Quality of Ante Natal Care in selected Health centers of Gurage Zone, South Nations Nationalities and People Region, Ethiopia, 2017.



By: Mustefa Glagn (BSc in PH)

A thesis Submitted to Jimma University, Institute of Health, Faculty of Public Health, and Department of Health Economics, Management and Policy in Partial Fulfillment for the Requirement for Masters of Public Health in Health Service Management.

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Abstract

Introduction: The quality of antenatal care is dependent on the compliance of guideline by the providers, frequency of ANC visits, resource needed to provide the service, content and kinds of information given to women during their ANC visits and their level of satisfaction. Plenty of evidences suggests that quality of care or lack of it must be at the center of every discussion. There is paucity of data on the quality of ANC especially in primary heath care centers in Ethiopia and nothing is known about quality of ANC in study area in particular given that there is 100% ANC coverage. Hence, assessment of antenatal care quality is prudent.

Objective: The main objective of this study was to assess quality of ANC in public health centers of Gurage Zone, SNNPR, Ethiopia, 2017.

Methods: A facility based cross-sectional study was conducted from March 05 to April 04, 2017. A total of 419 pregnant women were participated. To achieve the desired sample size for the study; data was collected from every woman (consecutively) till the proportional sample size allocated for each health center was reached. A pretested Semi- structured questionnaire, FANC card review, resource inventory, observation checklists and in-depth interview were used to obtain information. Logistic regression model was used to identify predictor variables for client satisfaction. Qualitative data was analyzed manually using thematic analysis method, and presented with quantitative result through triangulation by using narrative weaving approach.

Result: About sixty five (64.9%) were satisfied. Gestational age of the mother at first visit [AOR= .28, 95% CI, (.15, .51)], the sex of ANC service provider [AOR = .055, 95% CI (0.018, .16)], waiting time [AOR = .56, 95% CI (.35, .89)] and consultation time [AOR=3.6, 95% CI (1.7, 7.5)] were found to be statistically significant with satisfaction. A mean waiting time of 56.78 ± 22.89 (SD) minutes and 83.3 % of the client spent less than 20 minute with the service giver. Only 46.7% of the clients were told what is to be done and encouraged to ask questions. During observation 93.3% the provider didn't wash his/her hands with soap/alcohol before & after examining the client.

Conclusion and Recommendation: greater percentages of women were satisfied but lower compared to other studies. Lack of clean latrine & adequate water supply, lack of cleanliness and sanitation during the procedure, receiving incomplete information, lack of privacy, and long waiting time were some of the constraints forwarded by majority of pregnant women as a cause of dissatisfaction. Most of the minimum required resources to conduct the service were available in the health centers except iron sulfate/folic acid & there is a greatest gap in basic infrastructure. In adequate consultation time to discuss health issues with the providers and lower involvement in the decision making process concerning their care. Toilet facilities need to be upgraded, private examination room need to be sought, minimize waiting time and the facilities need to have ANC guideline & the service should be provided as per the guideline.

Key words: quality of Ante natal care, pregnancy, public health center, satisfaction, Gurage Zone

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Acronyms and Abbreviations

ANC - Ante Natal Care

BSc - Bachelor Science

EDHS - Ethiopian Demographic and Health Survey

FANC- Focused Antenatal Care

HC – Health Center

HIV-Human Immune Deficiency Virus

MCHIP-Maternal and Child Health Integrated Program

MMR-Maternal Mortality Rate

OECD -Organization of Economic Corporation for Development

PMTCT -Prevention of Mother-to-Child-Transmission of HIV

SARA- Service Availability and Readiness Assessment

SDG - Sustainable Development Goal

SNNPR - South Nation's Nationalities People Republic

STI - Sexually transmitted Infections (STIs)

TB - Tuberculosis

VDRL-Venereal Disease Research Laboratory

WHO - World Health Organization

Chapter one

1. Introduction

1.1 Background

Antenatal care (ANC) is a care given to pregnant mother by the health provider, which helps to uphold and maintain optimal health of the mother all the way through the pregnancy, labor and puerperium with having and rearing of healthy baby. It is also a key entry point for pregnant women to receive a broad range of health promotion and preventive health service (1).

Quality of ANC is an important determinant of pregnancy outcome and one of the four Pillars of Safe Motherhood, besides clean and safe delivery, essential obstetric care and family planning, which contribute to reduction of maternal mortality. Poor ante natal care is considered the most important preventable factor of maternal mortality (2).

Donabedian, has defined quality in terms of three major parameters: the structure (logistics & supplies, human resources, organizational structures, standards and regulations), process (the appropriateness and completeness of information obtained through clinical history, physical examination and diagnostic tests; competence of the health care provider, provider-client interaction) and outcome (effect of the health care including level of patient/client satisfaction (3). Growing demand for health care, raising costs, constrained resources, and evidence of variations in clinical practice have increased interest in measuring and improving the quality of health care in many countries of the world (1,2).

Quality of ANC can be measured by the competency of the provider, frequency of ANC visits, the content of the service given to women during their visits and their level of satisfaction. These services raise awareness of the danger signs during pregnancy, delivery, and the postnatal period. They also improve the health-seeking behavior of the client, orient the client to birth preparedness issues, and provide basic preventive and therapeutic care. Provision of quality ANC service requires the presence of relevant infrastructure, adequately trained health workers, infection control facilities, diagnostic equipment, supplies and essential drugs. Furthermore, the ANC process requires the use of guidelines that health providers should follow while offering care to ensure prevention, diagnosis and treatment of complications (4-6).

1.2. Statement of the problem

Globally, the Maternal Mortality Rate (MMR) fell by nearly 44% over the past 25 years, to an estimated 216 maternal deaths per 100 000 live births in 2015, from a MMR of 385 in 1990. The annual number of maternal deaths decreased by 43% from approximately 532 000 in 1990 to an estimated 303 000 in 2015. The approximate global lifetime risk of a maternal death fell considerably from 1 in 73 to 1 in 180. Developing regions account for approximately 99% (302 000) of the global maternal deaths in 2015, with sub-Saharan Africa alone accounting for roughly 66% (201 000), followed by Southern Asia (66 000). Every year, 289 000 women die due to complications related to pregnancy and childbirth (7, 8).

Ten countries account for nearly 59% of global maternal deaths. Nigeria and India account one-third of world death; and Ethiopia is one of the ten country accounts 11, 000 Maternal death in 2015 (7). According to 2016 Ethiopian Demographic Health Survey (EDHS), the maternal mortality ratio of Ethiopia is 412/100,000 live births.

Three in 10 women (32 percent) and 38.2 percent had four or more ANC visits; and 28% &28.6% delivered by a skilled provider for their most recent live birth in Ethiopia and South nation's nationalities people republic (SNNPR) respectively(9).

Mothers and children may face risks because of no or limited ANC visit, poor-quality care during Ante natal care visits due to no refresher training for health care providers, infrastructure and administrative weakness at facilities, complications of existing conditions such as tuberculosis (TB), malaria, anemia, or sexually transmitted Infections (STIs), and short intervals between births(10). Cognizant of this situations the new approach of ANC also emphasizes the quality of care rather than the quantity (11).

One of the important problems that continuously faced in these days are lack of good quality antenatal care service and gaining client satisfaction, which are of vital responsibilities of the higher authorities and staffs in the health care system (12).

Many of Maternal deaths could be prevented by providing finest care at health facilities. Although improvement has been made in increasing the coverage of several vital reproductive and maternal health interventions like Ante natal care service over the past two decades, but there is limited improvement in maternal outcomes because of a major gap in the quality of care

provided in health care facilities (8). Patient satisfaction has traditionally been related to the quality of services provided and the degree to which specific needs are met. Satisfied patients are expected to come back for the services and recommend services to others (13).

Client satisfaction with quality of care is the degree to which the client's desired expectations, goals and or preferences are met by the care provider and or service (2). Provision of quality antenatal care encompasses satisfaction of clients, roles of service providers & managers and services readiness & the integration of different services, and a widely recognized means of improving the health condition of pregnant women and the probability of a good outcome following delivery (14).

Target 3.1 of sustainable development goal (SDG) 3 is to reduce the global MMR to less than 70 per 100 000 live births by 2030(15). However, in Ethiopia the maternal mortality ratio is 412 per 100,000 live births (9), which is too far from the SDG target. To achieve the SDG target quality of the service provided should be improved. There is a growing consensus that access to ANC alone is insufficient to alter the present maternal health profile and that the quality of ANC services may be a key determinant of maternal and perinatal outcomes (16).

In order to improve on the present maternal health profile for majority of pregnant women dwelling in rural Ethiopia, rigorous and regular appraisal of the quality of antenatal care services in the primary health care centers (PHCs) are needed to identify specific problems and develop strategies for improvement.

Although few studies have been carried out on quality of ANC in Ethiopia; they have focused on town & higher level health institutions. Since majority of the Ethiopian population live in rural areas with access to medical care mainly through the primary health care centers & information derived from such investigations are unlikely to achieve the desired impact on a large scale.

There is paucity of data on the quality of ANC especially in primary heath care centers in Ethiopia and nothing is known about quality of ANC in study area in particular given that there is 100% ANC coverage. So that more rigorous examination should be needed on quality of ANC services in order to identify specific problems and develop strategies to improve maternal health. Therefore, this paper aims to have certain contribution in closing this gap & to assess quality of ANC in Gurage zone, SNNPR, Ethiopia.

1.3. Significance of the study

The study will give an insight for policy makers, program formulators and program implementers on the weakness and strengths of the ANC services, and to construct plausible solutions to improve the quality of ANC services. This study may be useful to policymakers and planners providing information that can be a benchmark and/or evaluate Ante natal care services provided to the clients. Assessing how best the facilities function with regard to ANC; & help the health professionals recognize their service and what needs to be done for better care. It can also show the determinant factors in client satisfaction in ANC service for the selected and other facilities. Hence the study will provide basis for overall improvement of antenatal care services and baseline information for further study.

Chapter two

2. Literature Review

Antenatal care (ANC) is a universal health system line of attack to boost maternal and infant health (17) as ANC is considered to decrease maternal perinatal morbidity and mortality directly through detection and treatment of illness and indirectly by improving the health status of the woman. Prevention, screening and treatment for infections and complications prevent fetal loss, preterm delivery, low birth weight and maternal and infant morbidity(18) and anti-tetanus immunization and prevention of mother-to-child-transmission of HIV (PMTCT) is known to protect infant health (7). Moreover, iron and folate supplementation reduce anemia, specialized treatment of severe pre-eclampsia reduce case fatality rate(19) and findings suggest that ANC can improve nutritional behaviors(19,20) breastfeeding practices (22,23) and use of health facility delivery(24).

ANC also provides women and their families with appropriate information and advice for a healthy pregnancy, safe childbirth, and postnatal recovery, including care of the newborn, promotion of early, exclusive breastfeeding, and assistance with deciding on future pregnancies in order to improve pregnancy outcomes. An effective ANC package depends on competent health care providers in a functioning health system with referral services and adequate supplies and laboratory support. ANC improves the survival and health of babies directly by reducing stillbirths and neonatal deaths and indirectly by providing an entry point for health contacts with the woman at a key point in the continuum of care (5, 18, 22).

The 2016 EDHS results show that 62 percent of women who gave birth in the five years preceding the survey received antenatal care from a skilled provider at least once for their last birth. Three in 10 women (32 percent) had four or more ANC visits for their most recent live birth. Urban women were more likely than their counterparts to have received ANC from a skilled provider and to have had four or more ANC visits (63 percent and 27 percent, respectively). The women who used a skilled provider for ANC services and who had four or more ANC visits for their most recent birth increases greatly with women's education. Among women with no education, 53 percent obtained ANC services from a skilled provider and 24 percent received four or more ANC visits compared with 98 percent and 73 percent, respectively,

of women with more than a secondary education. The use of ANC services by a skilled provider and proper number of ANC visits also increases steadily with household wealth(9).

Few developing countries including Ethiopia have fully embraced and implemented the focused antenatal care (FANC) model. Even in countries adopting it as their antenatal care (ANC) programme, it is not fully implemented due to lack of personnel and structural changes (5, 14, and 25). One of the important problems that continuously faced in these days are lack of good quality antenatal care service and gaining client satisfaction, which are of vital responsibilities of the higher authorities and staffs in the health care system(12).

How is Quality Defined?

