GUIDELINES TO ENHANCE STRATEGIES FOR PREVENTION OF MOTHER-TO- `CHILD TRANSMISSION (PMTCT) OF HIV IN THE NORTH-EAST ETHIOPIA

by

HAWA WOLIE YIMER

submitted in accordance with the

requirements for the degree of

DOCTOR OF LITERATURE AND PHILOSOPHY IN PUBLIC HEALTH

at the

UNIVERSITY OF SOUTH AFRICA

SUPERVISOR: PROF JM MATHIBE-NEKE

NOVEMBER 2021

Student number: 53343557

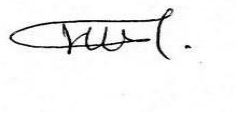
DECLARATION

GUIDELINES TO ENHANCING STRATEGIES FOR PREVENTION OF MOTHER-TO-CHILD TRANSMISSION (PMTCT) OF HIV IN THE NORTH-EAST ETHIOPIA

I declare that the above thesis is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

I further declare that I submitted the dissertation to originality checking software and that it falls within the accepted requirements for originality.

I further declare that I have not previously submitted this work, or part of it, for examination at Unisa for another qualification or at any other higher education institution.



14 November 2021

_____ _____

SIGNATURE **DATE**

Hawa Wolie Yimer

GUIDELINES TO ENHANCING STRATEGIES FOR PREVENTION OF MOTHER-TO-CHILD TRANSMISSION (PMTCT) OF HIV IN THE NORTH-EAST ETHIOPIA

NAME: HAWA WOLIE YIMER

STUDENT NUMBER: 5334-535-7

DEGREE: DOCTOR OF LITERATURE AND PHILOSOPHY IN PUBLIC HEALTH

SUPERVISOR: PROF JM MATHIBE-NEKE

ABSTRACT

The utilization of the PMTCT program by HIV-positive pregnant women helps to reduce vertical transmission of the disease. Little is known about factors for utilization of PMTCT, and enhancing the implementation of the PMTCT program is mandatory.

The aim of this research was to explore factors inhibiting the utilization of the PMTCT program experienced by pregnant mothers living with HIV and the experience and perception of health providers and to develop guidelines for enhancing strategies for the implementation of the PMTCT program.

Qualitative approach with A case-study design was conducted to explore factors inhibiting the utilisation of the PMTCT programme Using depth-interview by semi-structured questionnaires, two groups of respondents participated in the study of pregnant mothers living with HIV (N = 16) and the health providers (N = 10) in antenatal clinics and maternal wards.

Data were analysed through data reduction, data display and generation of themes and categories to explore factors affecting utilization of PMTCT program and experience and perception of health providers. Moreover, the way toward to develop guidelines using Delphi techniques based on the findings of the investigation and extra writing audit, and various surveys by senior health experts to construct agreement on the substance.

Results: The utilization of pregnant mothers with HIV in the PMTCT program was affected by so many factors, but mothers to health providers interaction and low male partner participation were the main ones.

Conclusions: The study has highlighted the knowledge and perception of the mothers and the experience and perception of the health providers in the area of mother-to-child transmission of HIV and PMTCT. Getting concrete information from the study findings was used as an input to develop guidelines. which will increase the mother's PMTCT usage by utilising a wellbeing conviction model with demonstrated outcomes.

It has necessary to stress the importance of male-partner participation and maintain positive interaction between the health providers and mothers (develop compassionate respective care) in PMTCT service. It is recommended that the immediate health managers in the area embrace the guidelines and provide the enabling environment to its viable execution.

Key concepts

Guidelines; mother-to-child transmission; prevention of mother-to-child- transmission; pregnant mother living with HIV; prevention, transmission health provider's perception.

አጠቃላይ መግለጫ

ከእናት ወደ ልጅ እችአይቪ የሚተላለፍበትን መንገዶችን ለመቀነስ የ “PMTCT” አገልግሎት ጥራትን መጠበቅ እና የነፍሰ-ጡር እናቶች የPMTCT ፕሮግራም አገልግሎት ተጠቃሚ ሁኔታን ማሻሻል አስፈላጊ ነው።

የዚህ ጥናታዊ ጽሁፍ አላማ ከኤችአይቪ ጋር የሚኖሩ ነፍሰጡር እናቶች ተመክሮን እንዲሁም ከእናቶች ወደ ህፃናት የቫይረስ መተላለፍ ሁኔታን ለመከላከል በሚከናወነው ፕሮግራም (PMTCT) ላይ ተሳተፊ የሆኑ ነርሶች እና አዋላጆችን እይታ ለመገንዘብ እንዲሁም የPMTCT የመከላከያ ፕሮግራም ስልቶችን ለማሳደግ የሚያስችሉ መሪሪያዎችን ለማዘጋጀት ነው።

ጥናታዊ ጽሁፍ በተጨማሪም ኤችአይቪ ከእናቶች ወደ ህፃናት የሚተላለፍበትን አጋጣሚ ለማስቀረት ወይም ለመቀነስ፣ ከኤችአይቪ ነፃ የሆነ ትውልድን ለማዘጋጀት ያቀደ ነው። በዚህ ውስጥ የተካተተው የኬዝ ጥናት ንድፍ የተከናወነው ከኤችአይቪ ጋር የሚኖሩ ነፍሰጡር እናቶች ተሞክሮን ለመረዳት እንዲሁም የጤና አገልግሎት አቅራቢዎች (ነርሶች እና አዋላጆች) በPMTCT ፕሮግራም ላይ ያላቸውን ተሞክሮ እና ግንዛቤ ለመረዳት ነው።

የመረጃ ማሰባሰብ ሂደቱ ከፊል መዋቅር ያላቸው መጠይቆችን እንዲሁም ጥልቅ ቃለመጠየቆችን በማከናወን ተፈጽሟል። ሁለት መልስ ሰጪ ቡድኖች በዚህ ጥናት ላይ ተሳትፈዋል። ከኤችአይቪ ጋር የሚኖሩ ነፍሰጡር እናቶች እንዲሁም የPMTCT ፕሮግራም የጤና አገልግሎት አቅራቢዎች (ነርሶች እና አዋላጆች) ። ከኤችአይቪ ጋር የሚኖሩ ነፍሰጡር እናቶችን የያዘው ቡድን 16 አባላት የነበሩት ሲሆን እነዚህ አባላት በአሁኑ ጊዜ የPMTCT አገልግሎት እየተጠቀሙ ይገኛሉ። ሁለተኛው ቡድን ከጤና አገልግሎት አቅራቢዎች (ነርሶች እና አዋላጆች) የተውጣጣ ሲሆን 10 አባላት ነበሩት። እነዚህም አባላት በቅድመ ወሊድ ክሊኒኩ ውስጥ የPMTCT አገልግሎትን ያቀርቡ ነበር።

መረጃው ማጥራት በማከናወን፣ መረጃ በመመልከት እንዲሁም የጤና እሳቤ ሞዴልን በመጠቀም መደቦችን በማዘጋጀት ጽንሰ-ሀሳባዊ መዋቅር አማካኝነት ትንተና ተከናውኖበታል። ከዚህም ባሻገር መመሪያዎቹን ለመደገፍ የተመጡት መንገዶች በምርመራ ግኝቶች እንዲሁም በተጨማሪ ጽሁፎች ግምገማ ላይ የተመረኮዙ ነበሩ። ከፍተኛ የጤና ባለሙያዎች ያዘጋጅዋቸው ዳሰሳዎችም በጉዳዩ ላይ ስምምነት ለመገንባት ጥቅም ላይ ውለዋል። ጥናቱ የእናቶችን እውቀት እና ግንዛቤ በአንክሮ በማስተዋል የኤችአይቪ ከእናት ወደ ህፃናት የመተላለፍ ሁኔታ ላይ የጤና አገልግሎት አቅራቢዎችን አስተሳሰብ እና ተሞክሮ በPMTCT ላይ አጽንኦት ሰጥቶበታል።

እናቶች የPMTCT ፕሮግራም ላይ ያላቸውን ተጠቃሚነት በተመለከተ የጤና አገልግሎት አቅራቢዎችን ተሞክሮ እና ግንዛቤ በተመለከተ ጠንካራ መረጃ በማሰባሰብ የእነርሱን ስጋት፣ በሽታው ሊሰራጭ የሚችልበትን እድል እንዲሁም የሴቶቹ ምልከታ መመሪያዎቹን በማዘጋጀት በግብአትነት አገልግለዋል።

ይህ በደህንነት ቁርጠኝነት ሞዴል ላይ የታዩትን ውጤቶች በሚያስገኝ አግባብ የእናቶችን የPMTCT አጠቃቀም የሚያሳድግ ነው። ኤችአይቪ ከእናት ወደ ህፃን የሚተላለፍበትን ሁኔታ (MTCT) በመረዳት እና በመከላከል ኤችአይቪ ያልተያዘ ህፃንን ለማግኘት ጥሩ እድል ይፈጠራል። የወንድ አጋሮች ተሳትፎ አስፈላጊነት በአጽንኦት መመልከት እና በጤና አገልግሎት አቅራቢዎች እና እናቶች መካከል ያለውን መስተጋብር በPMTCT አገልግሎት ላይ ማስጠበቅ አስፈላጊ ነበር (በርህራሄ እና በእንክብካቤ ላይ የተመረኮዘ ግንኙነትን ማስጠበቅ) ። በስፍራው ላይ የነበሩ የቅርብ የጤና ሥራ አስኪያጆች መመሪያዎችን እንዲቀበሉ እና ለአፈፃፀሙ አመቺ የሆነ ምህዳርን እንዲያቀርቡ ተመክሯል።

ቁልፍ ጽንሰ ሀሳቦች

መመሪያዎች፣ ከእናት ወደ ህፃን የሚኖር ስርጭት (MTCT)፣ ከእናቶች ወደ ህፃናት የሚኖር ስርጭትን መከላከል (PMTCT) ከኤችአይቪ ጋር የሚኖሩ ነፍሰጡር እናቶች፣ መከላከል፣ ስርጭት፣ የጤና አገልግሎት አቅራቢዎች ግንዛቤ።

ACKNOWLEDGEMENTS

A special word of gratitude goes to the Almighty God for His grace and Divine wisdom throughout this process (I say Alhamdulillah).

I want to thank the accompanying people and establishments for their contribution to this thesis.

- A special word of gratitude goes to my supervisor, Professor JM Mathibe-Neke, University of South Africa, for her undivided support, supervision, dedication, motivation, guidance and follow up had triggered me to on the right path. Throughout this long journey (for developed proposal, guidelines and produce this thesis). On the whole, God bless you, my supervisor be live long life for your family.
- An uncommon expression of much gratitude goes to the Provincial Protocol Review Committee (PPRC) and Amhara district general wellbeing foundation for assessing my application fortuitously and for permitting me to lead this investigation in the wellbeing offices under their ward.
- UNISA's Professors, UNISA-Ethiopia territorial learning community staff and visitor speakers who helped me during the proposal development and data analysis phases of this study.
- For all experts that reviewed my guidelines.
- UNISA’s librarians to support me get resource.
- My employer, Wollo University, for giving me this opportunity and sponsored me.
- My sons, Fuad and Abdulrahman, gave their time and supported me in order to accomplishment this work. And for my sisters; Almaze, Ansha, Zinet, Fatuma and Yeshiye and also for my friends, for their psychological support.
- This is the last but not the least, it is my deepest and heart felt gratitude for the midwifes, nurses and pregnant women who willfully took an interest in the study.

