EVALUATION OF POSTNATAL CARE QUALITY AMONG GOVERNMENT HEALTH FACILITIES OF SEBATA TOWN, OROMIA REGION, ETHIOPIA, 2019.

AN EVALUATION THESIS TO BE SUBMITTED TO JIMMA UNIVERSITY, INSTITUTE OF HEALTH, FACULTY OF PUBLIC HEALTH, DEPARTMENT OF HEALTH ECONOMICS, MANAGEMENT AND POLICY; HEALTH MONITORING AND EVALUATION UNIT, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR MASTER'S DEGREE IN HEALTH MONITORING AND EVALUATION.

By: Aboma Biranu (BSc.)

November 2019

Jimma, Ethiopia

Evaluation of Postnatal Care Quality among Government Health facilities in Sebata Town, Oromia Region, Ethiopia, 2019.

By: Aboma Biranu (BSc)

Advisors: Mr.Waju Beyene(MPH, BSN)

Mr. Dawit Wolde (MSc, BSc)

November 2019

Jimma, Ethiopia

Declaration

I declare that this thesis has been composed by myself and that the work has not be submitted for professional qualification or any other degree in this or other University, and that all sources of materials used for the thesis have been fully acknowledged.

Name: ABOMA BIRANU

Signature: _____

Place: Jimma, Oromia, Ethiopia

Abstract

Background: Postnatal care is a care given to the mother and her newborn baby immediately after the birth of the placenta and for the first 42 days of life. It is very important in reducing maternal as well as neonatal complications and deaths. Care should be based on relationships between providers and mothers with compassion and empathy. Quality of care is central to providing health services that respect, protect and fulfil our most basic human right to the highest attainable standard of health. Improved quality of care plays a key factor in the increased use of services. So, this evaluation intends to evaluate the postnatal care quality of government health facilities in Sebata town, 2019.

Methods: Case study design involving both qualitative and quantitative data collection methods conducted from March 18/2019 – April 18/2019 in Sebata town government health facilities. The focus of evaluation was process evaluation that utilized the Donabedian model of structure, process and outcome of health quality. The methods of data collection were client surveys, in-depth interviews, inventory of resources, and observation of the postnatal care processes and review of program documents. A total of 396 randomly selected client interviews and 16 direct observations were conducted. All the health facilities were inventoried for the availability of essential program resources and program documents were reviewed. Additionally, an in-depth interview was conducted with a total of 13 purposefully selected key informants. Quantitative data was gathered using a mobile data collection tool (CSPro program) and exported to SPSS 20 version for analysis. Qualitative data were analyzed using a thematic analysis technique.

Result: The overall quality of PNC service judged as 85.3% which was very good, and most of this achievement was contributed by the compliance dimension. Availability, compliance and mothers' satisfaction dimensions achieved, 80%, 90%, and 83%, respectively. Shortage of essential equipment for PNC service provision, absences of the national guidelines at PNC service provision units, missing to take vital signs, the weight of mother and baby, and not counselling the mother were affecting availability and compliance.

Conclusion: The overall quality of PNC service at the health facilities of Sebata town was very good. All Availability, compliance and Client satisfaction dimensions achieved very well. We recommend that more efforts have to be exerted on improving the availing of necessary resources and maintaining providers' compliance to enhance the status of PNC service.

Keywords: Postnatal care, Process evaluation, Quality, Availability, Compliance, Satisfaction, Government health facilities.

Declaration

I, the undersigned, declare that this thesis is my original work and has never been resented for a degree in any other university and that all source of materials used for this thesis have been duly acknowledged. The advisors and examiners' comments have been duly taken in to account.

Name _____

Signature _____

Date _____

Internal examiner

Name _____

Signature _____

Date _____

First advisor

Name _____

Signature _____

Date _____

Second advisor

Name _____

Signature _____

Date _____

Acknowledgement

First and for most I would like to express my deepest gratitude and appreciation to my advisors for their guidance starting from proposal to the final result of the study.

I would like to thank Jimma University, department of health economics, management, and policy. Also, I would like to thank the Health monitoring and evaluation unit for providing me this opportunity to get the basic knowledge of evaluation to evaluate the program.

Last but not least, my thanks go to Sebata town health center for their good commitment to cooperate with me from the first of evaluability assessment to end of evaluation.

Table of Contents

List of Tables

List of Figures

List of Abbreviation and Acronyms

Abbreviation	Definition
ANC	Antenatal care
CSPro	Census and Survey Processing System
CHAM	Christian Healthcare Association of Malawi
DHIS	District Health information system
EDHS	Ethiopian Demographic Health Survey
FMoH	Federal Ministry of Health
HCs	Health Centers
HEW	Health worker
HEWs	Health extension workers
IMCI	Integrated Management of Childhood Illness
MCH	Maternal and Child Health
SDGs	Sustainable Development Goals
MMR	Maternal Mortality Ratio
PMTCT	Prevention of Mother to Child Transmission
PNC	Postnatal care services
WHO	World Health Organization

Operational Definitions

Availability: is the resources and materials exists in the Sebata town public health facility (such as MCH guideline, human resources, medical supplies, medicines, job aids, and town health office recording and reporting documents) required in providing quality PNC services for structural component according to WHO standard.

Availability of drugs and medical supplies is the existence of PNC drugs, vaccines, and Lab. Test in the Sebata town health facility during study period.

Availability of guideline is the existence of WHO postnatal care guidelines in the Sebata town health facility during the study period.

Availability of human resources (health worker such as a doctor, nurses, health officer, and midwives **and health care manager)**: existence of an adequate number of health workers with required qualifications to give postnatal care services in the Sebata town health facilities during study period.

Availability of recording and reporting tools: the recording and reporting tools with full information found in the Sebata town health facilities for postnatal care services which consists of care given to the mother and her new-born babies according to WHO guideline.

Compliance: the degree to which quality PNC services being implemented by health workers in the Sebata town government health facilities in terms of management and clinical services based on WHO's PNC guideline**.**

Government Health facilities: for this evaluation government health facility implies the health centers in the Sebata town only; because there is no government hospital in the town administrative.

Mother: refers to any woman within the reproductive age (18-49) and residence of Sebata town who are following PNC care service in the government HC.

Postnatal care: is the assistance given to mothers and their babies after birth at least once to reduce complications and deaths as well as promote health for the mothers at Sebata town health facilities in the last six months.

Quality of PNC: the application of medical science and technology in a way that maximizes PNC benefits without correspondingly increasing its risks that identified by three attributes of measuring quality of Donabedian model of structures (attribute of material resources used for PNC), process (patient's and practitioners PNC activities) and Outcome (effects of PNC care on the health status), and dimensions of quality (availability of resources, service compliance and mother's satisfaction)

Reliable transport for referral system: availability of transportation for PNC service emergency to serve mother and her child when complication happens in Sebata town health facilities.

Satisfaction: Reported outcome measures for PNC about service provided satisfied by respondents which need to be addressed to improve the quality having four and five in the Likert scale of specific satisfaction question, and it is an immediate outcome and the dependent variable of the evaluation that shows the quality of PNC from mothers' perspective. And its level is categorized into two using the demarcation threshold formula in order to identify the determinant of satisfaction.

Chapter 1 INTRODUCTION

1.1 Background

The World Health Organization (WHO) stated that postnatal care (PNC) is defined as care given to the mother and her newborn baby immediately after the birth of the placenta and for the first 42 days of life(1). Risks of maternal and newborn deaths are greatest during the first 24 to 48 hours after birth(2).

The postnatal period is a susceptible time because most maternal and newborn deaths occur during this period(3).World Health Organization (WHO) recommends that after an uncomplicated vaginal birth in a health facility, healthy mothers and newborns should receive care in the facility for at least 24 hours after birth. If birth is at home, the first postnatal contact should be as early as possible within 24 hours of birth. At least three additional postnatal contacts are recommended for all mothers and newborns, on day 3 (48- 72 hours), between days 7-14 after birth, and six weeks after birth(4).

A large proportion of maternal and neonatal deaths occurred during the first 48 hours after delivery. For example, the World Health Organization (WHO) reports have shown that some 50% of maternal deaths and 40% of neonatal deaths occur within 24 hours after birth. Thus, prompt postnatal care (PNC) for the mother and the child is important to treat any complications arising from the delivery and to provide the mother with important health information (5).

Postpartum care for the mother has conventionally focused on routine observation and examination of vaginal blood loss, uterine involution, blood pressure, and body temperature. Similarly, postnatal care for all newborns should include immediate and exclusive breastfeeding, warming of the infant, hygienic care of the umbilical cord, and timely identification of danger signs with referral and treatment. Likewise, lack of care in the postnatal period from skilled providers may result in death or disability as well as missed opportunities to promote healthy behaviors affecting women, newborns, and children(6).

Quality of care is central to providing health services that respect, protect and fulfill our most basic human right to the highest attainable standard of health. Care should be based on relationships between providers and mothers with compassion and empathy. The direct

relationship between quality and the use of services is well organized. Quality assessment initiatives encourage the supplier to improve quality, thereby increasing the acceptance and sustainability of services within communities (7). Evidence suggests that achieving quality standards improves the effectiveness and utilization of health information and service. As such, improved quality of care plays a key factor in the increased use of services(8).

In the case of Ethiopia, Postnatal care services have been implemented along with other packages of the continuum of care in reproductive and child health programs; such packages include Antenatal care, Childbirth care, integrated management of childhood illness, Nutrition and breastfeeding promotion, PMTCT, and immunization programs. Federal Ministry of Health (FMoH) of Ethiopia recommends three PNC care visits at 6-24 hours, 3 days, 6 days and 6 weeks(9,10).

1.2 Statement of the Problem

According to World Health statistics 2018, globally, an estimated 2.5 million newborns died in the first month of life in 2017 – approximately 7,000 every day – most of whom died in the first week after birth. About 36% died the same day they were born, and close to three-quarters of all newborn deaths in 2017 occurred in the first week of life. The global neonatal mortality rate fell from 37 (36, 38) deaths per 1,000 live births in 1990 to 18 (17, 20) in 2017. Among the regions, the largest declines since 1990 occurred in Eastern Asia with an 84 percent reduction followed by Europe with a 64 percent reduction(11)

Less attention was given for the postnatal period in developing countries those mothers and their newborns babies didn't receive postnatal care services from a skilled birth attendant during the first days after childbirth; following these women in remote areas were the least likely to receive adequate health care. This is true for regions such as sub-Saharan Africa and South Asia who haven't expected numbers of skilled health workers. During the past decade, only 46% of women in developing countries benefited from skilled care during childbirth. This means that millions of births were not assisted by skilled care providers. There were another factors that prevent women from receiving or seeking care during pregnancy and childbirth(12,13).

Postnatal care (PNC) is the most neglected area in the health care delivery system despite being a very important time for the provision of interventions that are vital to the health of both the mother and the newborn (14).

In South-East Asia and sub-Saharan Africa, only 67% and 48% of women give birth with the assistance of skilled personnel, respectively. Postnatal care reaches even fewer women and newborns: less than half of women receive a postnatal care visit within 2 days of childbirth. An analysis of Demographic and Health Survey data from 23 sub-Saharan African countries found that only 13% of women who delivered at home received postnatal care within 2 days of birth (13).

Ethiopia is one of the countries listed with high maternal mortality. The MMR was 871 per 100,000 in the year 2000; it was 673 per 100,000 live births in 2005 and 676 per 100,000 in 2011(9).

EDHS 2011 1nd 2016 showed that the maternal mortality rate was 676 and 412 deaths per 100,000 live births and the infant mortality rate was 59 and 48 deaths per 1000 live births respectively(15,16).The result shows that maternal and infant mortality rates have decreased to some extent by increasing the service . Accordingly, 50% of maternal deaths and 40% of neonatal deaths occur within 24 hours after birth newborn life coverage of postnatal which is still extremely low even for women who give birth in the health facility. The postnatal care program is the weakest of all continuum of care as only 17% of women age 15-49 and 13% of newborns receive a postnatal check within two days of birth after birth are utilizing it compared to 62.4% of those who are utilizing ANC services. Among women who had a postnatal check during the first 2 day after birth, 25% were informed about danger signs of maternal health after delivery, the level of PNC coverage was extremely low in Ethiopia. The proportion of women who received postnatal check-ups in the 2 days after delivery varies widely by region, from a low of 9% in Oromia to a high of 55% in Addis Ababa(16).

The low coverage of postnatal care in Ethiopia is causing continuous high maternal and newborn morbidity and mortality rate(17).It is also challenging for planning and implementing

PNC as well as many opportunities are missed with low PNC coverage including exclusive breastfeeding, PMTCT, providing of family planning and maternal and newborn care, because of the delay to give quality health service for the health care seekers(18).

Despite PNC service accessibility, poor quality of service like shortage of Resources causes a challenge to provide appropriate care to mothers even though the fact that it is the basic right of every woman and neonate to have the best available care helping them during pregnancy and childbirth. Availability of supplies and essential medicines in postnatal wards for maternal and neonatal health is an indicator of successful service implementation towards achieving SDGs(19).

According to finding from Tigray, all the facilities scored below 80% showing that the quality of postnatal care offered to mothers in the hospitals of Tigray was poor and below standard. The midwives were responsible for managing the entire maternity care involving the antenatal, labor and delivery and postnatal wards thus no priority is given for postnatal care. The midwives in all hospitals did not take any training on postnatal care. Human and material resources were inadequate for the provision of comprehensive and quality postnatal care in all the hospitals, the rates of complications and deaths in the postpartum period in the district is high even among women that are delivering in the health facilities. The process of service provision which entails client monitoring and examination was not in line with the Postnatal WHO recommendation due to lack of essential equipment and workload (19).

Evaluating mothers' satisfaction regarding the availability of resources and compliance with the guideline is a legitimate approach to distinctly differentiate factors to be controlled for advancing the quality of PNC service (20).

Therefore, the aim of this evaluation is to identify the point postnatal care quality gaps occur in terms of availability, compliance, and satisfaction with three elements of Donabedian quality of care (structure, process, and outcome), and to answer how/why determinants on the implementation process of postnatal care quality in Sebata town government health facilities, Oromia regional state, Ethiopia, 2019

1.3 Significance of the evaluation

Evaluation of PNC service quality has predominant importance in providing information for services provision and improvement.

Toggle with national vision 2020, the government aims to scale up PNC services at the health facilities to contribute to the reduction of maternal and child mortality and morbidity rate in the town. In a review of the stated information, it was designed to evaluate postnatal care quality among government health facilities of Sebata town for the improvement of PNC by identifying the strengths and weakness of the program.

It provides evidence for program planners and implementers as well as stakeholders to take evidence-based decision making for the implementation of the program in the evaluation area.

Additionally, it will be used as initial data for further studies related to PNC in the Sebata town, since there is no tangible study/evaluation conducted in the study area.

Chapter 2 : PROGRAM DESCRIPTION

2.1 Stakeholder identification and analysis

Stakeholders are individuals, groups, or organizations that can affect or are affected by an evaluation process or its findings(21). Stakeholder's participation in program evaluation will ensure the utilization of findings (22).

The major stakeholders of the program such as Sebata town health office, town administration, town women's and children's affair department, Staffs (midwife and other health professionals) and Primary beneficiaries (mothers) have provided the general information of the program performance, decide on the readiness of postnatal care service program for evaluation, identify the areas of the program to be evaluated and participated in evaluation question development during evaluability assessment by conducting one day meeting. Similarly, they have participated in defining the problem and formulating research questions, selecting indicators of evaluation and judgment parameters was identified through their participation.

About nine evaluation questions were raised to achieve evaluability assessment by stakeholders and evaluator, but only five questions which help us to obtain necessary information on the program implementation were prioritized by the group.

These questions mainly focus on program design, Availability of document, Stakeholder related issues, the Conduciveness of the environment and accountability of stakeholders.

In addition to this, during the whole process of evaluation, they would keep informed regarding the progress of the evaluation. The findings are expected to be used for planning, capacity building, raising awareness, adjust the plan, share experiences from lessons learned, strengthening and developing/revising strategies, and taking corrective measures.

Finally, there is an evaluation result dissemination plan for all stakeholders to communicate the findings and lessons learned that would be included in the report. The following lists of stakeholders summarized in the table about stakeholders' engagement along with their interests and perspectives.

2.2 Stakeholders Identification and analysis

Table 1, Postnatal Care services Stakeholder Identification and Analysis of matrix in Sebata Town Public Health Facility, March-April 2019

Stakeholder	Role in the program	Interest on evaluation	Role in the Evaluation	Communication strategy	Level of importance H, M, L
ORHB	Financial support, Technical support: Guideline development, Training, Supervision, etc.	Planning of PNC program, Capacity building, Resource support, Supportive supervision, decision-maker	Facilitating the evaluation process (Communicating Town health office)	Telephone	H
Sebata town health office	Planning, Implementation, Coordinate and facilitate, Supportive supervision, monitoring, and Resource allocation	Identification of Strength and gaps in PNC service quality	Evaluation question development, set judgment matrix, data source and facilitating the evaluation process	Telephone Face to Face	H
Town women's and child affair Department	Strengthen Health Development army, Community mobilization	Utilizing the results of PNC program management	Evaluation question development, set judgment matrix, source of information and facilitating the evaluation process	Face to face Formal letter Telephone	M
Health centers	Planning and implementation of the program, recording and reporting, resource organization and mobilization and service delivery	Overall PNC service quality improvement	Source of data, evaluation question development, identification Selection of indicators and Setting judgment criteria	Face to face Formal letter	H
Town administration	Budgeting Facilitation of services Community mobilization	Identification of services gap	Facilitation evaluation process (transportation)	Face to face Formal letter	M
Primary beneficiaries (Mothers)	Utilization of service	Receiving quality services	sources of information/data	Face to Face	H

- Note: - Stakeholders level of importance was rated based on: -

Medium – the evaluation achieved its objectives against this stakeholder's opposition, but it is not easy to achieve

High - the person or group significantly change the evaluation

2.3 Goal and objectives of the postnatal care service program

Program goal:

- To contribute to the reduction of maternal and child mortality and morbidity rate in the Sebata town.