Over time, outcomes have been emphasized as measures of quality and are useful indicators of the effectiveness of health services, making them integral components of monitoring and evaluation tools(26). This has somewhat promoted the examination of patient satisfaction as a quality assurance mechanism. Factors like the socio-demographic background of the client; the client's expectations regarding care; the physical environment; communication and information; client participation and involvement; interpersonal relations between clients and service providers; providers' medical-technical competence and; the influence of the health care organization on both clients and providers are key areas considered in such studies(11).

A variety of conceptual frameworks for the measurement of service quality emphasize different dimensions of health service delivery, including the classical work by Donabedian, which has been the foundation for subsequent research into client satisfaction with quality of healthcare services(27). Quality can be evaluated based on structure, process, and outcomes. *Structural quality* evaluates health system characteristics, *process quality* assesses interactions between clinicians and patients and *outcomes* offer evidence about changes in patients' health status/patient satisfaction towards the service received. All three dimensions can provide valuable information for measuring quality, but the published quality-of-care literature shows that there is more experience with measuring processes of care and measure the client satisfaction as the outcome variable(3,28).

The various dimensions of quality studied in the past two decades include; technical competence, access to services, availability of basic facilities, safety, efficiency, interpersonal communication and continuity of care. However, this has not provided the needed coherence, nor has it been

universally adopted as the means of assessing satisfaction with healthcare quality, even though organizations like the United states Institute of Medicine have adopted all the dimensions as benchmarks(29).

Much of the interest in quality of care has developed in response to the dramatic transformation of the health care system in recent years. The Institute of Medicine defined *quality* as "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge" and measure quality by six dimensions of quality where, they believe, today's health system functions at far lower levels than it should. Health care should be safe, effective, patient-centered, timely, efficient and equitable. Even though, this dimensions are comprehensive to measure the quality of health system function it is resource intensive and not well researched in different corners of the world. Organization of economic corporation for development (OECD) frame work for health system performance measure quality of health by using dimensions like health care need, effectiveness of the service provided, patient safety, Responsive/patient centered, access, cost/expenditure, efficiency and equity regarding the service rendered(30,31).

Client satisfaction is now recognized as an important aspect of quality assessment in health care settings. Evaluating to what extent patients are satisfied with health services is clinically relevant, as satisfied patients are more likely to comply with treatment, take an active role in their own care, to continue using medical care services(12). Client satisfaction has been emphasized globally, sometimes making health facilities conduct studies on it because it may be required by regulatory bodies or at least to have a feedback from patients/clients (32, 33).

In spite of the many limitations of client satisfaction surveys, researchers agree (9, 14, 31 and 32) that knowledge of how a client feels about a service is important. In this study we will tried to assess the quality of service by using Donabedian quality assessment framework by measuring satisfaction as the outcome variables.

Structural attributes of quality

A study done at Bahir special zone reveals that all health facilities had functional weight scale, microscope, fetoscope and stethoscope but sphygmomanometer was not available in one health

facility.Uristix for detection of glucose and protein in urine, Venereal Disease Research Laboratory (VDRL) and hemoglobin measurements were available only in two of the eight public health facilities included in the study. Penicillin was available in all health facilities but iron sulfate/folic acid was present only in one facility. Private ANC examination room was provided only in two health facilities. Antenatal care guideline and water to wash hands in the examination room was available in none of the facilities(34). A study done in Uganda staffing gap of over 40%, and infection control facilities, drugs and supplies were inadequate(35).

Process attributes of quality Antenatal care services

Sound interpersonal relations contribute to effective health counseling and to a positive rapport with clients(12,26). The study shows 105 (28.5%) of women reported that the door was not closed and 51 (13.8%) there were people other than the provider during consultation (34). It was observed that counseling for risk factors and birth preparedness was poorly done; in addition essential tests were not done for the majority of clients (35). There are gaps in the passage of information, failure to document findings and basic investigations have not been done for some clients(1,9).

Outcome attributes

The study conducted in Bahir special zone more than half, 52.3% of the study respondents were not satisfied. The major reasons given by respondents for no satisfaction with the over-all perceived quality of care received in the clinic were; absence of clean latrine and inadequate water supply, receiving incomplete information about ANC, inadequate waiting area and seats, absence of privacy, long waiting time and difficulty to understand the provider(34) More than half of the respondents (60.4%) were satisfied with the service that they received. 49.9% of the respondents were not satisfied with technical quality aspect and 67.1% were not satisfied with physical environment aspect (25). Twenty two percent of pregnant women satisfied with the service among women who visited public ANC clinics(36).

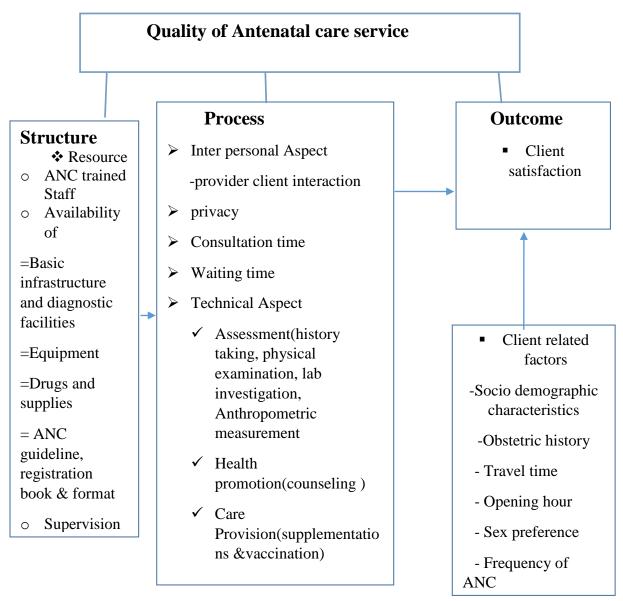


Figure 1.Conceptual frame work constructed from the concept of Donabedian model of quality of care for quality of antenatal care in Gurage zone, 2017.

Chapter three

3. Objectives

3.1. General Objective

To assess quality of Ante Natal Care in public health centers of Gurage Zone, SNNPR, Ethiopia, 2017.

3.2. Specific Objectives

To assess the availability of resource needed to provide ANC Services

To assess interpersonal aspects of Ante natal care provided

To assess technical aspects of Ante natal care provided.

To determine client level of satisfaction towards ANC service.

To identify factors related to client satisfaction of Ante natal care services.

Chapter four

4. Methods and Materials

4.1. Study area and Period

The study was conducted in selected Public health centers of Gurage Zone. The Zone is one of the fourteen zones of SNNPR and located at the northern edge of Ethiopia's most diverse region. The zone has two major cities Wolkite and Butajira with the same distance from the capital city Addis Ababa Ethiopia. The projected total population of the Zone in 2015/2016 is 1,648,659; male 49% & female 51%. Of this 10 % people are urban dwellers while 90 % people are rural dwellers. Out of the total population 23.3 % are females between ages 15-49 with a pregnancy rate of 3.46% which implies the total number of expected pregnant women in a given year is 57,045. According to the 2015/16 Gregorian calendar annual zonal report, the antenatal coverage in the study area is 100%. There are sixty five health centers providing antenatal care services. The study was conducted from March 05 to April 04, 2017.

4.2. Study design

Facility based cross sectional study was employed.

4.3. Source population

For quantitative part

All Pregnant women Attending Ante natal care clinic in public health centers of Gurage zone.

For qualitative Part

All ANC Service provider who were working in selected public health centers

4.4. Study population

For quantitative part

Pregnant women undertaken antenatal care service within the selected public health centers during data collection period, and from whom data was collected.

For qualitative part

Purposively selected ANC case team leader and Health center Head

4.5. Eligibility criteria

4.5.1. Inclusion Criteria

All pregnant women who were attending ANC clinics in the selected public health centers during data collection period.

4.5.2. Exclusion criteria

Mothers who are critically ill, Women who are not confirmed by health professional for pregnancy and who visit the ANC clinic for the second time during data collection period given that previously participated in the study.

4.6. Sample size determination

For quantitative part

❖ Sample size was determined by using Open Epi statistical software by taking the following assumptions

Where p =47.7% the respondents were satisfied with the service that they received, in Public Health Facilities of Bahir-Dar Special Zone, North West Ethiopia(34).

D = 5%, the margin of error

 $Z_{\alpha/2}$ = critical value at 95% confidence level (1.96)

The calculated sample size become **381**

By considering 10% non-response rate the sample size was **419.**

For in-depth interview one Antenatal care unit focal person and one Health center Head were purposively selected as key informants in each health center (40 Key informants).

❖ A total of 60 observations were made while the health care provider provides Ante natal care service; 3-5 observations in each selected Health Center is recommended. In this study 3 observations were made at each health center.

4.7. Sampling procedure

Health centers which have been providing Ante natal care services were identified based on the information obtained from Gurage zonal health department. There are 63 health centers in 13 Woreda (district) and 2 health centers in 2 city administration which have been providing ANC services. A multi stage sampling technique was used to identify study participants. According to WHO assessment tool; six of the districts (50% of the Woreda) were included in the study since it is not feasible to include all the districts due to the resource and time constraints. The six woreda (district) were identified using lottery methods. Finally, 20 health centers; three from each district and 2 health centers were directly taken from both wolkite and Butajira cities were included in the study and the total sample size was proportionally allocated to each of the health centers based on the average number of ANC users in the most recent quarterly report of each health centers. Data was collected from every woman (consecutively), who received Ante natal care service till the proportional sample size allocated for each health center was reached.

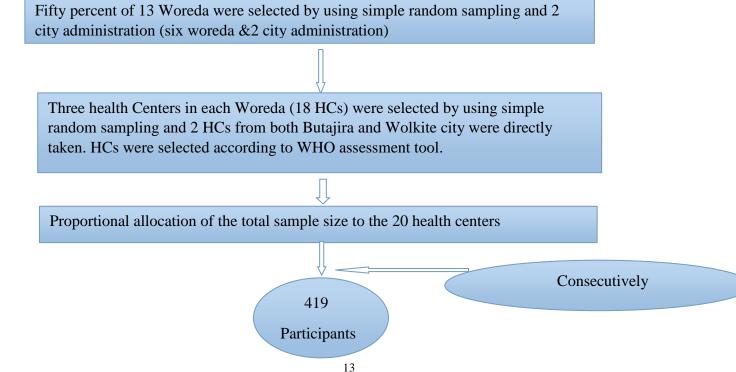


Figure 2.Schematic representation of sampling procedure in Gurage zone, 2017

For the detail see Annex II.

4.8. Study variables

Dependent variable

Client Satisfaction

Independent variables

Socio-demographic characteristics: residence, age, religion, ethnicity, marital status, educational status and occupational status.

Obstetric history and other client related factors

Gravidity, history of abortion and still birth, status of pregnancy, number of visits in the current pregnancy, gestational age at first visit in the current pregnancy, reason to start ANC follow up by the time, sex of provider, frequency of ANC visits, travel time to the health center, opening hour of ANC clinic, Recorded Waiting time and Consultation time.

Lists of Variable for the structure and process part

- o Presence of ANC trained Staff
- o Availability of
 - =Basic infrastructure and diagnostic facilities
 - =Equipment
 - =Drugs and supplies
 - = ANC guideline, registration book & format
- o provider client interaction
- o privacy
- o Consultation time
- Waiting time
- o history taking, physical examination & lab investigation
- Health promotion(counseling)

• Care Provision(supplementations &vaccination)

4.9. Operational definition

Client satisfaction: It was measured by using 12 item questions related to Satisfaction; each having five point Likert scale from strongly disagree (1) to strongly agree (5). To see the total score of each respondent, the scores obtained from the 12 items by each respondent was computed. A respondent had a minimum of 12 and a maximum of 60 points on ANC satisfaction score. The mean score of satisfaction for each client was calculated as the average of satisfaction items. A mean score of 3 or less were taken as an indicator of client's dissatisfaction (37).

Quality antenatal care: - when clients get satisfied, if the ANC service provider provides the service as per ANC guideline, if the health center has necessary and enough equipment's to conduct Ante natal care as per minimum requirement.

Privacy: - The state of freedom from interference or public attention while antenatal care is provided (door closed, no other person in the room other than the provider).

Basic diagnostic facilities: - If health facilities equipped with diagnostic laboratory for antenatal care (pregnancy test, Hg or HCT, HIV test, urine for; sugar and albumin, VDRL reagent and BG & Rh reagent).