“Thank you all”

DEDICATION

This is committed to all birthing specialists, medical attendants and pregnant ladies, who are giving their best to the PMTCT programme and contributing towards accomplishing the objective a HIV-free generation.

I additionally devote this to my husband, Mr Ali Hussien, he was my power and supporter to deliver this paper, but now I lost him due to car accident and I wish to him God put his soul to heaven.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
ANC	Ante-natal Care
ART	Anti-retroviral Therapy
ARV	Anti-retroviral
AZT	Zidovudine
CBC	Compassionate, Respectful and Caring
CDC	Centres for Disease Control and Prevention
CI	Confidence Interval
C/S	Caesarean Section
DBS	Dried Blood Sample
DNA PCR	Doxy Ribonucleic Acid Polymerase Chain Reaction
EFHAPCO	Ethiopia Federal HIV/AIDS Prevention and Control Office
FHAPCO	Federal HIV/AIDS Prevention and Control Office
FmoH	Federal Ministry of Health
HAART	Highly Active Antiretroviral Treatment
HAPCO	HVI/AIDS Prevention and Control
HBM	Health Belief Model
HCT	HIV Counselling and Testing
HEIs	HIV-Exposed Infants
HEWs	Health Extension Workers
HICs	High Income Countries
HIV	Human Immunodeficiency Virus
IDIs	In-depth Interviews
IFP	Infant Feeding Practice

MBF	Mixed Breast Feeding
MCH	Maternal and Child Health
MF	Mixed Feeding
MoH	Minster of Health
MTCT	Mother-to-Child Transmission
NGO	Non-Governmental Organisation
NVP	Nevirapine
QDA	Qualitative Data Analysis
PLWHA	People living with HIV and AIDS
PMTCT	Prevention of Mother-to-Child Transmission
PNC	Post-natal Care
RH	Reproductive Health
S&RH	Sexual and Reproductive Health
SA	South Africa
SANAC	South African National AIDS Council
SPSS	Statistical Package for Social Science
SSA	Sub-Saharan Africa
US	United Nation
UNICEF	United Nations Children's Fund
UNFPA	United Nations Population Fund Agency
UNAID	United States Agency for International Development
VCT	Voluntary Counselling and Testing
WHO	World Health Organization

CHAPTER 1

ORIENTATION TO THE STUDY

1.1 INTRODUCTION

This chapter deals with providing an overview of the entire research thesis statement. It also provides background information on the research problem and key issues that drew the researcher's attention to carrying out the research. The paper emphasizes the following: the research problem, the purpose of the research, the significance of the study, definitions of terms, associated factors to the implementation of PMTCT, the objective of the study, research design, and methods. Lastly, it provides a brief comment on the overall structure of the study.

This study was conducted on pregnant women living with HIV who attended antenatal care to utilise the PMTCT service and check whether it had some input to decrease the number of children infected with Human Immune Deficiency Virus (HIV) besides improving PMTCT services and approaches. In order to contribute some inputs, the researcher has developed interventional guidelines for the PMTCT programme by implementing a health institutional-based qualitative study to assess the enhancement and hidden utilisation of mothers in the PMTCT programme and investigate the perception and experience of the mothers and health providers about the PMTCT service.

As WHO (2018); reported, in order to stop the global epidemic of HIV/AIDS, various measures have been taken, among which prevention of MTCT (PMTCT) was one of the valuable measures. Prevention of mother-to- child transmission of HIV strategies includes primary HIV prevention, preventing unwanted pregnancies, providing effective access to HIV testing and counseling, starting lifelong antiretroviral medication (ART), supporting adherence, retention, and viral suppression for mothers living with HIV, safe delivery procedures, ideal newborn feeding procedures, and providing postnatal antiretroviral (ARV) prophylaxis for all infants (UNAIDS 2014).

In order to reduce the number of HIV-positive children, PMTCT intervention must be present during pregnancy, labor, and delivery, as well as during the breastfeeding phase (FMOH 2016.) This might be because ARV medication lower maternal undetectable viral

load, that also decrease the risk of HIV transmission from mother to children (FMOH 2014 and 2016).

The overall level of PMTCT program implementation was judged to be good. However, there is a need for improvements such as ensuring the privacy of counselling rooms, availability of human test kits, guidelines, beds, waiting areas, drugs, and refresher training for providers. Also, counsellors should record properly the services provided to clients in their cards, such as counselling sessions (Teshome & Madiba 2020).

The national PMTCT guidelines is based on the four-pronged approaches and recommends an integrated PMTCT and HCT services within routine family planning and maternal, newborn and child, and reproductive health services at all levels (WHO 2013) Rapid HCT services are offered free of charge to all pregnant women attending routine antenatal, delivery and post-natal services in the country, using the World Health Organization (WHO) guidance on provider-initiated HIV testing and counseling (the Opt-Out) in health facilities (WHO 2016).

Prevention of Mother-to-Child transmission of HIV implies strategic activities like primary prevention of HIV; prevention of unintended pregnancies; effective access to HIV testing and counseling; initiation of lifelong antiretroviral therapy (ART), with support for adherence, retention, and viral suppression for mothers living with HIV; safe delivery practices; optimal infant feeding practices; and access to postnatal antiretroviral (ARV) prophylaxis for all infants (UNAIDS; 2014).

The provision of option B+ for HIV positive pregnant mothers is the core of HIV transmission prevention strategies in the country as well as worldwide. According to WHO, the accelerated rollout of ART for pregnant women was an important factor in the success of the global plan towards the elimination of new HIV infections among children (Global information and education on HIV and AIDS 2018). After the introduction of PMTCT techniques, vertical HIV transmission rates in low- and middle-income nations have decreased to less than 5% in the best-case scenarios, and in wealthier countries, transmission rates have dropped to below 2% over the previous two decades (Woelk, Ndatimana, Behan, Mukaminega, Nyirabahiz, Hoffman et al. 2016: 1-11and Abtew, Awoke & Asrat 2016: 101-107).

According to Adane, Assefa, Mengistie, et al (2018:1–144), male involvement in sexual

and reproductive health has recently been recognized as a new strategy for enhancing maternal and child health by playing a role in preventing women's risk of acquiring HIV, but also in terms of her utilization of the PMTCT program: for the mother to test for HIV, to return for the result, for the couple to use condoms, to receive medication, and to increase adherence to proper infant feeding practices (Peltzer, Abbamonte, Mandell, Rodriguez, Lee, Weiss and Jones 2019: 101-111).

Male participation is crucial for achieving the aforementioned ambitious goal, particularly in low- and middle-income nations where the community is patriarchal. In order to prevent HIV transmission from mother-to-child, male involvement has been recognized as a critical target area that needs to be strengthened globally (Hussen Zenebe, Mamo, Shake 2022). The goal of PMTCT, which is to eradicate mother-to-child transmission by the year 2030, has been embraced by Ethiopia (WHO 2012).

The way an individual perceives his or her health or certain health services or health seeking behaviors will determine to what extent the person is willing to seek or utilize healthcare. This idea is supported by the Health Belief Model which states that a person's belief in a personal threat of an illness or disease together with a person's belief in the effectiveness of the recommended health behavior or action will predict the likelihood that the person will adopt the behaviour. So, the perception of mother's has been associated in the utilization of PMTCT services (Boateng, Kwapong, Agyei-Baffour 2013:1-8). That is why the researcher use Health Belief Model as theoretical in this study.

1.2 BACKGROUND INFORMATION ABOUT THE RESEARCH PROBLEM

1.2.1 The source of the research problem

There were three sources of this research problem. The first source of the research problem was a literature review of research undertaken globally and the corresponding site in Ethiopia. The second source said the researcher had many years of HIV/AIDS-related work experience of 7 years. During those years, she noticed a major gap in the PMTCT programme. While undertaking site visits to hospitals and health centres at the time of her student field practice supervision and observing the situation and discussing it with experts in the area, it became apparent that the PMTCT programme was lagging behind other HIV/AIDS programme areas. The service of PMTCT programmes was failing to reach its objective. The above all show that the program is underutilized, and the third

source was the report of the Federal Ministry of Health (FMoH) of Ethiopia. Elimination of mother-to-child HIV transmission (MTCT) has been identified as a global public health priority in the context of a child's right to be born free of HIV (UNAIDS.2019).

1.2.2 Background to the research problem

- **Mother-to-child transmission of HIV as a health problem**

Globally, HIV/AIDS continues to have devastating health effects, with over 39 million HIV/AIDS-related deaths to date and more than 36 million people living with HIV currently (UNAIDS 2019). Despite great advancements in ART and worldwide progress towards implementation of treatment as prevention programmes, approximately 2 million people become newly infected with HIV every year. (GBD 2015 and 2017). Beyond determination of prevailing HIV burdens and treatment coverage, the GBD 2017 HIV collaborators forecast trajectories to 2030. Treatment coverage extrapolations incorporated forecasts of ART prices, funding trends, and changing incidence (Pandey and Galvani 2019:1–11).

According to Selvaraj and Paintsil (2013:93–101), a countless number of viruses and host risk factors act in tandem to cause MTCT of HIV. While the time to reduce MTCT has been achieved in both resource-rich and resource-limited countries, there are still difficulties and threats that can possibly turn around the additions made up until now. Knowing the systems, timing, and viral factors related to MTCT of HIV will help to recognize appropriate interventions and suitable antiretroviral chemoprophylaxis regimens to reduce or eliminate MTCT. Mother-to-child transmission (MTCT) of HIV was found to be cycling to fuel the overall HIV epidemic in children. At that time, the rate of MTCT of HIV is estimated at 12–40% without any intervention to prevent transmission. The predominance of paediatric HIV infection in a community is an indicator of both the magnitude and the severity of the HIV epidemic in that community.

HIV/AIDS affects all age groups of individuals and is a primary cause of illness and deaths among children globally. A large number of children infected by HIV under the age of 15 were as a result of vertical transmission, which accounts for 95% of childhood HIV infections in Ethiopia (Tadewos, Adimasu and Tachbele 2020:1-16).

- **Mother-to-child transmission of HIV as a health problem**

Hamanda (2013) explains that, in Sub-Saharan Africa, over 1,000 newborns are infected with HIV per day, despite available medical interventions. There is a high mortality rate in infants and children related to HIV. The intervention of the PMTCT programme with free medication availability throughout the region can intensely minimise the risk of infection for the infants. However, about half of HIV-positive pregnant women in Sub-Saharan Africa are not adhering to the necessary medications to prevent mother-to-child transmission. To wipe out vertical transmission of HIV, there is a need to move past the individual-level and address social and underlying obstructions keeping ladies from using PMTCT services.

Regarding HIV prevention, Sarah (2015:1-11) explains that worldwide cultural and monetary disparities make a wide hole between ladies in developing countries and ladies in developed countries, especially in regard to voluntary counseling and testing and admittance to ARV drugs, which treat HIV infection and can forestall perinatal transmission.

Developed countries

According to Centers for Disease Control and Prevention (CDC) (2012:8), number of perinatal HIV infections in the US keeps on declining, women of shading, particularly Black/African American women are lopsidedly influenced by HIV infection and accordingly, perinatal HIV infection is most noteworthy among Blacks/African Americans (63%), trailed by Hispanics/Latinas (22%). Also, albeit successful interventions have prompted a huge decrease in the number of perinatal infections in the US, perinatal transmission actually happens. To close the last hole, the CDC has proposed another system to eliminate mother-to-child HIV transmission (EMCT) in the US.

