

Process evaluation of responsiveness of delivery service in Jimma university medical center, Oromia region, south west, Ethiopia

An Evaluation thesis to be Submitted to Jimma University, Institute of health, Faculty of public health, Department of health policy and management, Health monitoring and evaluation coordinating unit for the partial fulfillment of degree of masters of science in health monitoring and evaluation

Principal Evaluator

By Gezu Girma

Jimma, Ethiopia

2022

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Abstract

Background: Health system responsiveness is related to the non-monetary, non-clinical quality of care that reflects respect for human dignity and interpersonal aspects of the care process. Obstetric violence and childbirth mistreatment are global problems, but the worst form occurs in low-income countries such as sub-Saharan Africa. Responsiveness is a challenging situation that needs early identification of the specific gaps to tackle. There was paucity or lack of published studies in the topic, disrespect and abuse in maternal care practiced repeatedly in Ethiopia. In JUMC, 91.7% of maternal care service was in disrespect and abusive manner.

Objectives: To evaluate responsiveness of labor and delivery service at Jimma university medical center, 2021

Methods: A single-case study design was used for this study, using mixed methods sequentially. In this evaluation, availability with 17 and responsiveness with 24 indicators were used. A quantitative data collection with a sample size of 422 using consecutive method was conducted from May 09–June 02, 2021, and 15 purposefully selected KII for qualitative data. Data entry was done using Epi Data version 4.6.02 and SPSS version 25 for analysis of quantitative data, whereas thematic analysis for qualitative data. Multiple linear regression analysis was used to check the association of the dependent variable with independent variables.

Result: A total of 422 respondents participated in this study, with a response rate of 100%. The availability of resources and responsiveness of delivery service in the maternity unit of JUMC was 84.4% and 60.52 %, respectively. Stethoscope, thermometer and guidelines were not available. Some drugs and supplies are frequently interrupted during the evaluation period. One care provider assigned to more than six clients per shift in the maternity unit of JUMC. Care providers' personal behavior, work overload, and lack of motivation like training hinders them from giving responsive delivery service. At $p\text{-value} < 0.05$ at 95%CI, residency, occupation, average monthly income, and mode of current delivery were factors associated with the responsiveness of delivery service.

Conclusion and recommendation: The overall responsiveness of delivery service was good in JUMC. Furthermore, to give responsive delivery service, JUMC should recruit more healthcare providers, avail all supplies daily, and better to train healthcare providers.

Key words: Delivery service, responsiveness, Jimma University, Jimma, Ethiopia

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Acronyms/ abbreviations

| | |
|---------------|--|
| CEmONC | Comprehensive emergency obstetrics and neonatal care |
| CRC | Compassionate respectful and caring |
| C/S | Caserean section |
| DHS | Demographic health survey |
| EDHS | Ethiopia demographic and health survey |
| EHRIG | Ethiopia hospital reform implementation guideline |
| FMOH | Federal ministry of health |
| HR | Heart rate |
| HCP | Health care provider |
| JUMC | Jimma university medical center |
| KII | Key informant interview |
| MDG | Millennium development goal |
| MI | Medical interns |
| MMR | Maternal mortality rate |
| NASG | Non-pneumatic anti-shock garment |
| OR | Operation theatre room |
| ORHB | Oromia region health bureau |
| RPS | Responsiveness percentages score |
| SDG | Sustainable development goal |
| SOP | Standard operating procedures |
| UHC | Universal health coverage |

Chapter 1: Introduction

1.1: Background

Maternal mortality is a global health problem that concerns all over the world. Between 2000 and 2017, maternal mortality fell by 38% from 342 to 211 per 100,000 (2.9% annually) but less than 6.4% of annual plan of SDG. In sub-Saharan Africa, only 42% of pregnant women got accessible and efficient birth care by qualified attendant at the health facilities (1–3). As UN estimates, maternal mortality decreased by 72% since 1990, with a 5% annual reduction rate and 412 per 100,000 live births report in 2016 EDHS. Nearly 65% of all hospitals have a daily delivery service as 2014 Ethiopia SPA Plus Survey report (4–6). Reducing maternal mortality depends on ensuring women right to quality care during all delivery services. Ethiopia has made significant contributions to achieve 2030 Sustainable Development goal. But, improving maternal health still needs more attention with cooperation and coordination of stakeholders (7,8).

Access to health care has improved significantly and maternal services have been made free, but facility-based deliveries account 26% and only 28% by qualified birth attendants. According to mini-DHS 2019, facility-based childbirth accounts for 48% of all births and 50% births were by qualified birth attendants (5,9). JUMC is teaching and referral hospital in the south west of Ethiopia providing services to almost 6,000 (347-500 deliveries/month) from the catchment area (10).

The term responsiveness emerges during the World Health Report in 2000 as comparatively new and one of an intrinsic goal of health system in meeting the of needs of people to their legitimate expectation. Health system responsiveness is related to non-monetary & non-clinical aspect which is integrated to service quality of care that reflects respect for human dignity and interpersonal aspects of the care process (11).

Responsive care is not option and luxury rather it is universal rights of childbearing women which states every woman has the right to be treated with dignity, compassionated respectful care and receive assistance when experiencing pain or discomfort and no one is allowed to physically hurt, force, detain, humiliate, verbally abuse, and discriminate against, mothers and newborn (12). Many women experience disrespectful and abusive treatment during childbirth in facilities worldwide. Such treatment not only violates the

rights of women to respectful care, but can also threaten their rights to life, health, bodily integrity, and freedom from discrimination(13).

As study done in 28 health facilities of Ethiopia in 2017 shows, there was mistreatment of women during labor and delivery defined as verbal abuse (8%), physical abuse (9%), violation of privacy (17%) and abandonment or being left alone (19%). Disrespect and abuse of women during institutional childbirth services is one of the deterrents to utilization of maternity care services in Ethiopia and other low- and middle-income countries(14).

Women's disrespect and abuse are increasingly recognized during labor and delivery as a violation of the rights of a woman and a deterrent to the use of life-saving, facility-based labor and delivery services. Concerns were raised that this low use might contribute to women's perceptions of poor quality of care and fear of mistreatment which is repeatedly practiced in Ethiopia (15,16).

As the study done in Wolaita zone on pre-ART and ART treatment indicates, the health facilities were poor in the realms of autonomy, preference, focus and services, while the overall responsiveness percentage score (RPS) disguised the shortcomings and strengths and showed strong overall results(17). As study conducted in public health facility of north Gondor, prevalence of compassionate, respectful maternal care was 52.5%. The CRC initiatives implemented during HSTP-I but didn't progress as expected(18,19).

The overall disrespect and abuse during delivery service was common. Study done in Bahir Dar shows, the prevalence of disrespect and abuse during facility delivery was 43%. Being from rural, having complications during delivery and birth through caesarian section were more likely to be exposed to disrespect and abuse than other women(20,21).

The study finding in 2019 in JUMC showed that overall prevalence of disrespect and abuse during delivery service was 91.7%. There were gaps found that health providers didn't keep women right to information, informed consent, choice/preference, periodic update on progress of labor, self introduction before any procedure and encourages mothers to ask questions and also study conducted Harar hospital, about 62% of women participating in the study didn't get respectful maternal care(22,23).

1.2: Statement of Problem

Obstetric violence and childbirth mistreatment is a global problem, but the worst form occurs in low-income countries such as sub-Saharan Africa(24). In Ethiopia, there are different health professionals working with great dedication but, significant number of health professionals sees the patients/clients as case and they lack respect for clients and family which result as the major complaint. The disrespect and abusive of care during childbirth is practiced repeatedly in Ethiopia(25,26)

Ethiopia HSTP-I launched compassionate, respectful and caring service by health workers which is an emerging area and different movement created around it to improve service for better trust and uptake of health care given but not achieved as expected. One of the current HSTP-II focus area is improving health system responsiveness in all health care services which needs early identification of gaps and intervention(7).

The aim of every health system is not only to boost the public's health status, but also to ensure a satisfying service for people who engage with the system. The responsiveness aspect shows extent in which the health system meets the needs of the community for non-health aspects of the system(27). Unskilled birth attendance is considered as one of the main causes of high maternal mortality in low-income countries, as most obstetric complications occur around the time of delivery and cannot be predicted (28). Access to quality maternal health services is regarded as one of the key factors that could help reduce maternal and neonatal mortality(29).

Findings shows that during labor and childbirth, both health care providers and patients experience regular physical and verbal harassment as well as non-consented care. Providers claim that much violence is accidental and stems from treatment system failures or from medical need. Although health care professionals have shown strong fundamental understanding of confidentiality, anonymity, and agreement, there is largely little instruction on the concepts of responsive and supportive care. Clients responses show that women are mindful of the abuse of their rights and avoid facilities with a reputation for inadequate treatment(30).

One of the services of Jimma University Medical Center is that the delivery service for mothers comes to the hospital by referral and emergency entry, in which the hospital plays

its role in fulfilling the national health sector transformation plan II to minimize the pregnancy-related maternal mortality rate by supplying qualified delivery attendants with quality service. However, increasing institutional delivery of quality care by incorporating the non clinical aspect of care is mandatory to minimize maternal mortality.

Even though, Jimma University Medical Center is working hard to deliver quality health services in different units using multidisciplinary interaction within the health system, responsiveness is challenging situation which needs early identification of the specific gaps to tackle the gaps noticed. The interest of stakeholders gets first priority in knowing the responsiveness level of delivery services in Jimma University Medical Center. As identified during evaluability assessment (EA) work in JUMC delivery unit, there are shortage of midwiferies which can affect both the clinical and non-clinical aspect of service given for mothers coming for delivery in the unit.

Specifically in the study hospital, 91.7% of maternal care service was in disrespect and abuse manner(22). The study conducted in the study area didn't focus on all dimension of responsiveness and conducted before start of HSTP II. In addition, up to researcher knowledge there is no study done on availability of resources in JUMC, and responsiveness.

1.3: Significance of an evaluation

Evaluation of delivery service responsiveness has predominant importance in providing information for services provision and improvement. According to health sector transformation plan II, one of the national goal in 2024/2025 are to reduce maternal mortality from 401 to 279(7).

The Jimma University Medical Center Delivery Service Evaluation yielded an important finding regarding resource availability and delivery service responsiveness. This evaluation will use for evidence-based decision making for both stakeholders and service providers to inhance the non-clinical aspect of the healthcare system in service delivery to play its role in reducing maternal mortality. The results of this study will help hospital managers improve the quality of health care services at the hospital level by identifying gaps in client-provider interaction, resource allocation and training.

This study makes it possible to generate relevant information on the delivery service in terms of resource availability and responsiveness to the services received. The results will be useful to learn about gaps identified during provider interactions with clients during service delivery to improve the client-provider relationship. For the population, this will contribute to improving the clients experience and satisfaction in the field of non-clinical aspects. In addition, this study serves as a basis for further research related to the subject.

Chapter 2: Description of the program

2.1: Stage of program development

In late 19th century, foreign nurses were practicing in Ethiopia health care delivery system. Menelik II hospital was built for first time in 1909 in Ethiopia and later different hospitals were built in different places under Imperial Hailesilassie. The only midwives mission school was found in Ertrea (the former part of Ethiopia) before the occupation of Italy (31). Jimma University medical center first established during the invasion of Italy in 1930 E.C to give service for Italian soldiers and later after they left the country, it starts giving health care service for the public under Hailesillase I government.

Currently, the hospital provides health care services in its different departments/units of which the department of Obstetrics and Gynecology is the one in which all ranges of women's' health care services are provided both as out and in-patient subunits and for all clients related to reproductive health.

There are a total of 120 beds in the newly built Jimma University Medical Center for obstetrics and gynecology in-patient services where gynecologic health care of different ranges and in-patient management of all cases of pregnancies (with/without problems), labor and all types of deliveries and post-partum cares are provided. From 120 beds, 80 beds are used in maternal care unit. The annual deliveries of all types of delivery modes conducted in the unit are about 5791 deliveries in 2012 E.C(32,33).

So, the delivery service in Jimma University medical center passes many years in giving child birth service for the population of south west Ethiopia, South Sudan and any emergency obstetrics care needed starting from the establishment of the hospital beginning which makes the service to be evaluable.

2.2: Stakeholders of the program

Stakeholders are key players in the health sector and their analysis is crucial to the success of the health service delivery. As identified during evaluability assessment, the stakeholders involved in childbirth service in the Jimma University medical center. The four standards of evaluation utility, feasibility, propriety and accuracy were considered and stakeholders were prioritized and communicated based on credible data they given for the evaluation and responsible for daily implementation of the activities. The table below shows the stakeholders analysis of the labor and delivery service of Jimma university medical center.

Table 1: *The stakeholders' analysis of Jimma university medical center delivery service, Jimma, 2021*

| Stakeholders | Role in the service | Interest on evaluation | Role in evaluation | Communication strategies | Level of importance |
|----------------------------------|---|--|--|-----------------------------------|---------------------|
| FMOH | Supportive supervision and closely monitoring Capacity building, planning Resource allocation | To use result for planning To support service, to use Finding for experience share | Describing the program | Telephone, email | High |
| JUMC | Closely monitoring the clinical aspects of service, availing equipment and supplies | For capacity building, use results for planning To learn from practice | Sources of data Developing evaluation questions and indicators Judgment parameter | Face to face Formal letter | High |
| JU obstetrics & gynecology dept. | Giving service of childbirths Training of competent professionals | Overall service gap identification for capacity building | Source of data, user of evaluation result to improve delivery service, developing EQ, indicators | Face to face interview, telephone | High |

| | | | | | |
|---|--|---|---|-----------------------------------|--------|
| Nursing and midwifery school | Met national target by training of competent professionals | Overall service gap identification, capacity building | Source of data, user of evaluation result to improve delivery service, develop EQ, indicators | Face to face interview, telephone | High |
| Maternity unit head | Monitoring service in labor and delivery unit | Identification gaps, strengths, improvement of service & communication, to improve their practice | Source of data, involving in developing EQ, indicators, setting Judgment parameter | Face to face interview | Medium |
| Health care providers in maternity unit | Giving childbirth service in the hospital | To identify gaps and strength on their behaviors to improve their practice | As source of data, involving in developing evaluation Question, setting Judgment parameter | Face to face interview | Medium |
| JUMC Pharmacy unit | Supplying medical equipment and medications | Overall identification gaps in inventory | Source of data involving in developing evaluation Question, setting Judgment parameter | Face to face interview | High |
| Clients come for delivery services | Service users | Getting compassionate respectful delivery service | Source of data | Face to face interview | Low |

- Low: stakeholders who have little or no influence on evaluation finding
- Medium: stakeholders who have somewhat influence on evaluation finding for implementation
- High: stakeholders who have influence on evaluation result and delivery service implementation

2.3: Program goal and objectives

The delivery service at Jimma university medical center is expected to improve quality of service and it is expected to contribute for the reduction of maternal and neonatal morbidity and mortality due to infections, obstructions of labor and other post-natal complications.

Program goal: To contribute for reduction of maternal and neonatal morbidity and mortality

General objective: To provide quality and responsive delivery service to women in need of the service

Specific objectives

1. To access quality and up to date female reproductive organ cancer screening and treatment services in 2021
2. To decrease institutional neonatal death within 24 hours from 11.8 to 0% in 2021
3. To contribute to reduction of maternal mortality from 0.5% to 0.25% 2021
4. To provide quality antenatal, labor and delivery and postnatal service in 2021
5. To develop compassionate, respectful caring ability among staff of the department in 2021
6. To increase customer satisfaction from 8.5% to 16.3% in 2021
7. To produce competent, compassionate, respectful and caring health professionals in 2021
8. To develop &/or implement evidence-based new technologies for clinical and support services as soon as possible in 2021
9. To enhance the culture of undertaking health problem solving researches by the staff and publishing on reputable national and international journals in 2021
10. To improve staff clinical skill and practice via in-service training in 2021
11. To improve staff satisfaction from 60.3% to 75% in 2021
12. To introduce and undertake need based sub-specialty training and fellowships in 2021
13. To integrate and maximally utilize information communication technology for documentation, patient care and treatment in 2021
14. To minimize caesarean section from 31% to 25% in JUMC in 2021

2.4: Major strategies of delivery services

To achieve the above objectives, different major strategies are used.

Team based care (TBC): Provision of orientation for all nursing staffs lobbying hospital higher officials' budget allocation and/or duplication of formats and training by contextualization and rearrangement of development teams. Also, it needs continuous discussion and coaching Creating discussion forums implementing reward mechanisms.

Good governance: Creating interdisciplinary understanding and planning in advance and communicate to concerned body on distribution of medical equipment and supplies, developing and approving SOP was needed. Provision of effective communication skills training and ensuring professional accountability & responsibility through provision of refreshment training on principle of good governance and nursing ethics was required.

Emergency service: Availing medical equipment as necessary using different means, developing and approving SOP for all professions working on childbirth service, implementing and monitoring supply management system as per the protocol & ensuring professional accountability & responsibility discussing with clinical department to provide timely emergency service creating discussion forums, implementing staff control and monitoring appropriately.

Training: Discussing with FMOH, OHB, Jimma University higher and other stake holders to channel collaborative partners to the hospital developing and submitting need-based training to concerned Bodies. Creating awareness on the importance of CPD for staff.

Action research: Lobbying for assigning research coordinator with budget. Provision of research skill training in collaboration with the institute of health and facilitating service staff participation on research activities discussing with the institute research and publication office on strategic research theme to be focused on hospital operation.

Monitoring and coordination: there were strict supervision schedule, establishing well designed reporting and feedback mechanism and strengthening health information management system. There was discussion with the health institute research and publication office on research dissemination strategy monitoring the research output.

2.5: Delivery service activities and resources

For the delivery service success, resources are mandatory to achieve intended objectives and goal stated not only in the Jimma University medical center, but, also at all level of service stakeholders.

