማብራሪያ መጠንን/ስፋትን በሚመለከት እርካታሽን እንዴት ትመድብያለሽ?

1. በጣም አረካሁም 2. አልረካሁም 3. ገለልተኛ ነኝ 4.ረክቻለዉ 5.በጣም

23.የተሰጠሽን የምርመራና የህክምና ጥራትን በሚመለከት እርካታሽን እንዴት ትመድብያለሽ?

1. በጣም አረካሁም 2. አልረካሁም 3. ገለልተኛ ነኝ 4.ረክቻለዉ 5.በጣም

24.በምርመራ ጊዜ በነበረዉ ከሰዎች እይታ የመከለል ሁኔታን በሚመለከት እርካታሽን እንዴት ትመድብያለሽ?

1. በጣም አረካሁም 2. አልረካሁም 3. ገለልተኛ ነኝ 4.ረክቻለዉ 5.በጣም

25.ከባለሙያ ጋራ በነበረዉ የዉይይት ጊዜ ሃሳብሽን ሌላ ሰዉ ሳይሰማ ለማስረዳት የነበረዉን ሁኔታ በሚመለከት እርካታሽን እንዴት ትማድብያለሽ?

1. በጣም አረካሁም 2. አልረካሁም 3. ገለልተኛ ነኝ 4.ረክቻለዉ 5.በጣም

26.የቅድመ ወሊድ አገልግሎት ክፍል ንጽህናን በሚመለከት እርካታሽን እንዴት ትመድብያለሽ?

ነ. በጣም አረካሁም 2. አልረካሁም 3. ገለልተኛ ነኝ 4.ረክቻለዉ 5.በጣም

27.የጤና ባለሞያዉን ከማግኘትሽ በፊት በጤና ድርጅቱ የጠበቅሽዉን የወረፋ ሰዓት በሚመለከት እርካታሽን እንዴት ትመድብያለሽ?

ነ. በጣም አረካሁም 2. አልረካሁም 3. ገለልተኛ ነኝ 4.ረክቻለዉ 5.በጣም

28.ከጤና ባለሞያ *ጋራ* በነበረዉን የዉይይት የሰዓት ቆይታን በሚመለከት ያለሽን እርካታ እንዴት ትመድብያሽ?

ነ. በጣም አረካሁም 2. አልረካሁም 3. ገለልተኛ ነኝ 4.ረክቻለዉ 5.በጣም

29.ስለ እርግዝናሽ ችግርም ሆነ ስጋት ከጤና ባለሞያ *ጋራ* በቀላሉ ለመግባበት/ለመረዳዳት የነበረዉን ሁኔታ በሚመለከት እርካታሽን እንዴት ትመድብያለሽ

ነ. በጣም አረካሁም 2. አልረካሁም 3. ገለልተኛ ነኝ 4.ረክቻለዉ 5.በጣም

30.ዛሬ ከባለሙያ *ጋራ* ባደርግሽዉ ወይይትም ሆነ የምርመራ ጊዜ በባለሙያዉ/ዋ ስላንች ያወቃቸዉን/ያወቀቻቻዉን ነገሮች በምሰጠር ስለመያዛቸዉ እርካታሽን እንዴት ትመድብያለሽ፡፡

ነ. በጣም አረካሁም 2. አልረካሁም 3. ገለልተኛ ነኝ 4.ረክቻለዉ 5.በጣም

3ነ ማረፊያ ቦታን በሚመለከት ማለትም፤ ከፀሃይ፤ ከነፋስና ከወርጭ ለመከለል ባለዉ ምቾት እርካታሽን እንዴት ትምድብያለሽ

ነ. በጣም አረካሁም 2. አልረካሁም 3. ገለልተኛ ነኝ 4.ረክቻለዉ 5.በጣም

32. ጤና ድርጅቱ ጥራት ያለዉን የቅድመ ወሊድ አገልጎሎት መስጠት እንዲችል ማሻሻል አለበት የምትዩዉ ነገር ካለሽ አብራርልን:

አመሰግናለሁ!!