General objective:

- To provide quality PNC at Sebata town Government health facilities in 2020.

Specific objectives(23)

- To Increase the Proportion of skilled health professionals in health facilities from 90% to 95% by the end of 2020.
- To increase the proportion of mothers who received full package counseling service on baby care during postnatal care visits from 80% to 100% by the end of 2020.
- To increase the proportion of health facilities with transport for referral/ambulance at health centers from 50% to 100% by the end of 2020.
- To increase the number quarterly supportive supervision from 2 to 4 times a year by the end of 2020.
- To Increase the Proportion of women who received postpartum family planning counseling community-based providers and women 75% to 85% by the end of 2020.
- To increase Proportion available essential medicine at each health facility from 70% to 90% by the end of 2020.
- To increase Proportion health facilities with guidelines at service areas of each health facility from 50% to 100% by the end of 2020.
- To increase the proportion of health facilities that conduct case review/audits into maternal death from 50% to 100% by the end of 2020.

2.4 Major strategies

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

- Improve community participation, engagement, and ownership
- Capacity building for the health workers
- Strengthen routine performance monitoring system
- Data quality assurance and auditing
- Conducting supportive supervision
- Partnership with other governmental, religious and non-governmental institutions
- Establish leadership at various level to integrate and implement a PNC package

2.5 Program activities and resources

Program resources

Human resource, financial resources, infrastructure, medical equipment, drug and supplies, IEC/BCC materials, budget and guideline, manuals, recording and reporting formats.

Activities

The postnatal care services activities are:

- Educating and Counseling mothers on components of PNC:
  - Counseling for mothers on childcare Counseling mothers on breastfeeding
  - the birth experiences
  - psychological and social adjustment to parenthood (for example, expectations, mood, self-care, child safety, relationship with partner, contraception)
  - care of the baby (for example, feeding, bathing, handling, and sleep/settling babies)
  - maternal physical adjustments (for example, fatigue, sleep, breastfeeding, breast, and body
  - changes, sexual health)
  - family adjustments (for example, care of the baby, siblings' acceptance of the baby)
  - Social support and local networks.
- Institutionalizing evidence-based interventions, tools, and approaches
- Training to health care workers
- Supportive supervision, mentorship and review meetings

- Providing PNC components of services such as IMCI, child survival, safe motherhood initiatives and emergency
- obstetric care, and early childhood development
- Recording and reporting

Output

The expected output of the different postnatal care services program activities provided can be:

- Mothers receiving health information on PNC
- supportive supervision conducted
- Mothers and child who did receive PNC component of services
- Trained manpower on postnatal care services program
- Postnatal care review conducted
- Health education/counseling provided
- Complete and timely sent reports.

Outcome

Outcomes are the changes observed on target beneficiaries that include a change in behavior in utilizing health services and improvement in the quality of health care services.

- Increase knowledge and skills.
- Increased utilization of service
- Improved quality of health services.
- Improved quality of data and information use
- Increased awareness and health-seeking
- Increased mothers' satisfaction

Impact

To contribute to the reduction in the morbidity and mortality of maternal and children

2.6 *LOGIC MODEL FOR POSTNATAL CARE SERVICES PROGRAMME*

PROBLEM STATEMENT: According to EDHS 2016, only 17% of women age 15-49 receive a postnatal check within two days of delivery, while 81% did not have a postnatal check within 41 days of delivery. Merely 13% of newborns receive a postnatal check within two days of birth.

GOAL: to reduce the maternal mortality ratio to 199 maternal deaths per 100,000 live births and the neonatal mortality rate to 10 per 1,000 live births by 2020.

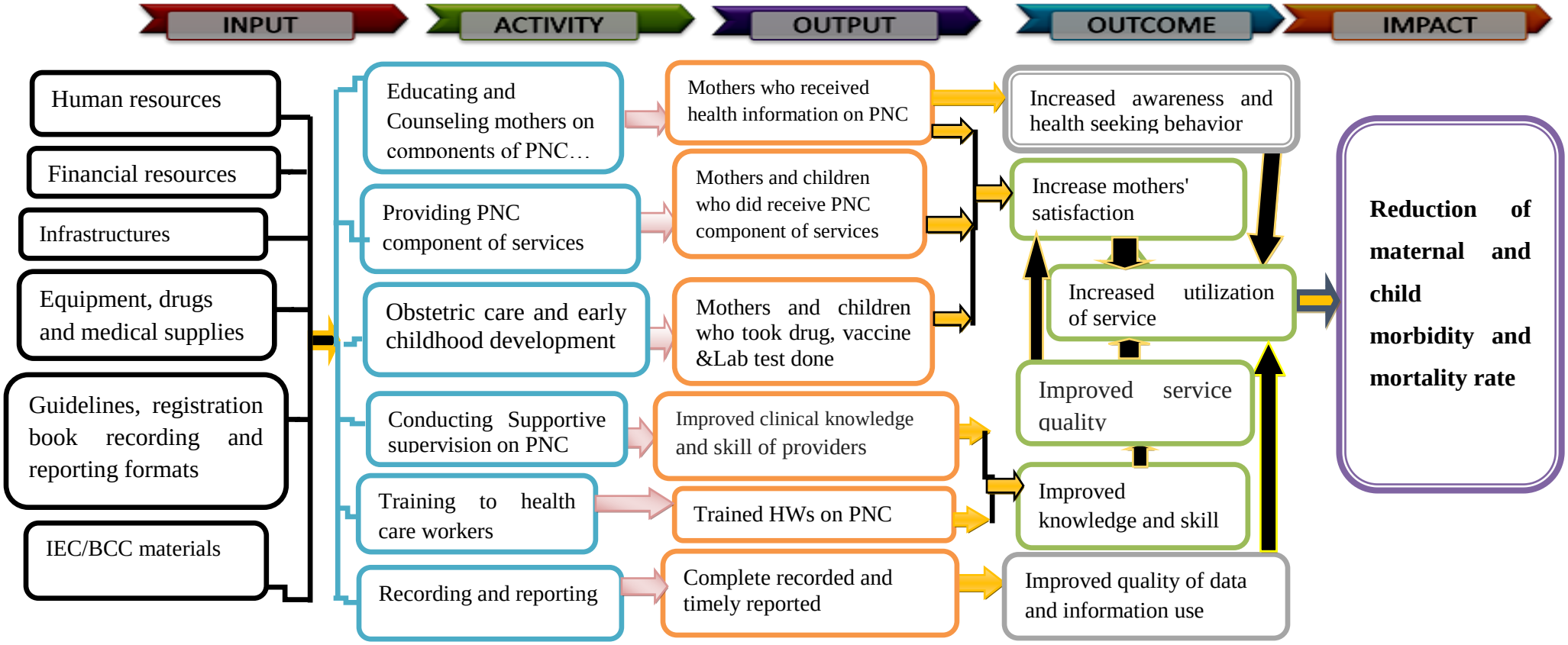

Figure 1, Logic Model for evaluation of PNC service quality at sebata town government health facilities, 2019

2.7 Stage of program development

The days and weeks following childbirth of the postnatal period are a critical phase in the lives of mothers and newborn babies. Current models of postnatal care originate from the beginning of the 20th century when they were established in response to concerns about the contemporary high maternal mortality rate. The timing and content of care have altered little since then, despite a dramatic reduction in mortality rates which occurred around the middle of the 20thcentury. Postnatal care provision crosses acute and primary healthcare sectors, with the majority of caretaking place in the woman's home. Care is likely to include routine clinical examination and observation of the woman and her baby, routine infant screening to detect potential disorders, support for infant feeding and ongoing provision of information and support. Postnatal care is usually concluded by a 6 – 8-week postnatal examination, which marks the end of the woman's maternity care(11).

In 2013, 2.8 million newborns died in their first month of life-one million of these newborns died on the first day(11). Considerable progress has been made globally in improving maternal health. Around the world, 72% of women give birth attended by skilled personnel, and the maternal mortality ratio has decreased from 380 to 210 per 100,000 live births between 2000 and 2013. Yet, in South-East Asia and sub-Saharan Africa, only 67% and 48% of women give birth with the assistance of skilled personnel, respectively. Postnatal care reaches even fewer women and newborns: less than half of women receive a postnatal care visit within 2 days of childbirth (24). An analysis of Demographic and Health Survey data from 23 sub-Saharan African countries found that only 13% of women who delivered at home received postnatal care within 2 days of birth (25)**.** WHO was updated global guidelines on postnatal care for mothers and newborns through a technical consultation process. The new guidelines address the timing and content of postnatal care for mothers and newborns with a special focus on resource-limited settings in low- and middle-income countries(2)**.**

When we come to our country Ethiopia, delivery and postnatal care only 26% of births occur in a health facility, primarily in public sector facilities. The problems in accessing health care the proportion of women age 15-49 who report having at least one of the specified problems in accessing health care decreased from 96% in 2005 to 94% in 2011, and 70% in 2016 (15,16).

Sebata town administration health department is also working on the postnatal care service in all public health facility depending on the WHO guidelines (23).

Chapter 3 : LITERATURE REVIEW

The World Health Organization estimates that about 536,000 women of reproductive age die each year from pregnancy-related complications (26). Nearly all of these deaths (99%) occur in the developing world**.** These deaths are almost equally divided between Africa (251,000) and Asia (253,000), with about 4% (22,000) occurring in Latin America and the Caribbean and less than 1% (2,500) in the more developed regions of the world. The maternal mortality rate also shows the same disparity among regions (27)**.** Globally, more than half a million women die of complications due to pregnancy, childbirth and during the postpartum period annually. Despite the calls for improved access to maternal health care services universally and the reduction of maternal mortality, maternal and neonatal mortality have remained a great challenge in developing countries, and sub-Saharan Africa in particular. In Africa, about 125,000 women and 870,000 newborns die annually in the first week after delivery, and the lifetime risk of maternal mortality is 1 in 26 (1).

An estimated 5.9 million children under 5 years of age died in 2015, with a global under-five mortality rate of 42.5 per 1000 live births.1 of those deaths, 45% were newborns, with a neonatal mortality rate of 19 per 1000 live births. Levels of child mortality are highest in sub-Saharan Africa, where 1 child in 12 dies before their fifth birthday, followed by South Asia where 1 in 19 dies before age five(1).

The postnatal period has been recognized as a critical period for the health of the mother and her baby. Problems arise during this period and if not treated promptly can lead to ill-health and even death of the mother or baby; therefore, PNC is essential as it provides the examination and treatment of complications that arise in women after delivery. Its purpose is to check the health status of women who delivered to eliminate potential problems associated with pregnancy and delivery. PNC is not only women who delivered safely and those who delivered in the health institution but also for those who still-births and miscarriages or delivered at home (28).

Donabedian (1988) suggested that before conducting an evaluation of quality healthcare, one must decide on how quality can be defined. The assessment of the quality of health care depends on whether one assesses the performance of care providers, the contribution of mothers or the whole health care system. Therefore, during evaluation, it is very crucial to specify components

of care to be evaluated that help in the formulation of appropriate dimensions that help in obtaining necessary information and steps required. Consequently, evaluation of quality PNC services at government health facilities of Sebata town encompassed the structure components which according to Donabedian (1988) denote the attribute in which care occurs; also, it assessed PNC processes which denoted an actual act of giving and receiving care. Following an increase in maternal and even more neonatal deaths during the postnatal period, the quality of maternal and child health services during PNC is very crucial. Quality of care in PNC services embraces a wide range of issues such as client satisfaction, compliance with the PNC guideline, information given to mothers, interpersonal relationship between care providers and mothers, availability of necessary resources, provision of services and technical competence which encompasses the level of training of the service providers and how they are doing in accordance with the national guideline. The resources are human resources, infrastructure, materials, supplies, drugs, and laboratory reagents to perform different tests. Client satisfaction is one of the indicators for the provision of quality PNC services in which personal concern, respect, attention to the patient's preference, honesty, and good manners are essential ingredients of good care(1). The most commonly used dimensions of quality of care among others are: Availability, accessibility, accommodation, effectiveness, safety, responsiveness, equity, efficiency, competence, acceptability, appropriateness, continuity, and timeliness (29). However, after discussing with stakeholders, the evaluation team came into consensus and decided that the following three dimensions were used to evaluate the program. Those dimensions include: - Availability of resources required in providing quality PNC services for structural component, compliance with PNC guidelines which assess process component and satisfaction which evaluate the health workforce characteristics and ability (e.g. sex, language, culture, age, etc.) to treat all service seekers with dignity, create trust and promote demand for services.

3.1 Availability

A study conducted in Nigeria reveals that the result that only 66.7% of the required resources were available in the study setting, which is an indication of poor adherence to the WHO recommendation for postnatal care facility. The facility provides 24 h services and emergency preparedness alongside the availability of basic equipment needed to meet the health needs of postnatal women. Regarding infrastructure, there was an adequate functional ambulance, General Medical Doctors, IEC materials, Guidelines /Protocols, Registers and Supervision(30).

The finding of the study conducted in Malawi on the assessment of the quality of postnatal care services shows that all the facilities did not have postnatal care monitoring equipment like sphygmomanometer and thermometers in their maternity departments. In addition, guidelines and teaching aids for postnatal care were not available in all the facilities. However, all the facilities had essential drugs such as panado and iron tablets. Cord clamps were also available in all the facilities. Infrastructure in all basic obstetric history and neonatal care facilities is needed to provide for the health institutions. In addition, refreshment training for health care providers in maternal and neonatal health with prominence on postnatal care are recommended in place. Restructure of Maternal and neonatal health department is needed for the facilities, despite the fact the postnatal care units become independently priority sites to improve the quality of the postnatal care services made(14).

A study conducted in Tigray showed that all the facilities did have postnatal care monitoring equipment like sphygmomanometer and thermometers in their maternity departments. In addition, guidelines and teaching aids for postnatal care were not available in all the facilities. However, all the facilities had essential drugs such as gentamycin IV and Amoxicillin tablets. Cord clamps and neonatal resuscitation equipment were also available in all the facilities(19).

3.2 Compliances

From study conducted in Haiti, among 894 women about 44% and 33% were counseled on danger signs and postpartum family planning respectively. Far fewer women were seeking postnatal care (n = 63) and similar service patterns were reported. Forty-three percent of pregnant women report receiving at least 5 out of 10 counseling messages(31).

According to study conducted in Nigeria, only 42.9% and 42.3% of the required postnatal care was observed to be provided on the wards and in the postnatal clinic respectively. Thirty percent of care providers were giving counseling on family planning, maternal nutrition, breast care and follow up for mothers(30).

Study conducted in Malawi shows that, observation on practice CHAM facilities were checking vital signs at least once a day, because responsible personnel were in place. However, about 63% of the midwives discharged mothers without checking for vital signs on the women and their neonates within the government health facilities. From the observation conducted, 30% of the care providers did not perform any postnatal examination to women and neonates on discharge. And 66% of care providers were given education and counseling on postnatal care for mothers(14).

According to a study finding from Tigray, counseling on essential newborn care to the mothers of the infants were given by 58(47.2%) of the observed midwives. All hospitals miss the very important components of rapport (greeting mothers, using the client's name, and introduces her /his self and encouraging the client to ask questions(19).

3.3 Satisfaction

A finding from the study conducted in India shown that 39% of postnatal mothers were moderately satisfied and (60%) of postnatal mothers was minimally satisfied and (1 %) of postnatal mothers were satisfied with the care received by them. chi-square values of postnatal mothers with selected variables like age, religion, type of family, occupation, dietary pattern, obstetrical score were not significant at 0.05 level. Therefore, the null hypothesis was accepted, and the research hypothesis was rejected postnatal mothers with selected variables like educational qualification, monthly income, the reason for the previous admission to the hospital were significant at 0.05 level. Therefore the null hypothesis was rejected as a research hypothesis was accepted (32).

A survey of Greek women's satisfaction with postnatal care published in 2018 shows that education level was found to be statistically significantly correlated (*p*-value less than 0.0001) with the Partner support dimension with a correlation coefficient of 0.31; this shows that more highly educated women are, generally, more satisfied with the support given to them by their

partners than less well-educated women. The mean satisfaction value of women who work *vs.* the women who don't work was only statistically significantly different (t-test *p*-value greater than 0.05) for the partner support dimension (mean value 75.6% for working women *vs.* 69.1% for non-working women, t-test *p*-value = 0.006)(33).

According to Study conducted in Nepal, the level of satisfaction was higher in interpersonal and technical aspects (93.82%) of care than in informative aspects of care (91.57%), and the result also shows that, there was no statistically significant association between socio-demographic and obstetric characteristics and maternal satisfaction. The exit interview conducted in the facilities to assess institutional characteristics, most of the respondents were satisfied with(very satisfied and satisfied) care received at the facility (86%), provider's skills (85%), involvement in decision-making (77%), cleanliness (70%), information received (69%)(34).