Respecting Client: - greeted and called by name in the beginning

Waiting time: - Time from entering a clinic to contact of a provider

Consultation time: - time from contact of provider till the end of consultation

Travel time:-when a pregnant women access health center within two hours walking distance

Inter personal aspect: privacy during consultation &/or physical examination, respect, explanation made before & after Physical examination and initiation to ask question by care providers.

Technical aspect: counseling on danger sign, birth preparedness and complication redness plan, when to go health facility for delivery, PMTCT, nutrition, breast feeding, vaccination, rest &exercise, tests done for hemoglobin/ hematocrit, HIV, VDRL for syphilis, Blood group and

Rh-factor, urine test, supplementation:-TT vaccine, iron/folic acid, measurements done:-BP, weight, fundal height; wash hand before and after physical examination.

resource:- supplies and equipment, presence of waiting space, consultation room, availability of water supply, examination table, weighing machine, measuring instruments, FANC registration format and guideline, and presence of trained Ante natal care service provider.

Availability: Basic infrastructure, equipment, and supplies were available if they were functional & present during data collection period.

Drug availability: a specific drugs are said to be available if the drug was available when needed in the past 30 consecutive days in the health center.

4.10. Data collection tools and procedure

4.10.1. Data collection tools

The client exit interview semi-structured questionnaire for this study was developed from other related studies based on the study objectives (1, 4, 9, 12, 14, 18, 34-36) and, it was translated first into Amharic and then back to English for its consistency. Client satisfaction was measured by 12 items with having internal reliability value of 0.9 each having five point Likert scale from strongly dissatisfied (1) to strongly satisfied (5). A pre tested structured observation checklist were adapted from standardized tool developed by Maternal and Child Health Integrated Program (MCHIP) & WHO SARA manual for resource inventory, technical aspect (history taking, physical examination and laboratory investigation) and interpersonal aspect(provider-client interaction) (38 & 39). In addition to observation for technical aspect checklist was adopted from WHO Focused ante natal care guideline (5) to assess component of ante natal care given and qualitative data were collected using in-depth interview guide.

4.10.2. Data collectors and supervisors

Eleven diploma holder Nurse Data collectors were recruited for quantitative face to face interview questionnaire from Woredas other than the study woreda with or without experience in data collection, but fluent in Amharic & Guragigna language. Three supervisors who are BSC holders with the previous experience of data collection or supervision of data collectors were recruited to oversee the data collection process. Observation, resource inventory and In-depth interview were conducted by three Health officers who had an experience of Ante natal care service provision. Over all supervision was conducted by principal investigator after giving the training for all data collection team on their specific responsibilities.

4.10.3. Data collection technique

Quantitative data was collected using face to face interviewer administered semi-structured and pretested questionnaires. Twenty one pregnant women (5% of the actual sample size) were participated in the pretest and asked their general feelings, comments and problems encountered while responding the questions. Finally, relevant modifications were made before the start of the actual data collection. Trained data collectors were assigned for each woreda selected Health centers and started interviewing eligible study participants. Clients were interviewed after they had finished the whole process of antenatal care services. Three Observation was made at each health centers while the service provider provides the service for his/her client; resource inventory was made by using structured standard checklist; and In-depth interview were conducted for 20-30minutes with 40 key informants (ANC case team leader and Health center Head) informing the rationale of the study privately by the Principal investigator and three health officers to get more accurate information that supplements the quantitative data. The place of interview was at the office. Each interview was audio-recorded. Both the Principal investigator and the trained supervisors were responsible for supportive supervision on the spot and checking questionnaire on daily basis.

4.11. Data processing and analysis

Auditing, coding and sorting of the collected questionnaires were done manually every day to check for completeness. The completed questionnaire were coded and entered into a data entry template in EPI-data version 3.1. After checking and correcting errors, the data were exported to statistical package for social science (SPSS) version 21. The negatively worded items were reverse-coded.

Descriptive statistic were computed to describe socio demographic characteristics, obstetric history, input and process related aspects. In the descriptive statistic, frequencies, proportion and mean were calculated and the results of the analysis were presented in text, tables and graphs as appropriate.

Binary logistic regression was carried out to assess the association of different independent variables with the dependent variable after assumptions of logistic regression were checked.

Independent variables having $P \le 0.25$ on simple binary logistic regression analysis were considered as candidates for the multiple logistic regression analysis.

Multiple logistic regression analysis was carried out to identify factors having statistically significant associations with client satisfaction. The final model was fitted using backward conditional variable selection methods and Hosmer and Lemeshow Test model adequacy was 0.75. P value < 0.05 was statistically significant with client satisfactions and AOR ratio with 95% CI was used to explore magnitude of association between variables. Qualitative data were collected, transcribed, translated, coded and analyzed manually using thematic analysis method; and finally it was presented with quantitative result through triangulation by using narrative weaving approach.

4.12. Data quality Assurance

The questionnaire prepared in English was translated into Amharic, and then back translated into English to ensure consistency. The questionnaire was pretested on 5% of the actual sample size in Gurage zone on meskan woreda hamus gebeya health center, which is out of the study woreda before the actual data collection period; and correction was made accordingly. Training were given for both data collectors and supervisors for one day by the principal investigator. There was supervision on daily basis, and checking on 10% of the collected questionnaire. Finally, error report were checked after entry to Epi data using each case code.

4.13. Ethical consideration

Ethical clearance was obtained from Jimma University Institute of health Institutional Research Board (IRB) and Health Economics, Management and Policy department. Permission was also obtained from Gurage zone Health department and health centers as well. Efforts were made to keep confidentiality of the data, all participants were reassured that no personal identifier were used. They were given a chance to ask questions about the study and were permitted to skip any question or to stop the interview at any moment they want. Informed consent was sought from all study participants and the consent form was prepared in official language, Amharic. A separate room was sought for the exit interview.

4.14. Dissemination of result

The findings of the study with recommendation will be disseminated to Gurage zone Health department, Jimma University, Institute of Health, Department of Health Economics, Management and policy and post graduate coordinate office. Findings will also be presented on different conferences and professional society meetings like Ethiopian public health association. The findings will also be published in a relevant scientific journal and disseminated online.

Chapter five

5. Result

5.1. Socio-demographic characteristics

A total of 419 participants were interviewed with 100% response rate. The mean age of the respondents was 26.0 ± 5.08 years (SD) with age range between 15-41 years. Four hundred ten (97.9 %) of respondents were married while 9(2.1 %) were single. Out of the respondents one hundred thirty nine (33.2%) had primary education while 59(14.1%) Secondary and Higher Education. Majority of the respondents 343 (81.9%) were Gurage followed by Amhara 33 (7.9 %). A little more than two-third of the respondents 293(69.9%) were rural dwellers. Among the study participants 213 (50.8%) were house wives, 26.5% merchant ,9.1 % private employee ,5.7% government employee,4.3% unemployed and 3.6 % others (Table 1).

Table 1.Socio-demographic characteristics of respondents at public health centers of Gurage march, 2017.

Variables	frequency	Percent (%)
Age		
<20	79	18.9
20-24	84	20
25-29	127	30.3
30-34	94	22.4
>35	35	8.4
total	419	100
Residence		
Urban	126	30.1
Rural	293	69.9

total	419	100
Educational status		
Can't read &write	115	27.4
Can read &write only	106	25.3
Primary school	139	33.2
Secondary &higher education	59	14.1
total	419	100
Religion		
Orthodox	186	44.4
Muslim	187	44.6
Protestant	46	11
total	419	100
Marital status		
Married	410	97.9
Single	9	2.1
total	419	100
Ethnicity		
Gurage	343	81.9
Amhara	33	7.9
Tigre	6	1.4
Oromo	10	2.4
Other*	27	6.4
Total	419	100

^{*} Kambata, Hadiya, and Silte

5.2. Obstetrical history and other client related factors

Out of the respondent their pregnancy was planned were 361(86.2%) while the rest were unplanned. Two hundred thirty (54.9 %) of the respondent prefer the sex of the provider; among who prefer the sex of the provider 188 (81.7 %) of the pregnant mothers prefer female sex provider. Out of four hundred nineteen respondent 385(91.9%) were received the service by female provider and from the participants 74.9 % of them their gestational age at the first visit were greater than four months while the rest were less than or equal to four months.

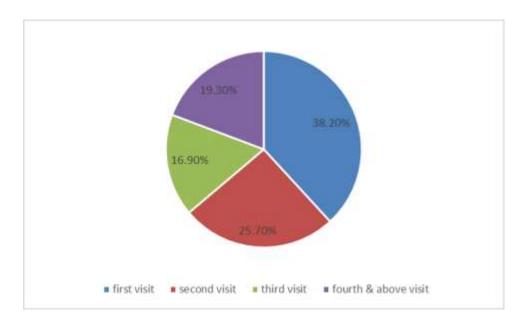


Figure 3.Shows Number of visits of the mothers attending ANC clinic in Gurage zone March, 2017.

Out of the study participants their pregnancies 134(32%), 108 (25.8%), 71(16.9%), 53 (12.6%) &53 (12.6%) were once, twice, three times, four times and five &above times respectively.

Mothers attending Ante natal care clinic their reason to visit the clinic were to take TT vaccine, for ANC checkup and for medical cases were 4.5%, 93.6% &1.9% of the study participants respectively. From the participants 81.4% has no history of abortion, 92.4% has no history of still birth, and 90.7% of them takes less than 2 hour to reach the clinic.

5.3. Structural dimensions of quality of Ante natal care Services

The availability of basic materials, equipment and supplies for ANC service was assessed in twenty health centers. Regarding necessary equipment for ANC all service delivery points were equipped with blood pressure apparatus, weighing scale, fetoscope, stethoscope, safety box, examination table, FANC card/history sheet and registration logbook but all of the health centers have no Ante natal guideline.

Regarding laboratory facilities blood group and Rhesus factor reagent was available in all health centers while urine analysis measurement, pregnancy test kit and HIV test kit were available in eighteen health centers but VDRL testing reagent &hemoglobin measurement were available in sixteen of health centers.

A 26 years old male Health officer, Head of the health center with having work experience of 4 years said that"We had no reagents for syphilis test in the past 6 months as a result we do not perform VDRL test..."

Penicillin drug and Tetanus toxoid vaccine were available in all health facilities but iron sulfate/folic acid, methyldopa, magnesium sulfate, glove for examination, and alcohol was present in nine, ten, six, eighteen and seventeen health center respectively.

Majority of the informants said ... not get all requested drugs & supplies from the woreda and pharmaceutical fund and supply agency on time and there is discontinuity of supplies; iron in particular PFSA provide them nearly expired date iron, even they complain that there is a big challenge to get this nearly expired iron..... because of resource constraint their health center has not provided service as it required......

Regarding the availability of basic equipment and infrastructure latrine was available in all health centers but only six of the health centers have water supply attached to the latrine, and only two of the health centers have water (functional tap with water) in the examination room. In sixteen health centers there were adequate waiting area with seats. Twelve of the health centers have private counseling/examination room but the rest were provided the service with other services like, EPI and family planning services with in the same room.

To monitor the quality of ANC service provided to the pregnant mothers, there was supervision from the woreda health office, zonal health department and non-governmental organization in twelve of the health centers in the last six months to see the implementation of the whole services delivered in the health centers even though not specific to ANC service but none of the health centers have suggestion box. Almost half of the Health centers have no at least one health professional who took training related to Antenatal care service with in the past two years.

24 years old female midwife a case team leader with a four years work experience said '' ... sometimes I work for long hours without a shift, because another staff has a problem/social duty, went for delivery and year leave; those who are on job did not come on time. Even ,sometimes delivery, ANC and family planning services are delivered by a single provider......But given the nature of the job, I cannot just leave client behind, although I could be really tired has to continue working.'

A 27 years male Health officer, Head of the health center having work experience of 4 years said that... "none of the staff working on Ante natal care service unit took training related to ANC in the past two years since skill full man power is very crucial to provide the right service with safe, respectfully and satisfying ".......

5.4. Process dimension of Quality of ANC service

5.4.1. Process dimension of Quality of ANC service-Interpersonal aspects

To assess the interpersonal relation between antenatal care service provider and the client a total of sixty observations were done. Among sixty observation while a provider provides the antenatal care service 61.7% and 46.7% of the client auditory and visual privacy was maintained respectively. Out of the client observed during counseling explanation made before and after examination and diagnosis was explained in only 38.3% and 47.6% of the participants respectively. About ninety three percent of the service giver was looking polite while providing antenatal care service counseling and eighty percent (80%) of the provider call their client by name and greet. Only in 46.7% of the clients were told what is to be done and encourages to ask questions.