The above structure includes the following key areas: persistent quality exploration in anticipation and long haul checking of HIV-exposed new born children; and intensive information announcing for HIV surveillance at the state and nearby wellbeing division levels; and furthermore wellbeing comprehensive reproductive health care (that includes both family planning (FP) and preconception care), and thorough case-finding of pregnancies in HIV-infected women that is led through exhaustive clinical consideration and

case the board administrations for ladies and babies; case audit and local area activity (Nesheim, Taylor & Lampe 2012:1-6).

Developing countries

According to the reports of UNAIDS (2019:1-316), 38 million people are living with HIV; 36.2 million are adults and 1.8 million are children under 14 years old. Only 81% knew their HIV status, and from the 25.4 million accessing to ART 53% are children aged 0-14 years. Half of all HIV-positive people worldwide are women. About more than half (59%) are in Sub-Saharan Africa (SSA). About 85% of pregnant women living with HIV approached ART.

In Sub-Saharan Africa, roughly two-thirds (70%) of HIV-infected adults and nearly 88% of HIV-infected children, as well as more than three-fourths (76%) of AIDS deaths, the elimination of mother-to-child HIV transmission (MTCT) has been recognised as a worldwide general health priority with regard to the right of a child to be born free of HIV. In 2012, UNAIDS reported that approximately 210,000 children had become HIV infected (UNAIDS 2013:4).

Perinatal transmission encompasses an assortment of profoundly successful interventions that can possibly work on maternal and child wellbeing. Continuities in treatment and new classes of medications have given the chance to enormously decrease the pace of perinatal transmission around the world. Additionally, perinatal transmission can be decreased by forestalling spontaneous pregnancies. Forestalling accidental pregnancies is perhaps the best approach to forestall HIV infection in babies and stop the spread of the epidemic to children (Sarah 2015:1-11).

Unwanted pregnancies are predominant and the utilization of profoundly viable LARC is low among HIV-positive women in care. Public health messaging with respect to pregnancy planning, unsafe sex, and alternatives for utilisation of long-term contraceptive methods keeps on being imperative for all clinical providers, particularly HIV and MNICH providers, to keep on being crucial for all clinical providers, particularly HIV and OB/GYN providers, to consider as a component of routine clinical care (Sutton, Zhou & Frazier 2018:1-16).

In order to minimize perinatal transmission, all pregnant women ought to have gotten minimal expense or free prenatal care and voluntary HIV testing and counselling (WHO

2013:2). On the off chance that a pregnant woman is HIV-positive, she ought to access to lifelong ART to build on her own wellbeing and treat HIV and furthermore, to diminish the probabilities of HIV infection transmission to her child. In June 2013, the WHO published recondition guidelines on the use of ART for treating and preventing HIV infection, the diagnosis of HIV and the care of people living with HIV (PLHIV) (UNAIDS 2013:2). In the US, the Department of Health and Human Services embrace that all HIV- infected pregnant women ought to be given ART during pregnancy to forestall perinatal transmission of HIV, whether or not ART is shown for the women's own wellbeing (Sarah 2015:1-11).

According to Chagomerana (2018:1-13), initiation of antiretroviral therapy (ART) is now possible to control HIV. Taking ART during pregnancy was related with suppressed viral load at delivery. Thus, early ANC attendance in pregnancy to facilitate ART initiation for HIV-positive women is fundamental in the effort to take out HIV vertical transmission. Moreover, when there is careful management during labour and delivery, it can help to reduce perinatal transmission, for example by avoiding unnecessary instrumentation and not prematurely rupturing membranes (WHO 2013:2).

Despite the fact that, widespread prenatal HIV testing is the norm in the US, if prenatal care has not been given, the patient has HIV, or her HIV status isn't recorded, it is sentencing for medical clinics to choose a labouring patient's HIV status upon confirmation. Indeed, even without the utilization of ART during the pregnancy, the utilization of ART during labour and for the infant can decrease the danger of perinatal transmission to between 6 to 13%. It is thus suggested that fast HIV testing be acted in labour and delivery units on pregnant women with no HIV test during their pregnancy or with hazard factors for disease since their last test (Sarah 2015:1-11). In addition, in current years, single-portion nevirapine as the essential antiretroviral medication choice for HIV-positive pregnant women to forestall transmission to their new born children have been eliminated in task of more successful and worked on triple ART regimens (UNAIDS 2013:4).

Despite the fact that, widespread prenatal HIV testing is the norm in the US, if prenatal care has not been given, the patient has HIV, or her HIV status isn't recorded, it is sentencing for medical clinics to choose a labouring patient's HIV status upon confirmation. Indeed, even without the utilization of ART during the pregnancy, the utilization of ART during labour and for the infant can decrease the danger of perinatal transmission to between 6 to 13%. It is thus suggested that fast HIV testing be acted in labour and delivery units on pregnant

women with no HIV test during their pregnancy or with hazard factors for disease since their last test (Sarah 2015:1-11). In addition, in current years, single-portion nevirapine as the essential antiretroviral medication choice for HIV-positive pregnant women to forestall transmission to their new born children have been eliminated in task of more successful and worked on triple ART regimens (UNAIDS 2013:4).

Despite the fact that, widespread prenatal HIV testing is the norm in the US, if prenatal care has not been given, the patient has HIV, or her HIV status isn't recorded, it is sentencing for medical clinics to choose a labouring patient's HIV status upon confirmation. Indeed, even without the utilization of ART during the pregnancy, the utilization of ART during labour and for the infant can decrease the danger of perinatal transmission to between 6 to 13%. It is thus suggested that fast HIV testing be acted in labour and delivery units on pregnant women with no HIV test during their pregnancy or with hazard factors for disease since their last test (Sarah 2015:1-11). In addition, in current years, single-portion nevirapine as the essential antiretroviral medication choice for HIV-positive pregnant women to forestall transmission to their new born children have been eliminated in task of more successful and worked on triple ART regimens (UNAIDS 2013:4).

There are many advantages to lifelong treatment for all pregnant and breastfeeding women. These incorporate, a decrease in the number of women halting and beginning ART during repeat pregnancies, early protection against perinatal transmission in future pregnancies, increased coverage of those needing ART for their own health, reduced risk of infecting a partner who is HIV-negative and decreased risk of medication failure or the development of resistance (WHO 2013:2).

A definitive objective is to track down the practical and best regimens for HIV treatment and the prevention of perinatal transmission around the world. Poor infrastructure, financial aspects, legislative issues, admittance to medical care and meds, disgrace, and social standards all pose challenges to offering a desirable standard of care to all individuals living with HIV (Sarah 2015:1-11).

MTCT of HIV infection is a major public health problem and represents a major cause of HIV infection in children less than 15-years-old in the world (UNAIDS 2012:1-63). In 2012, 260,000 children acquired HIV infection in middle-and low-income countries, and more than 90% of the newly HIV-infected children lived in Sub-Saharan Africa, home to 92% of

pregnant women living with HIV. Besides that, only 59% of pregnant women living with HIV in Sub-Saharan Africa received antiretroviral therapy or prophylaxis in the same year (UNAIDS 2013:10).

According to UNAIDS (2014b:62-64), report worldwide, 15% of women living with HIV are aged 15-24 years, and 80% of them live in Sub-Sahara Africa. In the region where simply more than 70% of all new HIV infections happen, young women bear a disproportionate burden of HIV infection. Those contributing elements are young women aged 15-24 years have HIV rates higher than their male peers, they acquire HIV infections 5-7 years earlier than their male peers. HIV prevalence is reliably higher among young women compared to young men all through eastern and southern Africa.

Sub-Saharan Africa contributes disproportionately to the number of HIV/AIDS deaths. Despite the fact that the presence of ART has been changing to expand inclusion of those infected, so that AIDS related deaths by and large have declined by 39% during the period of 2005 to 2013 with dramatic decreases in Ethiopia 63% owing to the fast increase in the number of individuals on ART. Because of an enormous number of individuals stay unaware of their HIV status and consequently neglected to be sufficiently connected to care and treatment programmes, death rates remain high (Kharsany & Karim 2016:34- 48).

The Federal Ministry of Health of Ethiopia go-ahead to health extension workers (HEWs) in high HIV prevalent regions and “high risk” regions to do HIV counselling and testing (HCT) for pregnant women. However, in a large portion of the areas this isn't the situation. A large number of pregnant women get to HCT through HEWs at the most fundamental health post level requires a need to deliver PMTCT services at Health post level. Then again, the figure additionally shows that growing health facilities without PMTCT services considered as lost opportunities for the country (FDREMoH 2015a:33).

- **Ethiopian geographical location**

Ethiopia is situated in the Horn of Africa in the continent’s northeast coastal region. It borders six nations altogether: Djibouti, Sudan, South Sudan, Kenya, Somalia, and Eritrea. It has an area of 1,127,127 square kilometers. The land contains a wide height territory, from 100 meters below sea-level on the north-eastern boundary to in excess of 4,000 meters above sea-level in the country's mountains (Country Reports 1997- 2021).

One hundred ten million people live in Ethiopia, just 17% of the population lives in urban areas, and around 3 million people live in the capital city of Addis Ababa. Majority of the population is young, with a median age for both males and females of 17-years-old. Ethiopia is divided into nine regions and two city administrations. From the nine regional states; Amhara region is one of the regional states in northern Ethiopia. It has nine zones and two city administrations. Among these the study was conducted in Dessie city administration and south Wollo. Zone.

- **Health system of Ethiopia**

The Ethiopian health care system comprises the three-tier system:

- Primary health care units (PHCUs)
- General hospitals
- Specialised hospitals

The Ethiopian medical care framework is made and filled in as follows: the essential medical services units (PHCUs) have five satellite wellbeing posts, one wellbeing place, and one essential clinic. Each health post is expected to serve 5,000 people; one health center serves 25,000 people; and one primary hospital serves 100,000 people. One general hospital serves 1,000,000 people, although one specialised hospital serves 5,000,000 people (FMoH 2012:2). During the most recent five years, 34% of Ethiopian women got ANC from gifted medical service suppliers, fundamentally nurtured as well as prepared birthing specialists (28%). From these, just 11% of women got ANC before the fourth month of their pregnancies, and 19% recorded at least multiple ANC visits.

Home deliveries in rustic regions were 95% and in metropolitan regions half of Ethiopia. Thus, 10% of Ethiopian births happened at public health facilities. Moreover, postnatal care inclusion is incredibly low in Ethiopia with just 7.0% of women getting postnatal check-ups within two days of delivery. The maternal mortality rate of Ethiopia is 676 deaths for each 100 000 live births. exclusive breast feeding during the first six months of their babies' lives in Ethiopia with 98% of moms breastfeeding their children at some stage and 52% of them practicing. Apparently, 51% of children aged 6-9 months in Ethiopia are eating supplementary food (CSAE and ICF International 2012:87).

1.3 RESEARCH PROBLEM

Globally, the majority of infections occur in poor and non-industrial nations like Indonesia. The most common cause of infant and child HIV/AIDS infection was mother-to-child HIV transmission, accounting for 90% of all cases. Without intervention, there is a 20–45% possibility that the child will be born infected with HIV from a mother living with HIV during pregnancy, childbirth, and breastfeeding. On top of that, the leading cause of death among women of reproductive age is HIV (Anindita & Shaluhiyah, 2016:39-48).