The measures to improve mothers experience of maternity care focus on improvement in physical environment along with improving the attitude and communication skill of service providers with prompt response(35).

According to the result of the study at El-shatby Maternity University Hospital of Egypt about 41% of the subjects were minimally satisfied and slightly more than one-quarter of them were either moderately satisfied 27% or satisfied to some extent (26%). The result has shown that 5% of the study subjects were not satisfied at all. Out of the total subjects, only 1% of them were fully satisfied with the received nursing care and 30% was not satisfied with the orientation given by care providers. A statistically significant relationship was found between postnatal mother's level of satisfaction and their age as well as the number of their previous pregnancies where $P \leq 0.05$ respectively (36).

The study conducted in the Benchi Maji, South West of Ethiopia shows that the vast majority of the respondents participated in the survey, 683(89.3%) of them replied that they ever heard about PNC services mainly from a health institution by health professionals, 492(72.04%), though some of them did not know the benefits of PNC 39(5.71%) and 32(11%) of the respondents did not follow PNC due to mistreatment by health professionals, waiting more time at the facility, husbands' disapproval and forgotten appointments(37).

Conceptual Framework

In this evaluation, the Donabedian model of quality measures with modification was applied with the help of extensive literature review. According to Donabedian, there are three components of the program important to measure quality within, structure, process, and outcome which have a relationship with each other(38). According to study conducted in Nepal, structure/input component of the program describes the context in which care is delivered, including facility environment, knowledge, attitude and practice of staff, financing, and equipment, socio-demographics, and obstetric characteristics of mother. Process component of the program represents the interconnection between patients and providers throughout the delivery of healthcare which includes interpersonal aspects of care, informational aspects of care, and technical aspects of care. Finally, outcomes contain all the effects of healthcare on patients, including changes to health status, patient satisfaction, and health-related quality of life(34).

The model was developed to assess clinical practices. However, when the model is used to evaluate programs or activities rather than clinical practices, it may work as it is or may perform with some modification. Hence, to fit the model with an evaluation of the PNC program, we made some modifications to the elements of conceptual frameworks which was developed during proposal writing, because it was not fitted what we have seen on the actual data collection.

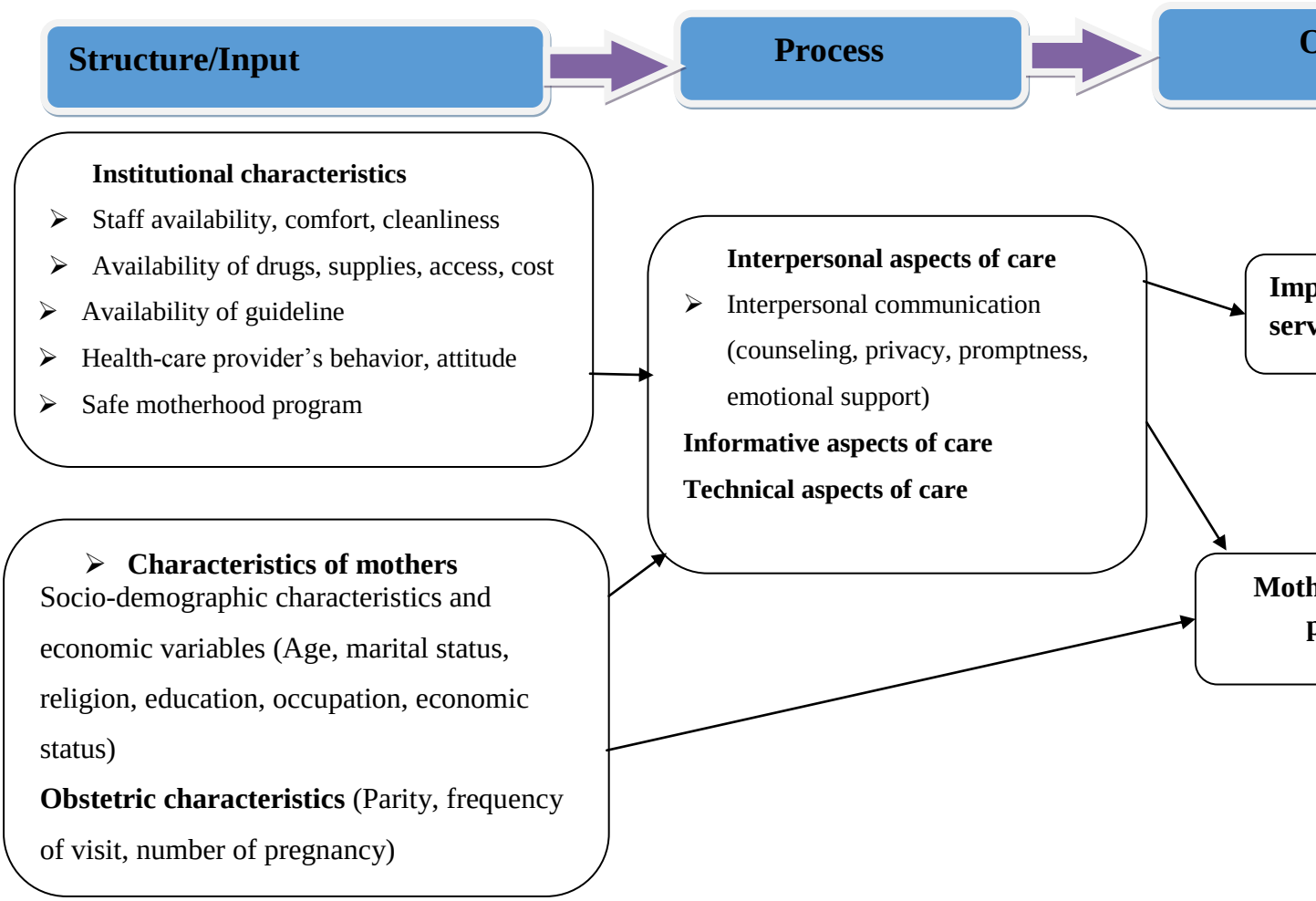

Figure 2, conceptual framework for evaluation of PNC service quality at health facilities of Sebata town, 2019 (Adapted f edition with few modifications)

Chapter 4 : EVALUATION QUESTIONS AND OBJECTIVES

4.1 Evaluation Questions

Based on the information needs of the stakeholders and stage of program development, the following evaluation questions are formulated: -

1. Are the resources needed to provide postnatal care services available? If yes, How? If No, why?
2. Do health care providers comply with postnatal care guidelines in delivering the service? If yes, How? If Not, why?
3. Are the mothers satisfied with the quality of postnatal care service provided to them?
4. What are the determinants of mothers' satisfaction/dissatisfaction with service provided?

4.2 Evaluation Objectives

4.*2.1 General objective*

To evaluate the postnatal care quality among governmental health facilities of Sebata town, 2019

4.*2.2 Specific objectives*

1. To evaluate the availability of resources required to provide postnatal care services in the study area.
2. To evaluate the compliance of care providers with PNC guideline in the study area
3. To determine the level of mothers' satisfaction with the quality of postnatal care in the study area.
4. To identify factors associated with the mother’s satisfaction level on PNC service provided in the study area.

Chapter 5 : EVALUATION METHODS

5.1 Evaluation area

Sebata town is one of the town's administrates of the Oromia region, which has ten urban kebeles. It is geographically located in 25 km to Southwest from Addis Ababa by having a total of 178,264 populations which is 106,388 of males and 71,876 of females. From those populations, there were about 39,450 ages of (15-49).

Regarding facilities and human resources in the town administration; are about four public health centers in the town. Sebata town health department has a total of 225 staffs which includes 96 health professionals and 62 supportive staffs at facility level, 27 staffs of town health office and 40 health extension workers. Likewise, there are about 936 WDAs in at kebele level to communicate the information related to health service(23). There are two private MCH centers and five clinics serving postnatal care services in the town. All four public health centers and the two private health facilities were providing postnatal care services as their routine work, but I have focused on public health facilities for the case private health facilities were serving the community who had the potential to pay for the service, so the service was depending on their potential to pay.

5.2 Evaluation Period

The Evaluability assessment was conducted from November 25-27/2018 and the Evaluation was conducted from March 18-April 18/2019 in Sebata town of central Ethiopia.

5.3 Evaluation approach

The postnatal care service program at Sebata town governmental health facilities was in the implementation stage and an ongoing program, according to the evaluability assessment result, so a formative evaluation approach was used with the purpose of improving the postnatal care.

5.4 Evaluation Design

A facility-based single case study design with both qualitative and quantitative data collection methods was used in this evaluation. Qualitative and quantitative data were collected and analyzed separately, then it was integrated during the interpretation of findings, and the result from both types of data collection was prioritized equally (39).

5.5 Focus and Dimensions of Evaluation

Focus of evaluation

The focus of the evaluation was the process in which it provides information about the resource to be used, activities to be accomplished and expected output and services utilization plan (assumptions taken by the program about the uptake of services produced, value is given by target population) of the program logic model. This evaluation helps for understanding the implementation of postnatal care provision in line with the guideline and initial operational program plans of Sebata town.

Dimension of Evaluation

Different stakeholders were involved in a discussion about the agreed standard for the provision of quality PNC services. In the process, stakeholders agreed on the indicators to be used during evaluation in which each respective indicator have assigned with weight in which scales to measure the dimension of quality have conducted and discussed in the indicator part. Before conducting any task, the team highlighted the components of quality and its measurements so as to reach into consensus. Availability, compliance, and satisfaction were evaluation dimensions agreed by stakeholders.

5.6 Indicators

The following indicators are negotiated and agreed to use during evaluability assessment for the evaluation of postnatal care quality in Sebata town through the active participation of stakeholders. Stakeholders used nominal group techniques for identifying and selecting indicators. The indicators are adopted from Sebata town DHIS's document, and Monitoring Emergency Obstetric Care: a handbook. WHO, UNFPA, UNICEF, AMDD, 2009 (23,40).

Availability indicators (8)

- Number of health facilities with expected PNC room on the date of the survey
- Number of health facilities with expected skilled health workers on the date of the survey
- Number of health facilities with expected MCH guideline on the date of the survey
- Number of Health facilities with reliable transport and ambulance for referral system
- Number of health facilities with protected water sources
- Number of health facilities with functional electricity
- Number of health facilities with availability of chair or benches in waiting areas
- % health facilities with essential equipment available for management of postnatal care on the date of the survey
- % health facilities with no stock out of essential medicines for the last six months
- % of health centers with one PNC service registration book at the period of evaluation
- % of health centers with report formats with full information in the period of evaluation

Compliances indicators with PNC guidelines (11)

- Proportion of care providers who did give due respect for the mothers
- Proportion of service providers who take vital sign and weight of mother and baby
- Proportion of service provider who conducted a physical examination of the skin for women and baby
- Number of quarterly supportive supervisions sessions conducted by Sebata town health office in the last six months on PNC service.
- Proportion of health facilities that conduct maternal death case review/audits
- Proportion of mothers who are counseled about breastfeeding, baby vaccination and use of contraception
- Proportion of mothers who discussed the birth experience with care providers
- Proportion of service providers who counseled on the psychological or social adjustment to parenthood
- Proportion of service provider who counseled on the postnatal care of the baby such as feeding, bathing, handling, and sleep/settling

- Proportion of service provider who discussed on the postnatal care maternal physical adjustments such as fatigue, sleep, breastfeeding, breast and body changes, sexual health
- Proportion of service provides who counseled the mothers on the provision of postnatal care family adjustments such as care of the baby, siblings' acceptance of the baby

Satisfaction indicators with PNC guidelines (13)

The following 13 indicators were determined by the level of mothers' satisfaction from the Likert scale which ranked into five quintiles (lowest, second, middle, fourth and highest) they received from government Health facilities' HWs.

- Proportion of mothers who are satisfied or dissatisfied on the courtesy/ respectfulness of health workers during service provision
- Proportion of mothers who are satisfied/ dissatisfied on the accessibility of service provider in terms of linguistics (explanation about the service using simple language where mothers easily can understand)
- Proportion of mothers who satisfied/dissatisfied by the information about family planning and postnatal follow up visits got by mothers
- Proportion of mothers who are satisfied/dissatisfied on the privacy (visual) of the examination/ service provision room
- Proportion of mothers who are satisfied/dissatisfied on the privacy (auditory) of the examination/ service provision room
- Proportion of mothers who satisfied/dissatisfied on the physical examination done by care providers
- Proportion of mothers satisfied/dissatisfied on the vital signs checked by care providers
- Proportion of mothers satisfied/dissatisfied on the information given on exclusive breastfeeding by care provider
- Proportion of mother who is satisfied/ dissatisfied on the accessibility of service in terms of cost (service cost, transportation cost, etc.)
- Proportion of mothers who are satisfied with the accessibility of service in terms of opening time and days of the service unit

- Proportion of mothers who are satisfied/ dissatisfied on service availability in terms of other related services such as laboratory service
- Proportion of mothers who are satisfied/ dissatisfied on the cleanliness of the service room

5.7 **Study Variables**

Dependent variable

- Mothers' Satisfaction towards postnatal care service quality.

Independent variables

- Socio-demographic and economic variables (age, religion, educational status, occupation, marital status, and economic status)
- Obstetric characteristics (number of pregnancies, parity, and frequency of visit)

5.8 Population and sampling

5.8.1 **Target Population**

The target population for this evaluation included: -

- All government facilities in the Seba**t**a town.
- All Health workers who are working in maternity and child health in health centers of Sebata town.
- All mothers from 18-49 years' age in the Sebata town.
- All documents and registration books of the PNC program in Sebata town health centers

5.8.2 Source population

- All mothers who are following PNC in the Sebata town government health facilities.
- PNC service providers
- Facility leaders
- MCH coordinators/ focal persons
- Town health department head
- All Program documents in the service unit were source population

5.8.3 Study Population

- All sampled Mothers whose age is 18-49 and following PNC
- All case team leaders'/service providers of PNC unit
- All Health center heads
- MCH coordinator/focal persons
- Town health office head
- Program documents and Records

5.8.4 Study units and Sampling Units

Study units

- Mothers who had got PNC service
- service documents (registers, reports, and manuals) of health facilities during the study period
- PNC case team leaders'/care providers involved in PNC service
- Head of health office
- Head of health centers

Sampling unit: - Primary sampling unit: Health centers, Secondary sampling unit: selected program mothers, Case team leaders'/Care providers, head of health office, head of health centers, and service documents.

Unit of analysis: Primary unit of analysis: program mothers, and case team leaders'/ care providers, Secondary unit of analysis: Health centers and the final unit of analysis: PNC program in Sebata town 2019.

5.8.5 Sample size determination and sampling procedure

Sample size determination for health facilities

WHO suggests that to select health facilities for the public health assessment mainly depends on the number of health facilities that the statistical arguments for the determination of the sample size, the available funds, and human resources should also be taken into consideration.

For instance, for the total number of health facility of or less, the proposed sample friction was all of the health facilities, in addition to this for 10-19, 20-39,40-59 and 60-99 the proposed sample friction will be 50%,40%,30%, and 20% respectively (41).

Based on WHO's suggestion 100% (all the health centers) were selected for the evaluation. Therefore, all Sebata town health centers were selected for the sample.

For client interview

A client interview has been conducted for the purpose of assessing mothers' satisfaction. It has conducted by using opportunity sampling of non-probability sampling which takes the sample up to the needed sample size was fulfilled. The sample size was calculated by using a single population proportion formula adopted from the current related public health study conducted in the Amhara Region of Ethiopia, which used the Proportion of satisfied mothers' 45.9% and 5% marginal error (d), confidence interval of 95% (42).

i.e. the sample size for client interview was determined using single population proportion formula which is $n = \frac{(Z\ \alpha/2)^2 P\ (1-p)}{d^2} = \frac{(1.96)^2\ (0.459)\ (1-0.459)}{(0.05)^2} = 360$

Where, n=number of sample population,

p= proportion satisfied mothers, p =45.9%,

α = Standard deviation, α=0.05

Zα/2 = Value of the standard normal distribution**,** Zα/2 =1.96

d = Margin of error, d=0.05

In addition to the above formula 10% of the sample size to reduce non-response rate were added. Finally, the maximum sample size determined was 396.

In-depth interview: In all four health facilities, a total of 13 in-depth interviews were conducted. The in-depth interview had included Sebata Health office head (1), PNC case team leaders'/ care providers for each HC (4), health centers head and 4 MCH focal persons/MCH coordinators.

Document review: Six-month PNC service registers, bin cards and reports were reviewed retrospectively for mothers following postnatal care six months back from the study period for the purpose of compliance assessment. All registered documents and reports concerning to PNC were reviewed because their data might have differed and exclusive.

Observation: A total of 16 observations (four observation sessions at each HCs) were conducted consecutively. It has conducted to know how the mothers were counseled, examined and provided postnatal care services with the purpose of assessing the compliance of HWs.

Resource inventory/ Checklist for health facility resources: Availability of resources based on the list of indicators (staff, drugs, guidelines, medical Supplies, …) and infrastructures like water and power supply, emergency transport and functionality) was checked. A total of four resource inventory sessions were undertaken.