5.4.2. Process dimension of Quality of ANC service-Technical aspects

To assess the technical aspect of quality of Antenatal care service sixty observations were done; and review of FANC card/history sheet were done after the clients had finished the whole

process of their visit in all participants. Among the observations thirty three of them were first visit. Out of the thirty three first visit for 32 and 28 clients asked about history of hypertension.

Table 2:shows assessment of pregnancy related health problems in the first visit ANC clients during observation at public health centers in Gurage Zone, March, 2017 (n=33)

Assessment of risks for the first visit clients	Yes (in No_)	no
Asked history of hypertension	32	1
Asked history of diabetes	28	5
Asked history of cardiac problem	24	9
Asked history of number of prior pregnancies	32	1
Asked and calculate gestational age	30	3
Asked history of previous c/s delivery	15	18

c/s..Cesarean section

Among the observed clients Asked about any bleeding during this pregnancy, any vaginal discharge observed this pregnancy, whether client had any other symptoms or problems that she thinks might be relate to this pregnancy, about severe headache, and blurring of vision were 93.3%,86.7%,76.3%,81.7 and 41.7% respectively.

Table 3.shows assessment of pregnancy related health problems by physical examination on mothers attending ANC visits during observation at public health centers in Gurage Zone, March, 2017 (n=60).

Physical examination performed for the pregnant mothers	Yes (in No_)	No
Washed his/her hands with soap before examining the client.	4(6.7%)	56(93.3%)
Took blood pressure record	60(100%)	-
Examined hands and/or conjunctiva for pallor.	27(45%)	33(55%)
Check for edema	6(10%)	54(90%)
Examine thyroid	7 (11.6)	53(88.4%)
Weight measured	59(98.3%)	1(1.7%)
Obstetric palpation	59(98.3%)	1(1.7%)

5.4.3. Counseling provided on pregnancy related issues for mothers visiting ANC clinic

. Tetanus toxoid vaccine was Prescribed/given & explained its purpose for 95% of the clients who are eligible for taking the vaccine. Among the mothers their visits were three times, four times and more Suggests to deliver at health facility, recommendation on lactation and recommendation on contraception were 38.3%, 20% and 21.7% of the clients respectively.

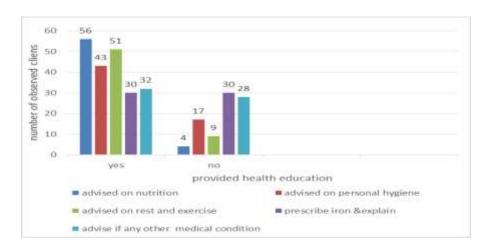


Figure 4.shows the distribution of counseling service by the provider during observation at public health centers in Gurage Zone, March, 2017(n=60)

5.4.4. Clinical Record

To assess the service rendered for the client; focused antenatal care card was reviewed for all clients (n=419) out of the respondent all most all 99%,99.5% &100% of the clients blood pressure Gestational age and weight was measured respectively but iron was prescribed for 63% of the clients. Among mothers eligible for tetanus toxoid vaccine 96.6% of them took the vaccine.

Table 4.Distributions of routine laboratory investigation to pregnant women attending first ANC visit in public health centers of Gurage Zone on March 2017 (n=160)

Routine investigation done	yes	No
Blood group & Rh factor	140 (87.5%)	20 (12.5%)
Rapid syphilis test	138 (86.25%)	22 (13.75%)
PMTCT counselled & HIV test	137 (85.6%)	23 (14.4%)
Partner HIV test	25 (15.6%)	135(84.4%)
Urine test for dipstick	142(88.75%)	18 (11.25%)

Out of the third, fourth& more visit hemoglobin measured, instruction for delivery & birth plan and advice on lactation/contraception was 58.5%, 80.9% and 59.87% of the participants respectively. Among mothers their visit was four or more times detection of fetal presentation and referral written if needed were 72 % of the participants.

5.4.5. Waiting and consultation time

According to this study 33.7 % of the clients their recorded waiting time was more than 60 minutes before they saw health care provider for consultation with a mean waiting time of 56.78 \pm 22.89 (SD) minutes and 83.3 % of the client spent less than 20 minute with the service giver while receiving consultation with a mean consultation time of 15.31 \pm 4.4 (SD) minutes.

5.5. Outcome Attributes of Quality of Antenatal care service

Only a little bit less than two third of the study participant 272 (64.9%) were satisfied with the ANC services they received.

Some of the constraint felt by the participant towards the over-all quality of care received in the ANC clinic were; lack of clean latrine & adequate water supply, lack of cleanliness and sanitation during the procedure, receiving incomplete information about ANC, lack of privacy, difficulty to understand the provider, and long waiting time were 74.7%, 62.8%, 53.7%, 50.4%, 40.8% and 26. % of the respondents. But 89 %, 85.2% of the study participants were satisfied by the provider greeting and adequate waiting area with seats. According to this study 51.3% of the participants were generally happy with the overall service they received.

5.5.1. Relationship between satisfaction and socio-demographic variables

Educational status, religion and occupational status of the mothers were candidate for multiple logistic regression the rest were not. See table 5

Table 5.Shows relationship between satisfaction of client and their socio-demographic characteristics attending ANC follow up in public Health Centers, Gurage Zone, on March 2017.

	Level of Satisfaction			P-Value
	Not satisfied	satisfied	CI)	
	Count (%)	Count (%)		
Residence				
Urban	46(36.5%)	80 (63.5%)	1	
rural	101 (34.5%)	192 (65.5%)	1.093 (.707,1.689)	0.69
educational status				
can not read and write	30 (26.1%)	85 (73.9%)	1	
Can read and write	34 (32.1%)	72 (67.9%)	.74(.4,1.3)	.32
Primary	52 (37.4%)	87 (62.6%)	.59(.34,1.01)	.06
Secondary & Higher education	31 (52.5%)	28 (47.5%))	.32(.16,.6)	.001*
Religion				
Orthodox	59 (31.7%)	127 (68.3%)	1	
Muslim	72 (38.5%)	115 (61.5%)	.742(.484,1.14)	0.17*
Protestant	16 (34.8%)	30 (65.2%0	.871(.44,1.7)	0.69

Occupation				
Government Worker	10 (41.7%)	14 (58.3%)	1	
Private employee	18 (47.4%)	20 (52.6%)	.79(.28,2.1)	.66
Merchant	50 (45%)	61 (55%)	.87(.35,2.1)	.76
House wife	54 (25.4%)	159 (74.6%)	2.1(.88,5.01)	.09*
Unemployed	10 (55.6%)	8 (44.4%0	.57(.16,1.9)	.37
other	5 (33.3%)	10 (66.7%)	1.4(.37,5.48)	.6

^{*}P-Value \leq 0.25, candidate variable

5.5.2. Relationship between satisfaction and obstetric& other process related variables

Gestational age at first visit, sex of service provider at the day of visit, Number of visit, recorded waiting time and consultation time were candidate for multiple logistic regression the rest were not. See table 6

Table 6.Relationship between satisfaction of client and their obstetric characteristics attending ANC follow up in public Health Centers, Gurage Zone, on March 2017.

	Level of Satisfaction	on	Crude OR (95 % CI)	
	Not satisfied	Satisfied	(CI)	p-value
	Count (%)	Count (%)		
The pregnancy				
Planned				
Yes	125 (34.6%)	236 (65.4%)	1	
No	22 (37.9%)	36 (62.1%)	.867(.489,1.537)	0.62
Number of pregnancy				

once				
	44 (32.8%)	90 (67.2%)		
Two times	43 (39.8%)	65 (60.2%)	.739(.436,1.253)	0.26
Three times	26 (36.6%)	45 (63.4%)	.849(.463,1.546)	0.58
Four times	, , , ,	, , ,		
	19 (35.8%)	34 (64.2%)	.875(.449,1.7)	0.69
Five & above times	15 (28.3%)	38 (71.7%)	1.239(.616,2.489)	0.55
Number of visit				
One	61 (38.1%)	99 (61.9%)	1	
Two	41 (38.3%)	66 (61.7%)	.99(.59,1.6)	.97
Three	24 (33.8%)	47 (66.2%)	1.2(.67,2.1)	.53
Four & above	21 (25.9%)	60 (74.1%)	1.7(.97,3.17)	.06*
Presence of abortion				
Yes	29 (37.2%)	49 (62.8%)	1	
No	118 (34.6%)	223 (65.4%)	1.118(.671,1.864)	0.66
Presence of still birth				
Yes	13 (40.6%)	19 (59.4%)	1	
No	134 (34.6%)	267 (65.4%)	1.292(.619.2.696)	0.49
Gestational age at first visit				
=4 month</td <td>22 (21%)</td> <td>83 (79%)</td> <td>1</td> <td></td>	22 (21%)	83 (79%)	1	
>4month	125 (39.8%)	189 (60.2%)	.401(.238,.675)	.001*
	123 (37.070)	107 (00.270)	. 101(.230,.073)	.001
sex of your service provider today				

118 (30.6%)	267 (69.4%)	1	
29 (85.3%)	5 (14.7%)	0.076(.029,202)	<0.001*
133 (35%) 14 (35.9%)	247 (65%) 25 (64.1%0	1 .962(.484,1.912)	0.91
81 (29.1%)	197 (70.9%)	1	
66 (46.8%)	75 (53.2%)	.467(.307,.711)	< 0.001*
135 (38.8%)	213 (61.2%)	1	
12 (17.1%)	58 (82.9%)	3.063(1.587,5.915)	0.001*
	29 (85.3%) 133 (35%) 14 (35.9%) 81 (29.1%) 66 (46.8%)	29 (85.3%) 5 (14.7%) 133 (35%) 247 (65%) 14 (35.9%) 25 (64.1%0) 81 (29.1%) 197 (70.9%) 66 (46.8%) 75 (53.2%) 135 (38.8%) 213 (61.2%)	29 (85.3%) 5 (14.7%) 0.076(.029,202) 133 (35%) 247 (65%) 1 14 (35.9%) 25 (64.1%0 .962(.484,1.912) 81 (29.1%) 197 (70.9%) 1 66 (46.8%) 75 (53.2%) .467(.307,.711) 135 (38.8%) 213 (61.2%) 1

^{*}p-value <0.25, candidate variable

5.5.1.3. Factors significantly associated with Satisfaction

Gestational age of the mother at first visit, the sex of ANC service provider, waiting time and consultation time were found to be statistically significant with satisfaction towards the overall service they received. Respondents who received ANC from male providers were 95% times less likely to be satisfied than those who received the services from female providers [AOR =0.055, 95%CI (0.018, 0.16)], those women who had started first visits of ANC after 4 months of pregnancy were 72% times less likely satisfied than who had started before 4 months of pregnancy [AOR= .28, 95% CI, (0.15, 0.51)], respondents who stayed with the ANC provider for 21-40 minutes were 3.6 times more likely to be satisfied than those who stayed for less than 20

minutes [AOR=3.6, 95%CI (1.7, 7.5)] and those women who wait for greater than 60 minute to get a provider were 44% times less likely satisfied than those who wait for less than 60 minutes [AOR = .55, 95% CI (.35, .89)].

Table 7.Shows variables that are significantly associated with client satisfaction on the quality of antenatal care received in multiple logistic regression in Gurage Zone, on March 2017.

Significant variables in	Level of Satisfaction		COR (95 % CI)	Adjusted OR&CI	p-value
multiple logistic	Not satisfied	Satisfied			
regression	count	count			
Gestational age at first visit					
=4 month</td <td>22 (21%)</td> <td>83 (79%)</td> <td>1</td> <td>1</td> <td></td>	22 (21%)	83 (79%)	1	1	
>4month	125(39.8%)	189(60.2%)	.401(.238,.675)	.28(.15,.51)	<0.001*
sex of your service provider today					
Female	118(30.6%)	267(69.4%)	1	1	
Male	29 (85.3%)	5 (14.7%)	0.076(.029,202)	0.056(0.018,.16)	<0.001*
Recorded Waiting time					
Less than or equal to 60 minute	81 (29.1%)	197(70.9%)	1	1	
greater than 60 minute	66 (46.8%)	75 (53.2%)	.467(.307,.711)	.55(.34, .89)	.017*
consultation time					
less than 20 minute	135(38.8%)	213(61.2%)	1	1	
21-40 minute	12 (17.1%)	58 (82.9%)	3.063(1.587,5.915)	3.6(1.7,7.52)	.001*

*p-value < 0.05

*Hosmer and lemeshow goodness of fit test was 0.75 this implies that the model is adequate/appropriate.