Inputs

- ✓ Human resources and financial resources
- ✓ Guidelines and SOP
- ✓ Medical equipments used for follow up of babies & mothers and delivery service provision.
- ✓ Materials used for labor and fetus condition follow up like partograph, fetoscopes, blood pressure apparatus, stethoscopes and thermometer
- ✓ Infrastructures (beds with accessories, clean and safe delivery rooms, labor and postnatal rooms, sustainable water supply, electricity, clean toilets and shower rooms)
- ✓ Different drugs which can be used in maternity unit
- ✓ Delivery registration books, recording, reporting formats and partograph formats
- ✓ Supervision checklist

Activities

- ✚ Provide training for health professionals on compassionate, respectful & caring and comprehensive emergency obstetrics and neonatal care
- ✚ Following Cervix dilatation & contraction
- ✚ Checking fetal heart beat
- ✚ Following V/S using partograph format
- ✚ Providing childbirth service
- ✚ Medication administration
- ✚ Give proper counseling for mothers and/or attendants
- ✚ Encouraging breast feeding with good attachment & position
- ✚ Documenting clients' history timely
- ✚ Keeping dignity, privacy, taking informed consent verbally or written
- ✚ Giving supportive supervision

Outputs

- ❖ Trained health workers on on compassionate, respectful & caring and comprehensive emergency obstetrics and neonatal care
- ❖ Clients' history documented
- ❖ Cervix dilatation & abdominal contractions checked
- ❖ Fetal heart rate checked
- ❖ Mothers' V/S followed
- ❖ Live birth babies
- ❖ Clients who received medication
- ❖ Encouraged breast feeding with good attachment and position
- ❖ Clients getting dignity & privacy during service provision and their stay
- ❖ Clients consented before services verbally or written
- ❖ Mothers received counseling on post-natal complication & family planning and others
- ❖ Supportive supervisions conducted

Outcomes

- ❖ Improved knowledge, practice & skill of care providers
- ❖ Improved quality and caring behavior of care providers
- ❖ Improved mothers' health outcome
- ❖ Increased mothers' responsiveness towards delivery service
- ❖ Improved utilization of delivery service

Impacts

- Reduction in maternal & neonatal morbidity
- Reduction of maternal and neonatal mortality

2.6: Program logic model

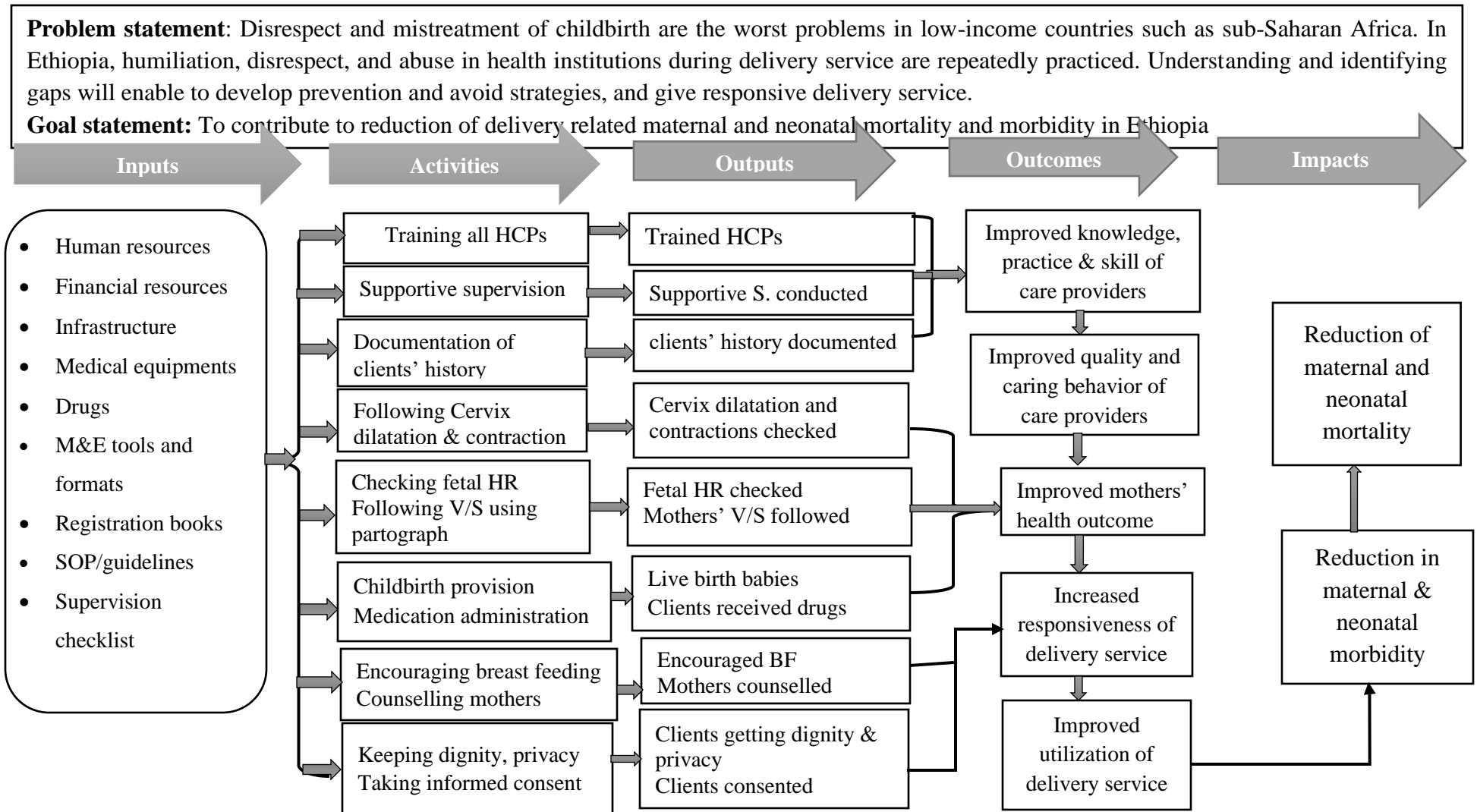


Figure 1: Logic model of delivery service in Jimma university medical center, Jimma, Ethiopia, 2021

Chapter 3: Literature Review

Globally, one of the drawbacks to women accessing services is women's misunderstanding of the level of treatment given by traditional healthcare system. The standard of health care includes not only facets of clinical care, but also non-clinical aspects. Considerable attempts have been made over the past two decades to ensure eligible birth attendance in order to minimize morbidity and mortality among mothers and newborns and result in percentage of deliveries attended by trained health workers in developing countries increasing from 56% in 1990 to 68% in 2012(2,34).

3.1. Availability dimension

Essential medical devices must be accessible at all times at the relevant level within the healthcare system. Many people in developing countries do not have access to health technologies, even basic ones which includes life-saving drugs, life-enhancing drugs, and medical devices(35).

In Ethiopia, the lack of proper management of medical equipment devices hinders health facilities to deliver quality health care service. About 61% of the medical equipment found in Ethiopia public hospitals and other health healthcare facilities which should be utilized in organized and coordinated manner to ensure the successful management of equipment in clients care healthcare facilities(36).The provision of complete healthcare service by healthcare institutions requires the ready availability of safe, effective, and affordable medicines of the required quality and in sufficient quantities(37). As study conducted in jimma zone showed that among available medical equipment, 65.6% of them were found in Jimma University medical center(38).

Each hospital service unit should have a sufficient number of employees with the necessary qualifications, training and skills necessary to meet the clients' need as per the standard. The hospital should be staffed 24 hours a day, 365 days a year. One nurse or midwife for a maximum of 6 clients and as unit needs per shift must be available to provide maternal and neonatal care(36).

3.2. Responsiveness dimension

The WHO introduces the term responsiveness first during publication of the world health report 2000. Satisfied clients are more likely to comply with medical treatment, to their

health care provider information and continue using medical services. In developing countries, client's satisfaction will influence utilization of services and compliance with practitioners' recommendations. Responsiveness is the fundamental legitimate expectations of people which can be improved without large investment and its heart of functioning health systems(11).

Disrespect and abuse are a global problem in many low and high-income countries and not well documented. Pregnant women seeking maternity care may receive ill treatment that ranges from disrespect of their autonomy and dignity to absolute abuse (39). Globally, disrespect and abuse of women during labor and delivery has become an increasingly recognized issues over the past decade by admitting them as both a violation of a woman's rights and limiting the use of life-saving facility-based labor and delivery services. The absence of disrespect and abuse by all staff alone is not sufficient for provision of respectful maternal care rather fostering positive staff attitudes and behaviors can improve satisfaction of women (12,13).

In Dutch study shows, poor responsiveness outcomes resulted ranged from 9.7% to 27.1% for the delivery phase, respect for persons(Autonomy, Dignity, Communication and Confidentiality) domains performed better and were judged to be more important than 'client orientation' domains (Choice, Prompt Attention, Quality of Basic Amenities and Social Consideration(40). To improve the health system's responsiveness service, paying more attention to clients' rights, in particular, regarding the provision of conditions and facilities for choosing a health provider and considering their autonomy as study conducted in west Iran hospital stated (41).

As study done in Ghana, overall total mean standard perception score of responsiveness was 43.3%. Privacy and confidentiality 58.3%, Being treated with Dignity 57% and Autonomy' were 53.7% and whereas physical environment/amenities 19.2%. Even though there are variations in the hierarchy obtained in the various institutions, in which the three top ranked about 70% of respondents were 'Being treated with dignity, Prompt attention and Continuity of Care whereas, Access to social support was the least important element for the respondents(29).

As study conducted in rural area of Kambata Tembaro of Ethiopia, only 16% of deliveries were assisted by health professionals, while a significant majority (78%) was attended by traditional birth attendants because of majorly they belief that it is not necessary (42%), not customary (36%), high cost (22%) and distance or lack of transportation (8%). Traditional birth attendants were seen as culturally acceptable and competent health workers. Women reported poor quality of care and previous negative experiences with health facilities (42).

Study on choice of place of delivery done in west part Ethiopia showed that 200 (39.5%) chose home whereas the rest of respondents (306(60.5%)) chose health institution as a birthplace. The respondents were also asked to justify why they chose home delivery, and the reasons stated were disliking behavior of health workers 74 (34.6%), lack of money to pay for transportation and health service-related costs 68 (16%), and the least mentioned reason was having trust on TBA 58 (15.4%)(43).

Responsiveness to the expectations of individuals reflects the importance of respecting the dignity, autonomy and confidentiality individuals' information regarding non-health issues. It acknowledges health outcomes and use of available services which affected by the process of interaction during care to bring better health outcomes and UHC as a result of greater responsiveness. Ethiopia responsiveness score was averagely of 0.52 which is higher than the regional average of WHO Africa (0.47), with the lowest score autonomy (0.25), prompt response (0.27) and choice of care provider (0.31). There is limited or no systematically organized report or study in Ethiopia addressing the responsiveness of the service(7).

The health providers' experiences indicated the existence of different categories of disrespect and abuse to women in the study area. Non-consented care, physical abuse, non-confidential care, non-dignified care were the areas identified. Furthermore, painful procedures such as episiotomy were performed without anesthesia, women may also stay for long time without getting the service and they were restricted to have a companion of their choice in the birthing area. The discrimination of women because of personal attributes such as income level, being rural vs. urban, and HIV status were also revealed in the study(44).

Emerging data suggests that, in developed countries like Ethiopia, women face humiliating and undignified circumstances in health facilities which affects the choice of women not to use health facilities. Therefore, it is important to investigate the perspectives of health care professionals in delivering compassionate maternity care and to recognize the sources of disrespect and violence that occur, and to better address the needs of women(44).

Respectful maternity care during delivery has been described as coordinating care and giving to all women in a way that maintains their dignity, confidentiality, ensures freedom from harm and mistreatment, and allows for informed choice and continuous labor and delivery support. In its five-year Health Sector Transformation Plan (HSTP II), the government of Ethiopia has initiated a caring and supportive treatment program to address these issues(45).

3.3. Conceptual frame work of delivery service responsiveness

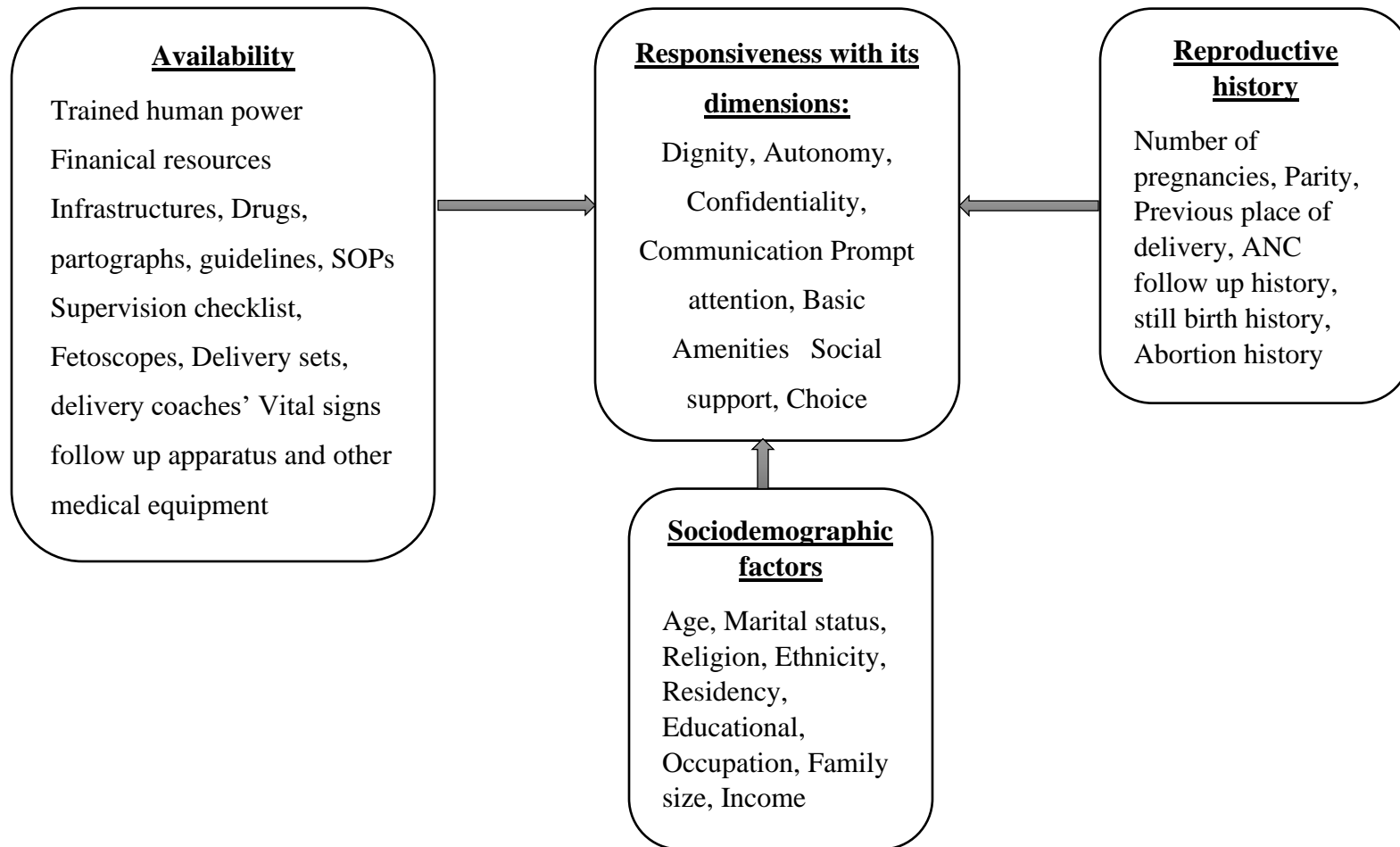


Figure 2: Conceptual Framework for delivery service Responsiveness (Source: adapted from Robone et al. 2011)

Chapter 4: Evaluation Questions and Objectives

4.1: Evaluation questions

1. Are the resources required for provision of delivery service available? If yes, how? If not, why?
2. Is labor and delivery service provided in Jimma University medical center responsive? If yes, how? If not, why?
3. What are the associated factors with responsiveness of delivery service in JUMC?

4.2: Objectives

General objective

- ✧ To evaluate responsiveness of delivery service in Jimma university medical center, Jimma, 2021

Specific objectives

- ✧ To evaluate availability of resources required for delivery service in Jimma university medical center, Jimma, 2021
- ✧ To determine the level of responsiveness of delivery service towards mother's legitimate expectation in Jimma University medical center, Jimma, 2021
- ✧ To identify factors associated with responsiveness of delivery service in JUMC, Jimma, 2021

Chapter 5: Evaluation Methods

5.1: Study area

Jimma university teaching hospital is one of the public hospitals in the country which is established in 1930 E.C by Italian invaders for the service of their soldiers. Geographically located in Jimma city 352 km southwest of Addis Ababa. Jimma town is capital city of Jimma zone which has diverse communities in ethnicity, cultures, values, religions and literacy. JUTH have changed its name formerly at different time due to various reasons. After the withdrawal of Italy's occupants, it has been governed under the Ethiopian government by the name of "Ras Desta Damtew Hospital" and later "Jimma Hospital" during Dergue regime(32).

Jimma University medical center is the only referral hospital in the South-West part of Ethiopia with a total catchment population of over 15 million. The hospital serves as a clinical teaching site for undergraduate health professionals of different categories since 1976 E.C and clinical post graduate speciality teaching in different clinical disciplines. Currently, about 120 beds are giving services for obstetrics and gynecology clients from 800 inpatient service beds.

5.2: Evaluation Period

For this evaluation, the evaluability assessment was conducted from January 15- 24, 2021 and evaluation data from exit interview was collected from May 09 to June 02, 2021 and qualitative data was collected from June 11 to 18, 2021.

5.3: Evaluation approach

For this evaluation, formative evaluation was followed, since a formative evaluation is an evaluation that creates information; which is important to improve the service and support service stakeholders' involvement through the process of evaluation. This generally means that the evaluation information would indicate how things are going.

5.4: Evaluation design

The study design applied for this evaluation was single case study design. It is preferred due to case study design is focuses on contemporary events and helps to address why and

how evaluation questions and also investigator has little control over events and focus a current phenomenon within its real-life context. Both quantitative and qualitative in sequential approach of data collection were used to come up with relevant information.

5.5: Focus of evaluation

The focus of this evaluation was process. This helps to determine whether the service is delivered as intended to the target populations regarding non clinical aspects of the health system and provides explanations for observed levels of performance and it was important to learn from the past and plan for the future.

5.6. Dimensions of evaluation

The dimensions of this evaluation were availability and responsiveness.

1. Availability of delivery service: From the five components of access to service, in this evaluation the availability dimensions in terms of resources were evaluated.

Availability: availability of resources to provide service such as: trained healthcare providers, drugs and medical equipment and infrastructures to provide service. During evaluability assessment as discussed and agreed with stakeholders Obstetricians was not focus of this evaluation since they are available and enough as to national standards.

2. Responsiveness: It means the non-clinical aspect of care relating to legitimate expectation of clients.

Dignity: clients' rights of getting service with respect from health care providers

Autonomy: Active engagement in decision making during before service given

Choice: the mothers' right in choosing health care providers she wants to get service

Communication: getting clarity on healthcare service given by health care providers to make autonomous decision on the service given

Confidentiality: Clients right of auditory and visual privacy and also have the right of confidentiality on documentation or information of clients.

Prompt action/attention: mothers getting delivery service in convenient distance, short waiting time and as soon as wanted

Quality of basic amenities: different infrastructures aspects that keep comfort of clients and improve patient satisfaction

Access to family &Community Support: getting access to family and community support like religious and community leaders.

5.6: Indicators and Variables

The evaluator and engaged stakeholders in team, developed and listed out 60 potential indicators for availability and responsiveness dimension. But, according to limited resources and required information, by using multi voting technique, 35 prioritized Indicators were selected for this evaluation.

Indicators: Availability

1. Number of health care provider in labor ward
2. Number of health care provider in maternity operation room
3. Number of health care provider in maternity ward
4. Number of operation theatre table
5. Number of delivery coaches in delivery unit
6. Number of delivery sets in delivery unit
7. Number of caesarean sections set in maternity operation room
8. Number of laparotomies set in maternity operation room
9. Number of CEmONC guideline in delivery unit
10. Percentage of equipment must be available 24 hours & functional in delivery unit
11. Percentages of emergency drugs must be available 24 hours in delivery unit cabinet

Responsiveness:

Responsiveness dimension indicators developed based on the local situation by considering the implementation status of the program or delivery service in JUMC. Step-by-Step using multi-voting technique, once a list of indicators has been identified, stakeholders vote for their highest priority indicators. Indicators with a vote count $\geq 50\%$ of stakeholders voting, remain on the list for the next vote and all other indicators which was voted less than three were eliminated from list(46,47). Selected indicators have far more profound

and long-lasting implication on the program than other as evaluator discussed with key and engaged stakeholders. Lastly, 24 prioritized indicators were selected to assess the responsiveness of delivery service with different numbers of indicators within its sub-dimensions.

A. Dignity

1. Proportion of mothers who respond the healthcare giver is kind and respectful
2. Proportion of mothers who are respected to their desire for privacy during treatment and examinations
3. Proportion of women encouraged to discuss their concerns and needs freely, during the process of care

B. Autonomy

1. Proportion of mothers provided information on treatment option
2. Proportion of mothers get informed consent before any procedure
3. Proportion of mothers get periodic information on her status of health

C. Confidentiality

1. Proportion of women getting conversation where others can't hear
2. Proportion of women getting consultation where others can't see
3. Proportion of women getting confidentiality of her information
4. Proportion of women getting confidentiality of her medical records

D. Communication

1. Proportion of women get clear explanation about delivery service and other treatment
2. Proportion of women getting opportunity of asking question
3. Proportion of mothers getting careful listening from their health care provider
4. Proportion of mothers who understand things easily from health care providers explanation

E. Prompt attention

4. Proportion of women getting service as quick as she wanted

5. Proportion of women not spending unnecessary long-time time for getting consultations

F. Access to social support networks during care

1. Proportion of women having opportunity of daily visitors
2. Proportion of women getting religious support from religious leader in their hospital stay

G. Choice of Care Provider

1. Proportion of mothers who can choose health care provider in delivery services
2. Proportion of mothers getting opportunity to see specialist at time they want

H. Quality of basic amenities

1. proportion of women responding the unit is clean
2. Proportion of women responds that toilet is clean
3. Proportion of women responding that clean water is access able in the unit
4. Proportion of women getting shower service in the unit at time they want

Variables

Dependent variables

Responsiveness of delivery service towards mothers' legitimate expectation

Independent variables: Socio demographic variables

- Age
- Marital status
- Religion
- Ethnicity
- Residency
- Educational
- Occupation
- Family size
- Income

Obstetrics characters

- Number of pregnancies
- Parity
- Previous place of delivery
- ANC follow up history
- Still birth history
- Abortion history

5.7: Populations and sampling

5.7.1: Source population

- All mothers coming for delivery service in Jimma University medical center during evaluation period.
- All health service providers in labor and delivery units
- Key stakeholders (FMOH, JUMC management, Nursing school, Obstetrics & gynecology department, pharmacy unit, maternity unit heads of delivery service in Jimma university medical center.