የተጠናቀቀበት ሠዓት----------

የመረጃ ሰብሳቢዉ ስም ፍርማ

ቀን

የሱፐርቫይዘሩ ስም ፍርማ

ቀን

Consent form for care provider observation

My name is _____I am PI and I collect a data for evaluation of CEmOC service in Shenan Gibe Hospital and I am here to observe the clinical sessions at this unit. This is part of the overall program evaluation and it will help to improve the CEmOC Service delivered at this Hospital. The observation will be conducted while the health care provider delivering services. All findings of the observation will be kept confidential and shared only the finding between evaluation team. Further we will ensure that any information we include in our report does not identify you as the respondent. Remember, everything will be undertaken with your agreement and your willingness will be respected.

Are you willing to participate in this observation?

A. Yes B. No.

If Yes signature _____

Consent form for client observation

Thank you for visiting our Hospital for receiving CEmOC services. Today I will provide you services. I am PI and I collect data on evaluation of CEmOC service to observe the clinical process and provide additional support which will help me to provide you better services. During the overall process your information will be kept confidential as previous and no one will identify you as part of the observation or respondent. Remember, everything will be undertaken based on your will.

Do you agree to be observed?

A. Yes B. No

If yes signature _____

Is the observation A. completed B. refused

2 A. Observation check list prepared to measure the compliance of health care professionals for evaluating implementation of comprehensive emergency obstetric care service in Shenan Gibe Hospital, Jimma town administrative, south west Ethiopia, 2017

Health facility Name_____

Client identification number_____

CEmOC giver profession and assigned code_____

Diagnosis_____

Procedure_____

Observation starting time_____ observation end time_____

	PLEASE WRITE ANYTHING NOT DONE FROM THE LISTs		
II.	**provider client interaction and clinical observation**	Yes	NO
1	Check for the availability of washing facilities (water, soap, towel)		
2	Greets and calls client by her name and introduce her /himself/		
3	Reviews patient record before starting the procedure and check about previous pregnancy, number, and outcome		
4	Provider used partograph to follow labor		
5	Take pulse rate, blood pressure , temperature and RR		
6	Provider document information on partograph and registers		
7	Do neonatal resuscitation performed based on algorithm		
8	informs mothers about her and fetus's health condition		
9	Informs mothers about any complication and management		
10	Records all findings, assessments, diagnosis ,and care with clients		
11	The care provider referred the client those classified as specialized care needed to higher facility? Or consult the senior		
III.	**LABORATORY INVESTIGATIONS REQUEST OBSERVATION**		
12	Coagulapathy test (platelet counts)		
13	HCG test		
14	Urine analysis		
15	Serum blood sugar test		

16	HGB/HCT		
17	X-match		
18	Blood group and Rh factor		
19	Other tests (explain their appropriateness)		

Name and signature of observer_____

B.Check list for operation team observation

Health facility Name_____

Client identification number_____

CEmOC giver profession and assigned code_____

Diagnosis_____

Procedure_____

Observation starting time_____ observation end time_____

Before induction of anesthesia SIGN IN	Yes	No
1. Has the patient confirmed his/her identity, site, procedure, and consent?		
2. Is the site marked?		
3. is the anesthesia machine and medication check complete?		
4. Is the pulse oximeter on the patient and functioning?		
5. Does the patient have a: Known allergy?		
6. Difficult airway or aspiration risk?		
7. If yes equipment/assistance available		
8. Risk of >500ml blood loss (7ml/kg in children)?		
9. If Yes two IVs/central access and fluids planned?		
Before skin incision Time out	Yes	No
10. Confirm all team members have introduced themselves by name and role?		

11. Confirm the patient's name, procedure, and where the incision will be made.		
12. Has antibiotic prophylaxis been given with in the last 60 minutes?		
Anticipated Critical Events **To Surgeon:**		
11. What are the critical or non-routine steps? _____		
12. How long will the case take? _____		
13. What is the anticipated blood loss? _____		
To Anesthetist:		
14. Are there any patient-specific concerns? _____		
To Nursing Team:		
15. Has sterility (including indicator results) been confirmed?		
16. Are there equipment issues or any concerns?		
Before the patient leave out the operation room **Sign out**		
17. Nurse Verbally Confirms: The name of the procedure, Completion of instrument, sponge and needle counts, Specimen labeling (read specimen labels aloud, including patient name) Whether there are any equipment problems to be addressed?		
To Surgeon, Anesthetist and Nurse:		
18. What are the key concerns for recovery and management of this patient? _____		