Majority of key informant recommended...... training for all Ante natal case team staffs, provider commitment, providing satisfying service for the clients and sustainable logistic supplies have paramount importance for the improvement of the quality Ante natal care... ...

Chapter six

6. Discussion

This study examined the quality of antenatal care service in Public Health centers of Gurage Zone by assessing capacity to deliver ANC services, the process of service provision and satisfaction towards the service they received.

In this study all health centers were equipped with blood pressure apparatus, weighing scale, fetoscope, stethoscope, safety box, examination table, FANC card/history sheet and registration logbook but none of the health centers have Ante natal guideline. This would make the providers unable to comply with all components of antenatal care as a result it has some contribution on poor quality of ANC service provision. The finding is supported by the study done in Bahir dar special zone (34).

Majority of the health centers have urine analysis measurement, pregnancy test kit, HIV test kit and hemoglobin measurement which is inconsistent with a study conducted in Bahir dar special zone (34) were Uristix for detection of glucose & protein in urine, VDRL, hemoglobin measurements were available in two of eight health centers.

More than half of the health centers have no iron sulfate and magnesium sulfate but this drugs are very crucial to prevent anemia during pregnancy and control of convulsion in a pregnant mother with eclampsia this might be due to inadequate logistic supply. Almost all (eighteen health centers) have no water in the examination room and all most half of them have no private counseling/examination room this might be fail to consider the service provided during the design of the building. This is consistent with the study conducted in northern Gondar (40).

Even though, there were heterogonous picture during physical examination some of the examinations were done very regularly (weighing, blood pressure measurement, and palpation of the fundus). But other physical examination checked for pallor, edema and thyroid enlargement shows a very low figure. This might be the health providers lack awareness on a components of antenatal care services provided since none of the health center have standard national guideline.

Since WHO recommended routine iron supplementation to all pregnant women in all visits (5, 20) this study show that more than one-third of the women hadn't received iron/folic acid. This

might be due to lack of iron supply in the health centers. This finding was also complemented by data from inventory and in-depth interview... not get all requested drug & supplies; iron in particular...but it is more than the study conducted in Kosovo, only 27.6% received iron (41).

This study revealed that that 85.6% of the pregnant women were counseled & tested for HIV. This is consistent with the study conducted in Nigeria showed more than four-fifth (87.1%) of the clients had been tested for HIV. In this study we found that 33 % of the participants had a waiting time greater than 60 minutes with a mean waiting time of 56.78 ± 22.89 (SD) it is greater than the study done in Ambo town (a mean waiting time of 29 ± 9.2 (SD) minutes(1) and the study done in Northern part of Ethiopia (a mean waiting time of 31.8 ± 23 (SD) minutes(42) but less than the study conducted in Mushin, Lagos, which is about a mean waiting time of 69.03 ± 2.64 (14) this difference may be due to there is lower ANC attendance in our facilities.

Even though, WHO recommends four antenatal visits for normal pregnancies with the first visit in the first trimester (ideally before 12 weeks but no longer than 16 weeks), followed by visits at 24-28 weeks, 32 weeks and 36 weeks.

In this study 74.9 % of the participants their gestational age at the first visit were greater than four months this would make complications like congenital syphilis too late to manage & it become a barrier to provide a right service at the right time. Their late initiation could be due to lack of awareness on timely initiation of Ante natal care follow up, their low decision making power and low educational status of the mother. This is higher than the study done in the north east part of Ethiopia where, 66.1% of the study women started their ANC visit after their first trimester (34) and consistent with other studies (22).

According to this study it was found out that overall satisfaction with focused antenatal care service in the study participants was 64.9. This is somewhat similar with findings of a study conducted in Jimma, Ethiopia (60.4 %) but lower than other studies conducted in Addis Ababa, Ethiopia (89.2%) and 81.4 % in southern Nigeria. (12, 43, 44). The difference could be due to subjective Nature of the subject matter; because measure of satisfaction needs standardized scales and tools for accurate measurement but most of the literatures measure satisfaction with simple yes/no response category and some of them are self-administered. And also could be attributed to study period difference due to the increase in expectation of patients to the service

they are going to receive with rapid advancement in technology and peoples thinking and lifestyle and the study setting difference.

In this study the perceived cause of dissatisfaction forwarded by the majority of the participants with the over-all perceived quality of care received in the clinic were; lack of clean latrine & adequate water supply, lack of cleanliness and sanitation during the procedure, receiving incomplete information about ANC, lack of privacy ,difficulty to understand the provider, and long waiting time were 74.7 %,62.8% ,53.7%,50.4%,40.8% and 26.% of the respondents. This is also supported by the study done in Jimma perceived cause of dissatisfaction were long waiting time (32.6%) (12).

This is also supported by the study done in Bahirdar special zone; Absence of clean latrine and inadequate water supply, receiving incomplete information about ANC, absence of privacy, long waiting time and difficulty to understand the provider were the major reason for the dissatisfaction and a study conducted in Nigeria supports the findings (14). Another study conducted in Holeta, central Ethiopia also support this finding as it revealed that most of the women in FGDs agreed that over all their perception on quality is good but there are some problems associated with inadequate skilled professionals, and shortage of equipment's and sometimes there is lack of privacy (45).

The probable reason that proportion of study women were not satisfied in this study might be related to lack of training for providers, absence of ANC guidelines, too much students in one ANC room of two health centers in particular, fail to consider services at the design stage of the buildings and one window at card room for all clients.

According to this study gestational age of the mother at first visit, the sex of ANC service provider, waiting time and consultation time were found to be statistically significant with satisfaction towards the overall service they received. Respondents who received ANC from male providers were less likely to be satisfied than those who received the services from female providers. This also in line with other study respondents who received ANC from female providers were more likely satisfied than those who received from male providers.

This might be due to loss of freedom to discuss about their issues with male provider and they want to be examined by female health service provider. those women who had started first visits of ANC after 4 months of pregnancy were less likely satisfied than who had started before 4

months of pregnancy, this is also supported by other studies(34,46). The dissatisfaction might be due to disappointment from the complaint of the provider for their late initiation.

According to this study those women who wait for greater than 60 minute to get a provider were less likely satisfied than those who wait for less than 60 minutes. This is also supported by the study conducted in eastern Uganda, Sudan Khartoum &Nigeria women who wait for a long waiting time were dissatisfied than their counter parts (35,36 &44). In this study 83.3 % of the client spent less than 20 minute with the service giver while receiving consultation with a mean consultation time of 15.31 ± 4.4 (SD) minutes.

The average consultation time is greater than the study done in rural Nigeria where women spent an_average of 5 minutes for consultation (44) and less than WHO FANC standard consultation time 20-40 minute(5) and it is found to be statistically significant. Respondents who stayed with the ANC provider for 21-40 minutes were more likely satisfied than those who stayed for less than 20 minutes. This might be due to long consultation time the women feel that meeting their information needs during antenatal clinic visits.

Strengths of the study

- Triangulation methods were used to collect the data from different sources to increase the validity of the study.
- Waiting and consultation time were recorded to make objective

Limitations of the Study

❖ The results of this study might be biased as the respondents affected by social desirability bias to respond or tell the existing realty about their care provider.

- ❖ Health providers might make an extra effort to give their better quality of service on the days that the research team visits the health centers and if they are aware of being observed (Hawthorne) effect.
- ❖ Design effect was not considered due to resource and time constraint
- * This is a facility based study. This may overestimate the satisfaction of respondents.

Chapter seven

7. Conclusion and Recommendation

7.1. Conclusion

This study provides valuable indications about the areas that should be focused on to promote the quality of antenatal care service provided to the pregnant mothers.

♣ Greater percentages of women were satisfied with the focused antenatal care service, but lower compared to other studies.

- ♣ Lack of clean latrine & adequate water supply, lack of cleanliness and sanitation during the procedure, receiving incomplete information about ANC, lack of privacy, difficulty to understand the provider, and long waiting time were some of the constraints forwarded by majority of pregnant women as a cause of dissatisfaction.
- ♣ This study substantiate that there is statistically significant relationship between gestational age of the mother at first visit, sex of ANC service provider, waiting time and consultation time with satisfaction towards the overall service.
- ♣ In adequate consultation time to discuss health issues with the service providers and lower involvement in the decision making process concerning their care.
- ♣ The providers were not complying with FANC guideline consistently during client consultations.
- ♣ Most of the minimum required resources to conduct the service were available in the health centers
- None of the Health centers have ANC guideline since it is very crucial for the provision of the recommended components of ANC.
- ♣ The numbers of trained staffs in the facilities are not adequate as per WHO SARA manual standard.
- ♣ Higher proportion of the clients receive the service with respect

7.2. Recommendation

Based on the conclusions, the following recommendations have been forwarded to concerned bodies:

To Gurage Zone health department and Woreda Health offices

- ➤ Gurage zone health department and respective Woredas health office should facilitate need based in-service training for adequate number of ANC providers.
- ➤ Gurage zone health department and respective Woreda health office should supply necessary equipment's & supplies to each unit in the health facilities.

- ➤ National and WHO FANC guidelines should be distributed to all health facilities by Gurage zonal health department
- Supervision systems need to be strengthened to ensure the recommended FANC components are indeed being carried out.

To the Health centers

- > The health center has better to work on Minimization of waiting time
- > The provider has better to increase the involvement of mothers in the decision making process and giving much time to mother during each visits to discuss their concern freely.
- The provider has better to emphasis at counseling mother and provide the service as per guideline
- > The providers has better to secure the privacy of their clients so as to create favorable environment for their clients
- ➤ The provider should wash their hands before and after examination since, nosocomial infection are common in health care settings.
- Respect given for the clients is encouraging so that providers should maintain such working culture in this regard.

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Annex I Questionnaire

INSTRUCTIONS

- (a) Explain the purpose of the interview to the mother,
- (b) Ask for consent before proceeding with the interview
- (C) Make sure all questions are answered
- (d) Circle choice of the answer as appropriate.

Good morning/Good after noon dear client! My name is _____.

I am conducting a research on assessment of quality of antenatal care services. It is believed that quality antenatal care service increases clients' satisfaction, which contributes to an increase in antenatal utilization coverage and reduce maternal mortality rate.

The purpose of this study is to assess the quality of antenatal care services provided in some health centers and level of satisfaction of antenatal care users, and finally to give important comments that will help to strengthen and improve quality of antenatal services. To do this, your information is very important so that I would like to ask you a few questions about your visit to the health facility to find out your experience today. I would be very grateful if you could spend a few minutes to answer questions related to the service.

This is not an evaluation of this facility or of the staff who provides this information. I will not put your name or registration number in the format. All the information you give will be kept strictly confidential. Your participation is voluntary and you are not obliged to answer any questions you don't want. But your honest participation will contribute to generate information that can be used to improve the quality of antenatal services.

Do I nave you	ir permission to	continue?			
Yes		No			
Interviewer N	ame			Signature	
Supervisor/investigator NameSignature					
	To be filled	by data coll	ectors		
Health center	code				

Questionnaire code Date:
Client ANC card number.
Start time
Part 1: Client exit interview questionnaire
Part 1.2. Socio demographic characteristics of Respondent
101. Residence 1.urban 2.rural
102. Age
103. Marital status: 1.married 2. Single 3. Divorced 4. Widowed 5.Separated
104. Educational status: 1.can not read and write 2. Can read and write 3. Primary 4. Secondary
5. Preparatory 6. Diploma and above
105. Religion: 1. Orthodox 2. Muslim 3. Protestant 4. Other
106. Ethnicity: 1. Gurage 2. Amhara 3. Tigre 4. Oromo 5. Other
107. Occupational status:
1. Government worker 2.NGO worker 3.Private employee 4.Merchant
5. House wife 6. Daily laborer 7. Unemployed 8. Other (specify).
Part 1.2: Obstetrical history and other client related factors
109. Is the pregnancy planned? 1. Yes 2. No
110. How many times have you been pregnant till now?
1. Once 2. Two times 3. Three times 4. Four times 5. Five and above times
111. How many visits do you have in this pregnancy including this visit? 1. One 2.Two 3.Three
4. Four and above
112. Gestational age in completed weeks/months review card
113. When was your first visit? In weeks/Months of pregnancy/
114. Why did you start at this time?
1. To take TT Vaccination 2. For ANC checkup 3. For Pregnancy test 4. For Other medical
cases
115. History of abortion? 1. Yes 2. No
116. History of still birth in health institution? 1. Yes 2.No
117. Do you have sex preference among ANC providers? 1. Yes 2.No (if no,
skip to question 119

- 118. Which sex do you prefer? 1. Female provider 2.Male provider
- 119. What was the sex of your ANC provider today? 1. Female 2.Male
- 120. How long did it take for you to arrive at this clinic? 1. Less than 2 hrs. 2. 2 & more hrs.