5.8.6 Sampling technique/procedure

Client interview: Sampling procedure/technique for the client's interview would be considered by opportunity sampling of the non-probability sampling process. The total sample size would be taken consecutively from all mothers who would come for the service up to our sample would be fulfilled by considering the ages of mothers.

Client Satisfaction:

sample size was allocated by proportional probability to size (PPS) technique for each health facilities in the town based on recorded flow from six-month report back to the study period for each health facilities, **N=676**. To compensate for non-respondent rate, 10 % of calculated sample size was added. Systematic random sampling was used, and k interval was **676/396=1.7**, so

since, k is less than two we were forced to collect information consecutively until they require sample was attained. Formula, PSS= nf * Ni/N, Where,

Ni =recorded mothers flow in each health facilities.

N= total mothers recorded during the study period =**676**

ni = proportionally allocated clients sample size required for the study from each health facilities

n= total sample size = **396**

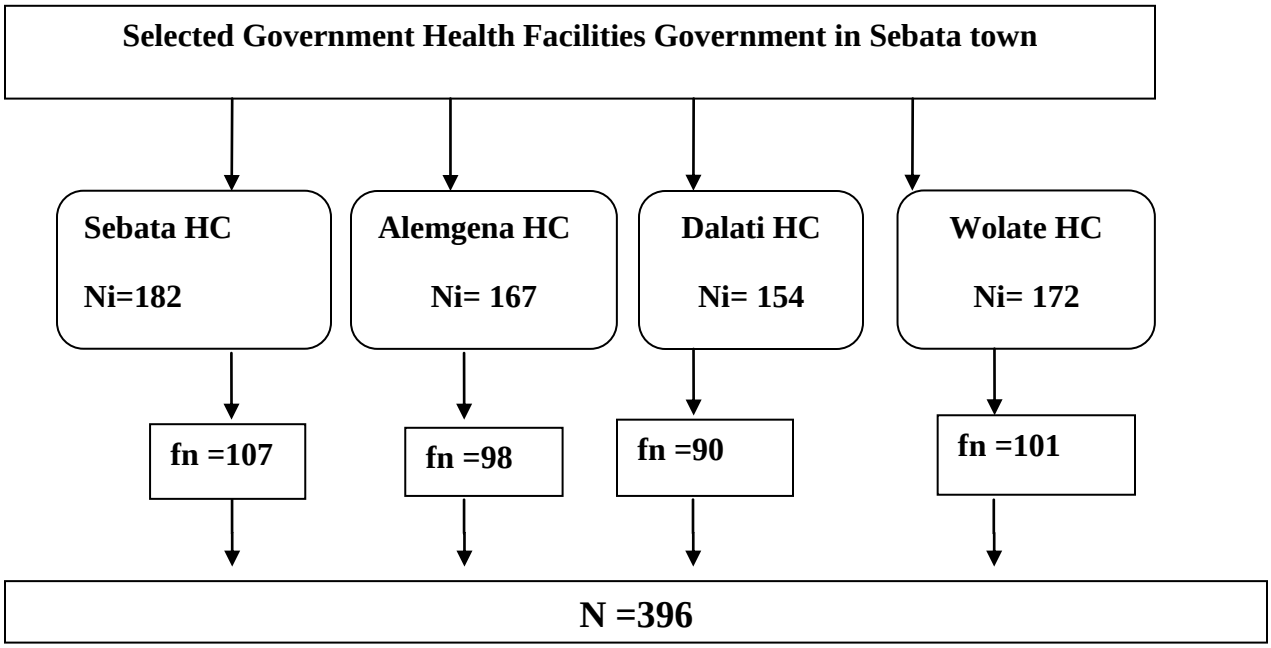

Figure 3, the representation of the sampling procedure for exit interview which conducted for the evaluation of PNC service quality in Sebata town health facilities, 2019.

In-depth interview: The in-depth interview had been taken by the purposive type of non-probability sampling which was easily used for the evaluator to take the information from concerning body while it was not related to other health workers rather than MCH providers.

Document review: Registration book and reports care have been reviewed to ensure that the program is implemented with appropriate way and cross-check with observation was conducted to ensure its reality.

Observation: From all 4 observation, 2 observations were conducted on the working day from Monday to Friday and two observations on the weekend per health facilities to identify the

service quality purposely at the time of arrival at HCs, it was conducted to know how the mothers were counseled, examined, and care provided with the purpose of assessing the compliance of HWs.

5.8.7 Inclusion and Exclusion Criteria

Inclusion Criteria

- All mothers within reproductive age group in the Sebata town and those who are following postnatal care at government health centers at the time of study period except mothers whose age were less than 18 years, because the consent form for mothers within this age interval should be approved by family, so the family mightn't come with them during PNC follow up
- All documents of postnatal care service such as registration book, reports, and manuals within the last six months from the study period
- Assigned Head of the health office, Health center, PNC case team leaders'/care providers in the selected HC working at least who worked in the facilities for the six months during the study period

Exclusion criteria

- Mothers who are seriously ill were excluded from the interview
- PNC documents without full information of clients and the program

5.9 *Data Collection*

5.9.1 Development of Data Collection Tools

All questionnaires, checklist, and document reviews have been prepared by considering WHO guidelines.

Data collection tool for client interview

A structured questionnaire which contains specific components on the background characteristics of the client, socioeconomics, and satisfaction for postnatal care and received information at PNC was prepared for the interview.

The data collection tool was prepared for mothers who had attended PNC in line with the standardized data collection tools modified from similar study(19). In general, it was contained close-ended questions related to the quality of the postnatal care component. The questionnaire for the client interview was prepared and translated into Afan Oromo and Amharic before applied to the actual study place. So, 10 % of all data collection tools were pre-tested on the one health center in Burayu town to see the straightforwardness of the tool.

Data collection tool for in-depth interview: For an in-depth interview, the semi-structured guide was prepared for a different level of key informants of postnatal care service in Sebata town public health centers in relation to availability, compliance, and satisfaction.

Observation checklist: Observation checklist was prepared to conduct a direct observation of HWs at HC while checking, classifying, treating and counseling services, providing follow up care and other clinical supports regarding postnatal care.

Document review template: Document review checklists were prepared to collect data from program documents of postnatal care users that would check activity plans, manuals, and reports to assess compliance to MCH national guidelines.

All data collection tools of in-depth interview, observation, and document review and resource inventory were developed from WHO guideline(43).

5.9.2 Data Collectors

Two MSc Health professionals, six BSc midwife professionals (5 data collectors and 1 supervisor) who are experienced in the provision of maternity service participated in the data collection. All data collectors were selected from facilities other than the study area. Data collectors were trained for two days on the content of data collection tools which prepared by designed CSPro uploaded into smart phone for all enumerators and ethical issues by the principal evaluator. Client interview was conducted by all data collectors and quality was checked by a supervisor, while In-depth interview, observation, and program document review were conducted by MSc health professionals.

5.9.3 Data Collection Field Work

Data collection fieldwork Pretest was conducted before the actual data collection and the actual was collected by BSc midwives and MSc health professionals. The process of data collection had been supervised closely by the supervisor and principal evaluator.

The daily performance of the data collection process had been assessed with the group members and appropriate correction for the next day in the case when a problem occurs.

Data had been checked on a daily base for accuracy, completeness, and consistency by the supervisor and principal evaluator, and appropriate corrections were given at any time during the data collection period. In each day the collected in-depth interview data was translated for the qualitative survey.

5.9.4 Data Quality assurance

For quantitative data

- Two days Training was given for data collectors and supervisor on the data collection tool collected by CSPro software designed by evaluator
- Periodic supervisions were involved
- Technical support was given for data collectors
- Since data were collected in CSPro software there was no data entry, but directly exported from CSPro to SPSS to minimize errors during data collection

For qualitative data

- Two days training was given for data collectors,
- Member checks (inserting the voice of respondents transcribed and translated was done and no divergence was found between collected information and respondents said)
- Peer examination/reviewing written reports by other experts who have the same field on the subject.
- Verbatim translation has done

5.10 Data management and Analysis

5.10.1 Data entry

For Quantitative: Questionnaires were checked for completeness every day after data collection by principal evaluator together with data collectors and supervisor; consequently, any problems encountered have discussed among the evaluation team; and would be solved immediately. Since data was collected by CsPro Software that directly entered to tablet, data entry after fieldwork was not needed, but direct export to SPSS was done.

For the qualitative data: An in-depth interview response was transcribed, translated, coded, categorized and analyzed using thematic analysis techniques.

5.10.2 Data Cleaning

Incomplete, inconsistent and invalid data was refined properly to get maximum quality for analysis. The data was cleaned by visualizing, calculating frequencies and sorting, then corrections were made according to the original data. The questionnaires and the soft copy of the data with multiple backups were kept in proper places.

5.10.3 Plan for Data Analysis

Quantitative data were analyzed by Statistical Package for Social Sciences (SPSS) windows version 20.0, then it was analyzed, and its result was compared based on the evaluation judgment matrix to determine the level of service quality. The satisfaction of each respondent was measured by a 5-Likert scale which was ranked into five quintiles (lowest, second, middle, fourth and highest) to access maternal satisfaction on PNC. Score 5 was given for very satisfied, 4 for satisfied, 3 for neither satisfied nor dissatisfied, 2 for dissatisfied, 1 for very dissatisfied. Likewise, a mean score of less than 3 was considered as dissatisfied, whereas a mean score greater than 3 or equal to 3 was considered as satisfied.

For the level of satisfaction using the demarcation threshold formula which is $\frac{\textit{total highest score} - \textit{total lowest score}}{2} + \textit{total lowest score}$, then categorize into two cut points. Based on that formula {(63-33)/2} +33= 48, the cut point was 48. So, the points less than 48

were demarcated as dissatisfied and the points greater than or equal to 48 were demarcated as satisfied.

Those cut points are below the cut point (dissatisfied) and above the cut point (satisfied) (44).

A descriptive summary was done by using tabular, graphs and figures. The degree of association between dependent(satisfaction) and the independent variable was assessed by using bivariate analysis, and multivariate analysis was employed for those variables that have an association (p-value less than 0.25) to identify the independent variable that determines the level of satisfaction. Those who have P-value<=0.05 were considered as statistically significant for all the independent variables in the final model.

The qualitative data was gathered, transcribed into the text format of the local language and translated into the English language. Then it was analyzed manually using thematic analysis with respective dimensions and results were presented in a narrative format. The final interpretations of results were based on evaluation weights and statistical analysis results of the evaluation.

5.11 Matrix of Analysis and Judgment

The weight of dimensions and the respective indicators were given depending on their level of relevance to the program. In each evaluation dimensions such as availability and compliance of the service detail indicators were used to decide the program quality. It was decided based on settled judgment parameters. Dimensions were weighted by the stakeholders using the nominal group technique method to reach an agreement for the evaluation of postnatal care services in the Sebata town government health facilities. Finally, the weight was given for dimensions during Evaluability assessment after detail argument and discussion with stakeholders and its final evaluation judgment was decided based on settled judgment parameters as: **91-100% excellent, >81-90% very good,71-80% good, 61-70% fair, <=60% poor**

5.12 Ethical consideration

Ethical clearance to carry out this study was obtained from the institutional review board of Jimma University *(JHPGD/401/2019)* written on March 18/2019 and informed verbal and written consent was obtained from study subjects following an explanation of the purpose of interview and observation. A written letter of cooperation from the Sebata town health department office was written to the health centers. Before data collection, explaining the purpose of the study, its confidentiality and privacy of the participants in the study were maintained throughout the process of data collection. Telling the participants as voluntary participation and their right to refuse or withdraw at any time was considered. The evaluation teams were trained on how to handle sensitive and emotional issues and on the importance of keeping confidentiality. Conflict of interest was identified and dealt with participants openly and honestly so that it wouldn't compromise the evaluation processes and results. From all study participants, oral consent was received before collecting data.

5.13 Dissemination plan

The result of the study will be disseminated by email and hard copy to responsible bodies such as Jimma University community, Oromia Regional Health Bureau, Town health office and administration of the study area. The study finding will also be submitted to a professional journal for publication to serve as a baseline for further studies.

Chapter 6 : RESULTS

In this evaluation, from a total of 396 mothers in the study of satisfaction during the interviewer questionnaire, 360 have participated with a 91% response rate. About 13 in-depth interviews for all program personnel were participated to provide information about PNC quality service. All the sixteen (16) direct observations of providers' compliance, resource inventory and document review for each facility were conducted by using checklists and incorporated at the end.

This section has presented the findings related to the availability of program resources and the main findings of the compliance dimension. Finally, the key finding related to the satisfaction dimension was presented. Qualitative findings were presented in supplement or support to the quantitative findings.

6.1 Availability of PNC Service Resources

6.1.1: Human resources

All the evaluated health centers have trained providers on obstetric warning signs, and national MCH guidelines on the title of *'providing information on postnatal care and danger signs in the new mother and baby', and 'tailoring to the specific needs of the depressed postnatal woman.'* As per the Ethiopian tier health care system, Sebata town health centers have enough amount of providers/midwives (14)(Table, 2).

This finding is agreed by an in-depth interview from one HC said that, "*…they have been assigned on the PNC service unit at a time with other MCH services such as delivery service because there is no specific training on the PNC services to assign a trained staff on a specific task."* [A 29 years old female, Care provider].

Table 2: Human Resources availability for MCH service provision in the Sebata Town public Health facilities (N=4), March-April 2019

Category		Sebata HC	Alemgena HC	Daleti HC	Wolate HC	Total
Medical staff	Health officers	4	4	7	6	**21**
	Nurses	11	13	7	8	**39**
	Midwives	5	3	3	4	**15**
	Lab-technologist/ technician	3	3	2	2	**10**
	Pharmacy/Druggist	2	2	2	2	**8**
Administrative Staff	HIT (health informatics	1	1	1	1	**4**
Total		**26**	**26**	**22**	**23**	**97**

6.1.2: Infrastructure, Medicines, Medical supplies, and Job aids

Two health centers (Alemgena and Daleti) had all equipment, but Sebata HC hadn't thermometer and adult weighting scale and while Wolate had no adult weighing to provide postnatal care services.

This finding was supported by the result of an in-depth interview from one health center said that "…*mostly we were forced to go to other units to measure the weight of our mothers as adult weighing scale were absent in PNC unit".* [A 28 years old male, MCH focal person].

Also, staff from another health facility said that "…*there is no thermometer in our unit which is vital to assess the condition of the mother and her child's during the postnatal period.*" [A 31 years old female, MCH care provider].

A finding of an in-depth interview supported the result from another health center said that "…*some medical equipment such as the thermometer and adult weighting scale were absent due to their poor quality to serve for a long time and complex process of medical equipment purchasing system as a country made a process of replacing non-functional or avail absent materials difficult.*" [A 27 years old male,HC health care provider].

Two studied HCs (Sebata and Alemgena) had all enough essential medicines, but Dalati HC had no Co-trimoxazole tab and Wolate HC had no paracetamol during the study period.

This finding is supported by the result of an in-depth interview from different HC staff who said that: "…*there was no shortage and stock out of medical materials including drugs for our daily activities in the last six months.*"

The result of another finding from one HC an in-depth interview said that "…*there wasn't stock out happened to our HC, but currently there is a shortage of paracetamol, so we had asked for additional from the town health office."* [A 29 years old female, HC health care provider].

Concerning logistics, all the health facilities had MCH guideline, PNC registration book, and supportive supervision checklist to give PNC service from town health office, while two HC (Alemgena and Wolate) had training attendance list on essential maternal and newborns care services.

All HCs had MCH guidelines in place at the time of the study period.
This finding is supported by the result of an in-depth interview, staff from one health center said that "…*we never had a reference PNC guideline, but we were using MCH guideline at service to know what was needed to give PNC service, but having specific PNC is better to give quality care for mother and her new baby."* [A 28 years old female, MCH focal person and care provider]

A facility head from one health center said that "…*there was no guideline for PNC specifically supplied from town health office or other stockholders, but we were using national MCH guideline which was not clearly specify for PNC.*" [A 31 years old male, Health care provider].
All health HCs had infrastructures such as PNC room, protected water resources, and electricity, but only two HCs (Sebata and Alemgena) had Chairs or benches in waiting areas (Table 3).

During the evaluation period, all health centers' documents have been seen and confirmed that all of them had been checked supervision documents conducted by town health office on maternal and newborn care; and had functional PNC registration book during the evaluation period.
This finding was supported by the response from the town health office staff said that "*we have been conducted supportive supervision for all health centers in all quarters including the last*

quarter because they need our support to work their routine works." [A 35 years old male, Town health office expert].

This finding is also supported by an in-depth interview from another HC said that "*...quarterly supportive supervision from town health office had increased the chances that health care providers gained professional skills from the supervisors and expertise to provide quality PNC services and services needed by them."* [A 29 years old male, health care provider].

An MCH focal person from the town health office staff said that *"...quarterly supportive supervision was conducted as planned due to commitment of our staff and higher mangers continue follow up to achieve the intended objectives of the town health office."* [A 34 years old female, MCH focal person].