Worldwide tendencies in HIV infection show a general expansion in HIV prevalence and substantial declines in AIDS-related deaths, for the most part, inferable from the survival advantages of antiretroviral treatment. Sub-Saharan Africa worries about the uneven concern of HIV, representing over 70% of the worldwide burden of infection. When there is achievement in HIV prevention, Sub-Saharan Africa can possibly be affected by the global burden of HIV. Of the estimated 6,000 new infections that happen all around the world every day, two thirds of them are in Sub-Saharan Africa, with young women continuing to bear a disproportionate burden. Adolescent girls and young women aged 15–24 years have up to eight-fold higher rates of HIV infection compared with their male peers (Kharsany et al. 2016:34–48).

About 3.4 million children were living with HIV at the end of 2011, 91% of them in Sub-Saharan Africa. The greater number of these children acquire HIV from their HIV-infected mothers during pregnancy, birth, or breastfeeding (VOCH-GHANAS 2014).

Persistently high prevalence of HIV/AIDS in the Amhara region is one of the worst situations in the country particularly of the urban estimate was 2.8 % in 2004, 2.7% in 2005, 2006, and 2007 and in 2008, 2.8% in 2009, 2.9% in 2010, 1.6% in 2014 and 2.2 in 2015 (Hassen & Deyassa 2013:6). In the region there are approximately 379,096 people living with HIV/AIDS currently. Although, there is great variations between the national and regional figures, there is no study that shows the reasons for the variations. There are some speculations like silence about HIV/AIDS among family members and media, illiteracy, unemployment, high rate of poverty, drought and famine, rural to urban migration, harmful traditional practices like early marriage and female genital mutilation, and societal practices like polygamy that are highly prevalent in the region to be the possible causes to high prevalence (Amhara HIV/AIDS Prevention and Control Office (AHPCO) 2013:10; Woldetsadik 2012:55).

The socio-cultural practices like early marriage and female genital mutilation and societal practices like polygamy that are highly prevalent in the region are the possible causes of the high prevalence (Amhara HIV/AIDS Prevention and Control Office (AHPCO) 2013:10; Woldetsadik 2012:55).

A wide variation in the prevalence of MTCT of HIV between developed and developing countries can be attributed to the differences in the sociodemographic, economic, access to antiretroviral (ARV) drugs, health care coverage, and health-seeking behavior of the populations. The poor uptake of PMTCT services in developing countries could also be mentioned as a reason for the higher prevalence of MTCT of HIV. Individual-level factors (pregnant women's lack of knowledge, lower levels of maternal education, and psychological issues) and community-level factors (stigma and fear of disclosure) are common barriers to PMTCT service uptake (Gourlay, Birdthistle, Mburu, Iorpenda, Wringe 2013:1-2).

In fact, mother-to-child transmission of HIV has significantly decreased over recent years in Sub-Saharan Africa. However, it continues to contribute to the disease transmission in nations. It has been estimated that around 300,000 new born children have been infected in Africa and the greater part of them are expected to die before the age of two years (UNAIDS 2012:8).

The country has made good progress in reducing the rate of mother-to-child transmission of HIV. However, the rate of reduction is too slow to achieve the elimination of mother-to-child transmission of HIV goal by 2020. Moreover, this review showed that almost one in every ten HIV-exposed infants becomes HIV positive. The prevalence of MTCT of HIV varies across different regions of the country. A higher risk of MTCT of HIV was observed among HIV exposed infants who didn’t take ARV prophylaxis, who were on mixed feeding before six months of age, who were delivered at home, and whose mother was not on PMTCT intervention (Kassa 2018:1-34).

Mother-to-mother support programs protect against HIV transmission from mother to child, while non-inclusion to option B+, absence of partner involvement to HIV care, home delivery, and poor antenatal care (ANC) practices are risk factors for high

MTCT of HIV (Hunduma, Gebrehanna, Adugna 2021:1-20). Concerning partner involvement in maternal PMTCT service utilisation, mothers having low partner involvement in maternal PMTCT were about six times more likely to transmit the virus to their children when compared with those with higher partner involvement (Hussen, Zenebe, Mamo, Shake, 2022:1-10).

In Ethiopia, many professionals are compassionate and respectful of the required skills needed. However, a significant proportion of health care professionals see patients as cases and do not offer CRC for their patients and families (Shea and Lionis 2014: 2). To address these gaps, the Ethiopian government has already established a CRC program and initiatives of health care services that are expanded beyond morbidity or mortality prevention (Jemal, Hailu, Makonnen, Tesfa, Bekele and Kinati 2021). So, these guidelines will be a means to implement the initiatives already started by the government.

1.4 AIM OF THE STUDY

In this section the research objectives and purpose were addressed.

1.4.1 Research purpose

The purpose of this study was to identify the challenge of PMTCT programme utilization of the experience and perception of the mothers and health providers and to develop guidelines for enhancing strategies for scale up PMTCT in Ethiopia (South Wollo Administration Zone and Dessie City Administration). It also aimed at developing a system to stop or minimize the transmission of HIV/AIDS from mother-to-child, to develop HIV free generation that targeted by government of the country in 2025.

1.4.2 Research objectives

The objectives of this research were to:

- Develop guidelines to enhance the intervention of PMTCT programme to reduce new HIV infection of the child
- Explore pregnant women living with HIV with knowledge about the transmission and

prevention of HIV from mother-to-child.

- Describe pregnant women living with HIV perceived susceptibility to the transmission of the disease to their children.
- Describe pregnant women living with HIV perceptions of the severity of the disease.
- Describe the knowledge of pregnant women living with HIV about the benefits of the PMTCT program.
- Identify actors that affect pregnant women living with HIV to be utilised in the PMTCT service.
- Describe HIV positive pregnant mothers' cues and self-efficacy for utilisation of the PMTCT programme.
- Improve male partners' involvement in the PMTCT program at the ANC clinic and in the maternity ward in north-east Ethiopia.
- Assess experience and perception of midwifes' or nurses' providing PMTCT service about the PMTCT programme.

1.4.3 Research questions

- How do pregnant women living with HIV understand about the transmission and prevention of HIV from mothers to their child?
- How do pregnant women living with HIV perceive the susceptibility of the transmission of HIV to their children?
- What are the associated factors that affect pregnant women living with HIV to utilise the existing programme of prevention of mother-to-child transmission?
- How do pregnant women living with HIV perceive the severity of the disease (HIV) for themselves and when it is transmitted to their children?
- How do pregnant women living with HIV understand the benefits of the PMTCT programme for themselves and their children?
- What are the conditions that support pregnant women living with HIV cues to action and self-efficacy to utilize PMTCT programme?

- What are the experiences and perceptions of midwives or nurses about the PMTCT programme when they provided the services?

1.5 SIGNIFICANCE OF THE STUDY

This study assessed the utilization of the PMTCT program and associated factors in the ANC clinics and maternity wards in the north-east Ethiopia.

Accordingly, guidelines were developed to enhance the implementation and quality of PMTCT service delivery by establishing the way male partner involvement and applying compensation for respective care at ANC clinics and maternity wards in Ethiopia. The platform was presented and shared with the Federal Ministry of Health Ethiopia, regional health bureau, zonal department, ANC clinics, and maternity wards to improve the PMTCT services. Moreover, this research was valuable for public health sectors and stakeholders who are involved in the PMTCT program in Ethiopia. The researchers were certain that the study addressed male partner involvement and CRC of health providers to enhance PMTCT programs that are confined to preventing MTCT of HIV and developing an HIV-free society.

1.6 DEFINITION OF TERMS

1.6.1 Conceptual definitions

- **Mother-to-child transmission of HIV/AIDS**: is when an HIV-positive mother passes the virus to her child during pregnancy, labour, delivery or breast feeding (PMTCT Flipchart 2021:1-83).
- **Prevention of mother-to-child transmission**: any intervention that plans to minimise the spread of the HIV infection from HIV-positive mother to her child (Gong, Wang, He, Liu, Wu & Wang 2018:1-7).
- **Prevention**: is the act of stopping something bad from happening (*Collins English Dictionary* 2012).

- **Guideline**: is an assertion by which to decide a given plan and have the intention of smoothing out specific cycles as per a set daily schedule or sound practice (Wiktionary 2020)
- **Transmission**: is "the demonstration or cycle of something from one individual, spot, or thing to another" (*English Dictionary* 2019).

- **Anti-retroviral therapy**: is treatment of people infected with the Human Immunodeficiency Virus (HIV) using anti-HIV drugs. The standard treatment consists of a combination of at least three drugs (often called "highly active antiretroviral therapy" or HAART) that suppress HIV replication (WHO 2016).

1.6.2 Operational definitions

- **Mother-to-child transmission of HIV/AIDS**: is the transmission of HIV from HIV positive woman to her child at the time of pregnancy, labour, delivery or breastfeeding? Every year, approximately 1.5 million HIV-positive women become pregnant without antiretroviral drugs (ARVs), with a 15 to 45 percent chance that their child will also become infected. While taking an ARV regimen for the prevention of mother-to-child transmission (PMTCT), the risk of HIV transmission can be reduced to less than 2%.

- **Prevention of mother-to-child transmission**: There is a free of charge option to join the mother when the mother becomes positive for HIV. Then, at that point, CD4 count and WHO staging will be done. She will have the choice to join the PMTCT programme for free of charge. On the off chance that the mother tests HIV positive, a CD4 count and WHO staging will be done.

- **Mother-to-child transmission**: is when an HIV-infected woman passes the virus to her child.

1.7 THEORETICAL FOUNDATION OF THE STUDY

The following section presents the theoretical framework (health belief model) used for this study:

1.7.1 Importance of a theoretical framework

In this study the Health Belief Model (HBM) was utilized instead of a hypothetical system that guide the process of the study, it enveloped the association of writing, the advancement of research objective and questions, the development of semi-structured interview guide, the presentation and discussion of the results. This exploration study was directed by the HBM on the grounds that, it expressed that wellbeing conduct is impacted by an individual's insight that a medical condition represents a danger and the HBM develops concerning

apparent programme advantages and obstructions, seen MTCT of HIV defenselessness and seriousness, and saw self- viability (Salari & Filus 2016:8).

It was relevant and appropriate to guide the study about the utilization of pregnant mother living with HIV to PMTCT programme and the researcher initiation to develop guidelines to enhancing for implementation of PMTCT programme in order to reduce child HIV- infection. To meet the objectives of the study, it was necessary to explore pregnant mothers' living with HIV knowledge about the transmission and how to prevent HIV from mother to their child and about the benefits of PMTCT programme; perceived susceptibility to the transmission of the disease to their children and it's severity for their children; Identify barriers (factors that affecting pregnant mother living with HIV to use PMTCT programme; Discuss pregnant mothers' living with HIV reason and self-efficacy for utilization of PMTCT programme and to described the experience and perception of midwives or nurses involved in PMTCT programme for pregnant mother living with HIV (Salari et al 2016:8).

1.8 RESEARCH DESIGN AND METHOD

- **Setting and population**

The study was conducted in Dessie city administration and South Wollo Zone which are located in East Amhara region and are 400 kilometers far away from the capital city of Ethiopia (Addis Ababa). These areas were chosen because they had the most noteworthy HIV prevalence in the study sit and proportionate to population. In South Wollo Zone and Dessie city Administration there are different government health institutions that provide PMTCT service. Out of these the study was conducted in two hospitals and seven health centers.

The Amhara Regional state is administratively subdivided in to 11 zones. Dessie city administration whereby previously the capital of South Wollo Zone which is now divided into two zones (South Wollo and Dessie City Administration). About 3,042,153 and 208,618 people are living in South Wollo Zone and Dessie City Administration respectively (Central Statistical Agency of Ethiopia (CSAE) 2011:2). Reports show that pregnant women constitute 5% of the population. In 2014, 152107 and 10,431 pregnancies were expected to occur in South Wollo Zone and in Dessie city Administration respectively.