5.7.2: Study population

- All sampled pregnant mothers attending delivery service in Jimma university medical center
- All selected health care provider in delivery service of JUMC and stakeholders

5.7.3: Study units and sampling units

Study units: Selected women who get delivery service for interview and selected key informants of delivery service for interview.

Health care providers & head nurses of maternity unit, medical director, matron, pharmacy department, obstetrics & gynecology department, nursing school, Jimma town health office, jimma zonal health department.

Sampling units: JUMC delivery service unit and clients using delivery service in JUMC

Unit of analysis: mothers, delivery service and JUMC maternity unit

5.7.4: Sampling procedure/technique

Consecutive method was used to select the study participants for exit interview under took when discharged from maternal care in Jimma University medical center during the study period till reaching sampled participants. Purposive sampling was employed for in-depth interview to interview the key informants of delivery service in JUMC and inventory was done for 30 consecutive days using checklists with observation for cross checking.

5.7.5: Sample size determination

Quantitative data: The sample size was calculated using single population proportion formula. As the study done in Hadiya zone of southern Ethiopia considering, the overall proportion of maternal care responsiveness was 0.53(48), margin of error 5%, confidence interval (CI) of 95% assumed($Z_{1-\alpha/2}=1.96$) and contingency of 10% was added for non-response. Using single population proportion formula, the sample size for clients' interview was as follows:

$$\frac{(Z_{1-\alpha/2})^2 P(1-P)}{d^2} = \frac{(1.96)^2 0.53 (1-0.53)}{(0.05)^2} = \frac{3.84 \times 0.25}{0.0025} = \frac{0.96}{0.0025} = 384$$

Adding 10% of non response rate and final sample size was **422** for exit interview

Resource Inventory: Resource inventory was conducted by interviewing responsible bodies and observation for cross checking using inventory checklist developed using Ethiopia hospital service transformation guideline and Ethiopia hospital reform implementation guideline(49,50). Availability and functionality of medical equipment's, presence of guidelines and drugs in maternity unit was conducted by the principal evaluator.

Qualitative data: Purposively influential 15 key informants for this evaluation were prioritized and selected for indepth interview.

5.7.6: Inclusion and exclusion criteria

Inclusion criteria

Pregnant mothers who get delivery services in JUMC during study period

Health care providers working in maternity unit

Exclusion criteria

Mentally and severely ill mothers

5.8: Data Collection

Data was collected from clients, inventory check over one month of study period in Jimma University medical center delivery service was done and interviewing key informants of delivery service was done to get important information for this evaluation.

5.8.1: Development of data collection tools

The tool developed by WHO for health system responsiveness of multi country survey was used(51). Data collection methods used in this evaluation was sequential type which mean quantitative data collected and analysed first then followed by qualitative one.

Data was collected using structured questionnaires for the quantitative data and interview guide for qualitative data. Inventory checklists for inventory data was used that developed based on Ethiopia hospital reform implementation guideline (EHRIG) minimum requirement and Ethiopia hospital transformation guideline. After analysis of quantitative data, using interview guide, one to one in-depth interview was done. The quantitative questionnaires were containing the socio-demographic characteristics, reproductive health and responsiveness related questions that address the study objectives and key variables and qualitative interview guide contains self introduction question (profession, position, work experience, training), availability and responsiveness dimension related how and why question with probing to reason out quantitative findings.

Reliability Analysis

Each scale's dependability was assessed separately. Cronbach alpha coefficients were used to analysis the reliability of tools. Alpha coefficient of 34 items used to assess responsiveness was 0.91. The alpha coefficient of dignity, autonomy, confidentiality, communication, social support, prompt attention, choice of care provider and quality of basic amenities were 0.87, 0.8, 0.86, 0.89, 0.79, 0.88, 0.82 and 0.78 respectively.

KII guide: It comprises general questions on the state of service delivery, questions about resource availability, responsiveness, and perceptions of service barriers and potential remedies. Based on the amount of stake held by the key informant, the guide was divided into five sections.

5.8.2: Data collectors

The data collectors of this evaluation study were health professionals; two-degree holders in nursing/midwives who experience in data collection. Training for data collectors on ethical issues in research, data collection tool and way of collecting data were conducted over two days. The principal investigator was daily supervising the data collection process. Inventory and one to one in-depth interview were done by principal evaluator.

5.8.3: Data collection field work

Adequate preparations were done prior to the field work. The clients exit interview was done from May 09–June 02, 2021 in Jimma university medical center. Completeness of data was checked on daily basis. Confidentiality of the data was kept starting from data collection time by giving code for all participants in this evaluation study. Completed questioner was collected from each data collector daily and checked for completeness of data by evaluator. The data collectors were taken informed consent from the participant mothers after given all the relevant information relating to the study, which includes the title, purpose of the study, benefits and how to collect the data and told them to ask freely at any time they want.

5.9: Data management and analysis

5.9.1 Data quality management

For quantitative data

The tool was written in English, translated into the native Afan Oromo and Amharic languages, then returned to English to ensure uniformity. Mothers' responses to questionnaires in Afan Oromo and Amharic were collected. The tools were reviewed by monitoring and evaluation experts, and their suggestions were incorporated into the questionnaire given to clients during the exit interview. The evaluation objectives, data gathering tools, data collection methodologies, and ethical concerns were covered in a two-day training session for data collectors. The entire data collection process was closely monitored and reviewed frequently.

For qualitative data (ensuring trustworthiness)

Appointment times were made up to ensure continued communication between the investigator and the study's key informants. Information about the situation was taken in detail (both note taking and audio record were used with probes). After analysis of qualitative data and its early result were present to the peers for their feedback (Peer debrief).

5.9.2: Data entry

Quantitative data was reviewed and checked for completeness in daily bases and entered using Epi data version 4.6.02 and then finally exported to SPSS version 25 for analysis and where as qualitative data from field notes and audio records transcribed using same languages and translated to English for further analysis manually by coding using pseudo names, categorizing and thematizing.

5.9.3: Data cleaning

Quantitative data was cleaned during and after data entry then the daily collected data was checked for completeness by data collector and incomplete collected data were corrected on time by supervisor or evaluator.

5.9.4: Data analysis

Quantitative analysis

Descriptive statistics and multiple linear regression analysis were done. The relationship between clients' responsiveness and independent variables was assessed using bivariate, variables at $P < 0.25$ were selected for multiple linear regression analysis. Multiple linear regression analysis was conducted to identify independent predictors associated with responsiveness of delivery service with significance level of p-value less than 0.05 at 95%CI was taken as a cut of point and unstandardized β was used for interpretation. The generated data was compiled by texts, frequency tables and graphs to show the assessment result.

The responsiveness of delivery service was scored by transforming 34 items of 4-point likert scale data in to percentages of maximum scale score for each indicator and to know

the overall level of responsiveness of delivery service towards legitimate expectation of mothers, the average of this score was taken(52).

$$PMSS = \frac{\text{Actual score} - \text{potential minimum score}}{\text{potential maximum score} - \text{potential minimum score}} \times 100$$

Qualitative data analysis

Thematic analysis was used to manually assess qualitative data. Following transcription, translation was done and coded using different Pseudo names categories. Each code was divided into two themes to reason out causes of service resource shortages and gaps noticed in giving responsive delivery service in JUMC. The findings were described and summarized to explain and interpret the quantitative findings.

5.10: Matrix of analysis and judgment

The judgment matrix was developed at the beginning when evaluation questions and data sources are agreed upon, and used by the evaluation team during this evaluation. The Evaluation Matrix forms the analytical framework for evaluation. Evaluators and stakeholders agreed in developing criteria of judgment parameter to evaluate the level in which the delivery service operated based on best information available by analyzing the situation and understanding the program operation in JUMC. Accordingly, the cut off point to judge the responsiveness of delivery service decided to be excellent if $\geq 90\%$, very good if 80-89.9%, good if 70-79.9%, fair if 60-69% and score poor if $< 60\%$.

The weight was given by experts to each indicator and dimensions interms of their relative importance in this evaluation. It was decided as 40% for availability and 60% for responsiveness.

5.11: Ethical Issues

Ethical approval was obtained from the ethical review board of the Institute of Health at Jimma University. The supportive letter to JUMC was written and taken from Jimma University, Institute of Health, Faculty of public health, Department of health policy and management. Jimma University Medical Center chief clinical director refer the supportive letter to all concerned bodies in support of data collection process. The stakeholder's

permission was asked to participate in this evaluation. In order to preserve participant rights, data collectors read an informed consent attached to each questionnaire, clients were requested to engage in the study based on their interest by clarifying about the purpose of this evaluation. Their respect, anonymity and confidentiality were given and the freedom to withdraw at any point of the interview and their importance of involvement was discussed well.

5.12: Evaluation dissemination plan

The outcomes of this evaluation will be disseminated to Jimma University department of health policy and management, presented for external examiner in Jimma University and key stakeholders of the delivery service in Jimma University medical center to make utilization of result obtained to increase the responsiveness of the health system in delivery services. Final effort will be made to publish on national and international journals.

5.14. Operational definitions

Responsiveness: In this evaluation, responsiveness means how well the maternal care service meets the mothers' expectations for the non-clinical health aspects of the health care system and all dimension of responsiveness (dignity, autonomy, confidentiality, communication, prompt attention, social support, choice of care provider and basic amenities) were evaluated using 34 items.

Delivery service: This term used in this evaluation stands for all service or care given to a mother throughout her stay at JUMC from entry till discharge from maternity unit.

Availability of emergency drugs: it must be available 24 hours a day in cabinet of labor & delivery and at any time of check up are (Oxytocin, Misoprostol, Misoprostol Po and/or Ergometrine), Magnesium sulphate/Diazepam, Antihypertensive medication (Nifedipine and Hydralazine), 40% glucose, Lidocaine, IV fluids (crystalloids), Tetracycline eye ointment, Atropine, Vitamin K, Adrenaline, Ceftriaxone, Ca gluconate, TDF/3TC/EFV (ARV drugs), Nevirapine syrup & Hydrocortisone.

Availablilty of equipments & supplies to give delivery service: It must be available and functional 24 hours a day are delivery sets, C/S set, laparatomy set, Suction machine

portable, Suction bulb, Cord cutting & clumping set. Beds with accessories, Functional Sphygmomanometer(BP apparatus),Stethoscope, (Fetoscope)/doppler), Ultra Sound, Thermometer, Filled oxygen tank with flow meter, Nasal prongs for oxygen administration, Catheter for oxygen administration, Sterile suture kit, Forceps, Vacuum extractor, Urinary Catheter, HIV test kits, Stand lamp, Speculum for vaginal examination, Craniotomy set, Sterilizer (Steam or dry), Ambu-bag with sterile mask, IV stand, Mask for oxygen administration, Radiant Warmer, weighing scale for baby, Tape to measure baby length and Head circumference, Towels for drying and wrapping new-born babies, Functioning clock, Long sleeve glove for removal of retained placenta, NASG, Sterile glove, Syringe with needle & IV cannula

Trained health providers: Those midwives and nurses working in delivery unit and who have trained in the last two years on CRC (compassionate and respectful caring) and comprehensive obstetrics and neonatal care.

Infrastructures: Includes 24 hours functional and clean operation room, toilet, shower room, bed rooms with beds & its accessories, chair table, continuous electricity and safe water supply

Frequency likert scale: it is a 4-point rating scale used in questionnaires to measure women's opinion they have towards delivery service received and interaction with health provider by choosing either 1-never, 2-sometimes, 3-usually or 4-always and 1-very poor, 2-poor, 3-good & 4-very good.

Chapter 6: Result

6.1 Socio-demographic characteristics of study participants

In this study, 422 of study subjects were involved and the response rate was 100%. The respondents age ranges from 19 to 36 years old with mean age of 26.97(SD \pm 4.77). Among this participant, 40(9.5%) women gave their first birth on the age of 17 and below and 207 (49.1%) of women gave their first birth within age of 18 to 24 years. All of the study participants were married and their religious composition were majorly Muslims, Orthodox and Protestant. Among participants of the study, 252(59.7%) were Oromo followed by Amhara 64(15.2%) and Gurage 55(13%). The residency of majority was town and 290(68.7%) of women household family size were 2 to 4 and the average family size of participants were 4. Whereas 57(13.5%) women had 6 and above family size. The mothers who participate in this evaluation had different educational level from no read and write of 39(9%) to 116(28%) with college and above. An occupation of women participated in this evaluation were housewife, government employee, Merchant, private employee and farmer. The average monthly income of family was 5091.00 ETB with minimum income of 1400 and maximum 15000 ETB of family.

Table 2: Socio-demographic and family income characteristics of participants in evaluation of responsiveness in delivery service of Jimma University Medical Center, Jimma, 2021

| Variables | Frequency (N=422) | Percent |
|------------------|-------------------|---------|
| Age * | | |
| 15 – 19 | 1 | 0.2 |
| 20 – 24 | 117 | 27.7 |
| 25 – 29 | 193 | 45.7 |
| 30 -34 | 92 | 21.8 |
| 35 – 39 | 19 | 4.5 |
| Religion | | |
| Muslim | 223 | 52.8 |
| Orthodox | 118 | 28.0 |
| Protestant | 80 | 19.0 |
| Catholic | 1 | 0.2 |
| Ethnicity | | |
| Oromo | 252 | 59.7 |
| Amhara | 64 | 15.2 |
| Gurage | 55 | 13.0 |

| | | |
|---|-----|------|
| Kafa | 30 | 7.1 |
| Dawro | 10 | 2.4 |
| Others | 11 | 2.6 |
| Residency | | |
| Jimma town | 178 | 42.2 |
| Out of Jimma but urban | 153 | 36.3 |
| Rural | 91 | 21.6 |
| Educational level | | |
| No read & write | 39 | 9.2 |
| Informal education | 13 | 3.1 |
| Primary | 140 | 33.2 |
| Grade 9 -12 | 114 | 27.0 |
| College and above | 116 | 27.5 |
| Occupation | | |
| Housewife | 183 | 43.4 |
| Government employee | 99 | 23.5 |
| Merchant | 76 | 18.0 |
| Private employee | 40 | 9.5 |
| Farmer | 24 | 5.6 |
| Family size** | | |
| 2 -4 | 290 | 68.7 |
| 5 | 75 | 17.8 |
| >=6 | 57 | 13.5 |
| Average family monthly income in ETB *** | | |
| 601 – 1650 | 33 | 7.8 |
| 1651- 3200 | 168 | 39.8 |
| 3201-5250 | 86 | 20.4 |
| 5251-7800 | 31 | 7.3 |
| 7801-10900 | 61 | 14.5 |
| >=10901 | 43 | 10.2 |

* Age category was made based on EDHS 2016

** Average family size of Ethiopia is 4.6 which approximately 5 according to EDHS 2016 report

*** Average family monthly income classes' base on Ethiopia income taxation and finance system

6.2. Reproductive health history of respondent

Out of 422 participant mothers, 262(62.1%) were pregnant previously two to seven times and averagely 3 times pregnant at mean age of 20.4(SD \pm 2.73) with minimum age of 15 and maximum age of 30 years. Whereas 160(37.9%) of women were pregnant for their first time in their life. Majority of women gave last birth before at different health institution set ups, whereas 25(9.5%) women were at home. The current mode of deliveries of study participants were spontaneous vaginal delivery (SVD) 166(39.3%), episiotomy 111(26.3%), instrument assisted 15(3.6%) and the rest of 130(30.8%) of women were operated to give birth.

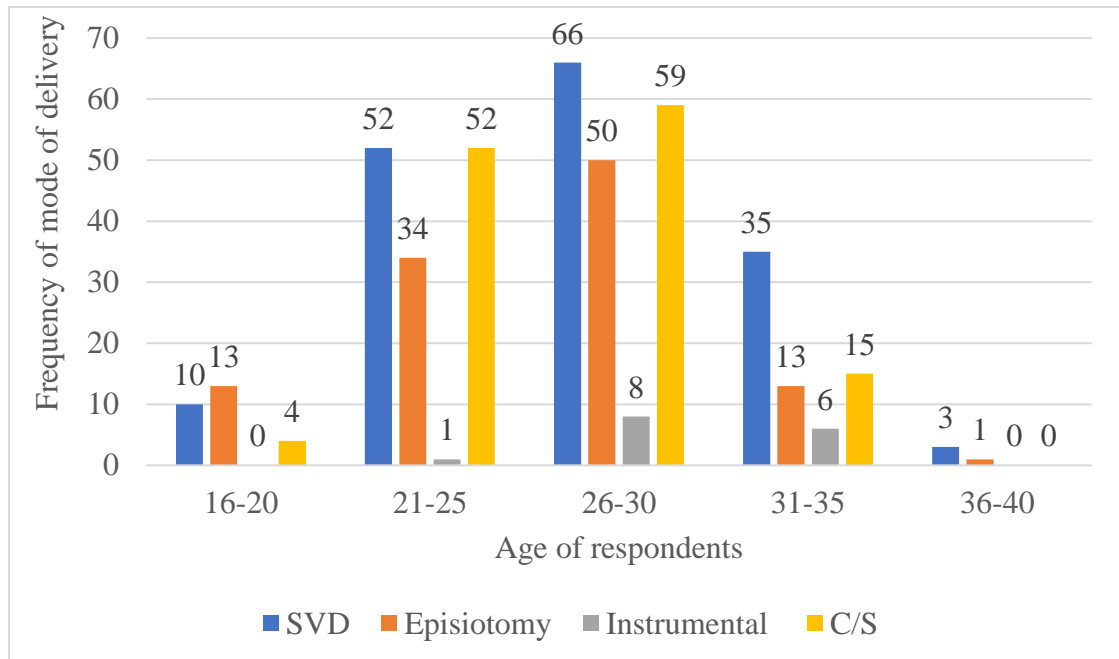


Figure 3: Study participants' mode of delivery with their age category in evaluation of responsiveness of delivery service in JUMC, Jimma, 2021

Out of 422 participants, 416(98.6%) of women had one to eight times health facility visit for ANC follow up in their current pregnancy and 6(1.4%) of women had no ANC follow up at least one time at all. Additionally, from the study participants, 23(5.5%) and 26(6.2%) had history of stillbirth and abortion respectively and whereas 5(1.2%) of mothers had history of both stillbirth and abortion.

6.3. Availability of resources in delivery service of JUMC

6.3.1. Human resources

70 staffs of nurses & midwives were working in maternity unit of JUMC 24 hours daily in three shifts with Residents and assigned seniors. There are 28 midwives in labor ward, 20 nurses and midwives in operation room and 22 midwives are working in maternity ward. In all unit of maternity unit one obstetrician was daily assigned and also residents and medical interns are practicing in. Additionally, different supportive staffs are working in these three units.

In Jimma University medical center, nurses and midwives working in maternity operation theatre, labor and maternity ward are not trained on comprehensive emergency obstetrics & neonatal care and compassionate respectful and caring.

Table 3: Human resources in maternity OR, labor and maternity ward in evaluation of responsiveness of delivery service in JUMC, 2021

| Professions or duty | Labor ward | | | Maternity OR | | | Maternity ward | | |
|--------------------------|------------|------------------------|--------------------------|--------------|------------------------|--------------------------|----------------|------------------------|--------------------------|
| | Available | CRC training (%) | CEmOC training (%) | Available | CRC training (%) | CEmOC training (%) | Available | CRC training (%) | CEmOC training (%) |
| Diploma N. | | | | 03 | 0 | 0 | | | |
| BSc Nurse | | | | 10 | 0 | 0 | | | |
| Midwife BSc | 28 | 0 | 0 | 07 | 0 | 0 | 22 | 0 | 0 |
| Total staffs | 28 | | | 20 | | | 22 | | |
| Obstetricians | 01 | | | 01 | | | 01 | | |
| Residents | 04-07 | | | 04 – 06 | | | 04-08 | | |
| MIIs daily | 07-10 | | | 02 | | | 07-10 | | |
| Anesthetist | | | | 6 | | | | | |
| Supportive staffs | | | | | | | | | |
| Cleaner | 18 | | | 10 | | | 15 | | |
| Runner | 6 | | | 02 | | | 3 | | |
| Porter | 3 | | | 06 | | | 2 | | |
| Guard | 9 | | | 03 | | | 2 | | |

Majority of key informants agreed on shortage of nurses/midwives and they said that, the number of nurses/midwives in delivery service of hospital are low as compare to the clients' number coming to get delivery service.