Table 3 Availability of Infrastructure, medicines, equipment, logistics and job aids for MCH service provision in the Sebata Town public Health facilities, March-April, 2019

Available resource	**Name of health center**				**Total present HC**
	Sebata HC	Alemgena HC	Dalati HC	Wolate HC	
Equipment					
Adult Weighing Scale	0	1	1	0	2
Baby Weighing scale	1	1	1	1	4
Examination bed	1	1	1	1	4
Blood Pressure Apparatus	1	1	1	1	4
Thermometer	0	1	1	1	3
Surgical gloves	1	1	1	1	4
DRUGS/essential medicines					
Oxytocin injection	1	1	1	1	4
Ferrous sulfate	1	1	1	1	4
Co-trimoxazole tab	1	1	0	1	3
Paracetamol	1	1	1	0	3
I.V fluids	1	1	1	1	4
Anti-hypertensive drugs	1	1	1	1	4
Family planning commodities	1	1	1	1	4
LOGISTICS					
MCH guideline	1	1	1	1	4
PNC registration book	1	1	1	1	4
Reporting formats	1	0	1	1	3

Training attendance list on maternal and newborns care	0	1	0	1	2
Case audits into maternal death (document in place)	0	1	0	0	1
Availability of support supervision conducted	1	1	1	1	4
Information, education, and communication (IEC) materials Visual aids for teaching about					
Different FP methods	1	1	1	1	4
Postpartum care/newborn care/breastfeeding	1	1	1	1	4
Danger signs of complications after delivery	1	1	1	0	3
Infrastructures					
protected water source	1	1	1	1	4
Regular Electricity	1	1	1	1	4
Number of PNC room in HC	2	1	1	1	5
Chairs or benches in waiting areas	1	1	0	0	2
Ambulance/Emergency transport	1	1	1	0	3

On average, the quality of PNC in public health facilities of the Sebata town with respect to program resource availability was measured to be 80 percent which is good and needs some improvement based on the judgment parameter(table:4).

Table 4, Summary of performance on program resource availability indicators for Evaluation of PNC service quality at Sebata town government health facilities, 2018/2019

Indicators	Expected in #	Observed in #	Weight (W)	Score (S)	Achievement in %(S*100/W)	Judgment parameters
Number of rooms available for PNC services	8	5	4	2.5	62	91-100= Excellent 81-90= V. Good 71-80=Good 61-70%= Fair <=60%=poor
Number of health facilities with skilled health workers	4	4	3	3	100	
Number of health facilities/PNC units with at least one national MCH guideline as per the standard on the date of the survey	4	0	2	0	0	
Number of reliable transports for referral system	4	3	2	1.5	75	

Number of health centers with essential equipment available for management of postnatal care on the date of the survey	28	23	7	5.75	82	
Number of HC's with essential medicines with no stock out for the last six months	32	31	8	7.75	97	
Number of health centers with registration book at the period of evaluation	4	4	2	2	100	
Number of health centers with report formats in the period of evaluation	4	3	2	1.5	75	
Total judgmental parameter value of availability	**24*100/30=80% (good)**					

6.2 Health care provider's compliance

A total of 16 observations on 8 health care providers which were two observations per care provider were conducted at four health centers of Sebata town. According to the result, all health care providers were showed respect for mothers.

None of the mothers have been measured their weight from 16 observed mothers in four health centers.

This finding is supported by the result of in-depth interview results "*...we had not to measure mothers" weight because there was a shortage of adult weighing scale." [A 33 years old female, MCH focal person]*.

All providers had measured the temperature of the mother and baby.

Only 56% of mothers had measured their blood pressure. This finding is supported by in-depth interview result, a staff from one health center said that "*...we couldn't measure the blood pressure of all mothers is due to absences of functional or reliable BP apparatus at our unit, we are forced to get it from other units temporarily for a mother with a clinical condition which must need this information." [*A 31 years old female, MCH care provider].

All health care providers counseled the mother on breastfeeding baby vaccination and use of contraception and provided postnatal care psychological and social adjustment to parenthood.

This result is supported by the result of in-depth interview results; a care provider from one health center said that "*...I believe counseling the mother is necessary to increase the awareness*

of the mothers on how to maintain her and her baby's health and it increases our acceptance by the mother and her satisfaction by the service provided." [A 29 years old female, Care provider]. A finding from one HC the result said that "*...most of health care providers comply with guideline due to continues flow up from the town health office and internally from the owner management team."* [A 29 years old male, MCH focal person].

Table 5, Compliance of health care providers to PNC guideline at public health facilities of Sebata town, March-April 2019

S/N	Provider client interaction and clinical observation		Performed by HWs	
			N=16	%
	Give/show respect for **mothers**		16	100
	Take vital sign and weight of the client	Blood pressure	9	56
		Temperature for mother	16	100
		Temperature for baby	16	100
		Adult Weighting scale	0	0
		Baby Weighting scale	16	100
	Do physical examination of the skin for women and baby		14	88
	Counsels the mother on breastfeeding, baby vaccination and use of contraception		16	100
	Discussing the birth experience with client		13	81
	The provision of postnatal care psychological and social adjustment to parenthood (for example, expectations, mood, self-care, child safety, relationship with partner, contraception)		14	88
	Counseling on the provision of postnatal care of the baby (for example, feeding, bathing, handling, and sleep/settling babies)		16	100
	Discussing the postnatal care maternal physical adjustments (for example, fatigue, sleep, breastfeeding, breast, and body changes, sexual health)		15	94
	The provision of postnatal care family adjustments (for example, care of the baby, siblings' acceptance of the baby)		12	75

Table 6, Analysis and judgment matrix for compliance dimension on PNC service at government health facilities of Sebata town, 2018/2019

Indicators		Expected in #	Observed in #	Weight (W)	Score(S)	Achievement in %(S*100/W)	Judgment parameters
Proportion of service providers who respected mothers		16	16	5	5	100	91-100= Excellent 81-90=V. Good 71-80= Good 61-70%= Fair <=60%=poor
Proportion of 16 mothers and babies whose vital sign and weight was taken by providers							
	Blood pressure	16	9	1	0.6	60	
	Temperature for mother	16	16	1	1	100	
	Temperature for baby	16	16	1	1	100	
	Adult Weighting scale	16	0	1	0	0	
	Baby Weighting scale	16	16	1	1	100	
Proportion of 16 mothers who have taken physical examination of the skin for themselves and their babies		16	14	4	3.5	88	
Number of quarterly PNC service supportive supervision sessions for health facilities conducted by Sebata town health office in the last six months.		8	8	3	3	100	
Percent of facilities that conduct case review/audits into maternal death		4	4	3	3	100	
Proportion of mothers who counseled about breastfeeding, baby vaccination and use of contraception		16	16	5	5	100	
Proportion of the Proportion of who discussed the birth experience with service providers		16	13	5	4	80	
Proportion of Proportion has taken the postnatal care psychological and social adjustment to parenthood		16	14	4	3.5	88	
Proportion of service provider who counseled on the postnatal care of the baby such as feeding, bathing, handling, and sleep/settling		16	16	4	4	100	
Proportion of service provider who discussed on the postnatal care maternal physical adjustments such as fatigue, sleep, breastfeeding, breast and body changes, sexual health		16	15	4	3.75	94	

Proportion of service provides who counseled the mothers on the provision of postnatal care family adjustments such as care of the baby, siblings' acceptance of the baby	16	12	3	2.25	75	
Total judgmental parameter value of compliance	**40.6*100/45=90% (V. Good)**					

6.3 Satisfaction of mothers with PNC services

6.3.1 Socio-demographic characteristics of mothers

Most of the respondents were in the age group of 24-35 years (76%) followed by age <24 (17%). Nearly 2/3rd (65%) were married or living together, while over half were primary level of education (59%) and followers of Muslim religion (57%) (Table 7).

Table 7, Socio-demographics characteristics of study participants at health centers of Sebata town, March-April 2019

Variable	Category	Frequency(N=396)	Percentage
Age in years	<24	68	17
	24-35	300	76
	>35	28	7
Marital status	Single	40	10
	Divorced	39	10
	Married/Separated	31	8
	Married/living together	258	65
	Widowed	28	7
Religion status	Protestant	40	10
	Orthodox	131	33
	Muslim	225	57
Educational status	No education	37	9
	Primary school (1-8)	234	59
	Secondary school (9-12)	94	24
	Higher education	31	8
Occupational status	Governmental worker	53	13
	Merchant	29	7
	Housewife	282	71
	Daily labor	32	8
Income per month (in ETB)	<2000	107	27
	2001-4000	147	37
	4001-6000	82	21
	>6001	60	15

6.3.2 Obstetric characteristics of mothers

Two hundred thirty-five (59%) mothers had experienced 1-2 pregnancy. Slightly over six in ten (63%) of them had 1-2 children and over 1/3rd (39%) had visited health facility 3 and more times for PNC services (Figure 3).

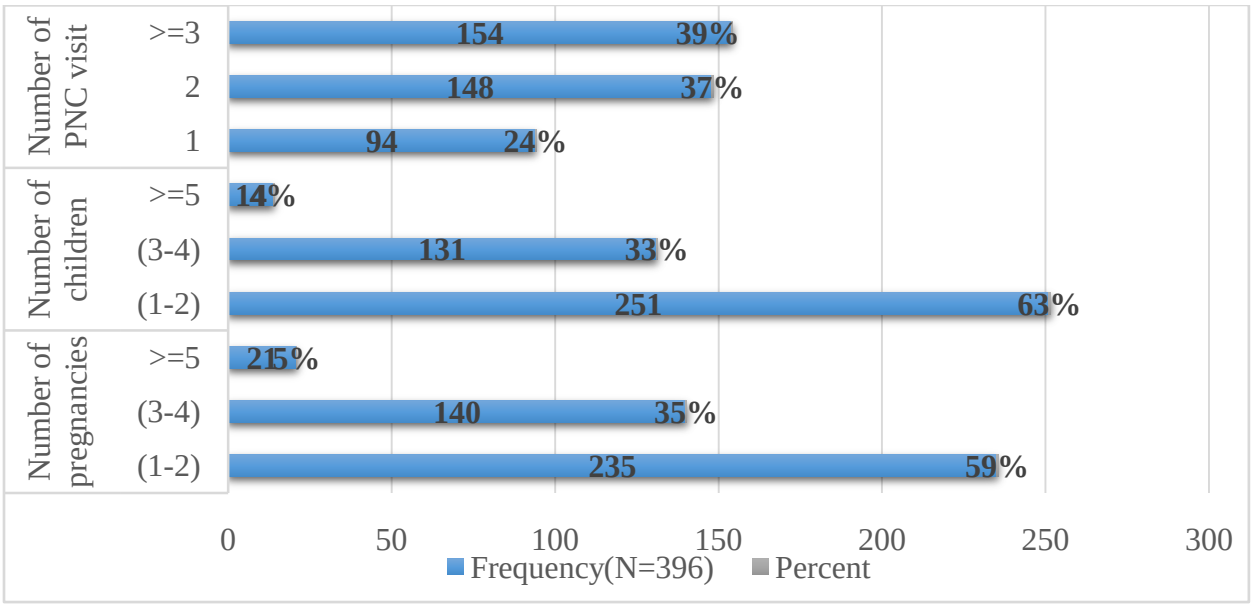

Figure 4, Obstetric characteristics of study participants at Government health centers of Sebata town, March-April, 2019

6.3.3 Mothers level of Satisfaction on PNC

Half of the mothers satisfied with the health care providers show respect for mothers about PNC services they received. Accordingly, 199(50.25%) were satisfied and 121(30.55%) were very satisfied with mean of 3.99 and ± 0.981 SD.

On the use of clear language that the client understands possible local language to receive PNC services 169(42.68%) mothers were very satisfied and 38(9.6%) unsatisfied, while 44(11.11%) were very unsatisfied.

The provider kept the privacy of the service provision room in terms of visual about the services223 (56.31%) mothers were satisfied and 9(2.27%) were very unsatisfied with the mean of 3.57 and ±0.87 SD.

Almost half of the mothers (196 mothers from 396) were satisfied, but 2 mothers from 396 were very unsatisfied with a mean of 3.59 and ±0.811 SD on PNC services they received (Table 8).

Table 8, Satisfaction of PNC at public health facilities of Sebata town, March-April, 2019

Satisfaction indicators	N	Level and frequency of satisfaction					Mean	SD
Item		Very unsatisfied	Unsatisfied	Uncertain	Satisfied	Very satisfied		
Satisfied with the health care providers show respect for mothers	396	18	13	45	199	121	3.99	±0.981
Satisfied on the use clear language that client understand possible local language	396	44	38	40	105	169	3.8	±1.37
Satisfied on the family planning and postnatal follow up visits of service provider had with their client	396	30	99	112	105	50	3.12	±1.146
Satisfied on the provider kept the privacy of the service provision room in terms of visual	396	9	42	90	223	32	3.57	±0.87
Satisfied on the provider kept the privacy of the service provision room in terms of auditory	396	14	14	125	189	54	3.64	±0.887
Satisfied on the consultation of service provider had with their client	396	17	107	94	118	60	3.24	±1.135
Satisfied on the physical examination done by service provider had with their client	396	1	17	154	191	33	3.6	±0.713
Satisfied of vital signs checked by care provider for the client	396	24	108	138	93	33	3.01	±1.042

Satisfied on the provider given on exclusive breastfeeding for their client	396	3	96	40	180	77	3.59	±1.079
Satisfied on the accessibility of service in terms of cost (service, transportation, etc.)	396	6	3	7	176	204	4.44	±0.714
Satisfied on the accessibility of service in terms of opening time and days of the service unit	396	7	32	120	216	21	3.54	±0.79
Satisfied with the availability and use of laboratory service	396	16	96	194	73	17	2.95	±0.871
Satisfied on the cleanliness of service room	396	2	37	122	196	39	3.59	±0.811

Most of mothers were satisfied with the courtesy of providers, service accessibility in terms of cost and physical examination done by the provider. Whereas, least proportion were satisfied with vital signs checked by provider and follow-up visits (Table 9).

Table 9, Mothers' satisfaction category on each satisfaction measuring items of PNC services provided in Sebata town, March-April 2019.

S/N	Satisfaction item	Satisfaction category (N=396)			
		Dissatisfied		Satisfied	
		Number	%	Number	%
1	Satisfied with the health care providers show respect for mothers	31	7.83	365	92
2	Satisfied with the use of clear language that the client understands the possible local language	82	20.71	314	79
3	Satisfied on the family planning and postnatal follow up visits of service provider had with their client	129	32.58	267	67
4	Satisfied on the provider kept the privacy of the service provision room in terms of visual	51	12.88	345	87
5	Satisfied on the provider kept the privacy of the service provision room in terms of auditory	28	7.07	368	93

6	Satisfied on the consultation of service provider had with their client	124	31.31	272	69
7	Satisfied on the physical examination done by service provider had with their client	18	4.55	378	95
8	Satisfied of vital signs checked by care provider for the client	132	33.33	264	67
9	Satisfied on the provider given on exclusive breastfeeding for their client	99	25.00	297	75
10	Satisfied on the accessibility of service in terms of cost (service, transportation, etc….)	9	2.27	387	98
11	Satisfied on the accessibility of service in terms of opening time and days of the service unit	39	9.85	357	90
12	Satisfied with the availability and use of laboratory service	112	28.28	284	72
13	Satisfied on the cleanliness of service room	39	9.85	357	90

Factors associated with the mothers' satisfaction

In the bivariate analysis, marital status, religion, educational status, and economic status were independent variables having P-value ≤ 0.25 considered as candidates for the multivariate analysis (Table: 10).

Table 10, bivariate analysis of factors affecting satisfaction of mothers on the quality of postnatal care services of Sebata town, March-April 2019

Independent variable		**Frequency n= 396**		Sig	COR	95%CI	
		Dissatisfied	Satisfied				
Age in year	<24	19	9	**1**			
	24-35	188	112	**.225***	1.769	.701	4.463
	>35	37	31	.587	1.258	.550	2.875
Marital status	Single	33	7	**1**			
	Divorced	24	7	.454	.636	.195	2.075
	Married/Separated	21	7	**.081***	2.571	.889	7.438

	Married/living together	145	113	.827	.875	.263	2.906
	Widowed	21	18	**.061***	2.338	.960	5.693
Religion	Protestant	90	41	**1**			
	Orthodox	133	92	.436	1.308	.666	2.569
	Muslim	21	19	**.072***	.659	.418	1.038
Educational status	No education	29	8	**1**			
	Primary school (1-8)	68	26	**.208***	.502	.171	1.468
	Secondary school (9-12)	20	11	.284	1.532	.703	3.340
	Higher education	127	107	.409	.695	.293	1.649
Occupation	Governmental worker	38	15	**1**			
	Merchant	21	11	.557	.754	.293	1.935
	House wife	18	11	.773	1.167	.410	3.322
	Daily labor	167	115	.485	1.315	.610	2.831
Economic status	<=2000	55	27	**1**			
	2001-4000	71	36	**.148***	.620	.324	1.184
	4001-6000	85	62	.710	.892	.487	1.632
	>=6001	33	27	**.145***	.600	.302	1.192
Pregnancy	1-2	14	7	**1**			
	3-4	91	49	.502	1.381	.538	3.550
	>=5	139	96	.881	1.077	.408	2.845
Number of	1-2	10	4	**1**			
	3-4	85	46	.375	1.711	.522	5.606

children	>=5	149	102	.625	1.353	.402	4.554
Number of visits	1	94	54	.814			
	2	94	60	.819	1.063	.630	1.795
	>=3	56	38	.657	.900	.565	1.434

Note: - 1 indicates reference group and ** shows P-value* ≤ 0.25 *those candidates for multivariate analysis*

Multiple variable logistic regression analysis had indicated that no variables were found to be associated with the client's satisfaction on PNC.