The target populations (pregnant women living with HIV) are between 18 and 49 years. The participants taken from population of midwives or nurses were depended on their assigned work in PMTCT clinic at the time of data collection. They could either be having a basic or advanced midwifery or nurse's qualification. Women in reproductive age groups from 18-to 49 years were selected and the age below 18 years were excluded.

- **Study design**

The fundamental property of qualitative research is that it studies the manner in which people make sense out of their own tangible real-life experiences in their own minds and in the most natural sounding way for them (Cropley 2019:18). And also, it included a range of data collection and analysis techniques that use purposive sampling and semi-structured, and open-ended interviews (Gopaldas 2016:115-121). In the study a qualitative explorative and descriptive design was utilized. Qualitative design was a method of choice because; it enables the researcher to get and explore depth understanding of the participants. The aim of this study was not to generalize but to get in depth information to develop guidelines. So,

the researcher used the qualitative design.

A sampling procedure in which the researcher amends his/her judgment to choose those participants that best address the issues of the study is purposive sampling. Just as the selection makes abstract thoughts of the researchers searching for a sort of ‘representative’ sample, or researchers might even straightforwardly look for variety added progressively until researchers fulfil a few measures (Vehovar, Toepoel & Steinmetz 2016:329-345

In this study, non-probability sampling technique was used. pregnant women living with HIV, midwives and nurses were the key informants in the PMTCT programme. These participants are the most valuable entertainers for this study, on the grounds that the midwives and nurses include in PMTCT service and the outcomes of the programme developed on them and consistence of pregnant ladies living with HIV.

- **Data collection methods and procedures**

A pre-tested two set open-ended semi-structured in-depth interview questions were used as data collection instruments. Set of questions was developed based on research objectives. According to Showkat and Parveen (2017:18), in-depth interviews are long duration, face-to-face, interviews directed to reach desired goals.

The researcher utilized a face-to-face in-depth inquiry question, since a portion of the questions were posed to take into consideration, narrating reactions structure the members particularly the inquiries on their encounters on PMTCT. The two sets of questions were utilized, one for the health providers and the other for the pregnant women living with HIV.

One-on-one in-depth interview was done to gather the information which was taken with digital recording and handwritten notes (field notes) in the form of words and sounds until the information was saturated. and also, the interview was translated and transcribed (interpreted) in the short time following the interview, to stay away from the blending of data accumulated for different participants. The notes that were taken during interview of the participant's non-verbal communication, which couldn't be caught on the recording device, were coordinated in the transcription.

It is a human endeavor designed to explore patterns of human consumption as such, it rests solidly on human reasoning (Archer 2018:1-24). Qualitative data analysis (QDA) is the tool taken by researchers to make sense of the vast quantities of data so that the data can be presented in a systematic manner to their readers. On the whole, it starts with a coding process, firstly identifying sections of text which are of importance in qualitative data (Abd-elfattah, Alghamdi & Amer 2014:59-70.

- **Ethical considerations**

It is a professional responsibility to ensure the safety of participants and refer to national and international guidelines. Furthermore, potential ethical concerns and mechanisms to minimize harm and maximize benefits are important because every research can potentially cause ethical concerns and has its principles. In addition, research conducted on human subjects should minimize harms and risks and amplify benefits; autonomy and privacy; take special precautions with vulnerable populations; and endeavors to circulate the advantages and burdens of research fairly (Shamoo & Resnik 2015:7).

Ethical approval was also obtained from the Research Ethics Committee of the University of South Africa (Annexure 1). Permission was requested (Annexure 2) and obtained from the Amhara region research institution under Ministry of Health (Annexure 3). An information letter about the researcher and to understand aim of the research (Annexure 7) and in addition, a written format to take informed consent was obtained from participants (Annexure 9), formats to take a permission from the authorized persons in the health institution where the study had been conducted (Annexures 4, 5 and 6). The objectives and aim of the study, how the data were collected and mode of recruitment, nurses, pregnant women and midwives that where involved outlined on the notices of the hospitals and health centers.

Initially orientation was given for participants who were involved in the study that their participation was voluntarily and they are free to withdraw from the process any time without any penalties. All in all, when the participants Interrupted from taking part in the study didn't prompt any loss of individual advantage, likewise, administers by the standard of obscurity and confidentiality, the name of the participants were not needed on the questionnaire. The written consent form of the participants is attached in Annexure 6.

1.9 SCOPE OF THE STUDY

The scope of this research was to assess quality and utilization of PMTCT programme; and to explore associated factors to PMTCT service delivery at ANC clinic of health institution. After this research result the researcher develop guidelines to be used in North-east Ethiopia. Based on the findings, guidelines were developed to enhance the intervention of PMTCT. The research was conducted in the hospitals and health centers that give PMTCT services in Dessie City Administration and South Wollo Zone of Amhara region, Ethiopia.

Even if, the findings of this study will not be generalizable beyond Dessie City Administration and South Wollo Zone of Amhara region, the contexts of the city administrations and zones in the region are similar. Therefore, this study provides information to other zones and regions to understand the effective utilization of PMTCT programme in all ANC clinics. In addition, this research finding contributed guidelines to enhance intervention of the PMTCT program.

1.10 STRUCTURE OF THE THESIS

The body of this study is classified in to six chapters.

Chapter 1 presents the whole research; the background captures the global and national previous studies on utilization of PMTCT and the level of MTCT of HIV. The objective, research question and methodology are also presented.

Chapter 2 presents literature review on PMTCT and MTCT of HIV under the overarching principles underlying the utilization of PMTCT by pregnant mother living with HIV. The concept of PMTCT and MTCT as well as the factors that influence PMTCT programme and factors associated to MTCT of HIV are described.

Chapter 3 presents research methodology and how to develop guidelines. It includes the design, sampling technique, sample, data collection, data analysis and Issues of dependability are clarified.

Chapter 4 presents and discusses the result of the study on the PMTCT programme. This chapter is in two parts.

Chapter 5 discusses conclusions, limitations and recommendations of the study.

Chapter 6 describes the whole process of developing the guideline

1.11 CONCLUSION

This chapter, on the whole, incorporates the overall background information on the study; the problem of the research; the purpose, objectives, and scope of the current study, and that which is presented in a sequential manner. The second chapter will present a literature review that governs the study, which is related to the current study on the enhancing implementation of the PMTCT program.

Chapter 1 summarizes the orientation of the study to provide PMTCT service in an ANC clinic of a health institution in Ethiopia. Most HIV/AIDS infections in children happen during pregnancy, labour, and breast feeding from mother-to-child transmission of HIV in Ethiopia; In the Ethiopian healthcare system, the ANC clinic and maternity ward units are supposed to provide PMTCT services for pregnant women living with HIV and their children. So, the study on the implementation of PMTCT services was important to improve the quality of care and PMTCT service utilization.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

Chapter 2 presents the theoretical framework and literature review on MTCT and PMTCT of HIV, factors associated to MTCT and consequence of MTCT, challenges for implementation of PMTCT, mother and child health outcome with PMTCT and conceptualization of the literature. Studies conducted around the world, provincially and locally in Ethiopia were investigated. Reviewing the literature is imperative to draw a visual guide of studies that identify with your topic, composing great abstracts, employing skills learned about to utilizing style manuals, and defining key terms (Creswell 2014:25). So, numerous wellsprings of writing, both distributed and unpublished were looked into.

The search terms included: mother-to-child transmission of HIV, prevention of mother to child transmission of HIV, associated factors for MTCT, challenges for implementation of PMTCT in Ethiopia; Africa or Sub-Saharan Africa and universally; discernments or information on MTCT and PMTCT. The web indexes were utilized for the research to explore articles identified with related factors and its consequence on MTCT and PMTCT and its challenge. These were PubMed Open Access through Google, Google Scholar, Hindawi and Google information bases. Likewise, the medical book, journals and articles from the libraries at the University of South Africa (UNISA) were utilized.

The review of writing accessible globally gave the setting to the expected investigation. It gave understanding into the profundity of the current assortment of information MTCT, PMTCT and related factor for utilization of PMTCT. Furthermore, it showed how the area and topic had been recently investigated. Besides, it assisted to distinguish a gap in the discoveries of comparative investigations that were led beforehand somewhere else. The search for literature focused on articles which were published in English starting from 2011 to the date the study was finished.

It shares with the reader the results of other studies that are closely related to the current study. Thus, It imparts to the per user the result of other studies that are congruent to the

one being embraced (Rahman 2016:1-11). It also relates the study to the bigger, progressing contention in the literature, filling in gaps and stretching out prior studies to deal exhaustively the ideas to walk front to refresh within the current study (Creswell 2014:1-25). It, likewise, come up a system to building up the significance of the study just as for comparing the outcomes with other findings.

The review of writing available globally and broadly provided the context for the anticipated investigation. It gave insight into the profundity of the current assortment of information about MTCT, PMTCT, and related factors for the utilisation of PMTCT. Furthermore, it showed how the area and topic had been recently investigated. Besides, it assisted in recognizing a gap in the discoveries of comparative investigations that were conducted beforehand somewhere else. The search for literature focused on articles that were published in English starting in 2011, the date the study was finished.

2.2 HEALTH BELIEF MODEL

2.2.1 Origin and contribution of the Health Belief Model

The Health Belief Model: The health Belief Model was developed by three social psychologists, who attempted to learn how individuals make decisions about health-related behaviour and help to comprehend why individuals did or didn't use preventive services presented by public health departments in the 1950s. It has advanced to address more up to date concerns in prevention and detection (e.g., mammography screening, infuenza immunizations) just as a way of life practices like sexual risk behaviour and injury avoidance. It hypotheses that individuals' beliefs about whether or not they are at risk for a disease or health problem, and their view of the perceptions of making a move to keep away from it, influence their readiness to take action (Glanz 2012:4).

According to Glanz (2012:4), reflecting on the health belief model, health-related conduct is displayed by an individual's insight created as a philosophical premise that a medical condition represents a danger. A value-expectancy theory suggests that in this instance, it is worthwhile that activities point towards lessening the health threat. The value-expectancy theory concepts were redeveloped in the context of health behaviours. Its interpretation is the desire to avoid illness or to get well as a value. While the belief that a specific health action available to a person would prevent illness is an expectation, Whereas, the conviction that a particular health activity accessible to an individual would

prevent an ailment is an assumption. This proposes that in a pregnant mother living with HIV, the longing to prevent transmission to her children and its complications is a value. While the belief that adhering to a treatment regimen would prevent the transmission to their children and its complications.

The expectation was further broken down and described as the individuals' estimation of personal susceptibility to and the severity of an illness, and the likelihood of being able to reduce or prevent the threat through sustained activity (such as, taking anti-viral therapy as prescribed (Salari et al. 2016:8).

2.2.2 Components of the Health Belief Model

The major component of the HBM is displayed in Figure 1.1 and discussed in the following sections:

- **Perceived susceptibility**

This is one's conviction and/or one's appraisal in regard to the danger of evaluation concerning the danger of contracting a health condition or problem (Glanz 2012:4). In the case of PMTCT, it incorporates the individual acceptance of diagnosis, transmission, complications, and susceptibility of their children to the illness.