“In search of a better life or family problems, the staff left the hospital at a different time. There is an improvement in the workforce as compared to before. But the department still needs more staff to minimize the workload and deliver quality care to mothers.”

[35 years old male KII]

“The staff leave the hospital due to a lack of motivation, like chance for education & training after serving 6/7 years and lack of timely duty payment. According to standard, we have staff shortages to give more quality service. We communicate frequently with HR, but they do not recruit yet.”

[32 years old male KII]

“There was staff turnover here for different reasons. Even though we don't meet the standard, we are trying to work more with the staffs we have. The hospital has plan to employ extra health professionals in future.”

[34 years old male KII]

6.3.2. Infrastructures for delivery services

There are 05 delivery coaches, 12 first stage beds and 10 post normal beds in labor ward. There are 2 operation tables and one recovery room with 6 beds in maternity OR and whereas, 52 beds are in maternity ward (6 rooms with 6 beds each, 3 rooms with 4 beds and 4 rooms are private with one bed each). The electricity is available continuously in all rooms of maternity units. There is toilet room for mothers in labor ward but, shower room is not working. The maternity ward also has toilet separately for 36 stable, 12 high risk and 4 private mothers. But only private mothers have functional shower room within the room. All beds have their own lockers for mothers to use till she discharged.

Majority of key informant agreed as there was shortage in chair, linen, pillows and shower access for all mothers.

“There was a gap noticed from some attendants of mothers in way of using available infrastructures. Even though maintenance of building and furniture was done repeatedly.

Because of they break chair, shower room accessories and even a bed, it hinders mothers from taking shower at time she wants and even they complain on absence.”

[33 years old male KII]

6.3.3. Availability of supplies for delivery service

Even though, maternity unit has medical equipment which was utilized for delivery services, there were no thermometer and stethoscope for staffs to follow the clients just they use the medical interns or residents owned instruments and also there was 3 B/P apparatus in maternity ward and 1 in labor ward. As the inventory checked and tallied daily at any time of cabinet or nursing station observed during evaluation time for thirty consecutive days, there was different supply stock out noticed. As table below shows, the interruption both in drugs and different supplies from 2 to 10 days within one month noticed were sterile gloves, IV cannula, syringe with needle, urinary catheter, IV fluids, 40% glucose, ceftriaxone and dexamethasone. There was no stethoscope and thermometer for staffs to follow clients in their assigned beds.

Table 4: Inventory checked daily for 30 consecutive days in evaluation of responsiveness of delivery service in JUMC, from May 09 -June 07, 2021

| S.no | Drugs and equipment for delivery service | 30 days available | Interruption or absence | Remark |
|-------------|---|--------------------------|--------------------------------|---------------|
| 01 | Oxytocin/ Ergometrine | ✓ | | |
| 02 | Magnesium sulphate/diazepam | ✓ | | |
| 03 | Nifedipine and Hydralazine | ✓ | | |
| 04 | 40% glucose | | 10 days stockout | |
| 05 | Lidocaine | ✓ | | |
| 06 | Tetracycline eye ointment | ✓ | | |
| 07 | Atropine | ✓ | | |
| 08 | Hydrocortisone | ✓ | | |
| 09 | Ca gluconate | ✓ | | |
| 10 | Adrenaline | ✓ | | |
| 11 | Dexamethasone | | 10 days stockout | |
| 12 | Misoprostol & mifepristone | ✓ | | |

| | | | | |
|----|--|---|------------------|--------------|
| 13 | Ceftriaxone | | 5 days stockout | |
| 14 | IV fluids (crystalloids) | | 10 days stockout | |
| 15 | TDF/3TC/EFV (ARV drugs) | ✓ | | |
| 16 | Nevirapine syrup | ✓ | | |
| 17 | Oxygen | ✓ | | |
| 18 | Tetracycline eye ointment | ✓ | | |
| 19 | Vitamin K | ✓ | | |
| 20 | Ephedrine injection | ✓ | | |
| 21 | Ketamine injection | ✓ | | |
| 22 | Oxygen inhalation | ✓ | | |
| 23 | Thiopental iv | ✓ | | |
| 24 | Halothane | ✓ | | |
| 25 | Lidocaine injection/Bupivacaine | ✓ | | |
| 26 | Lidocaine + epinephrine injection | ✓ | | |
| 27 | Muscle relaxant (Suxamethonium & Vecuronium) | ✓ | | |
| 28 | Spinal Needle | ✓ | | |
| 29 | Sterile gloves | | 4 days stockout | |
| 30 | IV Cannula | | 3 days stockout | |
| 31 | IV set | ✓ | | |
| 32 | Syringe with needle | | 4 days stockout | |
| 33 | HIV test kit | ✓ | | |
| 34 | Delivery set | ✓ | | 12 available |
| 35 | C/S set | ✓ | | 03 available |
| 36 | Craniotomy set | ✓ | | 1 available |
| 37 | Laparotomy set | ✓ | | 02 available |

| | | | | |
|----|----------------------------------|---|-----------------|-----------------------|
| 38 | Sterile suture kit | ✓ | | |
| 39 | B/P apparatus with cuff | ✓ | | 3 in MW and 1 in LW |
| 40 | Stethoscope | | ✓ | They use from interns |
| 41 | Thermometer | | ✓ | They use from interns |
| 42 | Weight scale for baby | ✓ | | |
| 43 | Urinary Catheter | ✓ | 2 days stockout | |
| 44 | Ultra Sound | ✓ | | |
| 45 | Suction machine portable | ✓ | | |
| 46 | Radiant warmer | ✓ | | |
| 47 | Vacuum extractor | ✓ | | |
| 48 | Cord cutting/clumping set | ✓ | | |
| 49 | Forceps | ✓ | | |
| 50 | Suction bulb for newborn | ✓ | | |
| 51 | IV stand | ✓ | | Per bed available |
| 52 | Ambu-bag with sterile mask | ✓ | | |
| 53 | Delivery coaches | ✓ | | 5 available |
| 54 | Maternity Operation table | ✓ | | 2 tables |
| 55 | Nasal prong for oxygen | ✓ | | |
| 56 | Mask for oxygen administration | ✓ | | |
| 57 | Oxygen administration catheter | ✓ | | |
| 58 | Full oxygen tank with flow meter | ✓ | | |
| 59 | Stand lamp | ✓ | | |
| 60 | Partograph | ✓ | | |
| 61 | Fetoscope/ doppler | ✓ | | |
| 62 | Tape measurement | ✓ | | |

| | | | | |
|----|-------------------------|---|--|--|
| 63 | Speculum | ✓ | | |
| 64 | Mask for staffs | ✓ | | |
| 65 | Sanitizer | ✓ | | |
| 66 | Towels | ✓ | | |
| 67 | weighing scale for baby | ✓ | | |
| 68 | Long sleeve glove | ✓ | | |
| 69 | Functioning clock | ✓ | | |
| 70 | Registration books | ✓ | | |
| 71 | Reporting formats | ✓ | | |

Majority of key informants agreed that there are shortage of medical equipment and supplies required to deliver all health care service wanted in the maternity unit.

“There was a shortage of IV fluids and drugs. We use fluids, drugs, and stitches collected from discharged mothers for those who cannot afford. Maybe mothers’ drugs and supplies come free, and as it is finished, mothers are ordered to buy from outside.”

[27 years old female KII]

“Equipment and supplies like thermometer, stethoscope, IV fluids, drugs were absent or in short supply due to their poor quality in equipment to serve for a long time and due high number of mothers, supplies frequently interrupted which sometimes makes the service difficult for us.”

[36 years old male KII]

“As is known, this hospital is a big one and many clients got service here. We may face medication and supplies stockout sometimes. As a staff, we decided to support mothers who cannot afford it by collecting 50 to 100 birrs per staff monthly.”

[35 years old male KII]

“Sometimes stock out noticed and difficult for us to manage due to some of stock out happened from misuse of supplies and inappropriate handling of equipment. The department has no guidelines to minimize wastage.”

[38 years old male KII]

Table 5: Judgement matrix analysis of resource availability in delivery service of Jimma University Medical Center, Jimma, 2021

| Evaluation questions | Dimension | Indicators | Expected | Observed | Weight given | Value achieved | 100% | Judgment Criteria |
|---|-----------|--|----------|----------|--------------|----------------|--------|--|
| Are the resources required for provision of delivery service available? If yes, how? If not, why? | Available | Number of health care provider in labor ward | 39 | 28 | 10 | 7.20 | 71.80 | >=90% excellent, 80-89.9% v. good 70-79.9% good 60-69.9% fair <60% poor |
| | | Number of health care provider in maternity OR | 27 | 20 | 10 | 7.41 | 74.07 | |
| | | Number of health care provider in maternity ward | 24 | 22 | 10 | 9.17 | 91.67 | |
| | | Number of operation theatre table | 2 | 2 | 9 | 9.00 | 100.00 | |
| | | Number of delivery coaches in delivery unit | 5 | 5 | 9 | 9.00 | 100.00 | |
| | | Number of delivery sets in delivery unit | 12 | 12 | 9 | 9.00 | 100.00 | |
| | | Number of caesarean sections set in maternity OR | 03 | 03 | 9 | 9.00 | 100.00 | |
| | | Number of laparatomy set in maternity OR | 02 | 02 | 9 | 9.00 | 100.00 | |
| | | Number of CEmONC guideline in delivery unit | 01 | 0 | 5 | 0.00 | 0.00 | |
| | | Percentage of equipment must be available 24 hours & functional in delivery unit | 35 | 29 | 10 | 8.29 | 82.90 | |
| | | Percentages of emergency drugs must be available 24 hours in delivery unit cabinet | 15 | 11 | 10 | 7.33 | 73.33 | |
| Overall | | | | | 100 | 84.40 | | |

6.4. Responsiveness of delivery service in JUMC

The responsiveness of delivery services in JUMC were varied among 34 items or elements of subdimensions (dignity, autonomy, confidentiality, communication, prompt attention, social support, choice of care provider and basic amenities) as assessed using 4-point likert scale of world health organization health system responsiveness tool which is resulted in table below(51).

Table 6: Respondents experiences on responsiveness with frequency of elements in evaluation of responsiveness of delivery service in JUMC, Jimma, 2021 (N=422)

| Sub dimension | Description of sub dimensions | Frequency distribution | | | | Total |
|-----------------|--|------------------------|--------------|-------------|------------|-------|
| | | Never (%) | Sometime (%) | Usually (%) | Always (%) | |
| Dignity | Treated with respect | 5(1.2) | 63(14.9) | 226(53.6) | 128(30.3) | 422 |
| | Kept safe from communicable diseases | 4(0.9) | 116(27.5) | 235(55.7) | 67(15.9) | 422 |
| | Encouraged to discuss concerns freely | 10(2.4) | 114(27.0) | 222(52.6) | 76 (18.0) | 422 |
| | Encouraged to ask about diseases, treatment & care | 11(2.6) | 120(28.4) | 213(50.5) | 78(18.5) | 422 |
| | Respected to desire of privacy during examination | 15(3.6) | 131(31.0) | 202(47.9) | 74(17.5) | 422 |
| Autonomy | Provided information on treatment option | 19(4.5) | 107(25.4) | 223(52.8) | 73(17.3) | 422 |
| | Health care provider ask consent before any procedure | 14(3.3) | 137(32.5) | 201(47.6) | 70(16.6) | 422 |
| | Get consulted on preference over alternative treatment | 15(3.6) | 121(28.7) | 245(58.1) | 41 (9.7) | 422 |
| | Get periodic updates on health status & progress | 25(5.9) | 123(29.1) | 225 (53.3) | 49 (11.6) | 422 |
| Confidentiality | Confidentiality protected during consultation | 36(8.5) | 108(25.6) | 194(46.0) | 84(19.9) | 422 |
| | Having conversation where others cannot hear | 23(5.5) | 102(24.2) | 240(56.9) | 57(13.5) | 422 |
| | Getting consultation where others cannot see | 22(5.2) | 82(19.4) | 240(56.9) | 78(18.5) | 422 |
| | Confidentiality of information provided is kept | 19(4.5) | 89(21.1) | 250(59.2) | 64(15.2) | 422 |

| | | | | | | |
|-------------------------|---|----------------|-------------|-------------|----------------|-----|
| | Confidentiality of medical records is kept | 25(5.9) | 99(23.5) | 234(55.5) | 64(15.2) | 422 |
| Communication | Provision of clear explanation on delivery service | 37(8.8) | 98(23.2) | 203(48.1) | 84(19.9) | 422 |
| | Listening to clients carefully | 34(8.1) | 91(21.6) | 224(53.1) | 73(17.3) | 422 |
| | Points are explained and clients understand easily | 28(6.6) | 97(23.0) | 232(55.0) | 65(15.4) | 422 |
| | Clients get opportunity o asking questions | 35(8.3) | 96(22.7) | 226(53.6) | 65(15.4) | 422 |
| Prompt attention | Get service as quick as they want | 37(8.8) | 101(23.9) | 229(54.3) | 55(13.0) | 422 |
| | Not spending unnecessary long time waiting to get service | 33(7.8) | 77(18.2) | 263(62.3) | 49(11.6) | 422 |
| | Length of time spent waiting for consultation is reasonable | 32(7.6) | 100(23.7) | 238(56.4) | 52(12.3) | 422 |
| Social support | Get opportunity of visitors daily | 70(16.6) | 51(12.1) | 128(30.3) | 173(41.0) | 422 |
| | Get opportunity of personal need care by friend or family | 79(18.7) | 57(13.5) | 203(48.1) | 83(19.7) | 422 |
| | Get opportunity of religious support from religious leader | 89(21.1) | 45(10.7) | 248(58.8) | 40(9.5) | 422 |
| Choice | Can choose health care provider in the unit | 45(10.7) | 85(20.1) | 267(63.3) | 25(5.9) | 422 |
| | Get opportunity to see specialist at time of want | 32(7.6) | 108(25.6) | 252(59.7) | 30(7.1) | 422 |
| | | V. poor | Poor | Good | V. good | |
| Basic amenities | The unit is clean | 0(0.0) | 17(4.0) | 171(40.5) | 234(55.5) | 422 |
| | Building of the unit is maintained | 1(0.2) | 24(5.7) | 200(47.4) | 197(46.7) | 422 |
| | Furniture in the unit is adequate | 39(9.2) | 141(33.4) | 183(43.4) | 59(14.0) | 422 |
| | The food in the unit is nutritious and edible | 26(6.2) | 182(43.1) | 165(39.1) | 49(11.6) | 422 |
| | Clean water in the unit is accessible | 31(7.3) | 181(42.9) | 169(40.0) | 41(9.7) | 422 |
| | The toilet in the unit is clean | 19(4.5) | 87(20.6) | 253(60.0) | 63(14.9) | 422 |
| | The shower service in the room is accessible | 15(3.6) | 210(49.8) | 175(41.5) | 22(5.2) | 422 |
| | The linen in the unit is clean | 12(2.8) | 170(40.3) | 204(48.3) | 36(8.5) | 422 |

In this study, all of the eight domains of responsiveness were used to assess the delivery service of JUMC and the findings are shown in the table below.

Table7: The mean responsiveness sub-dimension on evaluation of responsiveness of delivery service in JUMC, Jimma, 2021

| Responsiveness subdimension | N | Min | Max | Mean |
|------------------------------------|----------|------------|------------|-------------|
| Dignity | 422 | 6.67 | 100.00 | 63.3333 |
| Autonomy | 422 | .00 | 100.00 | 58.7480 |
| Confidentiality | 422 | .00 | 100.00 | 60.6161 |
| Communication | 422 | 15.00 | 100.00 | 62.3558 |
| Prompt attention | 422 | .00 | 100.00 | 58.0832 |
| Social support network | 422 | .00 | 100.00 | 57.8989 |
| Choice of care provider | 422 | .00 | 100.00 | 55.1343 |
| Quality of basic amenities | 422 | 25.00 | 95.83 | 60.7721 |

Majority of key informants agreed that there were some gaps in keeping all rights of childbearing mothers or in addressing legitimate expectation of mothers while giving delivery services.

“Sometimes, care provider personal behavior and work over load leads to gaps noticed in giving service with respect. But, majority of staffs tried to give service with keeping all their rights.” [35 years old male KII]

“The information provided here is sometimes incorrect and given in a susceptible manner in order to assist mothers to make the best choice of service.”

[25 years old male KII]

36 years old male key informants,

“Most of the time, all privacy is maintained, but there may be a lapse in keeping the client's card private because the card is kept on the mother's side, which has a chance of being seen by anyone who enters the room.”

“Sometimes, there is a gap in communication before, during, and after giving services. Most the of time, staffs try to give service or do procedures without communicating with the mother well and left the room.” [35 years old male KII]

All of key informant agreed that mothers should get prompt attention all the time and most of health care providers dedicated for such service. But, sometimes delay of service was noticed.

“More or less, it is good. All staffs actively give services for mothers on basic service and based on mothers need, but sometimes due to shortage in supply, service will be delayed.”

[28 years old male KII]

Most of the mother had social supports and sometimes trafficking of attendants disturb the service unit as majority of key informant agreed.

“The majority of mothers have more attendants and they want to enter as they want. But, due to fear of COVID-19, the psychological impact for alone mothers and crowded room affects the service quality, sometimes entering was not allowed.”

[25 years old male KII]

Majority of key respondents have not experienced mothers asking to choose among health care providers.

“Mostly, mothers come here from different areas & they do not know which health professionals to choose. But they come in private, they can communicate with the senior she wants before coming here. If not, the probability of getting the service by the healthcare providers she wants is rare.”

[36 years old male KII]

Majority of key informant agreed that even though there was some constraint in making physical environment/amenities more comfortable, it is improved than before.

“Due to the high number of mothers and attendants from different areas served here, there was a supply shortage and there was even inappropriate use and handling noticed by attendants of mothers.”

[28 years old female KII]

Table 8: Judgement matrix analysis of responsiveness in delivery service of Jimma University Medical Center, Jimma, 2021

(N=422)

| EQs | Dimensions | Indicators | Wt (a) | Score (a*b)/100 | Achieved (b) (100%) | Judgment Criteria |
|---|----------------|---|--------|-----------------|---------------------|--|
| Is labor and delivery service provided in Jimma University medical center responsive? If yes, how? If not, why? | Responsiveness | Proportion of mothers who respond the healthcare giver is kind and respectful | 5.5 | 3.91 | 71.01 | >=90% excellent, 80-89.9% v. good 70-79.9% good 60-69.9% fair <60% poor |
| | | Proportion of mothers who are respected to their desire for privacy during treatment and examinations | 4.5 | 2.69 | 59.79 | |
| | | Proportion of women encouraged to discuss their concerns and needs freely, during the process of care | 5 | 3.11 | 62.10 | |
| | | Proportion of mothers provided information on treatment option | 5 | 3.05 | 60.98 | |
| | | Proportion of mothers get informed consent before any procedure | 4 | 2.37 | 59.16 | |
| | | Proportion of mothers get periodic information on her status of health | 3.5 | 1.99 | 56.87 | |
| | | Proportion of women getting conversation where others can't hear | 4 | 2.38 | 59.48 | |
| | | Proportion of women getting consultation where others can't see | 4 | 2.52 | 62.88 | |
| | | Proportion of women getting confidentiality of her information | 3.5 | 2.16 | 61.69 | |
| | | Proportion of women getting confidentiality of her medical records | 4 | 2.40 | 59.95 | |
| | | Proportion of women get clear explanation about delivery service and other treatment | 3.5 | 2.09 | 59.72 | |
| | | Proportion of women getting opportunity of asking question | 4 | 2.35 | 58.69 | |

| | | | | |
|-----------------|---|------------|--------------|-------|
| | Proportion of mothers getting careful listening from their health care provider | 4.5 | 2.69 | 59.87 |
| | Proportion of mothers who understand things easily from health care providers explanation | 4 | 2.39 | 59.72 |
| | Proportion of women getting service as quick as she wanted | 4.5 | 2.57 | 57.19 |
| | Proportion of women not spending unnecessary long-time for getting consultations | 5 | 2.96 | 59.24 |
| | Proportion of women having opportunity of daily visitors | 3.5 | 2.28 | 65.24 |
| | Proportion of women getting opportunity of religious support from religious leader in their hospital stay | 3.5 | 1.83 | 52.21 |
| | Proportion of mothers who can choose health care provider in delivery services | 3.5 | 1.92 | 54.82 |
| | Proportion of mothers getting opportunity to see specialist at time they want | 3.5 | 1.94 | 55.45 |
| | proportion of women responding the unit is clean | 5 | 4.19 | 83.81 |
| | Proportion of women responding that the toilet is clean | 4 | 2.47 | 61.77 |
| | Proportion of women responding that clean water is access able in the unit | 4 | 2.03 | 50.71 |
| | Proportion of women getting shower service in the unit at time they want | 4.5 | 2.23 | 49.45 |
| Over all | | 100 | 60.52 | |

The score of 60.52% based on the judgment matrix criterion indicates that JUMC's delivery service responsiveness is fair.