3. Resource inventory tool to measure the implementation of comprehensive emergency obstetric care program in Shenan Gibe Hospital, Jimma town administrative, south west Ethiopia, 2017

Consent form for resource Inventory

My name is _____I am a principal evaluator for this evaluation of CEmOC service in Shenan Gibe Hospital and I am here to conduct resource inventory at this Hospital. This is part of the overall program evaluation and it will help to improve the CEmOC Service delivered at this Hospital the inventory will be conducted all resource needed to implement CEmOC service. All findings of the inventory will be kept confidential and shared only the finding between evaluation team. Further we will ensure that any information we include in our report does not identify you as the respondent Remember, everything will be undertaken with your agreement and your willingness will be respected.

Are you willing to participate?

A. Yes B. No.

If Yes signature _____

Name of Hospital _____

Head of the Hospital _____

Coordinator of CEmOC unit _____

Training status of health professional on CEmOC

	Category	Their numbers	Trained	Not trained	Remark
	Surgeon				
	Gynecologist				
	General practitioner (GP)				
	IESO				

	Anesthetist				
	Nurse anesthetist				
	Professional nurse				
	Clinical nurse				
	Professional midwife				
	Clinical midwife				
	Pharmacist				
	Lab. Technician				
	Medical lab. Technician				

3.5 General infrastructure of the facility

No	**Questions**	**Availability**		**Functionality**		**Remark**
3.5.1	Interviewer: Observe and interview the conditions and infrastructure in the facility and mark if it has the following.	**Yes**	**No**	**Yes**	**No**	
	1 water source					
	2 Electricity					
	3 Working latrines/toilets for clients					
	4. Vehicles: car. Motor, ambulance					
	5. Clean facilities (e.g., the floors are swept, there is no dust in the desks)					
	6. Enough chairs or benches in waiting areas					
	7. incinerator					
	8. computer					

3.6 Resources showing for CEmOC as ageneral

3.6.1	Materials and equipment required for hand washing	**Availability**	**Functionality**	**If not available**

		Yes	**No**	**Yes**	**No**	**Or not function for how long**
	1Clean water supply					
	2Soap					
	3Nail brush or stick					
	4Clean towels					
3.6.2	Materials and equipment required to provide CEmOC services in working order:	**Yes**	**No**	**Yes**	**No**	
	1.Spot light source (flashlight or examination light)					
	2.Examination couch for gynecological exam					
	3.Adults weighing scale					
	4. Blood pressure apparatus					
	5. stethoscopes					
	6. fethoscope					
	7. Ultrasound					
	8. MVA set					
	9. forceps					
	10.Full Materials for neonatal resuscitation					
	11. functionality of operation theatre					
	12. delivery coach					
3.6.3	Materials for record keeping:	Yes	No	Yes	No	
	1.C/S document					
	2. labor ward document					

	3. CEmOC register book					
	4. reporting formats					
3.6.4	Infection prevention					
	Is the following infection prevention equipment available in the place where CEmOC service conducted?	Yes	NO	Yes	NO	
	1.Disposable syringes(auto disposable or standard disposable 5cc)					
	2.Vacutainers					
	3.Sharp disposable container					
	4.sterlization equipment					
	5.storage and disposal of sharps and infectious wastes					
	6. Disinfectants					
3.6.5	Drugs and supplies for CEmOC	Yes	No	Yes	No	**Remark**
	1) Oxytocin					
	2) Ergometrine					
	3) magnesium sulphate					
	4)diazem					
	4) anti-hypertensive drugs					
	5) parenteral antibiotics (ampicillin ,metronidazole and gentamycin)					
	6) Iv fluids					