88. I don't know

121. Are the opening hours of this clinic convenient for you? 1. Yes

2. No

Part 1. 3. Client satisfaction towards Ante natal care

The following are statements about different characteristics that client satisfies. Please encircle the number according to the client's agreement in the statement

No.	Questions	Strongly disagree(1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
201	Provider's greeting was good and in a friendly way(polite)					
202	Waiting time was fair					
203	Waiting area was adequate & with seats					
204	The provider was not easy to understand					
205	Information provided on pregnancy-related Issues is not adequate					
206	privacy during consultation was maintained					
	Provider perform the procedure with cleanliness and sanitation					
207						
208	The antenatal clinic has clean latrine & adequate					

	water supply			
209	You feel that today you received full information about ANC.			
210	You want to continue the rest ANC visits in this health facility.			
211	you recommend your relatives &others to attend their antenatal visit in this facility			
12	Generally you are happy with all the services you have got today.			

D 1	• . •	. •	•	• .
Record	waiting	fime	in	minute
record	waiting	tillic.		mmucc

Record consultation time.....in minute

Part 2. Process attributes
Observation checklist
My name is
I am conducting a study to see what services clients are given during their antenatal care visits
This information will help us to propose ways in which to improve the services offered. As a par-
of this study, we are observing the interaction of health providers and their clients during
antenatal care visits. I would appreciate it if you allowed me to observe your appointment today
If you do, I will be accompanying you through your visit and seeing what you and your provide talk about.
I will also observe when he/she examines you. I am not a health provider in this facility and will not make any comments or participate in your consultations in any way. However, you participation in this study is voluntary, and you can choose not to let me accompany you. If you choose not to participate, you will not be penalized in any way. If you agree to participate and you change your mind later, you can also ask me to stop observing and exit the room whenever you want. If you participate, you will not receive money or gifts, and you will not benefit directly from your participation. However, your participation will result in improved future maternal and reproductive health services. Your participation in this study will remain confidential. I will no record your name in the notes I take. This way, no one will be able to know that I observed your
services.
Finally, if you have any questions about this study at a later stage, you can come back here and
clear your doubts with your provider at the clinic. Do you agree to participate in this study?
Yes No
Health center code
Treatur conter couc

Checklist code-----

Questions		Yes	No	Remark
		(√)	(x)	
Interpersonal Aspects	s: Did the ANC provider			Put a thick mark
Maintained privacy	auditory			
	Visual			
Greet client				
call by name				
explanation made befo	re & after Physical examination			
Was the diagnosis expl	lained			
The provider look pol	ite during consultation			
Tell the client what is §	going to be done and encourage her to ask questions			
Technical Aspect:				
History taking (Asses	sment)			
Asked history of hyper	tension (if it is the first visit).			
Asked history of diabe	tes (if it is the first visit).			
Asked history of cardia	ac problem(if it is first visit)			
Asked number of prior	pregnancies (if it is the first visit).			
Asked and calculate g	estational age (if it is first visit)			
Asked history of previous	ous caesarian section (if it is first visit)			
Counseling About d	langer signs in this pregnancy for all visits			
Asked about any bleed	ing during this pregnancy.			
Asked about any vagin	al discharge observed this pregnancy.			
Asked whether client he relate to this pregnancy	nad any other symptoms or problems that she thinks might be			
Asked about Severe he	adache			

Asked about blurring of vision		
Physical exam for all visits		
Washed his/her hands with soap before examining the client.		
Took blood pressure record		
Examined hands and/or conjunctiva for pallor.		
Listen to fetal heart sounds(for≥20 weeks gestation)		
Use sterilized gloves when PV examination is needed?		
Check for edema		
Examine thyroid		
Weight measured		
Obstetric palpation		
Counsel on pregnancy and delivery for all visits		
Advise about nutrition during pregnancy		
Advise about personal hygiene		
Advise on rest and exercise		
Prescribe/give iron/folic acid and Explain purpose of iron tables		
Prescribe/give tetanus toxoid and Explain purpose of tetanus toxoid (first and third visit)		
Remind client of expected date of delivery		
Advise if any other medical condition		
Suggest that client deliver at health facility(third and fourth visit only)		
Recommendation on lactation (third and fourth visits only)		
Recommendation on contraception(third and fourth visit only)		
Advise on Birth preparedness and complication readiness plan		

NO	Question RECORD REVIEW	yes	No
	For the First Visit		
401	Gestational age estimation done/calculate EDD		
402	Uterine height measured		
403	Blood pressure taken		
404	Maternal weight measured		
405	Blood group and Rh requested		
406	Rapid syphilis(VDRL) test requested		
407	Urine test (multiple dipstick) performed		
408	Fe / Folic acid supplementation provided		
409	Tetanus toxoid requested		
410	HIV test		
411	Partner HIV test		
	Second visit		
501	Blood pressure taken		
502	Gestational age estimated		
503	Uterine height measured		
504	Fetal heart rate measured		
505	Fe / Folic acid supplementation given		
	THIRD VISIT: add to second visit		
601	Hemoglobin test requested		
602	Tetanus toxoid (second dose)		
603	Instructions for delivery/plan for birth		
604	Recommendations for lactation / contraception		
	Fourth visit :add to second & third visit		

701	Detection of fetal presentation (fourth visit)	
702	ANC card complete (four all visit)	

Part 3. Structure attributes

Resource inventory checklist health center code.......

No.	Questions	yes	No	Remark
801.	Does the Antenatal clinic have functional:			
801_1	Sphygmomanometer?			
801_2	Weighing machine			
801_3	Microscope?			
801_4	Fetoscope?			
801_5	Stethoscope?			
802	Gloves?			
803	Anthropometric Measurement(MUAC)			
804	Hemoglobin measurement?			
805	VDRL test			
	Pregnancy test			
	Urine Analysis test			
	HIV test kit			
	Are the following drugs available in the pharmacy of your health facility;	Yes	No	remark
806_1	Iron sulfate and folic acid?			
	TT Vaccines ?			
806_2	Methyldopa/ furosemide?			
	Magnesium sulfate			
806_3	Penicillin's?			
807	Does the Antenatal clinic have general infra structures like:			
807_1	Toilets with water?			
807_2	Adequate waiting area with seats 56			

807_3	Water to wash hands in the examination room?		
807_4	Private consultation/ examination room?		
807-5	Examination table		
807-6	Safety box		
	Suggestion box		
	Waiting area with a seat		
807-7	Soap and/Alcohol		
808	Ante natal care guideline		
809	FANC card/history sheet		
810	ANC registration book/log book		

Part 4.In-depth interview checklist for ANC focal person.

I am carrying out a research on quality of antenatal care services on different health institutions to find ways of improving the quality of the service. I would like to ask you some questions to get information from your experience. Please be sure that this discussion is strictly confidential and that your name is not being recorded.

May I continu	e?	
Yes	No	
Health center c	ode	
Code of the ser	vice provider	
Sex	qualification	year of graduation
1. For how mar	ny years have you been providing and	tenatal care?
years? If not w	hy?	ob training/ to provide ANC in the past two
3. How many		Ante natal care service provision? Based on
4. Are there any	y written guidelines or service protoc	cols in this facility for ANC services? If not
Why		

5. When was the last time an external supervisor (someone from outside this facility) visited the facility regarding ANC services? (\leq 6/>6months or not at all)
If yes, from where
Was the comment constructive?
6. Is there a referral system?
7. What do you suggest in general about Ante natal care service improvement?
In-depth For head of the health center
Sex Age marital status
Qualification
Service years/experience
1. What mechanisms does this health center use to update the knowledge and skills of Ante natal
care service provider?
2. From where did you get Ante natal care service logistics?
Is the supply based on your request?
3. Any non-government organization supports your institution for Antenatal care service?
. if yes mention their support
4. is there regular performance review meeting with health workers in this health center? If yes
how often?
5. From your experience what are barriers to quality Antenatal service provision in this health
center? Probe for:
➤ Shortage of resources, why?
> Staff turnover, why? For how long?
➤ Lack of regular supportive supervision?
6. What are the measures taken by your health center to improve quality of the ANC?
> Staff training?
Supportive supervision?
Review meeting
7. What do you suggest/recommend in general about Antenatal care service improvement?

Amharic Version of the Questionnaire

ቃለ መጠይቅ

መመሪያ					
1. የመጠይቁን አሳጣ ለተገ	ጎ <i>ጋ</i> ዩ <i>ግለፅ/</i> ጪ				
2.	ነ በፊት የተ <i>ገ</i> ል <i>ጋ</i>	ን ዩን ፈ ቃደኝነት	ę		
3. ሁሉም ተያቄዎች መመለ	ነቸዉን <i>አረጋግ</i>	т/щ			
4. <i>መ</i> ልሱን አክብብ/ቢ					
እንደምን አደሩ/እንደምን ዓ	የ ሉ ስሜ			.ይባላል፡፡በቅድመ ወ	ንሊድ ክት <i>ት</i> ሪ
አገልባሎት	-	-			-
አላማ ባንዳንድ				-	
በመጨረሻም ጠቃሚ የሆኑ ሲሆን ይህን ደግሞ ለማድ ያስተዋሉትን በተመለከተ ጥ እጅግኑ ደስ ይለኛል፡፡የጥ እፌል <i>ጋ</i> ለሁ፡የርሶም ስምም ሀ	ረግ ከርሶ የም ቂት ጥያቄዎችን ናቱ አላጣ የለ	የናገኘውን <i>መ</i> ረጃ እጅባ ነ ልንጠይቆት ነው፡ ከኔ _ኬ ና ባለ <i>ሙያውም ሆነ</i>	አስፈላጊ ነው፡፡ስ/ <i>ጋ</i> ር ጥቂት ደቂ <i>ቃዎ</i> ጤና ጣቢያው <i>(</i>	\ ዛሬ ክትትልዎና በ F ተያቀቄዎችን በመመ \መንምንም እንዳልሆ	ከትትልዎ ላይ የነ እንዲገነዘበ
መረጃ በሚስጥር ይያዛል፡ <i>-</i> ተዐማኝነት ያለው መረጃ የቅ			-	-	ነገር ግን የርር
ለመሳተፍ ፍቃደና ኖት	አዎ		አይደለሁም		
የመረጃ ሰብሳቢው ስም			ፊር ማ		