The dependent variable's normality and the presence of multicollinearity in the independent variables were both examined. The dependent variable findings of the Kolmogorov-Smirnov test supported the assumption of normality ($p = 0.001$). We used a normal P-P plot, Q-Q plot, and histogram to determine whether the residuals were normal. The plot demonstrates that there are no significant departures from the typical distribution of the points. This suggests that the residuals are distributed normally. Residuals have a positive correlation and the overall model is significantly useful in explaining responsiveness, $F(20, 401) = 7.893, p < 0.001$ (i.e., the regression model is a good fit for the data).

6.5. Factors associated with responsiveness

Bivariate analysis

The presence of any association between an independent variable and responsiveness as a dependent variable was investigated using a bivariate linear regression statistical test. The bivariate analysis revealed that at a p-value less than or equal to 0.25 significance level, 09 variables were identified as a candidate such as the age of respondents, residency of respondents, educational status, occupational status, number of family members living together, average family monthly income, place of delivery, mode of current delivery and history of stillbirth. The enter method was used to input the variables into a multivariable linear regression in order to establish the final predictors of responsiveness while controlling for potential confounders.

Table 9: Mothers related factors of responsiveness of delivery service in JUMC, Jimma, 2021(N=422)

| Variables | Characteristics | Frequency (%) | Unstandardized CoefficientB | p-value | 95.0% CI for B | |
|------------------|------------------------|---------------|-----------------------------|---------|----------------|--------|
| | | | | | LB | UB |
| Residency | Jimma town* | 178(42.2%) | 0 | | | |
| | Out of Jimma but urban | 153(36.3%) | -2.608 | 0.071 | -5.439 | .223 |
| | Rural | 91(21.6%) | -.922 | 0.584 | -4.231 | 2.388 |
| Education status | No read and write | 39(9.2%) | 6.037 | 0.008 | 1.584 | 10.491 |
| | Informal | 13(3.1%) | -1.378 | 0.704 | -8.510 | 5.753 |

| | | | | | | |
|----------------------------|--------------------------------|------------|---------|--------|---------|--------|
| | Primary* | 140(33.2%) | 0 | | | |
| | Grade 9-12 | 114(27.0%) | -1.105 | 0.484 | -4.207 | 1.998 |
| | College & above | 116(27.5%) | -7.594 | <0.001 | -10.682 | -4.506 |
| Occupation status | Housewife* | 183(43.4%) | 0 | | | |
| | Government | 99(23.5%) | -10.617 | <0.001 | -13.632 | -7.603 |
| | Private | 40(9.5%) | -5.548 | 0.01 | -9.766 | -1.331 |
| | Merchant | 76(18.0%) | -8.934 | <0.001 | -12.232 | -5.637 |
| | Farmer | 24(5.6%) | -7.795 | 0.004 | -13.041 | -2.549 |
| Place of previous delivery | Gov't hospital* | 122(28.9%) | 0 | | | |
| | Health center | 113(26.8%) | -0.729 | 0.615 | -3.578 | 2.121 |
| | private hospital | 2(0.5%) | -6.320 | 0.494 | -24.484 | 11.843 |
| | home | 25(5.9%) | 6.562 | 0.016 | 1.221 | 11.903 |
| Current mode of delivery | SVD* | 166(39.3%) | 0 | | | |
| | Episiotomy | 111(26.3%) | -0.882 | 0.575 | -3.969 | 2.205 |
| | Instrumental | 15(3.6%) | -10.906 | 0.002 | -17.695 | -4.118 |
| | Cesarean section | 130(30.8%) | -5.449 | <0.001 | -8.398 | -2.500 |
| Stillbirth | Yes | 23(5.5%) | -6.464 | 0.021 | -11.951 | -0.977 |
| | No* | 399(94.5%) | 0 | | | |
| Family numbers | members living together | | 1.154 | 0.012 | .260 | 2.049 |
| Family monthly income | average monthly incomes in ETB | | -0.001 | <0.001 | -0.002 | -0.001 |
| Age | Age of respondent | | -0.406 | 0.012 | -0.722 | -0.089 |

* Reference category (the highest frequency taken as reference category)

Multivariate analysis

As showed in table 9 above, nine variables identified for multi variable analysis to analyze and got the final associated factors using enter method. Finally, four variables of them were identified as the statistically significant predictors of responsiveness in multivariable linear regression with a p-value of 0.05 and 95% CI. The variables in this model explained 28.2% (R=0.531, R square=0.282, Adjusted R square=0.247) of the variability in client's responsiveness towards delivery service. In this evaluation, rural in residency, merchant and farmer as the status of occupation, average monthly family income and instrumental delivery from a mode of current delivery were the final independent predictors of responsiveness among study participants.

As compared to urban, living in rural areas leads to decrement of delivery service responsiveness by 3.875 (95%CI=-7.101, -.650, P=0.019). As compared to house wife by occupation, being merchant and farmer leads to decrement of delivery service responsiveness by 6.657(95%CI=-9.955, -3.359, P<0.001) and 5.984 (95%CI=-11.155, -0.813, P=0.023) respectively. As the monthly family income increases by one unit, responsiveness of delivery service decrease by 0.001(95%CI=-0.002, -0.001, P< 0.001). Also, as compared to spontaneous vaginal delivery (SVD) on current mode of delivery, instrumental assisted delivery decrease responsiveness of delivery service by 7.979(95%CI=-14.236, -1.722, P=0.013).

Table 10:Independent factors associated with responsiveness of delivery service in JUMC, Jimma, 2021 (N=422)

| Variables | Characteristics | Unstandardized Coefficients | p-value | 95.0% CI for B |
|--------------------------|---------------------------------------|-----------------------------|---------|-----------------|
| Residency | Jimma town | 0 | | |
| | Rural | -3.875 | 0.019 | -7.101, -.650 |
| Occupation | Housewife | 0 | | |
| | Merchant | -6.657 | <0.001 | -9.955, -3.359 |
| | Farmer | -5.984 | 0.023 | -11.155, -.813 |
| Current mode of delivery | SVD | 0 | | |
| | Instrumental | -7.979 | 0.013 | -14.236, -1.722 |
| Monthly income | Family average monthly incomes in ETB | -0.001 | <0.001 | -.002, -.001 |

Overall judgement matrix

As shown in table 11 below, overall responsiveness of delivery service assessed using availability and responsiveness with its eight subdimension scores 70.07 %. Eventhough, as pre judgment criteria setted, the responsiveness of delivery service in Jimma University medical center was in good level but which still needs more effort and attention to give more responsive maternal care.

Table 11: Overall judgment matrix analysis of evaluation of responsiveness of delivery service in Jimma University Medical Center, Jimma, 2021

| Evaluation questions | Dimen sions | # Of indicat ors | Weight given | Observed value | 100% | Judgment Criteria |
|---|----------------|------------------|--------------|----------------|-------|--|
| Are the resources required for provision of delivery service available? If yes, how? If not, why? | Availability | 11 | 40 | 33.76 | 84.4 | >90% excellent, 81-90% v. good 70-80% good 60-69% fair <60% poor |
| Is labor and delivery service provided in Jimma University medical center responsive? If yes, how? If not, why? | Responsiveness | 24 | 60 | 36.31 | 60.52 | >90% excellent, 81-90% v. good 70-80% good 60-69 % fair <60% poor |
| Total | | 35 | 100 | 70.07 | | |

Chapter 7: Discussion

This study evaluated the responsiveness of delivery service given in Jimma University medical center in terms of availability and responsiveness dimension. The availability of resource was 84.40 %, responsiveness of delivery service was 60.52% and overall responsiveness was 70.07% based on judgement parameter.

7.1. Availability Dimension

As per referral hospital national standard, 90 (all types) of nurses and midwives were required in, but only 77.80 % of them were available at the time of this study. The average number of clients assigned to one nurse/midwife per shift in JUMC were 7-10 in maternity ward, this finding is high as compared to the national standard, which recommends as to be six. 2 midwives for five coaches, 2 midwives for 10 beds of post-partum and 5 midwives for 12 beds of laboring mother per shift, this showed that high number of clients assigned for one midwives. This implies that nurses/midwives in the JUMC were overloaded by extra clients compared to the national standard(36,49).

There were different equipment and supplies shortage and absence notice in this evaluation. but, it must to be available 24 hours a day to give maternal care according to Ethiopia hospital service transformation guideline(50).

As the findings showed, there is no CRC and CEmONC training for staff working in delivery services yet. But, giving training for clinical staff is an important way to increase professionalism, improve quality of care, save lives, and increase good interaction between clients and healthcare providers (34,53).

7.2 Responsiveness dimension

This study evaluated the responsiveness of delivery services in JUMC from a user's and care providers perspective. The responsiveness performances of the healthcare in delivery services of Jimma University medical center were 60.52 % and it was varied across the domains; dignity (63.33%), confidentiality (60.61%) and communication (62.35%), were the highest score whereas choice of care provider had lowest score of 55.13%.

Study conducted on labor & delivery services of 3 district hospital in Ghana showed that perception score of responsiveness was 43.3% and Confidentiality, dignity, and autonomy received the highest standard scores (58.3%, 57%, and 53.7%), respectively, while

conducive physical environment or amenities received was the lowest (19.2%)(29). This discrepancy might be occurred due to difference in service quality, health care providers behavior, socio-culture, socio-economic, infrastructures and study period. It means as service quality and health care providers professionalism increased, improved infrastructures, and if different strategies implemented without discrimination in culture and economic status, through time it will result in responsive delivery services.

The result of this study showed relatively high as compared to study conducted in Hadiya zone public hospital showed that, 53.0% of users reported the delivery care was responsive and also varied across the domains; dignity 77%, prompt attention 71.7% and communication 71.4% were the high score whereas choice of care provider 41.6% was the lowest score(48). This discrepancy occurred might be due to difference in numbers and types of hospital. This variation might be due to various healthcare professionals' presence with qualified sub-specialities in tertiary hospital than primary hospital and health care providers practice and monitoring system in giving responsive delivery service towards legitimate expectation of mothers might differ from hospital to hospital.

In this finding, 172(40.84%) of women were not consented before procedures, 182(43.13%) of women didn't get information on her progress of labor and health status, 160(37.9%) of clients cannot ask questions freely and 59.72 % did not explained what can be done for them. As study conducted in Addis Ababa public health facilities, 78% faced one or more categories of disrespect and abuse. 89% of service providers did not introduce themselves, 32.9% did not got periodic updates of labor progress, 43.4% did not explain what was being done to them and 48% did not obtain their consent prior to any procedure(54). This discrepancy may be due to mothers in Addis Ababa being awared and knowledgable about their rights and gaps in getting responsive service, study time means after various effort and strategies nationally implemented and relatively large sample size used in this study which might increase representation of mothers.

Also, previous studies on disrespect and abuse of maternal care in JUMC showed that 90% of womens right to information, being consent and choice of service was not protected, 50% not got dignified care, 24.1 % not got equitable service, and confidentiality was not kept in 81.7% of mothers(22). This discrepancy might be occurred due the

previous study was conducted during the initiation of health sector transformation plan I to improve healthcare service quality using various strategies and professionals' qualification improvement to quality services at health facility level.

Different studies were conducted in Ethiopia related to compassionate and respectful maternal care; in 28 Public health facilities of Ethiopia (66%), public health institution of south Gondor and Bahir Dar (39.4%) & 57% respectively), referral hospital of north west Amhara (56.3%), health institution of west Shoa Oromia(35.8%), in 17 public health facilities of Ilu Ababor (47.3%), in Harar town hospitals (38.4%), in Adama hospital medical college(42.4%), Addis Ababa in 4 public hospital (65.8%) and in Addis Ababa Tirunesh Beijing (87.4%) of mothers got compassionate and respectful maternal care(14,21,23,55–61). Nationally, ministry of health does various activities using different strategies to meet universal health coverage and to improve health system responsiveness which might result in variation of infrastructures of health facilities, study period of facilities, and service quality difference secondary to care providers attitude and skills.

7.3 Factors affecting the responsiveness of delivery service

The finding of this evaluation showed that there were statistical association between residency, occupation, family's average monthly income and current mode of delivery of respondents' responsiveness towards delivery service.

Concerning clients' socio demographic characteristics, being living in rural leads to decrement of responsiveness of delivery service score by 3.87 as compared to living in urban. study done in Bahir Dar showed that living in rural, the maternal care services given was 6.49 times in disrespectful manner(21) but the finding contrasts with study done in Hadiya Zone(48) showed that poor responsiveness of maternal care was high in urban residents. This difference might be happened due to most rural mothers comes relatively from different socio-cultural and educational level to new hospital environment which leads to poor communication and understanding with care provider and finally might be end with poor responsiveness of delivery service.

This evaluation finding showed that as average monthly income of the family increases by 100 unit, the responsiveness of delivery service decreases by 0.1. But, study done related to respectful maternal care of mothers in public health facilities of Bahir Dar and

Addis Ababa (21,54) contradict that in which decrement of average family monthly income resulted in increased the maternal care disrespect and abuse as compared to high monthly income. The variation might be due to clients having high income will expect more quality health care services from health care providers and discrimination from health care providers.

As mode of delivery was instrumental, the responsiveness of delivery service decreases by 7.97 as compared to spontaneous vaginal delivery (SVD). As study done in public health facilities of Ilu Ababor zone(57) in which instrumental assisted delivery were 95% less likely to have respectful care but study in Bahir Dar showed that a caesarian section service were 4.52 times more likely to encounter disrespect(21). This might be due to having a spontaneous onset of labor resulting in vaginal delivery is the natural way, instrumental assisted deliveries are more traumatic, painful and might end with significant complications when compared with SVD and health care attitudes towards mothers.

Being merchant and farmer of respondents leads to decrement in responsiveness of delivery service by 6.65 and 5.98 respectively as compared to housewife. But, study conducted in southern Thailand(2) showed that as mothers income increase and being an employee by occupation when compared with housewife, the health system responsiveness of delivery service shows incremental. This discrepancy may be due to difference socio economic, socio cultural, educational status, infrastructures of facilities & waiting time for service.

7.4: Limitations of evaluation

Even though, this evaluation is important in increasing the responsiveness of health system, there was possible limitation faced. Since, the data collection is in the hospital, there was social desirability bias and fear of responding to what extent the service is responsive. To reduce this the data collector doesn't wear gown and building trust between interviewer and participants, interview was in private room of the setups, assures confidentiality and the purpose of evaluation was discussed clearly. The data collected from mothers who was giving birth via cesarean section was biased due anesthesia effect and pain. To minimize this, interview was taking place after 3 days of operation and after women health condition assessed and possible prior to discharge.

Chapter 8: conclusion and recommendation

8.1. Conclusion

Based on judgment parameters of this evaluation, the overall responsiveness of delivery service was good in Jimma University Medical Center. But there were differences across the eight subdimensions that were used to assess responsiveness dimension of delivery service in which dignity scores highest whereas choice of care provider scores the lowest relatively.

Moreover, according to this evaluation, the availability of resources for providing delivery service in JUMC was very good. majority of medical equipment, drugs and supplies are available to give delivery services in JUMC. However, there is some interruption of supplies, drugs and absence of medical equipment particularly; IV fluids, 40% dextrose, dexamethasone, ceftriaxone, Iv cannula, syringe with needle, sterile glove, urinary catheter, thermometer and stethoscope. There is nurse and midwife shortage as per the standard and those available care providers in maternity unit have not taken CRC & CEmOC training yet.

Rural residency, merchant and farmer by occupation, average monthly family income and instrumental assisted current mode of delivery were independent factors associated with decrement of responsiveness of delivery service in JUMC.

This finding has important implications for facility-based delivery, which must address responsiveness to promote its increased use and protect women's rights while giving birth in a medical facility. The estimation of gaps in responsiveness of delivery service is useful to health care providers of the unit and stakeholders who works for health care service improvement.

8.2. Recommendation

For JUMC

- ✚ In collaboration with ministry of health, additional nurses and midwives should be recruited for JUMC
- ✚ Nurses and midwives should receive in/off-services training on CRC and Comprehensive emergency obstetrics care.
- ✚ Cabinet or nursing station of labor and delivery or maternal unit should be filled by drugs, supplies and medical equipment like IV fluids, emergency drugs, urinary catheter, thermometer and stethoscope

For nurses and midwives

- Nurses and midwives should properly discuss and try to fill gaps noticed in keeping women legitimate rights during service delivery
- Nurses and midwives should improve their communication skill with the clients.
- It is better if nurses and midwives include clients perceived expectations during nursing assessment

For researchers

- It will be good if researchers conduct further research on health care responsiveness by including utilization and quality dimensions in health care services.
- Further evaluation may be required to confirm to what extent that the clients' backgrounds correlated to responsiveness of delivery service.

Chapter 9: Meta-evaluation

In this evaluation, Summative meta evaluation was conducted by external evaluators to point out the worthiness and merit of this service evaluation using standard checklist which have 30 standard checklists having 06 checkpoints under each substandard of meta evaluation (62). The judgment parameter was decided to be excellent, if $\geq 90\%$, very good, if 80-89.9%, good, if 70-79.9%, fair, if 60-69.9%, and poor, if $< 60\%$. The overall status of evaluation was measured at 81.2%, which was very good according to criteria.

6.1. Utility

This standard was measured using 7 checkpoints with 26 sub checkpoints, of which 21 of them scored yes, which was an 80.8 % score. Stakeholders were identified and involved in each stage of evaluation on different phase of service description and their interest for service improvement. The evaluation result was described with clear way for the stakeholder found in Jimma university medical center.

6.2. Propriety

Propriety is about protection and respecting of the right of subject under evaluation. It was conducted legally, ethically, and with due regard for the welfare of those involved in the evaluation. This standard was measured using 8 checkpoints with 34 sub checkpoints, of which 29 of them scored yes, which was an 85.3 % score.

6.3. Feasibility

Feasibility standard recognize that evaluation usually is conducted in a natural setting and consume valuable resources. This standard was measured using 3 checkpoints with 10 sub checkpoints, of which 7 of them scored yes, which was an 70 % score.

6.4. Accuracy

To maintain the accuracy standard training was provided to data collectors to collect valid, credible and reliable information with different data collection methods from appropriate sources, prepared valuable judgment, feasible recommendations and change to the service was evaluated. This standard was measured using 12 checkpoints with 44 sub checkpoints of which 39 scored yes, which was an 88.6 % score.