- **Perceived severity**

The expectation was further broken down and described as the individuals' estimation of personal susceptibility to and the severity of an illness, and the likelihood of being able to reduce or prevent the threat through sustained activity (such as, taking anti-viral therapy as prescribed (Salari et al. 2016:8).

This is one of the ways HBM states to one's belief how serious a condition is and its outcomes are (Glanz 2012:4). Individuals will generally demonstrate when they are concerned about a potential outcome for their children, such as the transmission of HIV infection.

- **Perceived benefit**

This HBM part suggests one's belief that a given treatment will cure the illness or help to prevent it. A belief that the prompted conduct will lessen the danger or reality of effect

(Glanz 2012:4) can assist individuals with staying motivated to adhere to the exhorted behavior.

- **Perceived barriers**

This is most likely a negative perspective for engaging in the recommended behavior. It implies, an individual undergoes unconscious cost-benefit analysis whereby these actions are expected to be effective are weighed against the perceived stigma.
If behavior is omitted in order to avoid an unpleasant experience (Glanz 2012:4), Along these lines, in case a person's own analysis causes her to feel that there is a current impediment or an expected antagonistic perspective to following the conduct, she will avoid the potential negative consequences and will not adhere to the recommended health behavior, like missing the follow-up PMTCT service.

- **Cues to action**

“It refers to one’s readiness, inspiration and courage to change behaviour dependent on outside impacts that are accessible to advance the desired behaviour” (Glanz 2012:4).

- **Likelihood to taking recommended treatment**

This perspective infers the inspiration and self-assurance to change the habitual behaviours and to trust one's capacity to accomplish something (Glanz 2012:4).

- **Modifying factors**

These are the demographic variables that are; age, sex, religion ethnic group and psychosocial variables, educational level occupation, marital status and mother-to-health provider interaction.

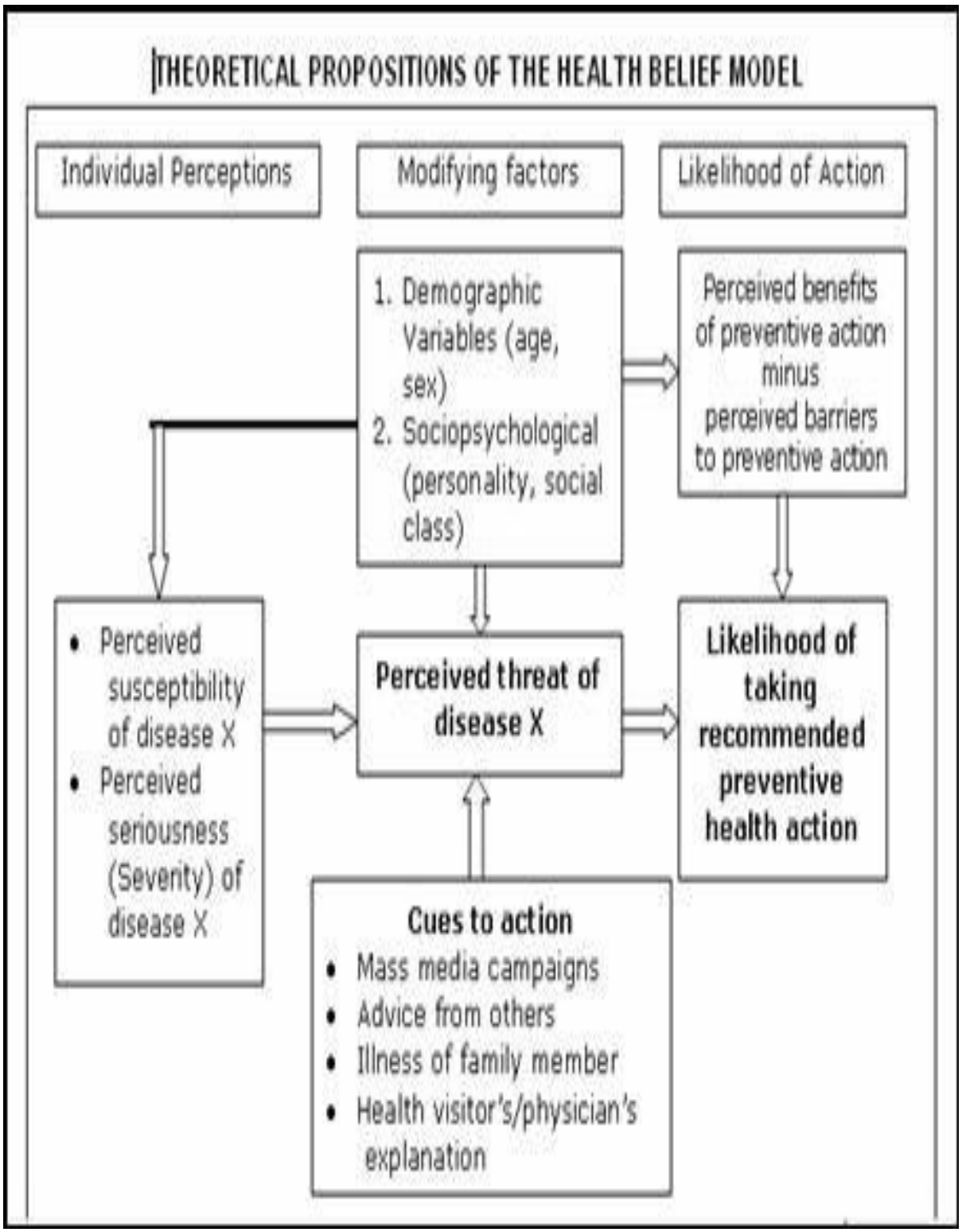


Figure 1.1 The Health Belief Model

2.3 MOTHER-TO-CHILD TRANSMISSION OF HIV (MTCT)

Reports of UNAIDS (2019:1-316) indicates that in developing countries, mother-to-child transmission (MTCT) of HIV infection accounts half from all new HIV infections. Over 95% of HIV infections in children are acquired by mother-to-kid transmission. Close to that, breastfeeding represents half of MTCT. Workmanship prescriptions are more successful for forestalling MTCT to HIV (PMTCT). Antiretroviral medications are profoundly successful for preventing MTCT of HIV (PMTCT). However, in 2018, more than 240,000 children were tainted with HIV, the larger part in SSA. MTC of HIV without PMTCT, is 15-25% in developed countries and 25-35% in developing countries (Mutabazi, Zarowsky & Trottier 2017:1-27).

The HIV pandemic is still an issue of fundamental concern on a worldwide scale. The UNAIDS (2011) report indicated an expected 34 million individuals overall are infected with HIV, with women representing 52% of this burden. Sub-Saharan Africa represents more than two-thirds (68%) of the worldwide infected population. Children under the age of 15 account for 3.4 million of the world's infected, with Sub-Saharan Africa alone accounting for 90% (WHO, UNAIDS, & UNICEF 2011:11).

Prevention of mother-to-child transmission: a family health worldwide (FHI) 360s Strategic Approach demonstrates that MTCT is the most common source of paediatric HIV infection. Despite the fact that paediatric HIV is generally preventable, an estimated 390,000 children were infected with it in 2010, with 90% of them being in Sub-Saharan Africa (UNAIDS 2011:10). Additionally, HIV/AIDS has turned into a main source of death during pregnancy and the postpartum period in nations with high HIV prevalence.

As indicated by UNAIDS and UNICEF reports, in Ethiopia, almost 718,000 individuals are living with HIV/AIDS, and around 20,000 individuals die yearly. The estimated number of orphaned children because of AIDS was more than 100,000 in 2018 (UNAIDS 2019:1-316). The transmission pace of MTCT of HIV in Ethiopia by the age of two years was 15% (UNAIDS 2016:1-9). To reduce child HIV morbidity and mortality, the nation could execute early infant HIV diagnosis and start ART treatment. Another thing is that the disease progression is rapid: around half of children HIV-infected during pregnancy or delivery die within one year (Psaros, Remmert, Bangsberg, Safren & Smit 2015:1-5).

Mother-to-child transmission (MTCT) is the primary mode of HIV transmission in children under 15 years of age. This issue is critical in the Sub-Saharan African nations, where over 80% of children living with HIV are found. Previous studies in Ethiopia present inconsistent and uncertain findings on the prevalence and related factors of MTCT of HIV (Kassa 2018:1-34).

Mother-to-child transmission (MTCT) is when an HIV-infected woman transmitted the virus to her child (Kevin, Mutugi & Wanzala 2014:1-8). According to Teshome and Madiba (2020:1-27), mother-to-child transmission (MTCT) was related with absence of HIV discloser strategy and counselling guidelines, absence of HIV-discordant couples counselling guideline, inaccessibility of PMTCT counselling guideline for HIV- positive commercial sex worker mothers and lack of HIV-free human breast milk (banked human breast milk) for PMTCT in Ethiopia.

About of 1.2 percent of pregnant women are living with HIV in Ethiopia and penetratingly, one in each 3 children born With HIV from mothers infected with HIV. Breaking of these mother-to-child transmissions (MTCT) of HIV is possible through HIV testing during pregnancy and taking antiretroviral medications. however, pregnant women living with HIV have so far got the medication needed to prevent MTCT of HIV in Amhara Regional State, Ethiopia is just 24%. Hence, there exists a concern that the rate of HIV infection among new born children born into the world from HIV positive women may be high (APHPCO 2013:2).

Selvaraj and Paintsil (2013:93-101) expound that mother-to-child transmission (MTCT) of HIV carry on which to charge the overall paediatric HIV epidemic. The prevalence of paediatric HIV infection in a given local area is the detector for both the degree and the extent of the HIV pandemic locally. A horde of viral and host hazard factors acts in join to cause MTCT of HIV. However, critical diminishing in MTCT have been accomplished in both resource-rich and resource-limited countries over time, there are still difficulties and threats that can possibly turn around the increases made up until this point. Understanding the mechanisms, timing, and viral and have factors related with MTCT of HIV was helping to recognise appropriate interventions and suitable antiretroviral chemoprophylaxis regimens to diminish or eliminate MTCT.

Newly HIV infection among children in the world make unusual occurrence in history. In 2009, roughly 42,000-60,000 pregnant women died the bucket in view of HIV/AIDS. In view of 370,000 children became recently infected with HIV worldwide. Interestingly, the number of new HIV infection among children and maternal and child deaths because of HIV/AIDS was almost zero in high-income countries. In non-industrial nations, few numbers of women are getting PMTCT services to protect themselves or their children. The life of a child and a mother has the same value, regardless of where she or he is born and lives. So, this inequity must be change (UNAIDS 2011:1-7).

Regardless of the insufficient health care, in Sub-Saharan Africa, mother-to-child transmission (MTCT) of HIV has significantly decreased in the course of the last decade. Despite the fact that an estimated 300 000 new born children have been infected in Africa and the greater part of them were relied upon to die before the age of two and it contributes to the disease's burden in numerous nations (Denoeud-Ndam, Fourcade, Ogouyemi- Hounto, Azon-Kouanou, Almeida & Azondékon et al 2013:1-13).

Evans, Davis, Umanzor, Patel and Khan (2011:1-10) report that mother-to-child transmission (MTCT) rates and related factors in HIV-infected pregnant women from a tertiary hospital between 2000 and 2009 is 3.74%. Factors identified as related to MTCT were low CD4 cell counts, raised viral loads, maternal AIDS, more limited periods getting HAART, different conditions (anaemia, IUGR (intra uterine growth restriction), oligo hydramnios), co-infections (CMV and toxoplasmosis) and the occurrence of labour. Utilisation of HAART for longer periods, oral zidovudine for the infants and caesarean were related with a diminished risk. Poor adhesion to treatment was present in 13 of the 15 cases of transmission; in 7, co-infections were diagnosed (CMV and toxoplasmosis).