የተቆጣጣሪው/የተመራጣሪው ስም______ ፌርጣ____

በመረዳ ሰብሳቢው የሚሞላ	
የጤና ጣቢያው ኮድ	
የመጠይቁ ተራ ቁፕር/ልዩ መለያ ቀን:	
የደንበኛዋ የቅድመ ወሊድ ክትትል ካርድ ቁጥር	
ቃለ መጥይቁ የተጀመረበት ሰዓት	
ክፍል 1: ተገልጋዩ አገልገሎት ከጨረሱ በኋላ የሚጠየቁ ጥያቄዎች	
ክፍል 1.2. የጥናቱ ተሳ <i>ታሬ ግ</i> ለሰቦች ምንነት የሚ <i>ገ</i> ልጹ ጥያቄዎች	
101. የመኖሪያ አድራሻ 1. ከተማ 2. <i>ነ</i> ጠር	
102. ዕድሜ	
103. የ <i>ጋ</i> ብቻ ሁኔታ : 1.ያኅባች 2. ያላንባች 3. የተፋታች 4. የሞተባት 5. የተለያየች	
104. የትምህርት ደረጃ: 1.ማንበብና መፃፍ የማትቸል 2ማንበብና መፃፍ የምትቸል 3. የመጀመሪ	ሪያ ደረጃ 4. ሁለተኛ ደረጃ
5. መሰናዶ 6. ዲፕሎማና ከዛ በላይ	
105. ሐይማኖት: 1. ኦርቶዶክስ 2. ሙስሊም 3. ፕሮቴስታንት 4. ሌላ ካለ	
106. ብሄር: 1. ጉራጌ 2. አማራ 3. ትግሬ 4. ኦሮሞ 5. ሌላ ካለ	
107. የስራ ሁኔታ:	
1. የመንግስት ሰራተኛ 2.መንግስታዊ ያልሆነ ተቋም ሰራተኛ 3.የግል ሰራተኛ 4.ነጋኤ	5.የቤት
እመቤት 6.የቀን ሰራተኛ 7. ስራ የሌላት 8. ሌላ ካለ (ይ <i>ገ</i> ለፅ).	
ክፍል 1.2: ካለፈዉ እርግዝና እና ከደንበኛዉ <i>ጋ</i> ር የተያያዙ ተያቄዎች	
109. አቅደዉ ነዉ ያረገዙት? 1. አዎ 2. አይደለም	
110. ስንተኛ እርግዝናዎ ነዉ?	
1. አንደኛ 2. ሁለተኛ 3. ሶስተኛ 4. አራተኛ 5. አምስተኛና ከዛ በላይ	
111. ስንተኛ ክትትልዎ ነዉ ይሄንንም ጨምሮ? 1. አንደኛ 2. ሁለተኛ 3. ሶስተኛ 4. አራተኛና ከ	ዛ በሳይ
112. ካረገዙ ስንተኛ ዎርዎ ነው? (በሳምንት/ በዎራት ይግለፁ)	
113. የመጀመርያ ክትትል ያደረጉት በስንተኛ ዎርዎ ነዉ? (በሳምንት/ በዎራት ይግለፁ)	
114. ለምን ነበር የእርግዝና ክትትል የጀመሩት? 1. የ መንጋጋ ቆልፍ ክትባት ለመዉሰድ 2. የጽ	_' ንስ ክትትል ለማድረግ 3
<i>ማርገዝ አለማርገዞን ለማረጋገ</i> ጥ 4. ሌላ <i>ተጓ</i> ዳኝ የሔና <i>ችግር</i> ስላለቦት	
115. ከዚህ በፊት ዉርጃ አጋጥሞት ያውቃል? 1. አዎ 2. አይደለም	
116.በወሊድ ወቅት በጤና ተቋም ልጅ ሞቶቦት ያው ቃል ? 1. አዎ 2.አይደለ	19 ^D

117. የጤና ባለሙያው ፆታ ምርጫ ይፈለጋሉ? 1. አዎ 2.አይደለም (መልስዎ አይደለም ከሆነ ወደ ጥያቄ

119 ይለፉ

118. የትኛውን ፆታ ይመርጣሉ?

1. ሴት ባለሙያ 2.ወንድ ባለሙያ

119. ዛሬ አንልግሎቱን ያንኙት በየትኛው ፆታ ነበር?

1. ሴት

2.ወንድ

120. ከቤትዎ ወደእዚህ ጤና ተቋም ለመድረስ ምን ያህል ጊዜ ይወስድብዎታል? 1. ከ 2 ሰአት ያነሰ 2. 2 ሰአትና ከዛ በላይ.

88. አላውቅም

121.ክኒኒኩ የሚከፈትበት ሰአት ለርሶ ምቹ ነው? 1. አዎ 2. አይደለም

88. አላውቅም

122. በዚህ ከትትል ወቅት ለተደረገልዎት አጠቃላይ ህክምና አገልግሎት ምን ያህል ከፈሉ?(በብር)

ክፍል 1. 3. የተንል*ጋ*ዩን የእርካታ መጠን የሚለኩ ጥያቄዎች

ከዚህ በታች የተዘረዘሩ አረፍተነገሮች የተገል*ጋ*ዩን የእርካታ *መ*ጠን የሚለኩ ጥያቄዎች ሲሆኑ እባክዎ በተገል*ጋ*ዩ ሰምምነት ደረጃ ምላሻቸውን ምልክት ያድርጉ**.**

ተ.ቁ.	ጥያቄዎ ች	በጣም አልስጣጣም (1)	አልስማማ ም (2)	ሕርግጠኛ አይደለሁ ም (3)	በምጠ ኑ እስማ ማለሁ (4)	በጣም እስማማለሁ (5)
201	የጤና ባለሙያዉ/ዋ አቀባበልና ሰላምታ ትህትና የተሞላበት ነበር					
202	አገልግሎቱን ለማግኘት የጠበቅኩት ሰዓት ተመጣጣኝ ነበር					
203	በጤና ጣቢያው በቂ የሆነ <i>መ</i> ጠበቂያ ቦታ እና ወንበር አለ					
204	የጤና ባለሙያዉ/ዋ ለመረዳት ሆነ ለመገባባት ይከብዳል					
205	እርግዝና በተመለከተ የተሰጠ መረጃ በቂ አይደለም					
206	በአካላዊ ምር <i>ሙራዎት/</i> በምክር ወቅት ከማንኛዉም አካል ሚስጥርዎ ተጠብቋል					
207	የጤና ባለሙያው/ዋ የአካል ምር <i>ሞራ</i> በንጽህናና በተንቃቄ ሰርቷል/ለች					

208	ኪሊኒኩ ንፁህ የመጸዳጃ ቤት እና በቂ የዉሀ አቅርቦት አለዉ			
209	ስለ ቅድመ ወሊድ ከትትል በቂ መረጃና አገልግሎት እንዳገኙ ይሰጣዎታል			
210	ቀሪ የእርባዝና ክትትልዎን እዚሁ ጤና ተቋም ጣድረባ ይፈል <i>ጋ</i> ሱ			
211	ሴሎች እናቶች ዘመድዎንም ጨምሮ በዚህ ጤና ተቋም እንዲከታተሉ ይመክራሉ			
12	ባጠቃላይ ዛሬ ባንኙት አንልግሎት ደሰተኛ ሆነዋል(ረክቷል)			

12	ባጠቃላይ ዛሬ ባንኙት ደሰተኛ ሆነዋል(ረክቷል)	አገልባሎት					
	ልግሎት ጊዜ መዝባብ						
	ት ለማግኘት የጠበቁበት ጊዜ 						
	lተ າ ል <i>ጋ</i> ዩና በባለ <i>ሙያተ</i> ኛው	መካከል የአገ	<i>ነ</i> ል ባ ሎት አሰጣጥ	ሂደት በተመለ	hተ		
በ <i>መመ</i> ልከ	ት የሚሞላ ቅፅ						
ስሜ የሚሰበሰበ እንደጥናቱ እንድመለተ ከመስጠት አይነት ክና አልሰጥም የሚገልፅ ነ	ዩንቨርስቲ የህብረተሰብይባብ ውን መረጃ የቅድመ ወሊ ደ አካል በተገልጋዩና በባለሙ ነት ይሁንታዎትን እጠይቃለ እቆጠባለሁ፤በየትኛውም (ዩያም ሆነ ስጦታ እንደጣያን በተጨጣሪም ጣንም ሰው ነር አልመዘባብም፡፡ነገር ግ	ነል፡፡ ስለ ቅደ ፡ አገልግሎት ያተኛው መካ ሁ፡፡ባለሙያሳ ነዕት ሀሳቦን ቀ ኙ አረ <i>ጋግጣ(</i> እኔ እርሶን እ ን የርሶ ተሳት	ያመ ወሊድ ክትት ፕራት ለማሳደብ ከል የአገልብሎት ው/ዋ ምርመራም የይሮ እንዳልመለነ ነው፡ከርሶ የሚሰር ንደምመለከት እ' ፎ የቅድመ ወሊያ	ል አገልገሎት 1 አስፈላጊውን የ አሰጣጥ ሂደት ሆነ የምክር አ ነት ጣድረባ ይ ^ን ሰብ <i>መ</i> ረጃ ፍር የዲያውቁ አላደ ድ ክትትል አገሪ	የራት ላይ	ት እያካሄያ ተብሎ ይ ያን እርሱም ካት ማንኛነ ድያ ምክን ያና ለሶስተ [፤] ም ሆነ ማ ለማሳደም	የኩ ሲሆን.ከር ግምታል፡፡አን የ ፍቃደኛ ሆነው ውም አስተያየ ያት ጣንኛውና ኛ ወገን አሳልል የኛውም እርሶ የ የእናቶች ሞ
ለመሳተፍ	ፍቃደኛ ኖት						
	አዎ		አይደለሁም [
የሔና ጣበ	<i>.</i> ው						
የቅፁ ኮድ							

<i>ጥያቄዎ</i> ች		አዎ	አይደለም	አስተያየ ት
		(√)	(x)	
የደንበኛ እና የጤና ባለ <i>ሙያ ቅርር</i> ቦሽ/ <i>ተግባቦትን/</i> አድር 3 ል	በተመለከተ: ባለሙያው/ዋ የሚከተሉትን			
የደንበኛዉን ንመና ለመጠበቅ ይፕራል	ከመሰጣት			
	ከመታየት			
ደንበኛዉን ሰላምታ ሰጥቷል				
ደንበኛዉን በስም ይጠራል				
የአካላዊ ምር <i>መራ</i> ከጣድረጉ በፊትና በ <i>ኃ</i> ላ <i>ገ</i> ለፃ አድርጓል				
የምር <i>ሞ</i> ራውን ውጤት አሳውቋል				
ለደንበኛዉን ትህትና አሳይቷል				
ለደንበኛዉን ምን እንደሚደረባና ጥያቄ እንዲጠይቁ አበረ	ታቷል			
የእርባዝናው ጊዜ ምን ያህል እንደሆነ ለጣወቅ ጥረት አድ	ርጓል (የመጀመሪያ ክትትል ከሆነ).			
ቴክኒካል ነገሮች በተመለከተ:				
የደንበኛዉን ታሪክ አወሳሰድ በተመለከተ				
ስለ ደም ግፊት ህመም ጠይቋል (የመጀመሪያ ክትትል ከሀ	ንነ).).			
ስለ ስኳር ህመም ጠይቋል (የመጀመሪያ ክትትል ከሆነ).).				
ስለ የልብ ህመም ጠይቋል (የመጀመሪያ ክትትል ከሆነ).)				
ስለ ከዚህ በፊት እርባዝና ጠይቋል (የመጀመሪያ ክትትል	hሆነ).).			
የእርግዝናው እድሜ አሰላ (የመጀመሪያ ክትትል ከሆነ).)				
ስለ ከዚህ በፊት የቀዶ ህክምና ጠይቋል (የመጀመሪያ ክት	ትል ከሆነ).)			
በእርግዝና ወቅት ስለ ሚከሰቱ ድንገተኛ ምልክቶች የተሰለ	n የምክር <i>አገ</i> ልግሎት በተ <i>መ</i> ለከተ			
በእርግዝና ወቅት ደም እንደፈሰሳት ጠይቋል.				
በእርግዝና ወቅት ከማህፀን የሚወጣ ፈሳሽ እንደፈሰሳት ለ	ገይ ዳ ል.			
ከእርባዝናው	ያሩን ጠይ ቋ ል			
በእርባዝና ወቅት ከፍተኛ ራስ ምታት እንዳለ ጠይቋል.				