Table 11, Multivariate analysis result of satisfaction on the quality of postnatal care services of Sebata town, 2018/2019

Independent variable		**Frequency n= 396**		Sig	AOR	95% C.I. for EXP(B)	
		Dissatisfied	Satisfied			Lower	Upper
Age in year	<24	19	9	1			
	24-35	188	112	.227	1.857	.681	5.069
	>35	37	31	.779	1.137	.464	2.788
Marital status	Single	33	7	1			
	Divorced	24	7	.265	.500	.148	1.691
	Married/Separated	21	7	.269	1.872	.616	5.692
	Married/living together	145	113	.524	.664	.189	2.336
	Widowed	21	18	.292	1.652	.649	4.204
Religion	Protestant	90	41	1			

	Orthodox	133	92	.315	1.504	.678	3.333
	Muslim	21	19	.266	.757	.463	1.236
Educational status	No education	29	8	1			
	Primary school (1-8)	68	26	.453	.631	.190	2.098
	Secondary school (9-12)	20	11	.250	1.703	.687	4.219
	Higher education	127	107	.824	.897	.346	2.328
Economic status	<=2000	55	27	**1**			
	2001-4000	71	36	.241	.657	.326	1.326
	4001-6000	85	62	.815	.926	.486	1.764
	>=6001	33	27	.319	.693	.337	1.425

Client satisfaction measured by 13 variables from the most satisfied with care providers show respect for mothers, the privacy of the service provision room in terms of auditory, physical examination is done by service provider and the accessibility of service in terms of cost of the service and transportation, but it needs improvement for the family planning and postnatal follow up visits of service provider, the consultation of service and on the checkup of vital signs by care providers. Cumulatively the quality of PNC services as satisfaction under satisfaction dimension was determined as 83% which was very good, meanwhile, most of them should be maintained and some of them need improvement according to the decision given in the judgment parameter (table 12).

Table 12, Analysis and judgment matrix for satisfaction dimension of the evaluation of postnatal care services of Sebata town public health facilities, March-April/2019.

Indicators	Expected in #	Observed in #	Weight (W)	Score (S)	Achievement in % (S*100/W)	Judgment parameters
Satisfied on the health care providers show respect for mothers	396	365	2	1.84	93	91-100= Excellent 81-90=V. Good 71-80=Good 61-70%= Fair <=60%=poor
Satisfied with the use of clear language that the mothers understand the possible local language	396	314	2	1.59	80	
Satisfied on the family planning and postnatal follow up visits of service provider had with their client	396	267	1.9	1.28	67	
Satisfied on the provider kept the privacy of the service provision room in terms of visual	396	345	2	1.74	87	
Satisfied on the provider kept the privacy of the service provision room in terms of auditory	396	368	2	1.86	93	
Satisfied on the consultation of service provider had with their client	396	272	1.8	1.24	69	
Satisfied on the physical examination done by service provider had with their client	396	378	1.9	1.81	95	
Satisfied of vital signs checked by care provider for the client	396	264	1.9	1.27	67	
Satisfied on the provider given on exclusive breastfeeding for their client	396	297	1.9	1.43	75	
Satisfied on the accessibility of service in terms of cost (service, transportation, etc.…)	396	387	1.6	1.56	98	
Satisfied on the accessibility of service in terms of opening time and days of the service unit	396	357	2	1.80	90	
Satisfied with the availability and use of laboratory service	396	284	2	1.43	72	
Satisfied on the cleanliness of service room	396	357	2	1.80	90	
Total judgmental parameter value of satisfaction	**20.65*100/25=83% (V. Good)**					

6.3.4: **Overall judgment matrixes and analysis of dimension for PNC service**

The overall evaluation score of the PNC program was 85.3 judged as very good based on the agreed judgment parameter with the three dimensions shown that, 80% availability of an essential resource, 90% compliance with PNC service guideline and 83% satisfaction with service delivered in PNC units of health facilities.

Table 13, Overall judgment matrixes and analysis of dimension for PNC service Quality at public health facilities of Sebata town, March-April 2019.

Dimension	Value given	Value achieved	% achieved	Judgment criteria
Availability	30	24	80%	91-100=Excellent 81-90=V. Good 71-80=Good 61-70%= Fair <=60%=poor
Compliance	45	40.65	90%	
Satisfaction	25	20.65	83%	
Total	100	85.3	85.3%	

Chapter 7 DISCUSSION

The process evaluation employed three dimensions of indicators driven approach to evaluate the quality of PNC care in Sebata town public health facilities. The evaluation findings showed that the overall quality of PNC care was 85.3%, which was judged as very good depending on the judgement criteria.

Availability of required resources

In order to evaluate the postnatal care in terms of resource availability in public health facilities of the town, it was measured to be 80% which was good and needs improvement based on the judgment parameter. The absence of these resources may affect maternal and newborn baby health condition and also contribute to the mothers' dissatisfaction of the service. This result is better than a result of the study conducted in Ethiopia where 44% and Nigeria where 2/3rd of the required resources were available in the study setting(19,30).

The results show that all health centers have trained providers on the obstetric warning signs and national MCH guidelines with enough amount of care providers at least by having one care provider per health facility as per Ethiopian tier health care system standard PNC care to mothers and their neonates(4), but the resource inventory finding indicated that health workers were assigned at multiple services points at a time. Even if there were MCH guidelines in all HCs, absences of specific PNC national guidelines at the service delivery area were the reason for non-compliance of providers, other than, shortage of refreshment training and providers' burden of workload by the provision of PNC service at a time with other MCH services. The study indicated that health workers were assigned at multiple services within the health facilities which affect the quality of postnatal care.

Similarly, this was supported by qualitative finding of an in-depth interview from one HC said that "…*we have been assigned on PNC service unit at a time with other MCH service such as delivery service because there was no a specific training on the PNC services to assign a trained staff on a specific task."*

And a study conducted in Malawi confirmed that midwives combined postnatal care with other services within the health facilities compromised the quality of postnatal care (14).

From the result we argue that, the assigning of health workers with other services such as ANC and delivery within the health facilities made them compromise the quality of postnatal care.

Availability of essential resources such as BP apparatus, thermometer, weighting scale and others will let care providers serve the client timely and comply with national standards(14). Consequently, this evaluation stated that three HCs(Alemgena, Dalati and Wolate) of studied four health facilities had thermometer to give the postnatal care services which is better than study conducted in Malawi that none of the facilities had no thermometer for providing maternal and neonatal health services contributed to poor or partial-service provision to mothers and hence compromised the quality of care(14). So, this study argued that lack of essential resources for postnatal care affects the quality of the service and availability of the essential resources increases the quality of the service.

Measuring the mother's temperature helps to prevent complications that might risk the life of the mother(45). For this reason, most of the health centers have a thermometer at the PNC unit at a time of the study period. This is better than a result of Malawi that all the facilities did not have postnatal care monitoring equipment like sphygmomanometer and thermometers in their maternity departments(14). Since measuring mothers' temperature helps to prevent complications that might risk the life of the mother, having BP apparatus at the program unit contribute for the reduction of maternal death.

From this study, the danger signs of complications after delivery had been happened and referred to Gandi hospital in 3/4th of the facilities. From this result, the absence of medical equipment health care providers could miss important findings about the mothers and their baby's, led them for complications, affects mothers' satisfaction and quality of service which was supported by in-depth interview result that "*…for example currently there is no ambulance in our facility for referral of mothers or their child for further management, so mothers were been using public transport for their emergency."*

In order to deliver quality PNC service, daily activities of PNC service by health care providers should be compliant with national guidelines, so the qualitative study results showed that lack of

PNC guideline may affect service provision. However, the result of this evaluation indicates that at PNC service provision units of Sebata town health facilities guidelines or job aids were absent. This finding is the same as a result of Malawi that guidelines and teaching aids for postnatal care were not available in all the facilities(14).

Compliance of care providers with national guideline

The compliance score was 90% which judged as very good as of judgment parameters.

Measuring mothers' body temperature is vital to avoid complications during the postnatal period (2). Also, health care providers from this evaluation had measured the temperature; from this $9/16^{th}$ of mothers from direct observation were measured their temperature. This finding is better than a result of Malawi that only 44.9% of mothers had whose temperature measured(14). This discrepancy might be due to a shortage of thermometers at the health facilities of Malawi or a lack of attitude among healthcare providers regarding the necessity of measuring the mothers' body temperature and missing to follow national guideline.

As the provider's activity on monitoring necessary information's about the health condition of the mothers was properly achieved, the health of mothers will be maintained to increase the satisfaction of mothers by service provided.

From the evaluation, all health care providers counsels the mother on breastfeeding, baby vaccination and use of contraception and provided postnatal care psychological and social adjustment to parenthood which is better than the study conducted in Nigeria where three in ten of care providers provided counseling on family planning, maternal nutrition, breast care and follow up(30).

In order to maintain the health of the baby or prevent the baby from disease, the mother should receive counseling from the care provider during the postnatal period. According to the finding of this evaluation result, all health care providers from direct observation had provided Counseling to mothers on the provision of postnatal care for the baby (for example, feeding, bathing, handling, and sleep/settling babies). This result is better than a result from Tigray Counseling on essential newborn care to the mothers of the infants were given by 58(47.2%) of

the observed midwives and from Haiti, only 43percent of pregnant women report receiving counseling messages(19,46)

Mothers' satisfaction with a service provided

This study shows that the overall satisfaction of mothers on PNC service quality 83% score was judged as very good. It needs to be maintained on indicators those who had given very good result to achieve the goal and needs on some improvement for indicators such as service follow up, counseling and check-up of vital signs by care providers. Because, lack of these indicators may dissatisfy and encouraging the mothers on the dropout of the service, then contributing to the increment of maternal and child mortality and morbidity rate in the Sebata town. This finding is higher than the finding from India that showed 39% of postnatal mothers were moderately satisfied and six in ten of postnatal mothers were minimally satisfied, and (1 %) of postnatal mothers were satisfied with the care given to them(32).

And 41% of the subjects were minimally satisfied and slightly more than one-quarter of them were either moderately satisfied 27% or satisfied to some extent (26%)(36).

These differences may be from socio-demographic differences and using different analytical methods.

This study didn't get a statistically significant association between Socio-demographic, economic variables and Obstetric characteristics with mothers' satisfaction. And the finding is appeared to be consistent with the study conducted in India revealed than all demographic variables were not showed association to satisfaction(32) and study conducted in Nepal that there was no statistically significant association between socio-demographic and obstetric characteristics and maternal satisfaction(34).

From the finding we have argued that, practically it may have association, but all demographic variables were not statistically significant with mother's satisfaction.

LIMITATIONS OF THE EVALUATION

- Health care providers may display their best behavioral responses during the observation of mothers' provider interaction (Hawthorne effect); in order to minimize this bias, we have dropped the first and last observations for all facilities.
- Social desirability bias by the respondents as they were interviewed in the health facilities; in order to minimize this, we have interviewed exit interview respondents at separate place from the peoples.

Chapter 8 CONCLUSION AND RECOMMENDATION

8.1 CONCLUSION

Availability of resources for Post-natal care service at Sebata town government health facilities was judged to be good with some essential resource absence at health facilities like thermometer, adult weighing scale, PNC specific guidelines, enough room for PNC service, and other essential equipment.

Compliance of health care providers with PNC guidelines was judged to be very good. Respectfulness of care providers and service providers who counseled on the mother about breastfeeding, baby vaccination and use of contraception were excellent, but service providers who take vital signs and weight of mother and baby and counseling the mother were poorly achieved.

Overall satisfaction of mothers on PNC service was judged to be very good, but the service is poor in some areas such as family planning service, counseling of mothers and check-up of vital signs by care providers. All the independent variables were not candidate for the multiple logistic regressions; therefore, none of the factors assessed to see mothers' satisfaction level on PNC service were not significantly associated with service provided in the study area. This not saying that practically has no association, but all demographic variables were not statistically significant with mothers' satisfaction.

Generally, the Overall quality of PNC service at Sebata town government health facilities was judged to be very good.

8.2 Recommendation

Based on the findings of our evaluation of PNC care service quality at Sebata town health facilities, the following recommendations were given:

A. for health care providers

1. Should improve the habit of taking vital sign and weight of mother and baby, and
2. Should improve the habit of providing counselling to the mother

B. for health facilities

1. should avail thermometer,

2. should avail adult weighing scale,

C. For Evaluators

Additional study/evaluation on PNC care quality should be conducted to get factors affecting the satisfaction of mothers in the study area.

Chapter 9 : META EVALUATION

Good evaluation requires that evaluation efforts themselves be evaluated. Many things can and often do go wrong in evaluation work. Accordingly, it is necessary to check evaluations for problems such as bias, technical error, administrative difficulties, and misuse. Such checks are needed both to improve ongoing evaluation activities and to assess the merits of completed evaluation efforts.

Meta-evaluation standards such as utility, feasibility, propriety, and accuracy were used to determine the effectiveness of evaluation with different criteria which were evaluated by peer evaluation experts. Finally, the overall status of the evaluation was measured as very good according to the standards criteria.

The quality of this study was evaluated based on the Meta-evaluation standards by using program evaluation models Meta-evaluation checklist set by Daniel L. Stufflebeam(47).

9.1 *Utility standard*

The evaluation protocol considered the information needs of major intended users by involving them. The evaluation questions were the needs of the stakeholders about the program.

Thus, a High likelihood of addressing information needs and values of stakeholders that ensure utilization of the evaluation findings for program improvement were considered.

9.2 *Propriety standard*

There was no procedure that affects the privacy, dignity, confidentiality, and rights of participants. Ethical Issues of the evaluation protocol was respected. This is for ensuring that the evaluation fulfills the propriety standards.

9.3 *Feasibility standard*

Postnatal care services program is a well-established program with national guideline that makes certain the availability of adequate data for the evaluation. The cost considered the presence of limited resources and the resources, which were used justifiable for the benefits of program improvement.

9.4 *Accuracy standard*

All the data collection, analysis, and presentation techniques were carried out based on scientific methods. Quality control strategies were well formulated. Data was collected from multiple sources by using multiple methods and triangulation to reach a valid conclusion by program document review, observation and In-depth interviews for experts and survey to maximize accuracy.

Table 14, Meta-evaluation score for evaluation of PNC service Quality at public health facilities of Sebata town, March-April 2019.

Items	Score	Parameter
Utility	Strength of the Evaluation's provisions for Utility (total **score=16**): 26 (93%) - 28 Excellent, **19 (68%) – 25 Very Good**, 14 (50%) - 18 Good**,** 7 (25%) - 13 Fair, 0 (0%) - 6 Poor	**Very good**
Feasibility	Strength of the Evaluation's provisions for Feasibility (total **score=9)**, 11 (93%) - 12 Excellent, **8 (68%) - 10 Very Good,** 6 (50%) - 7 Good, 3 (25%) - 5 Fair , 0 (0%) - 2 Poor	**Very good**
Propriety	Strength of the Evaluation's provisions for Propriety (total **score=23)**, 30 (93%) - 32 Excellent, 22 (68%) - 29 Very Good, **16 (50%) - 21 Good**, 8 (25%) – 15 Fair, 0 (0%) - 7 Poor	**Good**
Accuracy	Strength of the Evaluation's provisions for Accuracy (total **score=32):** 45 (93%) - 48 Excellent, **33 (68%) - 44 Very Good**, 24 (50%) - 32 Good , 12 (25%) - 13 Fair, 0 (0%) - 11 Poor	**Very good**

Reference

1. World Health Organization (WHO). WHO Technical Consultation on Postpartum and Postnatal Care. WHO/MPS/10.03. World Health Organization, 2010.

2. Postnatal Care for Mothers and Newborns Highlights from the World Health Organization 2013 Guidelines. 2015;(April):1–8.

3. Charlotte Warren, Pat Daly, Lalla Toure PM. Opportunities for Africa's Newborns: Chapter 4- Postnatal Care. 2013;(Imci):80–90. Available from: http://www.who.int/pmnch/media/publications/aonsectionIII_4.pdf

4. WHO. World Health Organization. WHO recommendations on postnatal care of the mother and newborn. World Health Organization; 2014. 2014;1–72. Available from: http://apps.who.int/iris/bitstream/10665/97603/1/9789241506649_eng.pdf

5. Eshetu E, Chaka EE, Abdurahman AA, Nedjat S, Majdzadeh R. Utilization and Determinants of Postnatal Care Services in Ethiopia : A Systematic Review and Meta-Analysis. 2015;

6. Gebrehiwot G, Medhanyie AA, Gidey G, Abrha K. Gebrehiwot G, Medhanyie AA, Gidey G, Abrha K. Postnatal care utilization among urban women in northern Ethiopia: cross-sectional survey. BMC women's health. 2018 Dec;18(1):78. 2018;1–10.

7. IPPF/. Quality of Care Framework,2015, from choice a worlde of possiblities. 2016;

8. World Health Organization, World Health Organization. Reproductive Health. Health Worker Role in Providing Safe Abortion Care and Post Abortion Contraception. World Health Organization; 2015 Dec 17. 2014;

9. Darroch JE SSA it up: the costs and benefits of investing in family planning and maternal and newborn health—estimation methodology. NYGI 2011 O. methodology. New York: Guttmacher Institute. 2011 Oct.