Maternal and child health services pass up on a promising circumstance factor were significantly associated with MTCT of HIV risk. Those risk factors related with these are HIV-exposed new born children of mothers who were not begun ART during pregnancy or after delivery compared with beginning before pregnancy, Lack of baby taking care of directing or revelation of HIV status, Late attendance at antenatal care (third trimester) and women not testing for syphilis during antenatal care was a risk factor for MTCT (Mugwaneza, Lyambabaje, Umubyeyi, Humuza, Tsague, Mwanyumba et al 2018:1-20). To upgraded early treatment with ART and retention in care, beginning antenatal care early and proceeding with antenatal care are a portion of the procedures to limit the risk

of MTCT of HIV. Furthermore, young, single mothers appear to be at higher risk suggesting the need for targeting to them.

Guey, Diop-Ndiaye, Diouf, Sow-Ndoy, Touré, Ngom-Faye et al (2019:1-9) say that a study conducted in Senegal; Mother-to-child transmission rate decreased to less than 5%; when there is earlier and greater access to early infant diagnose permitted by DBS sampling with an increment in PMTCT services carry out Option B+ for pregnant women, increase intervene of antiretroviral prophylaxis for infants and give breast feeding on ART.

A study conducted in Gondar University Referral Hospital revealed that, the all-inclusive MTCT rate for HIV exposed infants was 13.4%, but it varied by type of PMTCT intervention. The transmission rate for infants whose mothers were not receiving PMTCT was highest (41%), followed by infants whose mothers took short course prophylaxis (8%), and the lowest rate was 2.3% which was found in infants whose mothers took HAART during pregnancy. The transmission rate for infants who were receiving post exposure ARV prophylaxis was 4.8% and for those who were not receiving ARV was 42% (Alem 2011:10).

2.3.1 Associated factors for mother-to-child transmission of HIV

Associated factors for MTCT of HIV are classified as infant factors, maternal factors and obstetric and delivery practices. Infant factors are first infant in multiple births, preterm low birth weight, and duration of breast feeding, mixed feeding and oral diseases in the child. Maternal factors include recent or new maternal HIV infection, low CD4 counts, high viral loads, advanced maternal disease, labour and birth, viral or parasitic placental infections during pregnancy, maternal lack of and nipple cracks, fissures, mastitis and breast abscesses (FMoH 2011:11).

Obstetric and delivery practices include injuries to the birth canal during birth, ante partum procedures such as amniocentesis, external cephalic version, invasive childbirth procedures, vaginal delivery, delayed infant drying with clean towels and eye care and routine infant airway route suctioning and rupture of membranes for more than four hours prior to delivering the baby (FMoH 2011:11).

According to Lorenzo, Beck-Sague, Bautista-Soriano, Halpern, Roman-Poueriet, Henderson et al (2012:9), a study conducted in the Dominican Republic explain that infant and child data from the PMTCT programmes and recognised factors contributing to the rate of MTCT of HIV. The MTCT rate also varied in 1999-2008 from 8.1% among those exclusively formula fed infants to 37.3% among exclusively breast-fed infants. The MTCT rate varied by type of delivery. During the period 1999-2008, 6.8% of infants were born by caesarean section and 23.9% of infants were born vaginally. For the period 2009-2011, the MTCT rate was 2.5% among those delivered by caesarean section and 7.5% among those born vaginally.

According to Manji, Duggan, Liu, Bosch, Kisenge, Aboud et al (2016:301-307) the common mode of obtaining of HIV infection in infants is through breast-feeding by the HIV-infected mother. The fundamental procedures for additional decrease of MTCT are arrangement of ARV prophylaxis to breast-feeding infant and the arrangement of triple therapy to the lactating mother. Particularly nevirapine prophylaxis can securely be utilised to give protection from mother-to-child transmission of HIV-1 through breastfeeding for new-born up to 6 months of age. Also, exclusive breast feeding is essentially lessening the risk of vertical HIV transmission through 12 months of age.

Ethiopia federal health report shows that HIV infection and death rates in African children are surprisingly high. Risk factors for mother-to-child transmission of HIV incorporate maternal plasma viral load and breastfeeding and rates vary in light of differences in population characteristics, for example, RNA viral load, maternal CD4+ cell counts and duration of breastfeeding (FMoH 2011:11).

Evans et al (2011:11) indicated that MTCT was unequivocally connected with maternal factors like the stage of HIV infection, addressed by CD4 counts and viral load, utilisation of HAART and route of delivery, and furthermore factors concerning the gestational period, particularly the occurrence of maternal infectious and obstetric complications. TB as a risk factor for MTCT would encourage another significant and adjustable factor to be addressed to by prevention of MTCT programmes in networks at high risk for HIV and TB co-infection. While utilisation of neonatal zidovudine for new-born child is as yet a comprise as a significant factor in the security against HIV transmission.

According to Manji et al (2016:301-307), the normal method of procuring of HIV infection in infants is through breast-feeding by the HIV-infected mother. The principal methodologies for additional decrease of MTCT are provision of ARV prophylaxis to breast-feeding infant and the provision of triple therapy to the lactating mother. Particularly nevirapine prophylaxis can safely be utilised to give protection from mother-to-child transmission of HIV-1 by means of breastfeeding for babies as long as a half year old enough. Besides, exclusive breast feeding is essentially diminishing the risk of vertical HIV transmission through.

Manji et al (2016:301-307) explain that one of the most common ways of transmission of HIV in paediatric is through breast-feeding from HIV-infected mother. According to Potty, Sinha, Sethumadhavan, Isac and Washington (2019:386) breastfeeding beyond 26 weeks is associated with higher rates of HIV transmission from mother to child in addition to that sore nipples and breast with infection increase its transmission (Risenga 2017:2572-7370).

Ladzani, Peltzer, Mlambo and Phaweni (2011:4) explain that with the duration of infant feeding increases the risk of HIV transmission also increases even with ARV prophylaxis and it is supported by different studies: a review of clinical trial and cohort study by California University, USA shows that complete Avoidance of breastfeeding would be a clear intervention to prevent HIV transmission through breast milk. Where complete avoidance is not possible, early cessation from breastfeeding would decrease a child's exposure to breast milk and HIV infection and the cumulative probability of transmission expanded as the length of breastfeeding expanded (from 1.6% at 90 days old enough to 9.3% a year and a half old enough).

According to Thomas, Mashaba, Borkowf, Ndivo, Zeh, Misore et al (2011:2), a clinical trial to deal the effect of triple ARV prophylaxis on PMTCT in Kenya conclude that cumulative HIV-transmission rate at birth.

A retrospective study conducted in Gondar university referral hospital also shows that the HIV transmission rate during postnatal period in relation to infant feeding practice was highest in mixed feeding 49% followed by exclusive breast feeding 9.3% and the lowest

rate was found in formula fed infants 4.3% and the overall transmission rate were 13.4% (Alem 2011).

As CSAE (2011) reports a few components think of to the high burden of paediatric HIV contamination among women of reproductive age, high rates of birth, large populations of women, and absence of admittance to powerful interventions aimed at preventing mother to child transmission of HIV. According to Ethiopian Demographic Health Survey (EDHS) 2011 just 34% of mothers had antenatal care (ANC) follow up Ethiopia (UNAIDS 2013:4) in this way having a negative contribution on under- use of PMTCT services (Abajobir & Zeleke 2013:1-7).

A study conducted in Ambo Hospital ANC facility, West Ethiopia, examined that the entirety of the moms thought about anticipation of mother-to-kid transmission of HIV and 93.6% had great mentality towards it. Just 44.4% of the respondents realised that antiretroviral drugs given for sero-positive pregnant mothers could diminish the risk of HIV transmission (Tesfaye, Tufa, Likisa, Alebachew & Temesgen 2015:1-6).

2.3.2 Consequence of MTCT

Women and children in numerous settings continue to encounter high rates of new infection and HIV related illnesses and deaths. High rate of infection among women of childbearing age thinks about straightforwardly children (USAIDS 2013:1). The increasing number of women infected with HIV recognised in the course of recent years aware to the significance of moving toward the issue of MTCT as a serious public health problem. As an immediate result of these are the emotional losses to these families and furthermore the considerable financial expenses to both the public and private health system for the care and management of an incurable infection (Evans et al 2011:1-19).

As Hamanda (2013) states in the 2010 Report on the Global AIDS Epidemic: Paediatric HIV is a huge contributor to unnecessary infant and child death rates in Sub-Saharan Africa. An estimated 33% of babies living with HIV positive die before their first birthday celebration and more than one-half will die on their subsequent birthday (Wong, Omar, Setlhako, Osih, Feldman & Murdoch 2012:10). The rate of paediatric HIV infections in Sub-Saharan Africa remains irrationally high, with in excess of 1,000 infants tainted with HIV each every day (Besser 2011:83).

2.4 PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF HIV

Prevention of mother-to-child HIV transmission has been considered as not a basic intervention but rather a far-reaching set of interventions requiring fit capable health workers (Aishat & Olubunmi 2016:5). PMTCT is as yet the best intervention in fighting new HIV infections (UNAIDS 2013:4).

PMTCT programmers give a wide scope of services to women and child. It incorporates; preventing unwanted pregnancies among women living with HIV, preventing HIV infections among women of reproductive age (15-49 years), and giving women living HIV with deep lifelong ART to keep their wellbeing and prevent transmission during pregnancy, labour and breastfeeding. It, likewise, support infants exposed to HIV with virological testing after birth and during the breastfeeding period, just as furnishing new born children presented to HIV with virological testing after birth and during the breastfeeding time frame, ART for prevention and effective treatment (Deflect 2020:1-83). It contributed that, around 1.4 million HIV infections among children were prevented somewhere in the range of 2010 and 2018 because of the implementation of PMTCT services.

Selvaraj et al (2013:93-101) says that despite the fact that apparent endeavors have been made somewhat recently to reduce MTCT of HIV, there are still regions, uncommonly in resource-limited settings, where exhaustive PMTCT services are not accessible or affordable. current barriers to add up to elimination of MTCT of HIV have not only been resource constraints, yet in addition the absence of essential mechanisms of transmission and the trouble in recognizing and decreasing all the risk factors related with MTCT. In 2010, PMTCT services were existing in just 43% of all ANC facilities. However, HIV testing inclusion among pregnant women increased from 2% in 2005 to 26% in 2010 even, however, it is still exceptionally low.

PMTCT can decrease the risk of vertical transmission of HIV to under 1% (Besser 2011:85). The greater part of nations in Sub-Saharan Africa have not had the option to experience these objectives (Hardon, Vernooij, Bongololo-Mbera, Cherutich, Desclaux, & Kyaddondo 2012:1-15). Redesigning access and use to PMTCT in this district is imperative component of tending to the worldwide HIV/AIDS pandemic and to accomplishing millennium Development Goals 4, 5 and 6.

In Sub-Saharan Africa, to use the PMTCT programme. In order to eliminate the vertical transmission of HIV in these nations and to comprehend and work on women's health-seeking behaviour in its place, we are talking about individual-level factors over counselling and education about medical interventions. We have carried out biomedical and social approaches that are expected to address the multifaceted behaviour of HIV-positive mothers' adherence to PMTCT and also point to women's broader living conditions (Yah & Tambo 2019:213-223).