የአካል ምርመራ በተመለከተ	
1	
ባለሙያው ደንበኛውን የአካል ምርመራ ከማድረጉ በፊት እጁን በሳሙና ታጥቧል	
የደም ባፊት መጠን ለክቷል	
የደንበኛውን እጅና አይን <i>መ</i> ንጣት ቼክ አድርጓል .	
የፅንሱ የልብ ምት ሰምቷል (ከ 20 ሳምንት በላይ ከሆነ)	
የማህፀን ምርመራ ባስፈለገበት ወቅት ሰርጇካል ጓንት ተጠቅጧል	
እብጠት <i>ቼ</i> ከ አድጓል	
ታይሮይድ ቼከ አድጓል	
ከብደት ለከቷል	
አብስቴትሪክ ፓልፔሽን አድር ጻ ል	
እር ግዝና በተ ማለከተ የምክር አ <i>ገ</i> ልግሎት	
ስለ እርባዝና ወቅት የአመጋገብ ስርዐት ምክር ሰጥቷል	
ስለ እርግዝና ወቅት የግል ንፅህና ምክር ሰጥቷል	
ስለ እርግዝና ወቅት የሚደረግ እረፍትና እንቅስቃሴ ምክር ሰጥቷል	
የብረት እንክብል አዞ ስለ ጠቀሜታው በዝርዝር አስረድቷል	
የመንጋጋ ቆልፍ ክትባት አዞ ስለ ጠቀሜታው በዝርዝር አስረድቷል	
ደንበኛውን መቼ እንደሚወልዱ አስታውሷል	
ስለ ሌላ የጤና ቸግር በተመለከተ የምክር አንልግሎት ሰጥቷል	
በጤና ተቋም እንድትወልድ የምክር አንልግሎት ሰጥቷል (የሶስተኛና አራተኛ ክትትል ብቻ)	
ስለ ጡት ማተባት በተመለከተ የምክር አንልግሎት ሰጥቷል (የሶስተኛና አራተኛ ክትትል ብቻ)	
ስለ የወሊድ መከላከያ በተመለከተ የምክር አንልግሎት ሰጥቷል (የሶስተኛና አራተኛ ክትትል ብቻ)	
ስለ ወሊድ ዝግጁነትና የአደ <i>ጋ ጊዜ ተዘጋ</i> ጅነት በተ <i>መ</i> ለከተ የምክር አ <i>ገ</i> ልግሎት ሰጥቷል	

ተ.ቁ	ጥያቄዎች ሪከርድ በማየት የሚሞላ	አዎ	አይደለም	አስተ <i>ያ</i> የት
	ለመጀመሪያ ክትትል ለመጡ ደንበኞች		I	l
401	<i>መ</i> ቼ እንደሚወልዱ ስሌት ተሰላ			
402	የፅንሱ እድሜ ተለካ			
403	የደም ግፊት ተለካ			
404	ከብደት ተለካ			
405	የደም አይነትና አር ኤች ፋክተር ተሰራ			
406	የቂጥኝ ምርመራ ተሰራ			
407	የሽንት ምር <i>መ</i> ራ ተሰራ			
408	የብረት/ ፎሌት እንክብል ተሰጣት			
409	የመንጋጋ ቆልፍ ክትባት ተሰጣት			
410	ኤች አይ ቪ የደም ምር <i>ሞ</i> ራ			
411	የኢጋር ምር <i>ሞ</i> ራ			
ለሁለተ	<u>ኛና ለቀጣይ ክትትል</u>	1	- 1	1
501	የደም ባፊት ተለካ			
502	የፅንሱ እድሜ ተለካ			
503	<i>መቼ</i> እንደሚወልዱ ስሌት ተሰላ			
504	የፅንሱ የልብ ምት ተቆጠረ			
505	የብረት/ ፎሌት እንክብል ተሰጣት			
	ሶስተኛ ክትትል፡ ከሁለተኛና ክትትል በተጨማሪ			
601	ሄሞባሎቢን <i>መ</i> ጠን ተለካ			
602	የመንጋጋ ቆልፍ ክትባት ተሰጣት(ሁለተኛ ዶዝ)			
603	ስለወሊድ የት እንደሚወልዱና ምን ዝግጅት ጣድረባ እንዳለባቸው			
604	ስለ ጡት ማጥባትና የወሊድ መከላከያ የተባሉት አለ			
አራተኛ	ከትትል፡ ከሁለተኛና ሶስተኛ ከትትል በተጨ <i>ጣሪ</i>		<u> </u>	1
701	ስለ ፅንሱ አቀጣመጥና ሪፌራል የሚያስፈልንው ከሆነ የት ሪፌር እንደሚደረባ ፅፏል			
702	አጠቃላይ <i>መረጃ አ</i> ጧልቶ ፅፏል.			

ክፍል 3. ጤና ጣቢያው በተመለከተ

በጤና ጣቢያው የቅድመ ወሊድ ክትትል አገልግሎት ለመስጠት የሚያስፈልጉ ሀብቶች በተመለከተ የጤና

ተ.ቁ	ጥያቄዎች -	አ ዎ	አይደለም	አስተያየት
801.	የቅድመ ወሊድ ከትትል አ <i>ገ</i> ልግሎት ክፍል የሚሰራ አለው?			
801_1	የደም ባፊት መለኪያ			
801_2	ክብደ <i>ት መ</i> ለኪያ			
801_3	ማ ይክሮስኮፕ			
801_4	ፌ ቶስኮፕ			
801_5	ስቴቶስኮፕ			
802	ጓ ንት			
803	MUAC መለኪያ ሜትር			
804	ሄሞባሎቢን <i>መ</i> ለኪ <i>ያ</i>			
805	የቂዮኝ መመርመሪያ(VDRL Test)			
	<i>እርግዝና መመርመሪያ</i>			
	የሽንት ምር <i>ጦ</i> ራ			
	ኤቸ አይ ቪ መመርመሪያ			
	የሚከተሉት መድሀኒቶች በጤና ጣቢያው ፋርጣሲ ይገኛሉ;	Yes	No	remark
806_1	የብረት/ፎሌት እንክብል?			
	የመንጋጋ ቆልፍ ክትባት ?			
806_2	Methyldopa(ሚታይል ዶፓ)?			
	Magnesium sulfate(ማግኒዚም ሳልፌት)			
806_3	Penicillin's(ፕኒሲሊን)?			
807	የቅድመ ወሊድ ከትትል አንልባሎት ከፍል የሚከተሉት መሰረተ ልማቶች አሉት?			
807_1	ሽንት ቤት ከነ ውሀ?			

807_2	በቂ የመጠበቂያ በታ ከመቀመጫ <i>ጋ</i> ር		
807_3	በመመርመሪያ ክፍል መታጠቢያ ውሀ		
807_4	ለምር <i>ሞ</i> ራ የተለየ ክፍል አለ?		
807-5	መመርመሪያ አል,ኃ		
807-6	ሴፍቲ ቦክስ		
	Waiting area with a seat		
807-7	ሳሙና/ አልኮል		
808	የቅድመ ወሊድ ክትትል ኃይድላይን (guideline)		
809	FANC card/history sheet(ታሪክ መውሰጃ ሽት)		
810	የቅድመ ወሊድ ክትትል መመዝገቢያ ጣህደር)		

የጤና ጣቢያው የቅድመ ወሊድ ከትትል ክፍል አስተባባሪ የሚጠየቅ

የስምምነትቅጽ							
ነመ <i>ን ተነተለ</i> ስሜ				የ.በለለ :	::		
በጅማ ዩንቨርስቲ ፕራት ላይ ያለወ በምስጢር ተይዞ በታማኝነትና በግ በመስጠት የበኩለ መረጃውን ሰ	ᆚን ቸግር ለመለየት	ይባላል፡፡ ስ ኮሌጅ የድህረምረቃ ተማሪ ስሆን በቅድመ ወሊድ ክትትል ድኩና መረጃ እየሰበሰብኩ ነዉ ፡፡ ሥሞ አይፃፍም የሚሰጠ ልፈለጉትን ጥያቄ ያለመመለስና በመካከል ማቋረጥ ይቸላሉ፡፡ ቱ አላማ በጣም ጠቃሚ በመሆኑ ለሁሉም ጥያቄዎች ትክክለኛው ፡፡፡ ጉ በኋላ መስጣጣታቸውን ያረ <i>ጋ</i> ገጥኩ መሆኑን				ኩት <i>መረጃ</i> ፡ ነገር ግን 'ውን መልስ	
የጤና ጣቢያው	·						
የመጠይቁ ኮድ							
ፆታ	ሞያ		የተመረቁበት /	ነመት			
1. በቅድመ ወሊ,	ድ አገልባሎት ለስንት አመት አገለገር	ኍ ?					
	ተ አመታት በቅድመ ወሊድ ክትትል 		•	-		ጎ	
	የው ውስጥ ስንት በቅድ <i>መ</i> ወ				በሙያቸወ	፦ <i>መ</i> ሰረት	
4. የቅድመ ወሊያ	ድ ክትትል በተመለከተ የተፃፈ <i>ጋ</i> ይደ	ድሳይን(ፕ <i>ሮሳ</i>	^ረ ኮልል)አለ? ከሌለ	ለምን			
5. የቅድመ ወሊያ	ድ ክትትል አንልግሎት በተመለከተ ነር(ከ 6 ወር ወዲህ ወይስ በፊት	ሱፐርቪዥ <u>ገ</u>	ን ለማድረባ ከውጪ	የመጣ አካል ነ(ገር ከለስ የ <i>መ</i>	'ጨረሻ ጊዜ	

አዎ፣hሆነ ከየት
ከሱፐርቪዥኑ ገንቢ አስያየት አገኛችሁ?
6. ሪፈራል ሲስተም አለ?
7. በመጨሻም የቅድመ ወሊድ አገልግሎት ላይ ለዉጥ ለማምጣት ምን ያስፈል <i>ጋ</i> ል ትያለሽ/ህ/?
የጤና ጣቢያው ሀላፊ የሚጠየቅ
<i>የታ</i> እድሜ
ምያ
የአንልግሎት ጊዜ
1. የቅድመ ወሊድ ክትትል ክፍል ለሚሰሩ ባለሙያዎች የእዉቀት እና የተግባር ለዉጥ እንድያመጡ ምን አይነት ዘዴ
ትጠቀማላቸሁ?
2. ለቅድመ ወሊድ ክትትል አገልግሎት የሚያስፈልጋችሁን ቁሳቁስ ከየት ታገኛላችሁ?
3. መንግስታዊ ያልህኑ ድርጅቶች ለቅድመ ወሊድ ክትትል አገልግሎት የሚውል እርዳታ ያደርጉላችኋል?
አዎ ከሆነ ምን ይረ <u></u> ዷ ቹኋል?
4.በጤና ጣቢያቸሁ ውስጥ ከባለሙያተኞቹ <i>ጋ</i> ር ወጥ የሆነ ያአፈፃፀም <i>ግምገጣ ታ</i> ካሂዳላቸሁ?
አዎ ከሆነ በስንት <i>ጊ</i> ዜ?
5.ካንተ/ቺ ልምድ ተነስተን ጥራት ያለው የቅድመ ወሊድ ክትትል አንልግሎት ለመስጠት ጣነቆ ናቸው ብለህ/ሽ የምትሏቸው
ምንድናቸው? ለሚከተሉት አወጣጣ:
የቁሳቁስ ሕጦት፣ ለምን?
ባለ ሙያ ከስራ ገበታ መልቀቅ፣ለምን?
ወጥ የሆነ ሱፐርቪዥን ያለመኖር?
6.በጤና ጣቢያቸሁ ፕራት ያለው የቅድመ ወሊድ ክትትል አንልግሎት ለመስጠት የምትወስዱት እርምጃ ካለ?
ባለ ሙያ ስልጠና መላክ?
ወጥ የሆነ ሱፐርቪዥን ማድረባ?
የአፈፃፀም ማምገም ማካሄድ
7. በመጨሻም የቅድመ ወሊድ ክትትል <i>አገ</i> ልግሎት ላይ የጥራት ለዉጥ ለማምጣት ምን ያስፈል <i>ጋ</i> ል
ትየለሽ/ክ/?

Annex II: List of selected Woredas and town administration with respective HCs that are included in this study.

Selected Woreda	Selected	Average monthly report	Number of participants
	Health center	From the most recent quarterly report	selected in each selected HCs
Ezea	1. Agena HC	245	31
	2. Darcha HC	109	13
	3.Yedege HC	128	16
Abeshige	1. Dargie Hc	175	22
	2. Hole HC	151	19
	3.Mamedie HC	114	15
Enemorina ener	1.Weyra HC	114	15
	2.Jatu HC	172	22
	3.Guspajay HC	73	9
Mohirna Aklil	1.Hawariyat Hc	117	15
	2.T/haymanot	102	13
	HC	45	6
	3.Wukiya HC		
Gumer	1. Arekit HC	234	29
	2.Bole HC	178	22
	3.Jamboro HC	100	12
Cheha	1. Embidibir HC	141	18
	2.Aftir HC	70	9
	3.Hurer ber HC	52	7
Butajira city	1.Butajira HC	510	64
Wolkite city	2.Wolkite HC	492	62

Annex II: Declaration

DECLARATION
I, the undersigned, declare that this thesis is my original work, has not been presented for a
degree in this or any other university and that all sources of materials used for the thesis have
been fully acknowledged.
•
Name:
Signature:
Name of the institution:
Deta of submission.
Date of submission:
Name and signature of Internal Examiner:
This thesis has been submitted for examination with my approval as University advisor
This thesis has been submitted for charmation with my approval as emversely advisor
Name and Signature of the first advisor
Name and Signature of the second advisor