10. Liu X, Yan H, Wang D. The evaluation of "safe Motherhood" program on maternal care utilization in rural western China: A difference in difference approach. BMC Public Health. 2010;10.

11. Dodd PJ, Yuen CM, Sismanidis C, Seddon JA JH. Dodd PJ, Yuen CM, Sismanidis C, Seddon JA, Jenkins HE. The global burden of tuberculosis mortality in children: a mathematical modelling study. The Lancet Global Health. 2017 Sep 1;5(9):e898-906. 2017;

12. Assefa Y, Van Damme W, Williams OD HP. Assefa Y, Van Damme W, Williams OD, Hill PS. Successes and challenges of the millennium development goals in Ethiopia: lessons for the sustainable development goals. BMJ global health. 2017 Jul 1;2(2):e000318. 2015;

13. WHO. World Health Organization. Atlas of African Health Statistics 2014: Health

Situation Analysis of African Region. World Health Organization; 2014. 2014.

14. Chimtembo LK, Maluwa A, Chimwaza A, Chirwa E, Pindani M. Assessment of quality of postnatal care services offered to mothers in Dedza district, Malawi. Open J Nurs. 2013;03(04):343–50.

15. Demographic E. Health Survey [EDHS](2011). Central Statistical Agency. Addis Ababa E. Ethiopia 2011 Demographic and Health Survey. 2011;

16. EDHS ED. Health Survey. Key indicators report. 2016. Ethiopia.

17. Tessema GA, Laurence CO, Melaku YA, Misganaw A, Woldie SA, Hiruye A, et al. Trends and causes of maternal mortality in Ethiopia during 1990-2013: Findings from the Global Burden of Diseases study 2013. BMC Public Health. 2017;17(1):1–8.

18. Karim AM, Betemariam W, Yalew S, Alemu H, Carnell M, Mekonnen Y. Programmatic correlates of maternal healthcare seeking behaviors in Ethiopia. Ethiop J Heal Dev. 2010;24(SPEC. ISSUE 1):92–9.

19. Berhe A, Araya T, Tesfay K, Bayray A, Etsay N. Berhe A, Araya T, Tesfay K, Bayray A, Etsay N, Gidey G, Weldemariam S, Berhe K. Assessment of Quality of Postnatal Care Services Offered to Mothers in Hospitals, of Tigray Ethiopia 2016. Research & Reviews: Journal of Medical Science and Technology. 2017 . 2017;(July).

20. He X, Li L BY. He X, Li L, Bian Y. Satisfaction survey among primary health care outpatients in the backward region: an empirical study from rural Western China. Patient preference and adherence. 2018;12:1989. 2018;1989–96.

21. Wholey JS. Posavac EJ. Program evaluation: Methods and case studies. Routledge; 2015 Jul 22.

22. K. S. Schmeer K. Stakeholder analysis guidelines. Policy toolkit for strengthening health sector reform. 1999:1-33.

23. Admasu K, Balcha T GH. Admasu K, Balcha T, Getahun H. Model villages: a platform for community-based primary health care. The Lancet Global Health. 2016 Feb 1;4(2):e78-9. 2015;

24. Lawn JE, Blencowe H, Oza S, You D, Lee ACC, Waiswa P, et al. Every Newborn 2 Progress , priorities , and potential beyond survival. 2015;6736(14).

25. Parthner T. Opportunities for Africa ' s Newborns Practical data, policy and programmatic support for newborn care in Africa. 2015.

26. W. VL. Van Lerberghe W. The world health report 2008: primary health care: now more than ever. World Health Organization; 2008. 2008;

27. The World Health Report 2005 Make every mother and child count The World Health Report 2005. 2005;

28. WHO - World Health Organization. World Health Report Life in the 21st century A vision for all Report of the Director-General. 51st World Heal Assem. 1998;

29. Arah OA, Westert GP, Hurst J KN. Arah OA, Westert GP, Hurst J, Klazinga NS. A conceptual framework for the OECD health care quality indicators project. International Journal for Quality in Health Care. 2006 Sep 1;18(suppl_1):5-13. 2006;

30. Ilesanmi RE AJ. Ilesanmi RE, Akinmeye JA. Ilesanmi RE, Akinmeye JA. Evaluation of the quality of postnatal care and mothers' satisfaction at the university college hospital Ibadan, Nigeria.

31. Okawa S, Win HH, Nanishi K, Shibanuma A, Aye PP, Saw TN JM. Okawa S, Win HH, Nanishi K, Shibanuma A, Aye PP, Saw TN, Jimba M. Advice on healthy pregnancy, delivery, motherhood and information on non-communicable diseases in the maternal care programme in Myanmar: a cross-sectional study. BMJ open. 2019 Mar 1;9(3): 2019;

32. Varghese J. A study to evaluate the level of satisfaction perceived by postnatal mothers following nursing care in postnatal wards as expressed by themselves : pilot study. 2012;2(6):101–12.

33. Panagopoulou V, Kalokairinou A, Tzavella F TS. Panagopoulou V, Kalokairinou A, Tzavella F, Tziaferi S. A survey of Greek women's satisfaction of postnatal care. AIMS public health. 2018;5(2):158.

34. Panth A, Kafle P. Maternal Satisfaction on Delivery Service among Postnatal Mothers in a Government Hospital, Mid-Western Nepal. Obstet Gynecol Int. 2018;2018:1–11.

35. Paudel YR, Mehata S, Paudel D, Dariang M, Aryal KK, Poudel P, et al. Women ' s Satisfaction of Maternity Care in Nepal and Its Correlation with Intended Future Utilization. 2015;2015.

36. Battawi JAA-, Hafiz SK. Evaluation of Postnatal Mother ' s Satisfaction with Nursing Care In El-Shatby Maternity University Hospital . 2017;6(6):69–80.

37. Abota TL TN. Abota TL, TadeleAtenafu N. Postnatal Care Utilization and Associated Factors among Married Women in Benchi-Maji Zone, Southwest Ethiopia: A Community Based Cross-Sectional Study. Ethiopian journal of health sciences. 2018;28(3):267-76.

38. Armenian H. Avedis Donabedian . An Introduction to Quality Assurance in Health Care . Oxford : Orwoll ES , Bliziotes M , editors . Osteoporosis . Pathophysiology and Clinical Management . New Jersey (NJ): Humana Press ; 2002 . 615 pages ; ISBN 0-89603-933-1 ; price. 2003;44(5):655–7.

39. Stufflebeam DL CC. Stufflebeam DL, Coryn CL. Evaluation theory, models, and applications. John Wiley & Sons; 2014 Oct 13.

40. Bailey P, Lobis S, Maine D, Fortney JA. Monitoring emergency obstetric care: a handbook. World Health Organization; 2009.

41. L.G. Sambo, R.R. Chatora ESMG. Tools for Assessing the Operationality of District Health Systems. 2003;33.

42. Workineh YG, Hailu DA. Factors affecting utilization of postnatal care service in Jabitena district , Amhara region , Ethiopia. 2014;2(3):169–76.

43. World Health Organization. Service availability and readiness assessment (SARA): an annual monitoring system for service delivery: reference manual. World Health Organization; 2013. 2018;

44. Pitaloka, D.S. and Rizal AM. Pitaloka DS, Rizal AM. Patient's satisfaction in antenatal clinic hospital Universiti Kebangsaan Malaysia. Jurnal Kesihatan Masyarakat (Malaysia). 2006;12(1):1-0. Int J Nurs Midwifery [Internet]. 2015;7(5):74–83. Available from: http://www.academicjournals.org/IJNM

45. A. N. Nankwanga A. Factors influencing utilisation of postnatal services in Mulago and Mengo hospitals Kampala, Uganda (Doctoral dissertation, University of the Western Cape).

46. Mirkovic KR, Lathrop E, Hulland EN, Jean-Louis R, Lauture D, D'Alexis GD, Handzel E G-PR. Mirkovic KR, Lathrop E, Hulland EN, Jean-Louis R, Lauture D, D'Alexis GD, Handzel E, Grand-Pierre R. Quality and uptake of antenatal and postnatal care in Haiti. BMC pregnancy and childbirth. 2017 Dec;17(1):52.

47. DL. S. Stufflebeam DL. Program evaluation models metaevaluation checklist. Based on the Program Evaluation Standards (http://www. wmich. edu/evalctr/checklists/eval_ model_metaeval. pdf)(アクセス日, 2011-03-09). 1999.

Evaluation Tools

ANNEX 1: Checklist for health facility resources required for postnatal care.

Put 1 for yes and 2 for no items in the space provided in the table below.

Name of Health Center_____

S/N	Availability and functionality of Items	Availability		In Amount if needed
		Yes=1	No=0	
A. Equipment				
1	Adult Weighing Scale			
2	Baby Weighing scale			
3	Examination bed			
4	Blood Pressure Machine			
5	PNC room			
6	Availability of chairs or benches in waiting areas			
7	Thermometer			
B. DRUGS				
8	Oxytocin injection			
9	Ferrous sulfate			
10	Cotrimoxazole tab			
11	Tab paracetamol			
12	I.V fluids			
13	Anti-hypertensive drugs			
14	Family planning commodities			
15	Surgical gloves			
C. LOGISTICS				
16	Guideline			
17	Registration book````			
18	Reporting formats			
19	Ambulance/Emergency transport			

20	Training attendance list on maternal and newborns care			
21	Case audits into maternal death (document in place)			
22	Support supervision checklist (Filled and compiled)			
23	protected water source			
24	Regular Electricity			
D. Information, education, and communication (IEC) materials Visual aids for teaching about				
25	Different FP methods			
26	Postpartum care/newborn care/breastfeeding			
27	Danger signs of complications after delivery			

Human Resources

Category		**Male**	**Female**	**Total**	**Remark**
Medical staff	Health officers				
	Nurses				
	Midwife				
	Environmental health				
	Lab.technologist				
	Lab.technician				
	Pharmacy and Druggist				
	Others				
Administrative Staff	HIT (health informatics				
	technologist)				
	Cleaner				
	Guard				
	Others				

ANNEX 2: Document Review checklist of client folder

S/N	Questions	Coding categories		Remark
		Information is clearly recorded?		
		Yes=1	No=2	
1	Is the following information recorded or attach in the clinical history of the PNC client's card?			
2	Is there recorded information related to referral? If appropriate			

3	Is there plan documented of facility			
4	Are there updated plan documents for activity and finance for PNC			
5	Was there any stoke out of drugs for PNC? if yes Mention it?			
6	Are all the drugs for PNC for their stoke balance monitored?			
7	Is there at least three supportive supervision concerning to MCH done in budget year from Town health department			
8	Is there a list of trained staff on PNC			
9	Are the case reviews/audits into maternal death conducted in the last six months?			

Name of Data collector_____ signature_____ Thank you for your time!

Annex 3: Observation checklist to review Health care provider as they are providing care according to national guideline

My name is _____, I am an interviewer for evaluation of PNC service in Sebata town government health centers and I am here to observe the clinical sessions at this unit. This is part of the overall program evaluation and it helps to improve the PNC Service delivered at these health centers. The observation is conduct while the health care provider delivering services and all findings of the observation are confidential. Further, we are ensuring that any information we include in our report does not identify you as the respondent.

Remember, everything is undertaking with participant agreement and willingness will be respected.

Are you willing to participate in this interview? A. Yes B. No.

Consent form for client observation by care provider

Thank you for visiting our health center for receiving PNC services. Today, I provide you services. He is interviewer on the evaluation of PNC service to observe the clinical process and provide additional support which helps me to provide you better services. During the overall process, your information keeps confidential as previous, and no one identifies you as part of the observation or respondent.

Remember, everything undertaken based on your will.

Do you agree to be observed? A. Yes B. No

S/N	Provider client interaction and clinical observation		Performed by HWs		Remarks
			Yes=1	No=0	
	Give/show respect for mothers				
	Take vital sign and weight of the client	Blood pressure			
		Temperature of mother			
		Temperature of baby			
		Adult Weight			
		Baby Weight			
	Do physical examination of the skin for women and baby				
	Counsels the mother on breastfeeding baby vaccination and use of contraception				
	Discussing the birth experience with client				
	The provision of postnatal care psychological and social adjustment to parenthood (for example, expectations, mood, self-care, child safety, relationship with partner, contraception)				
	Counseling on the provision of postnatal care of the baby (for example, feeding, bathing, handling, and sleep/settling babies)				
	Discussing the postnatal care maternal physical adjustments (for example, fatigue, sleep, breastfeeding, breast, and body changes, sexual health)				
	The provision of postnatal care family adjustments (for example, care of the baby, siblings' acceptance of the baby)				

Name of Data collector_____ signature_____

Thank you for your time!

ANNEX 4: Exit interview Questionnaire for Evaluation of Postnatal care service Quality among Public Health facilities in Sebata Town, Oromia Region, Ethiopia, 2018/2019.

Instructions for the interviewers:

First of all, greeting the mother as they leave the area where postnatal care services are provided, and ask them whether they are willing to be asked some questions about the services they received today. If they accept, make sure that you are in a place that comfortable and privacy for the mothers. Ask them for their informed consent to be interviewed. Please, interview only women who give their informed consent. For each item in the interview, circle the code of the appropriate response.

Informed Consent Form for the Client interview

My name is _____, and I am an interviewer for the evaluation conducting on the quality of postnatal care service in Sebata town government health centers, the study is conducting to see what PNC services and its information looks like in the area. This information helps us to propose ways in which to improve the services offered. As part of this study, we are interviewing women who have postnatal care visits today. In these interviews, we ask them about the services and information they obtained, their satisfaction with the services received, and other health-related issues. The interview is private, and none of the care providers cannot hear and share the information I ask you rather than the study members. However, your participation in this study is voluntary, and you can totally refuse or interrupt at any time. If you choose not to participate in our study, you not be affected in any way, but your participation has a great contribution to the study. If you accept to participate and you change your opinion later, you can also ask me to interrupt the interview whenever you want.

Shall I proceed with the questions? Yes=A, No =B, Date of interview ___Time at which interview started_____. Status of the questionnaire: 1. partial 2. Completed

Exit interview Questionnaire for Postnatal Care Service Quality among Government Health facilities in Sebata Town, Oromia Region, Ethiopia, 2018/2019

Client Id_____ Interviewer name _____

Part I: Questions on Socio-demographic characteristics of respondents

No	**Variable**	**Response category**	**Skip/Remark**
101	What is your age (in years)	_____	
102	What is your marital status?	1. Single 2. Divorced 3. Married/Separated 4. Married/living together 5. Widowed	
103	What is your religion?	1. Protestant 2.Orthodox 3.Muslim 4. Waaqeffataa 5. Catholic 5. Other (specify)	
104	What is your highest level of educational attainment?	1. No education 2. Read and write only 3. Primary school (1-8) 4. Secondary school (9-12) 5. Higher education	
105	What is your occupation?	1. Governmental worker 2. Farmer 3. Merchant 4. Housewife 5. Daily labor 6. Student 7. NGO worker 8. Unemployed 9. Other (please specify)	
106	What is the household's average monthly income?	_____	

Part II. Reproductive Health History

No	Variable	Response category	Skip/Remark
201	Number of pregnancies	_____	
202	Number of children	_____	
203	Number of PNC visit for the current child	_____	

Part III: Mothers satisfaction towards care providers

How do you feel about postnatal care service in the health center? Please read each one carefully and tick one number, how strongly do you agree or disagree with each of the following statements.

1 = very unsatisfied 2 = unsatisfied 3 = uncertain 4 = satisfied 5 = very satisfied

No	**Variable**		How are you satisfied with this activity?							
				Level of satisfaction						Remark
			Yes=1	No=0, if No skip	1	2	3	4	5	
301	Are the Health care providers have respect for you during the service of PNC?									
302	While discussing postnatal care, did the provider uses clear language that you simply understood?									
303	Are you got Information about family planning and postnatal follow up visits by care provider?									
304	Is the visual privacy that the other mothers could not see you during the PNC service was good?	Visual								

	Is the visual privacy that the other mothers could not hear you during PNC service was good?	Auditory								
305	Are you got consultation for postnatal care by care provider?									
306	The physical examination done for their client is good									
307	Are you checked vital signs by care provider during postnatal care?									
308	Are you getting information given on exclusive breastfeeding by care providers?									
309	Is the service accessible for you in terms of cost (service cost, transportation cost etc...)?									
310	The accessibility of service in terms of opening time and days of the service unit is good									
311	Is the service available in terms of other related services such as laboratory service?									
312	Are you interested in the cleanliness of the postnatal care room?									

Thank you for your time!

Name of Data collector_____ signature_____

Annex 5: Consent form for In-depth interview

My name is _____ I am a principal investigator for the evaluation of postnatal care service at the government health center of Sebata town conducting to see what postnatal care services look like, and the finding of evaluation helps for program improvement. Your information highly supports our evaluation process and mainly for program improvement. All findings of the interview kept confidential. The finding shared only with the evaluation team. Further, we ensure that any information we include in our report does not identify you as the respondent. If you choose not to participate in our study you will not be penalized in any way, but your participation has a great contribution to the study. If you accept to participate and you change your opinion later, you can also ask me to interrupt the interview whenever you stop.