6.7 Resource of comprehensive emergency obstetric care with respect to the area

Gate emergency room	Availability		Functionality		Remark
	Yes	No	Yes	No	
Wheel chair, trolley or stretcher					
Person to transfer patient					
Emergency Evaluation Area					
Emergency drugs & IV solutions					
BP apparatus, stethoscope,					
Thermometer					
Sterile gloves and disposable					
Oxygen cylinder w. facemask, cylinder carrier and key					
Examination table with privacy					
Waiting room with seats for relatives					
Labor/Delivery Room	Yes	No	Yes	No	Remark
Sufficient sterilized delivery sets					
Sterilized gloves, gowns, and gauze					
Clean linen sets					
Sterilized forceps set and Vacuum extractor					
Laceration repair pack					
Suction apparatus with suction tube					
Oxygen cylinder w. facemask, cylinder carrier and key					
Light					
Emergency drugs (within expiration limits)					
Antiseptics (alcohol,povidon and iodine)					
BP apparatus, stethoscope, thermometer, IV fluids, stands, needles and cannulae					
Delivery table with lithotomy stirrups					
Baby weighing scale					

Ambu bag for newborn					
Bucket for decontamination					
Sharps disposal container					
Change/Scrub Room	Yes	No	Yes	No	Remark
OT gowns for changing from street clothes					
24-hour running water Wash basin with elbow or knee tap					
Scrub brushes and soap					
Caps and masks					
OT shoes/shoe covers					
Wall clock					
Operation Theatre	Yes	No	Yes	No	Remark
Sufficient sets of sterilized cesarean delivery instruments					
Sterilized suction tubing and nozzle					
OT lamp with spare bulbs					
Suction machine					
Emergency drugs, with list showing quantity and expiration dates					
Resuscitator/ambu bag					
Laryngoscope with battery cells and spare bulbs					
Endotracheal tubes Anesthesia machine with spare cylinders of oxygen and nitrous oxide					
Anesthetic agents, with list showing quantity					
Spinal needles, epidural kits Antiseptics for skin preparation					
Suture materials, with list showing quantity					
IV stands, fluids, needles and cannulas					

BP apparatus, stethoscope, thermometer					
Sterilized gloves, gowns, gauze					
Sterilized linen packs					
Stretcher or trolley					
Obstetric Wards	Yes	No	Yes	No	Remark
Emergency drugs					
BP apparatus, stethoscope, thermometer					
IV stands, fluids, needles and cannulae					
Oxygen cylinder with facemask, cylinder carrier and key					
Sharps disposal containers/rubbish bins					
Beds with mattress covered with clean rubber sheet, bed sheets and pillow Side table or bedside locker					
Bench or chair for attendant					
Laboratory/Blood Bank	Yes	No	Yes	No	Remark
Blood type, cross matching and reagents for screening syphilis, hepatitis, HIV and others					
Blood collection items and bags					
Centrifuge and test tubes					
Microscope					
Register for recording events					
Refrigerator					
Autoclave Room	Yes	No	Yes	No	Remark
Autoclave machine with temperature and pressure gauges					
Supply of indicator paper					
Reliable and safe electric connection					
Table with marked areas indicating sterile and non-sterile areas					

4. Document review checklist for CEmOC service from October 1/10/16 to march 30/3/017

Questions	**Coding categories**		**Go to/remark**
Is the following information recorded in the CEmOC register book?	Information is recorded?		
	Yes	No	
1 Client's name			
2 Date of admission			
3 Diagnosis			
4 procedure			
5 post procedure counseling			
6.Whether client has received HIV/AIDS counseling			
7 Whether client has been tested for HIV/AIDS			
10 symptom and sign of complication			
11. birth out come			
12. information related to referral if appropriate			
13.Stock out balance			

Availability and functionality of the nine signal function in the past six months	Number	Percent	**Remark**
14.Parenteral antibiotics			
15.Parenteral uterotonic			
16.Parenteral anticonvulsant			
17. Manual removal of placenta			
18.Removal of retained products			
19.Assisted vaginal delivery			
20.Neonatal resuscitation			
21.Blood transfusion			
22.Surgery **c/s**			

Consent form for key informant

My name is _____ I am a principal investigator for evaluation of comprehensive emergency obstetric care service at Shenan Gibe Hospital. This study conducted to see what look likes the implementation of CEmOC service and the finding of evaluation helps for program improvement. Your information highly support our evaluation process and mainly for program improvement. All findings of the interview will be kept confidential. The finding shared only with evaluation team. Further we will ensure that any information we include in our report does not identify you as the respondent. If you choose not to participate in our study you will not penalized in any way but your participation has great contribution for the study if you accept to participate and you change your opinion later. You can also ask me to interrupt the interview whenever you went.