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Annexes

Annex 1: relevance and information matrix of indicators of evaluation responsiveness of delivery service

Table 12: Relevance matrix of indicators of evaluation responsiveness of delivery service in Jimma University medical center, Jimma, 2021

| List of indicators | Dimension | Relevance (RRR , RR , R) RRR - most relevant, RR - relevant R -Least relevant |
|---|--------------|--|
| Number of health care provider in labor ward | Availability | RRR |
| Number of health care provider in maternity operation room | Availability | RRR |
| Number of health care provider in maternity ward | Availability | RRR |
| Number of operation theatre table | Availability | RRR |
| Number of delivery coaches in delivery unit | Availability | RRR |
| Number delivery set in delivery unit | Availability | RRR |
| Number of cesarean sections set in maternity operation room | Availability | RRR |
| Number of laparotomies sets in maternity operation room | Availability | RRR |
| Number of CEmONC guideline in delivery unit | Availability | RR |
| Percentage of equipment must be available 24 hours & functional in delivery unit | Availability | RRR |
| Percentages of emergency drugs must be available 24 hours in delivery unit cabinet | Availability | RRR |
| Proportion of mothers who respond the healthcare giver is kind and respectful | Dignity | RRR |
| Proportion of mothers who are respected to their desire for privacy during treatment and examinations | Dignity | RRR |

| | | |
|---|------------------|-----|
| Proportion of women encouraged to discuss their concerns and needs freely, during the process of care | Dignity | RRR |
| Proportion of mothers provided information on treatment option | Autonomy | RRR |
| Proportion of mothers get informed consent before any procedure | Autonomy | RRR |
| Proportion of mothers get periodic information on her status of health | Autonomy | RRR |
| Proportion of women getting conversation where others can't hear | Confidentiality | RRR |
| Proportion of women getting consultation where others can't see | Confidentiality | RRR |
| Proportion of women getting confidentiality of her information | Confidentiality | RRR |
| Proportion of women getting confidentiality of her medical records | Confidentiality | RRR |
| Proportion of women get clear explanation about delivery service and other treatment | Communication | RRR |
| Proportion of women getting opportunity of asking question | Communication | RRR |
| Proportion of mothers getting careful listening from their health care provider | Communication | RRR |
| Proportion of mothers who understand things easily from health care providers explanation | Communication | RRR |
| Proportion of women getting service as quick as she wanted | Prompt attention | RRR |
| Proportion of women not spending unnecessary long-time for getting consultations | Prompt attention | RRR |
| Proportion of women having opportunity of daily visitors | Social support | RRR |
| Proportion of women getting opportunity of religious support from religious leader in their hospital stay | Social support | RRR |
| Proportion of mothers who can choose health care provider in delivery services | Choice | RRR |
| Proportion of mothers getting opportunity to see specialist at time they want | Choice | RRR |

| | | |
|--|-----------------|-----|
| proportion of women responding the unit is clean | Basic amenities | RRR |
| Proportion of women responding that the toilet is clean | Basic amenities | RRR |
| Proportion of women responding that clean water is access able in the unit | Basic amenities | RRR |
| Proportion of women getting shower service in the unit at time they want | Basic amenities | RRR |

Table 13: Information matrix of evaluation of responsiveness of delivery service of Jimma University medical center, Jimma, 2021

| List of indicators | Data source | DC methods | Data collection tool |
|---|------------------|----------------|-----------------------------|
| Number of health care provider in labor ward | Head of the unit | KI interview | Checklist & interview guide |
| Number of health care provider in maternity operation room | Head of the unit | KI t interview | checklist & interview guide |
| Number of health care provider in maternity ward | Head of the unit | KI interview | checklist & interview guide |
| Number of operation theatre table | Head of the unit | KI interview | Inventory checklist |
| Number of delivery coaches in delivery unit | Head of the unit | KI interview | Inventory checklist |
| Number delivery set in delivery unit | Head of the unit | KI interview | Inventory checklist |
| Number of cesarean sections set in maternity operation room | Head of the unit | KI interview | Inventory checklist |
| Number of laparotomies sets in maternity operation room | Head of the unit | KI interview | Inventory checklist |
| Number of CEmONC guideline in delivery unit | Head of the unit | KI interview | Inventory checklist |
| Percentage of equipment must be available 24 hours & functional in delivery unit | Head of the unit | KI interview | Inventory checklist |
| Percentages of emergency drugs must be available 24 hours in delivery unit cabinet | Head of the unit | KI interview | Inventory checklist |
| Proportion of mothers who respond the healthcare giver is kind and respectful | Mothers | Exit interview | Interview guide |
| Proportion of mothers who are respected to their desire for privacy during treatment and examinations | Mothers | Exit interview | Interview guide |
| Proportion of women encouraged to discuss their concerns and needs freely, during the process of care | Mothers | Exit interview | Interview guide |

| | | | |
|---|---------|----------------|-----------------|
| Proportion of mothers provided information on treatment option | Mothers | Exit interview | Interview guide |
| Proportion of mothers get informed consent before any procedure | Mothers | Exit interview | Interview guide |
| Proportion of mothers get periodic information on her status of health | Mothers | Exit interview | Interview guide |
| Proportion of women getting conversation where others can't hear | Mothers | Exit interview | Interview guide |
| Proportion of women getting consultation where others can't see | Mothers | Exit interview | Interview guide |
| Proportion of women getting confidentiality of her information | Mothers | Exit interview | Interview guide |
| Proportion of women getting confidentiality of her medical records | Mothers | Exit interview | Interview guide |
| Proportion of women get clear explanation about delivery service and other treatment | Mothers | Exit interview | Interview guide |
| Proportion of women getting opportunity of asking question | Mothers | Exit interview | Interview guide |
| Proportion of mothers getting careful listening from their health care provider | Mothers | Exit interview | Interview guide |
| Proportion of mothers who understand things easily from health care providers explanation | Mothers | Exit interview | Interview guide |
| Proportion of women getting service as quick as she wanted | Mothers | Exit interview | Interview guide |
| Proportion of women not spending unnecessary long-time for getting consultations | Mothers | Exit interview | Interview guide |
| Proportion of women having opportunity of daily visitors | Mothers | Exit interview | Interview guide |
| Proportion of women getting opportunity of religious support from religious leader in their hospital stay | Mothers | Exit interview | Interview guide |
| Proportion of mothers who can choose health care provider in delivery services | Mothers | Exit interview | Interview guide |
| Proportion of mothers getting opportunity to see specialist at time they want | Mothers | Exit interview | Interview guide |
| proportion of women responding the unit is clean | Mothers | Exit interview | Interview guide |
| Proportion of women responding that the toilet is clean | Mothers | Exit interview | Interview guide |
| Proportion of women responding that clean water is access able in the unit | Mothers | Exit interview | Interview guide |
| Proportion of women getting shower service in the unit at time they want | Mothers | Exit interview | Interview guide |

Annex 2: Budget breakdown

Table 14: budget break down of evaluation of responsiveness of labor and delivery service in Jimma University Medical Center, Jimma, 2021

| S.no | Item | Unit | Unit price | Total quantity | Total price |
|-------------|-----------------------------|-------------------|------------|----------------|-------------|
| 1 | Pen | Number | 10 | 5 | 50.00 |
| 2 | Pencil | Number | 2 | 5 | 10.00 |
| 3. | Pencil sharpener | Number | 10 | 2 | 20.00 |
| 4 | Eraser | Number | 8 | 3 | 24.00 |
| 5 | Blank CD | Number | 25 | 2 | 50.00 |
| 6 | Data collectors fee | Per questionnaire | 25 | 422 | 10550.00 |
| 7 | Training of data collectors | Day | 500 | 6 | 3000.00 |
| 8 | Transportation fee | Day | 30 | 30 | 900.00 |
| 9 | Refreshment cost | Day | 150 | 2 | 300.00 |
| 10 | Marker | Number | 30 | 2 | 60.00 |
| 11 | Paper A4 | Pack | 600 | 1 | 600.00 |
| 12 | Printing | Page | 2.5 | 280 | 700.00 |
| 13 | Color print | Page | 10 | 10 | 100.00 |
| 14 | Binding | Number | 30 | 4 | 120.00 |
| 15 | Contingency 10% | | | | 1646.4 |
| Total grant | | | | | 18110.4 |

Annex 3: Data collection tools

Annex 3.1. Check list for inventory

Name of health facility _____ Date _____

Availability check list verified by observation for evaluation of responsiveness of labor and delivery service in JUMC, Jimma Ethiopia 2021 was followed as below.

| S.no | Drugs available and infrastructures | Yes | No | Remark |
|------|---|-----|----|--------|
| | Infrastructures | | | |
| 1 | Independent labor room | | | |
| 2 | Independent delivery room | | | |
| 3 | Toilet for mothers | | | |
| 4 | Shower room for mothers | | | |
| 5 | water supply | | | |
| 6 | Electricity presence in all class | | | |
| 7 | Beds, mattresses, pillows, blankets, and linens | | | |
| 8 | bed side tables/lockers | | | |
| 9 | Bed screens | | | |
| 10 | Bed side chair | | | |
| | Drugs and equipment for delivery service | | | |
| 11 | Oxytocin/ Ergometrine | | | |
| 12 | Magnesium sulphate/diazepam | | | |
| 13 | Antihypertensive (Nifedipine and Hydralazine) | | | |
| 14 | 40% glucose | | | |
| 15 | Lidocaine | | | |
| 16 | Tetracycline eye ointment | | | |
| 17 | Atropine | | | |
| 18 | Hydrocortisone | | | |
| 19 | Ca gluconate | | | |
| 20 | Adrenaline | | | |
| 21 | Aminophylline | | | |
| 22 | Dexamethasone | | | |
| 23 | Misoprostol & mifepristone | | | |
| 24 | Ceftriaxone | | | |
| 25 | TDF/3TC/EFV (ARV drugs) | | | |
| 26 | Nevirapine syrup | | | |

| | | | | |
|----|---|--|--|--|
| 27 | Oxygen | | | |
| 28 | Tetracycline eye ointment | | | |
| 29 | Vitamin K | | | |
| 30 | Ephedrine injection | | | |
| 31 | Ketamine injection | | | |
| 32 | Oxygen inhalation | | | |
| 33 | Thiopental iv | | | |
| 34 | Halothane | | | |
| 35 | Muscle relaxant (Suxamethonium & Vecronium) | | | |
| 36 | Lidocaine injection and or Bupivacaine | | | |
| 37 | Lidocaine + epinephrine injection | | | |
| 38 | Spinal Needle | | | |
| 39 | IV fluids (crystalloids) | | | |
| 40 | Sterile gloves | | | |
| 41 | IV Cannula | | | |
| 42 | IV sets | | | |
| 43 | Syringe with needle | | | |
| 44 | HIV test kits | | | |
| 45 | Delivery sets | | | |
| 46 | Episiotomy sets | | | |
| 47 | Craniotomy sets | | | |
| 48 | Sterile suture kit | | | |
| 49 | B/P apparatus with cuff | | | |
| 50 | Stethoscope | | | |
| 51 | Thermometer | | | |
| 52 | Weight scale for baby | | | |
| 53 | Urinary Catheter | | | |
| 54 | Ultra Sound | | | |
| 55 | Suction machine portable | | | |
| 56 | Incubator | | | |
| 57 | Radiant warmer | | | |
| 58 | Vacuum extractor | | | |

| | | | | |
|----|--|--|--|--|
| 59 | Cord cutting/clumping set | | | |
| 60 | Forceps | | | |
| 61 | Suction bulb for newborn | | | |
| 62 | IV cannula of different size | | | |
| 63 | IV stand | | | |
| 64 | Sterilizer | | | |
| 65 | Ambu-bag with sterile mask | | | |
| 66 | Delivery coaches | | | |
| 67 | C/S or maternity Operation table | | | |
| 68 | Nasal prong for oxygen | | | |
| 69 | Mask for oxygen administration | | | |
| 70 | Catheter for oxygen administration | | | |
| 71 | Filled oxygen tank with flow meter | | | |
| 72 | Stand lamp | | | |
| 73 | Partograph | | | |
| 74 | Fetoscope/ doppler | | | |
| 75 | Tape to measure baby length and Head circumference | | | |
| 76 | Speculum for vaginal examination | | | |
| 77 | MVA set (at least two) | | | |
| 78 | E & C set (at least two) | | | |
| 79 | Mask for staffs | | | |
| 80 | Sanitizer | | | |
| 81 | Towels for drying and wrapping | | | |
| 82 | weighing scale for baby | | | |
| 83 | Long sleeve glove for placenta removal | | | |
| 84 | Functioning clock | | | |
| 85 | Registration books | | | |
| 86 | Reporting formats | | | |

Annex 3.2. Human Resource in labor, delivery and maternity ward of JUMC,2021

| Category | Units | Professions or duty | Male | | Female | | Total | Remark |
|-------------------|----------------|---------------------|------|-----|--------|-----|-------|--------|
| | | | BSc | Dip | BSc | Dip | | |
| Medical staffs | Labor ward | Nurse | | | | | | |
| | | Midwives | | | | | | |
| Supportive staffs | Labor ward | Runner | | | | | | |
| | | Porter | | | | | | |
| | | Cleaner | | | | | | |
| | | Guard | | | | | | |
| Medical staffs | Maternal OR | Nurses | | | | | | |
| | | Midwives | | | | | | |
| Supportive staff | Maternal OR | Runner | | | | | | |
| | | Porter | | | | | | |
| | | Cleaner | | | | | | |
| | | Guard | | | | | | |
| Medical staffs | Maternity ward | Nurses | | | | | | |
| | | Midwives | | | | | | |
| Supportive staffs | Maternity ward | Runner | | | | | | |
| | | Porter | | | | | | |
| | | Cleaner | | | | | | |
| | | Guard | | | | | | |

Annex 4: English Version exit interview Questionnaires

Instructions for the interviewers:

First of all, greeting the mother and ask them whether they are willing to be asked some questions related to her and service given by clarifying the purpose of evaluation and get informed consent to be interviewed. If they accept, make sure that you are in a place that comfortable and privacy for the mothers. For each item in the interview, gave appropriate response accordingly. Lastly don't forget to thanks participants.

Informed Consent Form for the Client interview

My name is _____, and I am an interviewer for the evaluation conducting on the responsiveness of delivery service in Jimma University medical center, the study is conducting to see what delivery service and its non-medical aspect of care look like in this hospital. This information helps us to propose ways in which to improve the services offered. As part of this study, we are interviewing women who came for delivery service. The interview is private, and none of the care providers cannot hear and share the information I ask you rather than the study members. However, your participation in this study is voluntary, and you can totally refuse or interrupt at any time. You have a full right to stop at any time but your participation has a great contribution to the study to make service improvement in future. If you have questions, you can ask me any unclear things you have.

Do you agree to participate A. Yes B. No

Date of interview _____ Start time ____ End time _____

Code of participant _____ Signature of participant _____

Status of the questionnaires: 1. Partial 2. Completed

Thanks for your cooperation!!

Part I: Socio-demographic characteristics of respondents

| Code | Questions | Possible answers | Remark |
|------|---|--|--------|
| 100 | How old are you? | _____years | |
| 101 | What is your marital status? | 1. Single 2. Married 3. Divorced 4. Widowed | |
| 102 | What is your religion? | 1. Muslims 2. Orthodox 3. Protestant 4. others/specify | |
| 103 | What is your ethnicity? | 1. Oromo 2. Amhara 3. Gurage 4. Kafa 5. Dawro 6. other/specify | |
| 104 | Where is your residency? | 1. Jimma town 2. Out of Jimma but Urban 3. Rural | |
| 105 | What is your educational level? | 1. Illiterate (no read & write) 2. Informal education 3. Primary 4. 9-12 grades 5. college and above | |
| 106 | What is your occupation? | 1.government employee 2. Private employee 3. Merchant 4. Housewife's 5. Farmer 6. other/specify__ | |
| 107 | Currently, how many family members are living together? | _____ | |
| 108 | What are your family average monthly incomes? | _____ET. birr | |

Part II: Reproductive health history of respondent

| Code | Questions | Possible answers | Skip pattern |
|------|------------------------------|------------------|---------------------------|
| 200 | Was it your first pregnancy? | Yes 2. No | If yes to Q200 go to Q204 |

| | | | |
|-----|--|--|--|
| 201 | If no to Q200, how many times you are pregnant including this? | _____ | |
| 202 | What was your age at first pregnancy? | _____years | |
| 203 | Where you gave birth the last baby before? | 1. Health center 2. Public hospital 3. Private hospital 4. Home 5. Other/specify | |
| 204 | What is your current mode of delivery? | 1. SVD 2. Episiotomy 3. Instrument assisted 4. C/S | |
| 205 | Do have live birth baby? | 1.yes 2.no | If no to Q205 , go to Q207 |
| 206 | If yes how many children do you have? | _____ | |
| 207 | Do you have ANC follow up during this pregnancy? | 1. Yes 2. No | If no to Q207 , go to Q209 |
| 208 | If yes to Q207, how many times? | _____ | |
| 209 | Do you have still birth history? | Yes 2. no | If no to Q209 go to Q211 |
| 210 | If yes to Q208, how frequent? | 1. Once 2. Twice 3. >= 3 times | |
| 211 | Have you ever had abortion? | 1. Yes 2. No | If no to Q211 go to Q300 |
| 212 | If yes to Q211, how frequent | Once 2. Twice 3. >=3 times | |

Part III: delivery service responsiveness related questions

For the following questions response can be 1= never, 2=sometimes, 3=usually, and 4=always

| Code | Question of responsiveness | Response options | | | |
|------|--|------------------|---|---|---|
| | | 1 | 2 | 3 | 4 |
| 300 | How often you are treated with respect? | | | | |
| 301 | How often your rights kept safe from any communicable or infectious diseases in this unit? | | | | |
| 302 | How often you are encouraged to discuss your concerns freely? | | | | |
| 303 | How often you are encouraged to ask questions about diseases, treatment and care? | | | | |
| 304 | How often you are respected to your desire for privacy during treatment and examinations? | | | | |
| 400 | How often you are provided information on alternative treatment options? | | | | |
| 401 | How often the health care providers obtain your consent or permission before any procedure? | | | | |
| 402 | How often you are consulted about your preferences over alternative treatment options? | | | | |
| 403 | How often health care provider gives you periodic updates on the status and progress of your labor? | | | | |
| 500 | How often your consultations carried out in a manner that protects your confidentiality? | | | | |
| 501 | How often you do have conversation with health care providers where others can't hear? | | | | |
| 502 | How often do you get consultation with health care providers where others can't see? | | | | |
| 503 | How often the confidentiality of information you provided is preserved (except if the information is needed by other health care providers)? | | | | |

| | | | | | |
|------------|--|--|--|--|--|
| 504 | How often is the confidentiality of your medical records preserved (except if the information is needed by other health care providers)? | | | | |
| 600 | How often clearly health care providers explained about delivery service and other treatment? | | | | |
| 601 | How often health care providers listen to you carefully? | | | | |
| 602 | How often the health care providers explain things clearly so that you can understand easily? | | | | |
| 603 | How often the health care providers give an opportunity to you to ask questions? | | | | |
| 700 | How often you get services you want as quickly as you wanted? | | | | |
| 701 | How often you will spend an unnecessarily long time waiting to get service you want? | | | | |
| 702 | How often is the length of time spent at health care units waiting for consultation/ treatment reasonable? | | | | |
| 800 | How often you do have an opportunity of getting daily visitors? | | | | |
| 801 | How often you do have the opportunity to have your personal needs taken care of by friends and family? | | | | |
| 802 | How often you do have the opportunity of getting religious support here from religious leader? | | | | |
| 900 | How often you do have a choice between health care providers in a health care unit? | | | | |
| 901 | How often you do have the opportunity to see a specialist, if they wish to? | | | | |

For next basic amenities questions response is 1=very poor, 2=poor, 3=good, 4=very good

| Code | Questions | 1 | 2 | 3 | 4 |
|-------------|---|----------|----------|----------|----------|
| 1000 | How would you rate the cleanliness of health care units? | | | | |
| 1001 | How would you rate the maintenance of buildings in health care units? | | | | |
| 1002 | How would you rate the adequacy of furniture in health care units? | | | | |

| | | | | | |
|-------------|--|--|--|--|--|
| 1003 | How would you rate the nutrition and edibility of food provided to you in health care units? | | | | |
| 1004 | How would you rate access to clean water at health care units? | | | | |
| 1005 | How would you rate the cleanliness of toilets in health care units? | | | | |
| 1006 | How you rate in getting shower access at time you want? | | | | |
| 1007 | How would you rate the cleanliness of linen in health care units? | | | | |

Annex 5: Afan oromo version for clients exit interview questionnaires

Qajeelfama warra ragaa funananiif

Hunda dursa haadholee nagaa gaafachuun jalqabi. Kaayyoo qorannoo kana sirritti hubachiisuun akka fedhiin gaaffii fi deebii isaanii fi tajaajila argataniin wal qabatu keessatti hirmaatan taasiisi. Walii galuu isaanii erga mirkanneeffatee booda haala mijataa fi iccittii eeguu danda'uun gaaffii gaafachuuf qopha'i. Gaafiileen hunduu gaafatmanii fi deebi'aanii xumuramuu isaa mirkanneeffadhu. Xumuraa irrattis warra hirmaatan galateeffachuu hin dagatin.