Do you agree? A. Yes B. No

The interview A. completed B. refused

In-depth interview guide for town health department head

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

_____

_____

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

_____

_____

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

_____

_____

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

_____

_____

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

_____

_____

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

_____

_____

7. How do you mange resources needed to implement PNC service in all health centers? (Probe, how you avail, prevent stoke out and manage resource wastage)

_____

_____

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

_____

_____

Name of Data collector_____ signature_____

Thank you for your time!

Annex 6: Consent form for In-depth interview

My name is _____ I am a principal investigator for the evaluation of postnatal care service at the government health center of Sebata town conducting to see what postnatal care services look like, and the finding of evaluation helps for program improvement. Your information highly supports our evaluation process and mainly for program improvement. All findings of the interview kept confidential. The finding shared only with the evaluation team. Further, we ensure that any information we include in our report does not identify you as the respondent. If you choose not to participate in our study you will not be penalized in any way, but your participation has a great contribution to the study. If you accept to participate and you change your opinion later, you can also ask me to interrupt the interview whenever you stop.

Do you agree? A. Yes B. No

The interview A. completed B. refused

In-depth Interview guide for health center heads

1. Does the health centers have specific plan document for PNC care service? If not, why (probe, if yes describe the content of the plan)

_____

_____

2. Do you think you have adequate resource to implement PNC service? If No why? (Probe, regarding to human, financial and material)

_____

_____

3. Is there clear job description for all staff in health centers? If not, why?(probe, brief discus PNC staff job description)

_____

_____

4. Explain how do you allocate budget for PNC at this health centers? If not why?

_____

_____

5. Have you ever faced shortage or lack of materials in last six month? If yes why? (Probe, if the stock out occurs how you solve?)

_____

_____

6. How do you motivate the staff members (probe, training, education...)

_____

_____

7. Has any trained professionals turn over within the last two years? If yes, what do you think the reason

_____

_____

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

_____

_____

Name of Data collector_____ signature_____

Thank you for your time!

Annex 7: Consent form for In-depth interview

My name is _____ I am a principal investigator for the evaluation of postnatal care service at the government health center of Sebata town conducting to see what postnatal care services look like, and the finding of evaluation helps for program improvement. Your information highly supports our evaluation process and mainly for program improvement. All findings of the interview kept confidential. The finding shared only with the evaluation team. Further, we ensure that any information we include in our report does not identify you as the respondent. If you choose not to participate in our study you will not be penalized in any way, but your participation has a great contribution to the study. If you accept to participate and you change your opinion later, you can also ask me to interrupt the interview whenever you stop.

Do you agree? A. Yes B. No

The interview A. completed B. refused

In-depth Interview guide for MCH coordinator/PNC Health care provider

Background information of HWs

a. Work experience ____ Training status (probe; only MCH /PNC training) _____

1. Does the unit have specific plan document for postnatal care? If not, why?

(Probe, what are your contribution to achieve this plan)

_____

_____

2. Does the health care provider trained on PNC in the last two year? If not why?

(Probe, type of training, how many staff trained proportional staff with service taker)

_____

_____

3. Has PNC unit essential instruments and materials needed to provide the services and how do you verify? If not why?

_____

_____

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

_____

_____

5. What do you work to retain PNC client in your health centers? (Probe, to satisfy beneficiary).

_____

_____

6. How do you monitor routine PNC service (probe, like activity, staff performance….)

_____

_____

Name of Data collector_____ signature_____

Thank you for your time!

Table 15, Information matrix on the dimension for evaluation of quality of PNC service at Sabeta town government health facilities, 2019

Evaluation question	Dimension	Indicators	Source of information	Methods	Tools
Are the required resources available to implement the PNC Program? If yes, how? If not, why?	**Availability**	Number of rooms available for PNC services	PNC unite	Resource inventory	Resource inventory checklist
		Number of health facilities with skilled health workers on obstetric warning signs	Training logbook	Resource inventory	Resource inventory checklist
		Number of health facilities/PNC units with at least one guideline as per the standard on the date of the survey	PNC unite	Resource inventory	Resource inventory checklist
		Number of reliable transport and driver for the referral system	Facility head	Resource inventory	Resource inventory checklist
		% of essential equipment available for management of postnatal care on the date of the survey	PNC unite/ pharmacy store	Resource inventory	Resource inventory checklist
		% health facilities with no stock out of essential medicines for the last six months	PNC unite	Resource inventory	Resource inventory checklist
		% of health centers with one PNC service registration book at the period of evaluation	PNC unit	Resource inventory	Resource inventory checklist

Evaluation question	Dimension	Indicators	Source of information	Methods	Tools
Do health care providers comply with Postnatal care guidelines in delivering service? If yes, how? If not, why?	**Compliance**	Proportion of mothers who did receive due respect from their care providers	Care provider	Observation	Semi-structured checklist
		Proportion of service providers who take vital sign and weight of mother and baby	Care provider	Observation	Semi-structured checklist
		Proportion of service provider who conducted a physical examination of the skin for women and baby	Care provider	Observation	Semi-structured checklist
		Number of quarterly supportive supervisions sessions conducted by Sebata town health office in the last six months on PNC service	Document	Document review	Semi-structured checklist
		Percent of health facilities that conduct maternal death case review/audits	Document	Document review	Semi-structured checklist
		Proportion of service providers who counseled on the mother about breastfeeding, baby vaccination and use of contraception	Care provider	Observation	Semi-structured checklist
		Proportion of mothers who discussed the birth experience with care providers	Care provider	Observation	Semi-structured checklist
		Proportion of service providers who provided the postnatal care psychological and social adjustment to parenthood	Care provider	Observation	Semi-structured checklist
		Proportion of service provider who counseled on the postnatal	Care provider	Observation	Semi-structured

		care of the baby such as feeding, bathing, handling, and sleep/settling			checklist
		Proportion of service provider who discussed on the postnatal care maternal physical adjustments such as fatigue, sleep, breastfeeding, breast and body changes, sexual health	Care provider	Observation	Semi-structured checklist
		Proportion of service provides who counseled the mothers on the provision of postnatal care family adjustments such as care of the baby, siblings' acceptance of the baby	Care provider	Observation	Semi-structured checklist

Evaluation question	Dimension	Indicators	Source of information	Methods	Tools
Are the mothers satisfied with the PNC services provided to them? If yes, how? If not, why?	**Satisfaction**	Proportion of mothers who are satisfied or dissatisfied on the curtsey/ respectfulness of health workers during service provision	Client	Exit interview	structured questionnaires
		Proportion of mothers who are satisfied/ dissatisfied on the accessibility of service provider in terms of linguistics (explanation about the service using simple language where mothers easily can understand)	Client	Exit interview	Semi-structured questionnaires
		Proportion of mothers who satisfied/dissatisfied by the information about family planning and postnatal follow up visits got by mothers	Client	Exit interview	structured questionnaires
		Proportion of mothers who are satisfied/dissatisfied on the privacy (both visual/auditory) of the examination/ service provision room	Client	Exit interview	structured questionnaires
		Proportion of mothers who satisfied/dissatisfied on the physical examination done by mothers	Client	Exit interview	structured questionnaires

		Proportion of mothers satisfied/dissatisfied on the vital signs checked mothers	Client	Exit interview	structured questionnaires
		Proportion of mothers satisfied/dissatisfied on the information given on exclusive breastfeeding by mother	Client	Exit interview	structured questionnaires
		Proportion of mothers who are satisfied/ dissatisfied on the consultation they had with their mother	Client	Exit interview	structured questionnaires
		Proportion of mother who is satisfied/ dissatisfied on the accessibility of service in terms of cost (service cost, transportation cost, etc.)	Client	Exit interview	structured questionnaires
		Proportion of mothers who are satisfied with the accessibility of service in terms of opening time and days of the service unit	Client	Exit interview	structured questionnaires
		Proportion of mothers who are satisfied/ dissatisfied on service availability in terms of other related services such as laboratory service	Client	Exit interview	Semi-structured questionnaires
		Proportion of mothers who are satisfied/ dissatisfied on the cleanliness of the service room	Client	Exit interview	Semi-structured questionnaires

Table 16, Relevance matrix of indicators used for evaluation of PNC service in Sebata town government health facilities, 2019

S/N	Indicators	Dimensions		
	Availability indicators	**Availability**	**compliance**	**Satisfaction**
1	Number of rooms available for PNC services	RRR	RRR	RR
2	Number of health facilities with skilled health workers on obstetric warning signs	RRR	R	R
3	Number of health facilities/PNC units with at least one guideline as per the standard on the date of the survey	RRR	RRR	RR
4	Number of reliable transport and driver for referral system	RRR	RRR	RR
5	% of essential equipment available for management of postnatal care on the date of the survey	RRR	RR	R
6	% health facilities with no stock out of essential medicines for the last six months	RRR	RR	RR
7	% of health centers with one PNC service registration book at the period of evaluation	RRR	RR	R
8	Number of rooms available for PNC services	RRR	RR	RRR
	Compliance indicators			
1	Proportion of service providers who respected mothers	R	RRR	RRR
2	Proportion of service providers who take vital sign and weight of mother and baby	R	RRR	RRR
3	Proportion of service provider who conducted a physical examination of the skin for women and baby	R	RRR	RR
4	Number of supportive supervisions per quarter on maternal and newborn care	R	RRR	R
5	Percent of facilities that conduct case review/audits into maternal death	R	RRR	RR
6	Proportion of service providers who counseled on the mother about breastfeeding, baby vaccination and use of contraception	R	RRR	RR
7	Proportion of service providers who discussed the birth experience with client	R	RRR	R
8	Proportion of service providers who provided the postnatal care psychological and social adjustment to parenthood	R	RRR	RR
9	Proportion of service provider who counseled on the postnatal care of the baby such as feeding, bathing, handling, and sleep/settling	R	RRR	RRR
10	Proportion of service provider who discussed on the	R	RRR	RR

	postnatal care maternal physical adjustments such as fatigue, sleep, breastfeeding, breast and body changes, sexual health			
11	Proportion of service provides who counseled the mothers on the provision of postnatal care family adjustments such as care of the baby, siblings' acceptance of the baby	R	RRR	R
	Satisfaction indicators			
1	Proportion of mothers who are satisfied or dissatisfied on the courtesy/ respectfulness of health workers during service provision	R	RR	RRR
2	Proportion of mothers who are satisfied/ dissatisfied on the accessibility of service provider in terms of linguistics (explanation about the service using simple language where mothers easily can understand)	R	RR	RRR
3	Proportion of mothers who satisfied/dissatisfied by the information about family planning and postnatal follow up visits got by mothers	R	RR	RRR
4	Proportion of mothers who are satisfied/dissatisfied on the privacy (both visual/auditory) of the examination/ service provision room	R	RR	RRR
5	Proportion of mothers who satisfied/dissatisfied on the physical examination done by mothers	R	R	RRR
6	Proportion of mothers satisfied/dissatisfied on the vital signs checked mothers	R	RR	RRR
7	Proportion of mothers satisfied/dissatisfied on the information given on exclusive breastfeeding by mother	R	RR	RRR
8	Proportion of mothers who are satisfied/ dissatisfied on the consultation they had with their mother	R	R	RRR
9	Proportion of mother who is satisfied/ dissatisfied on the accessibility of service in terms of cost (service cost, transportation cost, etc.)	R	RR	RRR
10	Proportion of mothers who are satisfied with the accessibility of service in terms of opening time and days of the service unit	R	R	RRR
11	Proportion of mothers who are satisfied/ dissatisfied on service availability in terms of other related services such as laboratory service	R	RR	RRR
12	Proportion of mothers who are satisfied/ dissatisfied on the cleanliness of the service room	R	RR	RRR

NOTE

: - RRR- "very relevant" RR -"Relevant" R- "Poorly relevant" N - "Not relevant"

Table 17, Indicator definition for evaluation of PNC service quality at Sebata town government health facilities, 2019.

Dimension	Indicators	**Numerators**	**Denominator**
Availability	Number of rooms available for PNC service	Number of rooms available for PNC service	Total number of health facilities observed
	Number of health facilities with skilled health workers on obstetric warning signs	Number of health facilities with skilled health workers.	Total number of health facilities observed
	Number of health facilities/PNC units with at least one guideline as per the standard on the date of the survey	Number of health facilities/PNC units with at least one guideline	Total number of health facilities observed
	Number of health facilities reliable transport and driver for referral system	Number of reliable transport and driver for referral system	Total number of health facilities observed
	% of essential equipment available for management of postnatal care on the date of the survey	% of essential equipment available for management of postnatal care on the date of the survey	Total number of equipment expected to be available
	% essential medicines with no stock out for the last six months	Number of health facilities with % essential medicines with no stock out for the last six months	Total number of essential medicines observed
	% of health centers with registration book at the period of evaluation	Total number of health centers with registration book	Total number of health facilities observed
	% of health centers with report formats in the period of evaluation	Number of health facilities with health centers with report formats	Total number of health facilities observed

Dimension	Indicators	Numerators	Denominator
Compliance	Proportion of service providers who respected mothers	Number of care providers who respected mothers	Total number of provider observed during observation session
	Proportion of service providers who take vital sign and weight of mother and baby	Number of care providers who take vital sign and weight of mother and baby	Total number of provider observed during observation session
	Proportion of service provider who conducted a physical examination of the skin for women and baby	Number of a care provider who conducted a physical examination of the skin for women and baby	Total number of provider observed during observation session
	Number of supportive supervisions per quarter on maternal and newborn care	Number of SS Sessions conducted per quarter in the last six months	Total number of SS sessions expected to be conducted
	Percent of facilities that conduct case review/audits into maternal death	Number facilities that conduct case review/audits into maternal death	Total number of health facilities observed
	Proportion of service providers who counseled on the mother about breastfeeding, baby vaccination and use of contraception	The number of providers who counseled on the mother about breastfeeding, baby vaccination and use of contraception.	Total number of provider observed during observation sessions
	The proportion of service providers who discussed the birth experience with the mothers.	Number providers who discussed the birth experience with mothers.	Total number of provider observed during observation session
	Proportion of service providers who provided the postnatal care psychological and social adjustment to parenthood	Number of providers who provided the postnatal care psychological and social adjustment to parenthood	Total number of provider observed during observation session
	Proportion of service provider who counseled on the postnatal care of the baby such as feeding, bathing, handling, and sleep/settling	Number of providers who counseled on the postnatal care of the baby such as feeding, bathing, handling, and sleep/settling	Total number of provider observed during observation session

	Proportion of service provider who counseled on the postnatal care of the baby such as feeding, bathing, handling, and sleep/settling	Number of providers who counseled on the postnatal care of the baby such as feeding, bathing, handling, and sleep/settling	Total number of provider observed during observation session
	Proportion of service provides who counseled the mothers on the provision of postnatal care family adjustments such as care of the baby, siblings' acceptance of the baby	Number of providers who counseled the mothers on the provision of postnatal care family adjustments such as care of the baby, siblings' acceptance of the baby	Total number of providers observed during observation session

Dimensions	Indicators	Nominators	Denominators
Satisfaction	Proportion of mothers who are satisfied or dissatisfied on the courtesy/ respectfulness of health workers during service provision	Number of mothers satisfied or dissatisfied on the courtesy/ respectfulness of health workers during service provision	Number of mothers interviewed
	Proportion of mothers who are satisfied/ dissatisfied on the accessibility of service provider in terms of linguistics (explanation about the service using simple language where mothers easily can understand)	Number of satisfied/ dissatisfied on the accessibility of service provider in terms of linguistics (explanation about the service using simple language where mothers easily can understand)	Number of mothers interviewed
	Proportion of mothers who satisfied/dissatisfied by the information about family planning and postnatal follow up visits got by mothers	Number of mothers who satisfied/dissatisfied by the information about family planning and postnatal follow up visits got by mothers	Number of mothers interviewed
	Proportion of mothers who are satisfied/dissatisfied on the privacy (both visual/auditory) of the examination/ service provision room	Number of mothers who are satisfied/dissatisfied on the privacy (both visual/auditory) of the examination/ service provision room	Number of mothers interviewed

	Proportion of mothers who satisfied/dissatisfied on the physical examination done by mothers	Number of mothers who satisfied/dissatisfied on the physical examination done by mothers	Number of mothers interviewed
	Proportion of mothers satisfied/dissatisfied on the vital signs checked mothers	Number of mothers satisfied/dissatisfied on the vital signs checked mothers	Number of mothers interviewed
	Proportion of mothers who are satisfied/ dissatisfied on the consultation they had with their mother	Number of mothers who are satisfied/ dissatisfied on the consultation they had with their mother	Number of mothers interviewed
	Proportion of mother who is satisfied/ dissatisfied on the accessibility of service in terms of cost (service cost, transportation cost, etc.)	Number of mothers who are satisfied/ dissatisfied on the accessibility of service in terms of cost (service cost, transportation cost, etc.)	Number of mothers interviewed
	Proportion of mothers who are satisfied with the accessibility of service in terms of opening time and days of the service unit	Number of mothers who are satisfied with the accessibility of service in terms of opening time and days of the service unit	Number of mothers interviewed
	Proportion of mothers who are satisfied/ dissatisfied on service availability in terms of other related services such as laboratory service	Number of mothers who are satisfied/ dissatisfied on service availability in terms of other related services such as laboratory service	Number of mothers interviewed
	Proportion of mothers who are satisfied/ dissatisfied on the cleanliness of the service room	Number of mothers who are satisfied/ dissatisfied on the cleanliness of the service room	Number of mothers interviewed