Do you agree? A. Yes B. No

If yes signature _____

The interview A. completed B. refused

Interview Guide For In-depth interview

A. For CEO the hospital

1.How do you explain the managerial role of this Hospital regarding to CEmOC? (probe, what is your contribution for CEmOC service improvement)

_____

_____

2. Does the health institution have specific plan document for CEmOC? If not, why? (Probe, focus area of plan, supported by budget, participant during planning process)

_____

_____

3. How do you explain the allocation of budget for CEmOC? (Probe, based on what criteria)

_____

_____

4. Do you think you have adequate trained Human power to implement CEmOC in this health facility? If not why? (Probe, at what ratio)

_____

_____

5. Do you have integrated supportive supervision team? If yes what is the main activities If No why? (Probe, they have annual plan, work flow, strength and weakness)

_____

_____

6. What are your plans to improve the capacity of health care providers? (Probe, training, education and incentives)

_____

_____

7. How do you manage resources needed to implement CEmOC service in this Hospital? (Probe, how you avail, prevent stoke out and manage resource wastage)

_____

_____

_____

8. What is the area that needs improvement to deliver quality CEmOC care service in this hospital? (Probe, regarding availability essential resources, health care provider updated knowledge and motivation and accommodation of the services for the client interest?)

_____

_____

Thank you for your time!

B**. For medical director**

1.As a medical director how do you explain your role regarding CEmOC program?(probe in term of, availability, functionality)

_____

2. Is there clear job description for all staff in this hospital? If not, why?

_____

3.How do you think the adequacy of resources for CEmOC at your Hospital within the last six months?_____

_____

4. Capacity building and retention mechanism of health care professionals? (Probe)

- Schedule and contents of supervision as per the plan of zone or town Administration health office

  _____

- Training of health care providers and the content of training and the habit of sharing training materials? _____
- Educational preparation of health care providers at CEmOC and senior staff consultation experience? _____
- Has any trained professionals turn over within the last two years? If yes, what do you think the reason? _____

5. Have the hospital ever faced shortage or lack of materials for reporting and recording? (Probe, How and why?) _____

_____

6. How your Hospital is managing it's stoke for CEmOC?(probe, availability of drugs, functionality instruments and reagents)

_____

7. What is the area that needs improvement in this town hospital to provide quality CEmOC?(probe Regarding availability essential resources, health care provider updated knowledge and motivation and acceptability of the services for the client interest)?

_____

8. Did you face a challenge during CEmOC program implementation? (Probe, what was the challenge, is it on perspective of health professional, equipment, guide line supply, drug)

_____

C. For IESO of Shenan Gibe Hospital

1. As un IESO professional what is your role to handle comprehensive emergency obstetric care?

_____

2. Are there any problem to solve the nine signal function of the CEmOC? If yes what was the problem (probe, do you have blood bank, ICU, chain of referral, necessary equipment)

_____

_____

C. Labor and maternity coordinator

1. Does the unit have specific plan document CEmOC? If not, why? (probe, what are your contribution to achieve this plan, content of the plan) _____
2. How do you handle the documentation quality in the unit?_____
3. Do all CEmOC signal function implemented in the past six months?(are any challenges to implement,

   _____

E. For MCH coordinator of Jimma town administrative health office

1. As MCH coordinator of Jimma town administrative health office what is your role in implementation of CEmOC service? (Probe, how do you coordinate, what was your cooperation with Shenan Gibe hospital?) _____

2. How was your reporting system? (probe, what was the chain of command, do you receive report from ShenannGibe?)_____

3. Are there any challenge to deliver quality comprehensive emergency obstetric care service? If yes (probe, what was the challenge, availability, supervision, reporting system) _____

4. Does the unit have specific plan document for CEmOC? If not, why? (probe, what are your contribution to achieve this plan) _____

5. How do you manage data quality and in what way use information for service improvement?