Unkaa walii galtee gaaffii fi deebii

Ani maqaan koo_____nan jedhan. Qorannoo hospital waldhaansa giddugala yunivarsitii Jimmaatti taasisnuu keessatti waa'ee tajaajila da'umsaa fi haala ogeessi fayyaa itti siin tajaajiluun walqabatee gaaffiilee muraasa siin gaafachuu fedha. Odeeffannoon gaaffiif deebii kana irraa argamu hunduu rakkoolee jiran adda baafachuun tajaajila kennamaa jiru caalmatti fooyyessuuf qofa kan ooludha. Odeeffannoo nu kennitafiis iccittiin isaa kan eegnudha. Qorannoo kana keessatti hirmachuu keessaniin yeroo muraasa nu kennuun alatti miidhaan sinirraa gahu hin jiru. Kanaaf akka qorannoo kana keessatti hirmaataniif kabaja guddaan siin gaafana. Yeroo kamuu hirmaannaa addaan kutuu ni dandeessu. Garuu, oddeeffannoon nuuf kennitan kayyoo galmaan gahuuf ga'ee guddaa qaba.

Gaaffii fi deebii kana keessatti ni hirmaatuu? **1. Eeyyeen** **2. Lakkii**

Guyyaa gaaffiif deebii_____

sa'aatii jalqabame_____ **xumura sa'aatii**_____

Koodii hirmaatan_____ **Mallattoo**_____

Hirmannaa keessaniif guddaa galatoomaa!!

Kutaa I: seenaa waliigalaa hirmattoota

| Koodii | Gaaffii | Deebii | Yaada |
|---------------|--|---|--------------|
| 100 | Umrii kee meeqa? | Ganna _____ | |
| 101 | Haalli ga'ila kee maal fakkaata? | 1. Baaqqee/ leexaa 2. Heerumte jirti 3. addaan bahaniiru 4. Jaarsi jalaa du'eera | |
| 102 | Amantaan kee kamini? | 1. Muslimaa 2. Ortoodoksii 3. Proteestantii 4. Kan biraa/ibsi _____ | |
| 103 | Sabni kee kam? | 1. Oromo 2. Amhara 3. Gurage 4. Kafa 5. Dawro 6. Other/specify | |
| 104 | Iddoon jireenya kee eessa? | 1. Baadiyaa 2. Magaala | |
| 105 | Sadarkaan barnootaa kee hagam? | 1. Hin barane (barreessuu fi dubbisuu hin dandeessu) 2. Barnoota al-idilee 3. Sadarka 1ffaa 4. Kutaa 9-12 ffaa 5. Kolleejjii fi isaa ol | |
| 106 | Hojiin kee maaliin? | 1. Hojii mootummaa 2. Hojii dhunfaa 3. Daldalaa 4. Haadha manaa 5. Qotee bulaa 6. Kan biraa/ibsi _____ | |
| 107 | Yeroo amma maatiin waliin jiraatan meeqa? | _____ | |
| 108 | Galiin maatii keetii giddugaleessan meeqa? | Qarshii _____ | |

Kutaa 2: Haala seenaa fayyaa walhormaata hirmattootaa

| Koodii | Gaaffiilee | Deebii | Irra darba |
|---------------|-------------------|---------------|-------------------|
| | | | |

| | | | |
|-----|--|---|--|
| 200 | Ulfi kee kun kan jalqabaatii? | 1. Eeyyeen 2. Lakkii | Deebiin G200 eeyyeen yoo ta'e gara G204 |
| 201 | Kana dabalatee yeroo meeqaaf ulfoofttee? | _____ | |
| 202 | Umriin kee yeroo ulfa jalqabaa meeqa ture? | 1. Ganna _____ | |
| 203 | Ilmoo kee isa dhumaa isa Kanaan duraa eessatti dhalate/dhalattee? | 1. Buufata fayyaa 2. Hoospitala mootummaa 3. hospitalaa dhunfaa 4. Manatti 5. kan biraa/ibsi | |
| 204 | Da'umsaa kee amma kana maaliin deesse | 1. Battalumaan gara fuchiin da'e 2. Xiqquma cinaa fuchii gara alaa muruun 3. Gargarsa meeshaan 4. opeereshiniin | |
| 205 | Ijoollee lubbuun dhalataan qabdaa? | 1. Eeyyee 2. lakkii | Deebiin G205 lakkii yoo ta'e, gara G207 |
| 206 | Eeyyeen yoo ta'e meeqa? | _____ | |
| 207 | Ulfa ammaa kanarratti hordoffii ulfaa taasistee beektaa? | 1. Eeyyeen 2. Lakkii | Deebiin G207 kee lakkii yoo ta'e gara G209 |
| 208 | Deebii G206, eeyyeen yoo ta'e, yeroo meeqaaf? | _____ | |

| | | | |
|-----|--|---------------------------------|--|
| 209 | Ulfa du'aan dhalate jiraayii? | 1. Eeyyee 2. Lakkii | Deebiin G209 lakkii yoo ta'e gara G211 |
| 210 | Gaaffii 206, deebiin kee Eeyyeen yoo ta'e yeroo meeqa? | 1. Altokko 2. Al lama 3. >=3 | |
| 211 | Ulfii sirra bahee beekaa? | 1. Eeyyeen 2. Lakkii | Deebii G211 lakkii yoo ta'e gara G300 |
| 212 | Gaaffii 208 eeyyeen yoo ta'e meeqa? | _____ | |

Kutaa III: Gaaffiilee haala tajaajilia da'umsaa wal qabatan

Gaaffiilee armaan gaditiif Kan deebisuun danda'amuu: **1**= gonkummaa, **2**=altokko tokko, **3**= irra caalatti, and **4**=yeroo hunda

| Koodi i | Gaaffiilee haala tajaajilaa da'umsa ilaalchisee | Filannoowaan deebii | | | |
|------------|---|------------------------|---|---|---|
| | | 1 | 2 | 3 | 4 |
| 300 | Hagam kabajaan tajaajila argachaa jirtaa? | | | | |
| 301 | Kutaa kana keessatti hagam dhibee dadarboo irraa eegamaa jirtaa? | | | | |
| 302 | Hagam bilisa taate oggeessa fayyaa waliin mari'ataa? | | | | |
| 303 | Oggeessi fayyaa akka waa'ee dhibee, yaalii fi kununsa siif godhamu gaafattu hagam sii jajjabeessuu? | | | | |
| 304 | Yeroo yaala fi qorannoo keetii hagam kabaja argatee qofatti yaalamtaa? | | | | |
| 400 | Hagam filannoo yaalii jirurratti oddeeffannoon siif kennamaa? | | | | |
| 401 | Hagam ogeessi fayyaa tajaajila kamuu siif kennuun dura heeyyama kee gaafataa? | | | | |
| 402 | Hagam waa'ee filannoowan yaalii jirurratti fedhii kee sii mariisisuu? | | | | |

| | | | | | |
|-----|--|--|--|--|--|
| 403 | Hagam ogeessi fayyaa haala irra jirtu fi ciniinsuu kee yerroo yeroon siif ibsuu? | | | | |
| 500 | Hagam haala icciti kee eegeen gorsa yaalaa argataa? | | | | |
| 501 | Hagam ogeessa fayyaa waliin iddoo namni biraa hin agarreetti mari'atuu? | | | | |
| 502 | Hagam ogeessa fayyaarraa yaalii iddoo namni biraa hin agarreetti argataa? | | | | |
| 503 | Hagam haala iccitiin oddeeffannoo ati kennite siif eegamaa (hanga ogeessa fayyaa biraan hin barbadamneetti)? | | | | |
| 504 | Hagam iccitiin galmee yookiin kaardiin yaala fayyaa kee siif eegamee (hanga oddeeffannoon kee ogeessa fayyaa biraan hin barbadamneetti)? | | | | |
| 600 | Hagam ogeessi fayyaa oddeeffannoo sirritti waa'ee da'umsaa fi yaaliin biraa waliin qabatan ifa godhee siif ibsaa? | | | | |
| 601 | Hagam ogeessi fayyaa xiyyeeffannoo kennee sii dhageeffataa? | | | | |
| 602 | Hagam ogeessi fayyaa wantoota ifatti sii ibsuun akka salphaatti hubattuu taasiisaa? | | | | |
| 603 | Ogeessi fayyaa gaaffii akka gaafataniif hagam siniif carraa kenna? | | | | |
| 700 | Hagam tajaajilli da'umsa hospitalaa Kanaan walqabatuu ariitiin haala feetun sii kennamaa? | | | | |
| 701 | Tajaajila barbaadu argachuuf hagam yeroo hin mallee eegdaa? | | | | |
| 702 | Yeroon ati kutaa yaalaa kanatti tajaajila argachuuf eegduu hagam sababa quubsaa qaba? | | | | |
| 800 | Hagaam firri dhufee akka sii laaluuf carraa argata? | | | | |
| 801 | Hagaam maatii yookiin hiriyoota keen kununsi akka siif taasifamuu carraa argata? | | | | |
| 802 | As yeroo jirtu kanatti, Hagam abbootii amantaa irraa gargarsa argachuuf carraa argate? | | | | |

| | | | | | |
|-----|---|--|--|--|--|
| 900 | Kutaa da'umsaa kanatti, hagam ogeessa fayyaa barbadeen tajaajila argachuu dandeessaa? | | | | |
| 901 | Hagam ogeessa addaa yeroo fetetti argachuuf carraa argata? | | | | |

Gaaffiilee dhiyeessi barbachiisaa walii galaa yaalaan wal qabatee jiru filannoowwan jiran

1=baay'ee gad bu'aadha, 2= gadi bu'adha, 3=gaariidha, 4= baay'ee gaariidha

| koodii | Gaaffiilee | Filannoowan deebii | | | |
|--------|---|--------------------|---|---|---|
| | | 1 | 2 | 3 | 4 |
| 1000 | Qulqullina kutaa yaala kanaa hagaam kennitaf? | | | | |
| 1001 | Haala suphiinsa kanaa kanaa hagam kennitaf? | | | | |
| 1002 | Meeshalee kutaa kanaaf galan madalawaadhaa, hagam kennitaf? | | | | |
| 1003 | nyaata kutaa kanatti siif dhiyaatuun wal qabatee sadarkaa hagamii kennitaf? | | | | |
| 1004 | Dhiyeessiin bishaan qulquluu sadarkaa hagamii kennitaf? | | | | |
| 1005 | Qulqullina mana fincaaniin walqabatee sadarkaa hagamii kennitaf? | | | | |
| 1006 | yeroo barbadeetti, qaama dhiqachuuf jajaajila argatu hagam kennitaf? | | | | |
| 1007 | Haala qulqullina ansoolaa kutaa kana sadarkaa attamii kennitaf? | | | | |

Annex 6: Amharic version for clients exit interview questionnaires

አማርኛ ቅጽ - መጠይቅ የደንበኞች / እናቶች መውጣት ቃለ መጠይቅ

ለቃለ-መጠይቅ መመሪያዎች

በመጀመሪያ ለእናት ሰላምታ መስጠት እና ከእርሷ ጋር የተያያዙ አንዳንድ ጥያቄዎችን ለመጠየቅ እና የግምገማ ዓላማን በማብራራት እና ለቃለ-መጠይቅ በእውቀት ላይ የተመሠረተ ፈቃድ ለማግኘት ፈቃደኛ መሆናቸውን ይጠይቋቸው :: እነሱ ከተቀበሉ ለእናቶች ምቹ እና የግል ቦታ ውስጥ መሆን ያረጋግጡ :: በቃለ-መጠይቁ ውስጥ ላለው እያንዳንዱ ነገር በዚህ መሠረት ተገቢውን ምላሽ ሰጡ :: በመጨረሻም ተሳታፊዎችን ለማመስገን አይርሱ ::

ለደንበኛው ቃለ መጠይቅ በመረጃ ፈቃድ የተሰጠበት ቅጽ

ስሜ _____ ነው ፣ በጅም ዩኒቨርሲቲ የህክምና ማዕከል ውስጥ በአቅርቦት አገልግሎት ምላሽ ሰጪነት ላይ ለሚካሄደው ግምገማ ቃለ መጠይቅ አድራጊ ነኝ ፣ ጥናቱ የሚያካሂደው የአቅርቦት አገልግሎት እና የህክምና ያልሆነ እንክብካቤ ክፍል በዚህ ሆስፒታል ውስጥ ምን እንደሚመስሉ ነው :: ይህ መረጃ የሚሰጡትን አገልግሎቶች ለማሻሻል የምንችልባቸውን መንገዶች ለማመልከት ይረዳናል :: የዚህ ጥናት አካል እንደመሆናችን ለወሊድ አገልግሎት ለመጡ ሴቶች ቃለ መጠይቅ እናደርጋለን :: ቃለመጠይቁ የግል ነው ፣ እርስዎ የሚሰጡት መረጃ በማዕከሉ ውስጥ በሚወልዱ እናቶች ላይ የሚሰጡትን የወሊዱ አገልግሎቶች ለማሻሻል አስተዋፅኦ ያደርጋል:: እርስዎ የሚሰጡት መረጃ ከቃለመጠይቅ አድራጊው በስተቀር በማንኛውም መልኩ ለሌላ ወገን ተላልፎ አይሰጥም:: በሙሉ ፈቃደኝነት እንዲሳተፉ እየጠየኩ ያለመሳተፍ ወይም በማንኛውም ጊዜ ራስዎን ከጥናቱ የማግለል ሙሉ መብት አለዎት ነገር ግን ለወደፊቱ የአገልግሎት መሻሻል ለማድረግ ተሳትፎዎ ለጥናቱ ትልቅ አስተዋጽኦ አለው :: ጥያቄዎች ካሉዎት ያለዎትን ማንኛውንም ግልጽ ያልሆኑ ነገሮችን ሊጠይቁኝ ይችላሉ ::

ለመሳተፍ እርስዎ ይስማማሉ? **ሀ, አዎ ለ, አይ**

የቃለ መጠይቅ ቀን _____ የመጀመሪያ ሰዓት _____ የማብቂያ ጊዜ _____

ኮድ የተሳታፊ _____ የተሳታፊ ፊርማ _____

የመጠይቅ ሁኔታ- 1. ከፊል 2. ተጠናቋል

ስለ ትብብርህ አመሰግናለሁ!!

ክፍል I: የተጠሪዎች ማህበራዊ-ስነ-ህዝብ ባህሪዎች

| ተ. ቁ | ጥያቄ | መልስ | ላመስተውል |
|------|-----------------------------------|---|--------|
| 100 | እድሜዎት ስንት ነው? | _____ (በዓመት) | |
| 101 | የጋብቻዎ ሁኔታ | 1. ያላገባች 2. ያገባች 3. ባሏን የፈታች 4. ባሏ የሞተባት | |
| 102 | ሀይማኖትዎት ምንድን ነው? | 1. ሙስሊም 2. ኦርቶዶክስ 3. ፕሮቴስታንት 4. ሌላ / ይጠቀሱ ___ | |
| 103 | ብሄርዎ ምንድን ነው? | 1. ኦሮሞ 2. አማራ 3. ጉራጌ 4. ከፋ 5. ሌላ(ይጠቀሱ)_____ | |
| 104 | የመኖሪያ ቦታዎ | 1. ከተማ 2. ገጠር | |
| 105 | የትምህርት ደረጃዎ | 1. ያለተማረች 2. ማንበብምና መጻፍም የምትችል 3. የመጀመሪያ ደረጃ 4. ሁለተኛ ደረጃ (9-12) 5. ኮሌጅና ከዛ በላይ | |
| 106 | የርስዎ የስራ ሁኔታዎ | 1. የመንግስት ሰራተኛ 2. በግል ተቋም 3. ነጋዴ 4. የቤት እመቤት 5. አርሶ አደር 6. ሌላ ይጠቀሱ_____ | |
| 107 | በአሁኑ ጊዜ ስንት የቤተሰብ አባላት አብረው ይኖራሉ? | | |
| 108 | ወራዊ የቤተሰብ ገቢ ምን ያህል ነው? | ----- (በኢትዮጵያ ብር) | |

ክፍል II- የመልስ ሰጭ የስነ ተዋልዶ ጤና ታሪክ

| ኮድ | ጥያቄ | ሊሆኑ የሚችሉ መልሶች | ንድፍ ዝለል |
|-----|---|---------------|------------------------------------|
| 200 | የመጀመሪያ እርግዝናዎ ነው? | 1. አዎ 2. አይ | ለጥያቄ 200 መልስ አዎ ከሆነ ወደ ጥያቄ 204 ይሂዱ |
| 201 | ለጥያቄ 200 መልስ አይ ከሆነ ፣ ይህንን ጨምሮ ስንት ጊዜ እርግዝናዎ? | _____ | |

| | | | |
|-----|---|---|--|
| 202 | በመጀመሪያ እርግዝናዎት ጊዜ ዕድሜዎት ስንት ነበር? | 1. _____ በአመት 2. አላስታውስም | |
| 203 | የመጨረሻውን ልጅ ከዚህ በፊት የት ወለዱ? | 1. ጤና ጣቢያ 2. የህዝብ ሆስፒታል 3. የግል ሆስፒታል 4. ቤት 5. ሌላ / ይጥቀሱ __ | |
| 204 | የአሁኑን በምንድነው የወለዱት? | 1. መደበኛ በሴት ብልት በኩል ልጅ መውለድ 2. በመቁረጥ በአነስተኛ መክፈት 3. መሳሪያ የታገዘ 4. በቀዶ ጥገና | |
| 205 | በህይወት ያለ ልጅ አለዎት? | 1. አዎ 2. አይ | |
| 206 | አዎ ከሆነ ስንት ልጆች አሉዎት? | _____ | |
| 207 | በዚህ በእርግዝና ወቅት የቅድመ ወሊድ እንክብካቤ ክትትል አለዎት? | 1. አዎ 2. አይ | |
| 208 | ለጥያቄ 207 መልስ አዎ ከሆነ ስንት ጊዜ? | _____ | |
| 209 | ከመወለድዎ በፊት የሞተ ልጅ አለዎት? | 1. አዎ 2. አይ | |
| 210 | ለጥያቄ 208 መልስ አዎ ከሆነ ምን ያህል ጊዜ? | 1. አንዴ 2. ሁለት ጊዜ 3. ከ 3 ጊዜ በላይ | |
| 211 | ፅንሰ ወረዶቦት ያውቃል? | 1. አዎ 2. አይ | |
| 212 | ለጥያቄ 211 አዎ ከሆነ ፣ ምን ያህል ጊዜ | _____ | |

ክፍል III: የወሊድ አገልግሎት የጤና ስርዓት ምላሽ ሰጪነት ጋር የተያያዙ ጥያቄዎች

ለሚከተሉት ጥያቄዎች የተሳታፊዎች መልስ 1 = በጭራሽ ፣ 2 = አንዳንድ ጊዜ ፣ 3 = ብዙውን ጊዜ እና 4 = ሁልጊዜ ሊሆን ይችላል

| ኮድ | ጥያቄ | የምላሽ አማራጭ |
|----|-----|-----------|
|----|-----|-----------|

| | | 1 | 2 | 3 | 4 |
|-----|--|---|---|---|---|
| 300 | ምን ያህል ጊዜ በአክብሮት አገልግሎት የገኛሉ? | | | | |
| 301 | በዚህ ክፍል ውስጥ ከማንኛውም ተላላፊ ወይም ተላላፊ በሽታዎች መብቶችዎ ምን ያህል ጊዜ ተጠብቀዋል? | | | | |
| 302 | ስጋትዎን በነፃነት ለመወያየት ምን ያህል ጊዜ ይበረታታሉ? | | | | |
| 303 | ስለ በሽታዎች ፣ ህክምና እና እንክብካቤ ምን ያህል ጊዜ ጥያቄዎችን ለመጠየቅ ይበረታታሉ? | | | | |
| 304 | በሕክምና እና በምርመራ ወቅት ለግላዊነት ፍላጎትዎ ምን ያህል የተከበሩ ናቸው? | | | | |
| 400 | በአማራጭ የሕክምና አማራጮች ላይ ምን ያህል ጊዜ መረጃ ይሰጥዎታል? | | | | |
| 401 | የጤና እንክብካቤ አቅራቢዎች ከማንኛውም ሂደት በፊት የእርስዎን ፈቃድ ወይም ፈቃድ ምን ያህል ጊዜ ያገኛሉ? | | | | |
| 402 | በአማራጭ የሕክምና አማራጮች ላይ ስለ ምርጫዎችዎ ምን ያህል ጊዜ ምክር ይሰጥዎታል? | | | | |
| 403 | የጤና እንክብካቤ አቅራቢ የጤና ሁኔታ እና ለውጥ በየጊዜው ወቅታዊ መረጃ ይሰጥዎታል? | | | | |
| 500 | የእርስዎ ሚስቶች ምን ያህል ጊዜ ሚስጥራዊነትዎን በሚጠብቅ መንገድ ያካሂዳሉ? | | | | |
| 501 | ሌሎች መስማት ከማይችሉበት የጤና እንክብካቤ አቅራቢዎች ጋር ምን ያህል ጊዜ ውይይት ያደርጋሉ? | | | | |
| 502 | ሌሎች ማየት ከማይችሉበት የጤና እንክብካቤ አቅራቢዎች ጋር ምን ያህል ጊዜ ምክክር ያገኛሉ? | | | | |
| 503 | ያቀረቡት የመረጃ ምስጢራዊነት ምን ያህል ጊዜ ተጠብቆ ይገኛል (መረጃው በሌሎች የጤና እንክብካቤ አቅራቢዎች አስፈላጊ ካልሆነ በስተቀር)? | | | | |
| 504 | የሕክምና መረጃዎችዎ ሚስጥራዊነት ምን ያህል ጊዜ ተጠብቆ ይገኛል (መረጃው በሌሎች የጤና እንክብካቤ አቅራቢዎች አስፈላጊ ካልሆነ በስተቀር)? | | | | |
| 600 | የጤና እንክብካቤ አቅራቢዎች ምን ያህል ነገሮችን በግልጽ ያብራሩልዎታል? | | | | |
| 601 | የጤና እንክብካቤ አቅራቢዎች ምን ያህል ጊዜ በጥሞና ያዳምጡዎታል? | | | | |
| 602 | በቀላሉ ለመረዳት እንዲችሉ የጤና እንክብካቤ አቅራቢዎች ምን ያህል ጊዜ ነገሮችን በግልጽ ያብራራሉ? | | | | |
| 603 | የጤና እንክብካቤ አቅራቢዎች ምን ያህል ጊዜ ጥያቄዎችን ለመጠየቅ እድል ይሰጡዎታል? | | | | |

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| 700 | የሚፈልጉትን ያህል በፍጥነት የሚፈልጉትን አገልግሎት ምን ያህል ያገኙታል? | | | | |
| 701 | የሚፈልጉትን አገልግሎት ለማግኘት ምን ያህል ጊዜ አላስፈላጊ ረጅም ጊዜን ያጠፋሉ? | | | | |
| 702 | ምክክር / ህክምናን በመጠባበቅ በጤና አጠባበቅ ክፍሎች ውስጥ የሚወስደው ጊዜ ስንት ጊዜ ምክንያታዊ ነው? | | | | |
| 800 | ጎብኝዎች እንዲኖሩዎት ምን ያህል ጊዜ ዕድል አለዎት? | | | | |
| 801 | የግል ፍላጎቶችን በጓደኞችዎ እና በቤተሰቦችዎ እንዲንከባከቡ ምን ያህል ጊዜ ዕድል አለዎት? | | | | |
| 802 | በሃይማኖታዊ እንቅስቃሴዎች ውስጥ እራሳቸውን እንዲሳተፉ ምን ያህል ጊዜ ዕድል አለዎት? | | | | |
| 900 | በጤና አጠባበቅ ክፍል ውስጥ ባሉ የጤና እንክብካቤ አቅራቢዎች መካከል ምን ያህል ጊዜ ምርጫ አለዎት? | | | | |
| 901 | ከፈለጉ ስፔሻሊስት ጋር ለመገናኘት ምን ያህል ጊዜ ዕድል አለዎት? | | | | |

ለሚቀጥሉት መሠረታዊ አገልግሎቶች ጥያቄዎች ምላሽ 1 = በጣም ደካማ፣ 2 = ደካማ ፣ 3 = ጥሩ ፣ 4 = በጣም ጥሩ

ጥሩ

| ኮድ | ጥያቄ | የምላሽ አማራጭ | | | |
|------|--|-----------|---|---|---|
| | | 1 | 2 | 3 | 4 |
| 1000 | የጤና እንክብካቤ ክፍሎችን ንፅህና እንዴት ይገመግሙታል? | | | | |
| 1001 | በጤና አጠባበቅ ክፍሎች ውስጥ የህንፃዎችን ጥገና እንዴት ይገመግማሉ? | | | | |
| 1002 | በጤና አጠባበቅ ክፍሎች ውስጥ የቤት እቃዎችን በቂነት እንዴት ይመዘኑታል? | | | | |
| 1003 | በጤና አጠባበቅ ክፍሎች ውስጥ ለእርስዎ የሚሰጠውን ምግብ አመጋገብ እና ተመጋቢነት እንዴት ይመዘኑታል? | | | | |
| 1004 | በጤና አጠባበቅ ክፍሎች ውስጥ የንጹህ ውሃ አቅርቦትን እንዴት ይመዘኑ ነበር? | | | | |
| 1005 | በጤና እንክብካቤ ክፍሎች ውስጥ የመፀዳጃ ቤቶችን ንፅህና እንዴት ይገመግማሉ? | | | | |
| 1006 | በምፈልጉት ሰዓት የሰውነት መታጠብን አገልግሎት መግኘትን እንዴት ይመዘኑታል? | | | | |
| 1007 | በዚህ ጤና እንክብካቤ ክፍል ውስጥ የአንሰላን ንፅህና እንዴት ይመዘኑ? | | | | |

Annex 7: Interview guide for in-depth interview of key stakeholders

I'm _____. I am the principal investigator for the Jimma University Medical Center's evaluation of the responsiveness of the delivery service in Jimma University medical center. This research was done to better understand how care providers deal with clients when they are in the maternity unit. Your information provides strong backing for our review procedure, particularly for service enhancement. The interview's results will all remain private. Only the evaluation team was informed of the findings. Additionally, we will make sure that none of the data we provide in our report identifies you as the respondent. If you decide not to take part in our study, you won't be penalized in any way, but if you agree to take part and then change your mind, your involvement will be very helpful to the study.

Do you agree? 1. Yes 2. No,

The interview status 1. Completed 2. Refused

Age_____sex_____Position_____

Work experience_____

Do you take training like CRC, CEmONC or other in the last two years?

Thank you for patience and for your time!!!

A. Interview guide for health care providers and head nurses in maternity unit

1. Are the resources required for provision of delivery service available? If yes, how? If not, why? (Probe on availability) _____
2. Do mothers get respect and having physical examinations conducted in privacy during labor & delivery? If yes, how? if no, how? (Probe it dignity of clients)

3. Do the mothers have active engagement or involvement in delivery service decision making? If yes, how? If no, how? (Probe it) _____
4. Do mothers have right of auditory and visual privacy in labor and delivery service and confidentiality in documents and information they have? (Probe it) _____
5. Do mothers get clarity on delivery service and other medical health care by health care providers to make autonomous decision? (Probe it) _____
6. Do mothers getting service in short waiting time and as soon as wanted? (Probe it)

7. Do families or religious leaders asks & give support to mothers during her stay? (Probe it) _____
8. Do mothers have right in choosing health care providers in Jimma University medical center for delivery service? (Probe it) _____
9. Are there infrastructures that keep comfort for mothers while stay here for service? (Probe it.) _____

B. Interview guide for nursing and medical director of JUMC

1. Are the resources required for provision of delivery service available? If yes, how? If not, why? (Probe on availability and supply shortage)

2. Why training was not given for staffs particularly on CRC and CEmONC?

3. What plans you have to improve the capacity of health care providers? (Probe on training, education and incentives) _____
4. Do you have regular supervision and feedback how clients and care provider interact with service provision in delivery service? (Probe it on)

C. Interview guide for pharmacy department of JUMC

1. How do you describe the availability of resource to provide delivery services in JUMC? _____
2. Why supplies and drugs shortage happened here in JUMC? (Probe it)

3. Do you have regular meeting with JUMC management team to improve the overall supplies continuously for delivery service? If yes how? If not why? (Probe)_____

D. Interview guide for nursing school and obstetrics & gynecology department

1. How you explain the availability of resources in JUMC delivery services?

2. Do you have any contribution on availability of supplies and drugs? Probe it)

3. Do you train your students on utilization of resources? If yes how? If no why?

4. Do you train your students on how they interact with the staffs and clients during attachment in delivery service? If yes, how? If no, why?

E. Interview guide for Jimma zonal health department and Jimma town health office

1. Do you have any contribution for availability of supplies in JUMC delivery service? If yes how? If no why? (Probe it) _____
2. Do you have monitoring way on how care providers interact with clients in JUMC of delivery service? (Probe) _____
3. Do you have regular meeting with JUMC management team to improve the overall service quality of delivery service? If yes how? If not why? (Probe)

Annex 8: Meta-Evaluation Judgement checklist

Checklist used for judging evaluation designs and reports on title of Evaluation document: Evaluation of responsiveness of delivery service in JUMC. This judgement checklist contains the 4 Meta evaluation standards (Utility, propriety, feasibility and accuracy) with their total 30 check points and 114 sub-check points.

| Sub-standards and checkpoints | Criteria response | | | Remark |
|---|-------------------|--------|----|--------|
| | Yes [1] | No [0] | NA | |
| Requirement for utility standard | | | | |
| U1- stakeholder identification | | | | |
| Do clearly identify the evaluation client? | 1 | | | |
| Do you consult stakeholders to identify their information needs? | 1 | | | |
| Do you ask stakeholders to identify other stakeholders? | 1 | | | |
| Do arrange to involve stakeholders throughout the evaluation, consistent with the formal evaluation agreement | 1 | | | |
| Do you keep the evaluation open to serve newly identified stakeholders? | 1 | | | |
| U2 Evaluator Credibility | | | | |
| Engage evaluators whom the stakeholders trust | 1 | | | |
| Engage evaluators who can address stakeholders' concerns | 1 | | | |
| Engage evaluators who are appropriately responsive to issues of gender, socioeconomic status, race, and language and cultural differences | | 0 | | |
| Attend appropriately to stakeholders' criticisms and suggestions | 1 | | | |
| U3 Information Scope and Selection | | | | |
| Assign priority to the most important questions | 1 | | | |
| Allow flexibility for adding questions during the evaluation | | 0 | | |
| Obtain sufficient information to address the stakeholders' most important evaluation questions | 1 | | | |
| Allocate the evaluation effort in accordance with the priorities assigned to the needed information | 1 | | | |

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| U4 Values Identification | | | | |
| Consider all relevant sources of values for interpreting evaluation findings, including societal needs, | | 0 | | |
| Provide a clear, defensible basis for value judgments | 1 | | | |
| Distinguish appropriately among dimensions, weights, and cut scores on the involved values | 1 | | | |
| Take into account the stakeholders' values | 1 | | | |
| U5 Report Clarity | | | | |
| Issue one or more reports as appropriate, such as an executive summary, main report, technical report, and oral presentation | 1 | | | |
| Focus reports on contracted questions and convey the essential information in each report | 1 | | | |
| Write and/or present the findings simply and directly | 1 | | | |
| U6 Report Timeliness and Dissemination | | | | |
| Make timely interim reports to intended users | | 0 | | |
| Deliver the final report when it is needed | 1 | | | |
| U7 Evaluation Impact | | | | |
| As appropriate and feasible, keep audiences informed throughout the evaluation | 1 | | | |
| Forecast and serve potential uses of findings | | 0 | | |
| Provide interim reports | 1 | | | |
| Supplement written reports with ongoing oral communication | 1 | | | |
| Requirement for feasibility standard | | | | |
| F1 Practical Procedures | | | | |
| Minimize disruption and data burden | | 0 | | |
| Appoint competent staff and train them as needed | 1 | | | |
| Make a realistic schedule | | 0 | | |

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| F2 Political Viability | | | | |
| Anticipate different positions of different interest groups | 1 | | | |
| Report divergent views | 1 | | | |
| Terminate any corrupted evaluation | 1 | | | |
| F3 Cost Effectiveness | | | | |
| Be efficient | 1 | | | |
| Foster service improvement | 1 | | | |
| Provide accountability information | 1 | | | |
| Generate new insights | 1 | | | |
| Requirement of propriety standard | | | | |
| P1 Service Orientation | | | | |
| Promote excellent service | 1 | | | |
| Identify service strengths to build on | 1 | | | |
| Identify service weaknesses to correct | 1 | | | |
| Expose persistently harmful practices | 1 | | | |
| P2 Formal Agreements, reach advance written agreements on: | | | | |
| Evaluation purpose and questions | 1 | | | |
| Audiences | 1 | | | |
| Release of reports | | 0 | | |
| Evaluation procedures and schedule | 1 | | | |
| Evaluation resources | | 0 | | |
| P3 Rights of Human Subjects | | | | |
| Follow due process and uphold civil rights | 1 | | | |
| Understand participants' values | 1 | | | |
| Respect diversity | 1 | | | |
| Follow protocol | 1 | | | |

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| Honor confidentiality/anonymity agreements | 1 | | | |
| Minimize harmful consequences of the evaluation | 1 | | | |
| P4 Human Interactions | | | | |
| Consistently relate to all stakeholders in a professional manner | 1 | | | |
| Honor participants' privacy rights | 1 | | | |
| Honor time commitments | 1 | | | |
| Be sensitive to participants' diversity of values and cultural differences | 1 | | | |
| Be evenly respectful in addressing different stakeholders | 1 | | | |
| P5 Complete and Fair Assessment | | | | |
| Assess and report the service strengths and weaknesses | 1 | | | |
| Report on intended and unintended outcomes | 1 | | | |
| Acknowledge the final report's limitations | 1 | | | |
| P6 Disclosure of Findings | | | | |
| Clearly define the right-to-know audience | 1 | | | |
| Report balanced, informed conclusions and recommendations | 1 | | | |
| Report all findings in writing, except where circumstances clearly dictate otherwise | 1 | | | |
| Assure the reports reach their audiences | | 0 | | |
| P7 Conflict of Interest | | | | |
| Identify potential conflicts of interest early in the evaluation | | 0 | | |
| As appropriate and feasible, engage multiple evaluators | | 0 | | |
| Maintain evaluation records for independent review | 1 | | | |
| Engage uniquely qualified persons to participate in the evaluation, even if they have a potential conflict of interest; but take steps to counteract the conflict | 1 | | | |
| P8 Fiscal Responsibility | | | | |
| Specify and budget for expense items in advance | 1 | | | |

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| Maintain adequate personnel records concerning job allocations and time spent on the evaluation project | 1 | | | |
| Be frugal in expending evaluation resources | 1 | | | |
| Requirement for accuracy standard | | | | |
| A1 service Documentation | | | | |
| Collect descriptions of the intended service from various written sources and from the client and other key stakeholders | 1 | | | |
| Various descriptions of how the service was intended to function | 1 | | | |
| Analyze discrepancies between how the service was intended to operate | 1 | | | |
| A2 Context Analysis | | | | |
| Maintain a log of unusual circumstances | 1 | | | |
| Estimate the effects of context on service outcomes | 1 | | | |
| Describe how people in the service general area perceived the service existence, importance, and quality | | 0 | | |
| A3 Described Purposes and Procedures | | | | |
| Monitor and describe how the evaluation’s purposes stay the same or change over time | | 0 | | |
| As appropriate, update evaluation procedures to accommodate changes in the evaluation’s purposes | | 0 | | |
| Record the actual evaluation procedures, as implemented | 1 | | | |
| Describe the evaluation’s purposes and procedures in the summary and full-length evaluation reports | 1 | | | |
| A4 Defensible Information Sources | | | | |
| As appropriate, employ a variety of data collection sources and methods | 1 | | | |
| Document and report information sources | 1 | | | |
| Document, justify, and report the means used to obtain information from each source | 1 | | | |

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| Include data collection instruments to appendix of the evaluation report | 1 | | | |
| A5 Valid Information | | | | |
| Focus the evaluation on key questions | 1 | | | |
| Document how information from each procedure was scored, analyzed, and interpreted | 1 | | | |
| Report and justify inferences singly and in combination | 1 | | | |
| Assess and report the comprehensiveness of the information provided by the procedures as a set-in relation to the information needed to answer the set of evaluation questions | 1 | | | |
| A6 Reliable Information | | | | |
| Identify and justify the type(s) and extent of reliability claimed | 1 | | | |
| Check and report the consistency of scoring, categorization, and coding | 1 | | | |
| Train and calibrate scorers and analysts to produce consistent results | 1 | | | |
| A7 Systematic Information | | | | |
| Establish protocols for quality control of the evaluation information | 1 | | | |
| Verify data entry | 1 | | | |
| Proofread and verify data tables generated from computer output or other means | 1 | | | |
| Systematize and control storage of the evaluation information | 1 | | | |
| Have data providers verify the data they submitted | 1 | | | |
| A8 Analysis of Quantitative Information | | | | |
| Employ multiple analytic procedures to check on consistency and replicability of findings | 1 | | | |
| Examine variability as well as central tendencies | 1 | | | |
| Identify and examine outliers, and verify their correctness | 1 | | | |
| Identify and analyze statistical interactions | 1 | | | |

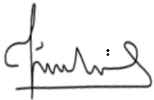
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| A9 Analysis of Qualitative Information | | | | |
| Define the boundaries of information to be used | 1 | | | |
| Classify the obtained information into the validated analysis categories | 1 | | | |
| Derive conclusions and recommendations, and demonstrate their meaningfulness | 1 | | | |
| Report limitations of the referenced information, analyses, and inferences | 1 | | | |
| A10 Justified Conclusions | | | | |
| Limit conclusions to the applicable time periods, contexts, purposes, questions, and activities | 1 | | | |
| Cite the information that supports each conclusion | 1 | | | |
| A11 Impartial Reporting | | | | |
| Engage the client to determine steps to ensure fair, impartial reports | | 0 | | |
| Safeguard reports from deliberate or inadvertent distortions | 1 | | | |
| As appropriate and feasible, report perspectives of all stakeholder groups and, especially, opposing views on the meaning of the findings | | 0 | | |
| Describe steps taken to control bias | 1 | | | |
| A12 Meta evaluation | | | | |
| Designate or define the standards the evaluators used to guide and assess their evaluation | 1 | | | |
| Record the full range of information needed to judge the evaluation against the employed standards | 1 | | | |
| As feasible and appropriate, contract for an independent meta evaluation | 1 | | | |
| Evaluate all important aspects of the evaluation, including the instrumentation, data collection, data handling, coding, analysis, synthesis, and reporting | 1 | | | |

Assurance of principal evaluator, examiner, and advisors

The undersigned agrees to accept responsibility for the scientific ethical and technical conduct of the scientific research and for providing of essential progress reports as per terms and settings of the faculty of public health in result at the time of contribution is forwarded as the result of this application.

Title of the thesis: **Process evaluation of responsiveness of delivery service in Jimma university medical center, Oromia region, south west, Ethiopia.**

Name of student **Gezu Girma Urgessa**

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Date: December 29, 2022

Approval of internal examiner

Name of internal examiner: **Shimeles Ololo (PhD candidate)**

Signature:  _____

Date: December 29, 2022

Approval of first advisors

Name of first advisor: **Gelila Abraham (PhD candidate)**

Signature:  _____

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Signature  _____

Date: December 29, 2022