In order to scale up PMTCT programme intervention prognostication effective counselling focused on adherence, the consequence of late ART initiation and to start HIV care immediately at their time of diagnosis. then develop programmatic interventions and health care practices that better address the barriers to prevention of mother to child transmission of HIV (Gebru, Lentiro & Jemal 2018:336).

Hamanda (2013:5) explains mother-to-child transmission of HIV is completely preventable through a set of interventions referred to as prevention of mother-to-child transmission (PMTCT). PMTCT starts when the woman is tried for HIV and gets the result that she is HIV positive in antenatal care (ANC) unit. The infant must also undertake periodic HIV testing and take medication to prevent transmission of the infection while he/she is breastfed (Marconi 2012:5).

WHO/UNICEF and UNAIDS report express that keeping away from unwanted pregnancies among HIV-infected women and women at risk of HIV, through family planning, HIV testing and counselling services (WHO et al 2011:2) and guaranteeing HIV testing of pregnant women and timely access to effective antiretroviral therapy, both for the health of HIV infected mothers and their child during pregnancy, delivery and breastfeeding (UNAIDS 2013:4).

Adherence of ART medication of pregnant women is profoundly factor with better outcomes found in developed nations than in the developing nations. In the lacking continuum of care, weight of PMTCT and related services HIV testing and counselling and ARV prophylaxis are still extremely low in developing countries (Ngemu, Khayeka-Wandabwa, Kweka, Choge, Anino & Oyoo-Okoth 2014:52).

PMTCT programme in Ethiopia launched in 2001 in four hospitals. The first PMTCT national Guideline was developed in the same year to attendant the implementation of these projects. After lucky implementation of the pilot project, PMTCT services were scaled up to 14 HFs under the HAREG project in year 2003 using single dose Nevirapine regimen. In 2007 a Comprehensive National Guideline was developed offering two options both single dose Nevirapine and dual ARV prophylaxis. In 2011 the guideline was revised in line with the WHO recommendations of option A. Along this period the number of HF providing MTCH services has increased to more than 2044 by year 2012 and the number of women receiving services also increased accordingly. In a bid to scale up its efforts, the government of Ethiopia implemented speed-up plan for PMTCT in the year 2012, which is to serve as the basis for the elimination plan (FMoH 2013b:6).

The Ministry of Health reviews the four-pronged system (WHO) as the striking guide to be followed by all partners. Clarify implementation of this approach will give to the accomplishment of the broadly shared vision of a “HIV-free generation by the year 2020” (WHO, UNAIDS & UNICEF 2011:1-229). Technical interventions, including antiretroviral medications, health system management, fundamental obstetric consideration and resource allocation, and gender bias are part of the national comprehensive PMTCT programme. Addressing every one of the four prongs can possibly intrude on the cycle that prompts MTCT at a few focuses (FHAPCO 2011:1-2).

HIV prevalence among pregnant women (all ages) is appraised at 2.4%; roughly 38 401, pregnant women are living with HIV (PWLHIV) and 15,924 (41.5%) of these women received a full course of efficacious ARV regimens to prevent mother to child transmission in 2012. In 2011 an estimated 43, 658 infants between the ages of 0-4 were HIV positive. Between 2009 and 2011, Ethiopia has seen a 31% decline in the number of new paediatric HIV infections-from 18,900 to 13,008 (FMoH 2013b:5).

Ethiopia has recorded some modest growth in the prevention of mother-to-child transmission (PMTCT). But, in a country where nine out 10 of the mothers deliver at home, up to date pregnant women to antenatal care services, testing for HIV, preventing transmission, and following up HIV exposed infants remain a huge challenge (AHAPCO 2013:3).

In Ethiopia the expanded and extensive response to the national HIV/AIDS epidemic is accompanying by the Federal HIV/AIDS Prevention and Control Office (FHAPCO) (2011:2). Prevention of mother-to-child transmission (PMTCT) of HIV is an essential component of the response. Incorporating of PMTCT services with routine maternal and child and reproductive health services at all levels, build up capacity of the keep going health system through implementing the health new work model, referral system, expansion of PMTCT sites, enhancement of PMTCT services, empowering PLWHA networks, reducing stigma and discrimination through community-based mothers' support groups are all nationally receive parts of the implementation strategies and has developed an accelerated national MTCT plan (2011-2015) and has taken on WHO (2010) Guidelines Option A routine for prophylaxis and the ministry of health considers four-pronged strategy (WHO) as the extended guide to be followed by all partners. Defining implementation of this approach will supply to the attainment of the nationally shared vision of a "HIV-free generation by the year 2020".

According to facility data, the take-up of somewhere around one ANC visit among pregnant women was good in 2010 (81%), while just 10% of pregnant women in Ethiopia entranced skilled birth attendance in 2011, and the maternal mortality proportion in 2010 was high (350/100,000) (FMoH 2013a:3). A research review in sub-Saharan Africa on impact of programmes for PMTCT of HIV on health care service and systems show that, Underlying health system factors weak physical and human resource infrastructure and poor work conditions, for example, social and financial barriers to getting to health service influences, both PMTCT and health services with which PMTCT interacts (Mutabazi et al 2017:1-27).

A study conducted in Northern Ethiopia showed that mothers delivering at home were likely to get PMTCT services compared with those delivering at health facility and births attended by skilled attendants (Lerebo, Callens, Jackson Zarowsky & Tommerman 2014:1-35). Another study conducted in southwest Ethiopia suggested that 55% of the 426 HIV exposed infant-mother pairs sets did not get any ARV prophylaxis by the mother during ANC, and mothers without ANC follow-up were five times more likely to have an infant with HIV sero positivity than those who had ANC visits (Derebe, Biadgilign, Trivelli, Hundessa, Robi, Genbre-Mariam & Makonnen 2014:1-8).

As global information and education on HIV and AIDS (2020:13) reports; twelve African nations were carrying out alternative B+ART adherence and retention in care add up to significant difficulties to the implementation of the prevention of mother to kid transmission of HIV interventions. These difficulties hamper existing initiatives to eliminate mother to child transmission (WHO 2014a:4). Without improved retention of pregnant mothers and infants within the PMTCT cascade, only marginal reductions in childhood HIV infections can be achieved, even with highly efficacious combination of antiretroviral drugs (Aizire, Fowler & Coovadia 2013:144-159).

A study conducted in Adama town Ethiopia, shown that clients' satisfaction with PMTCT service was sub-optimal and PMTCT service providers are going up against challenges which can hinder them from providing quality services. In outcome, key entertainer and implementers of PMTCT programme need to address blockage which hamper delivery of full package of PMTCT services in accordance with national PMTCT guideline (Asefa & Mitike 2014:1-7).

Providing lifelong ART for pregnant women living with HIV need to keep up with their health and prevent transmission during pregnancy, labour and breastfeeding for their children just as children living with HIV were getting ART. In 2017, simply more than half (52%) of the 1.8 million children living with HIV were receiving ART. Along these lines, it utilised as prevention mechanism and effective treatment. Overall Integrating ART services for mothers with maternal and child health services is fundamental for retaining mothers in care after they have given birth (Avert 2021:1-23).

In order to scale up the utilization of PMTC service by pregnant women and adhere to drug regimen, it is important to explore the condition How and why are women's health-seeking behaviours constrained by gender, culture, public policy, and economic factors. Both biomedical and social approaches are needed to address the complex behaviour of HIV- positive mothers' adherence to PMTCT. Instead of addressing only individual-level factors such as, education and counselling about medical interventions, we should also be targeting women's broader living conditions. through a combination of individual, community, and structural interventions in order to achieve AIDS-free generation. which requires the elimination of vertical transmission of HIV in sub-Saharan Africa (Marconi 2012:5).

2.4.1 Outcomes of prevention of mother-to-child transmission of HIV

Avert (2021:1-23) reported that prevention of mother-to-child transmission (PMTCT) programmes gave a range of services to women of reproductive age living with or at risk of HIV to keep up with their health and prevent their babies from getting HIV. To get a powerful outcome, PMTCT services ought to be available before conception and all through pregnancy, labour, and breastfeeding. The service incorporates early new-born child diagnosis at four to about a month and a half after birth; testing at a year and a half and additionally when breastfeeding finishes; and ART initiation as soon as possible for HIV-exposed infants to prevent HIV acquisition. Whether or not staining women and newborn children in PMTCT programs after delivery is difficult, In certain nations, more new-born child infections are presently happening during the postnatal period due to breastfeeding instead of pregnancy or labour because of the high rates of women who leave care.

According to the WHO (2012b:1-63) report, various measurements can be utilised to gauge the effectiveness and impact of PMTCT programmes. These incorporate new paediatric infections; the rate of MTCT; maternal survival and wellbeing; child survival and wellbeing; and HIV-free survival of babies born to HIV-positive mothers. It is recommended to assess PMTCT outcomes at six weeks and 18 months postnatal. The six-week period reflects transmission during the perineal phase, and the 18-month period reflects transmission through breast feeding. Stratified early infant diagnosis (EID) by age group (less than six weeks and older ages) is important to differentiate early prenatal transmission and later post-natal transmission.

A study conducted in three hospitals in Addis Ababa, Ethiopia, found that Option B+ PMTCT service has been given for nothing in medical care offices in Ethiopia since December 2013. It is recommended as lifelong ART. The option B+ PMTCT programme is family-focused and serves as a section point for paediatric HIV care, with all HIV-positive new-born children receiving nevirapine prophylaxis for about a month and a half, and treating all HIV-positive pregnant and lactating mothers with lifelong ART regardless of their CD4 check (Teshome & Modiba 2020:821-837).

Antiretroviral therapy during pregnancy is considered the most crucial and effective method for reducing the vertical transmission of infection. Even though, there is still controversy surrounding the relationship between maternal infection and adverse neonatal outcomes, Preterm birth and low birth weight were the most prevalent adverse

pregnancy outcomes in seropositive pregnant women. To address these negative effects, all pregnant women should be screened for HIV, and appropriate treatment should be provided to seropositive pregnant women (Abdi, Alimoradi, & Alidost 2019:197-210).

A study from Zomba and Malawi included 387 mother-baby sets to look at the outcomes of PMTCT. There was 6.4% maternal mortality among HIV-infected women. Children of HIV-infected mothers were four times more likely to die than those of HIV-uninfected mothers. The rate of transmission among living, tested children was 13.5%. At 18-20 months old, HIV-free survival among HIV-exposed children was 66.2% and among HIV-unexposed children was 93.1% (Lettow, Bedell, Landes, Gawa, Gatto, Mayuni et al 2011:2).

A study from an urban hospital clinic in Angola examined the viability of a PMTCT program. 52.9% of the women were not determined to have HIV before pregnancy, and 19.2% of them had a past history of ART. Information on the duration of pregnancy was accessible for 69 women, and preterm deliveries were recorded for 31.9% of them. The risk of HIV transmission or death was essentially higher among the individuals who didn't receive AZT as postnatal prophylaxis compared with infants who received postnatal AZT prophylaxis (OR: 6.23) Transmission in the two groups of infants born from mothers who received ART was 1.5% and 37.1%. Lusiana, Clemente, Ghelardi, Lonardi, Tarquino, and Floridia (201):1-14).

2.4.2 HIV status and exposure of children

A study conducted in the Dominican Republic assessed the progress towards the elimination of MTCT from 1999 to 2011. The extent of disease declined from 11.1% in 1999-2008 to 4% in 2009-2011. The MTCT rate was higher among infants whose mothers utilised sdNVP than among those infants whose mothers utilised prenatal HAART in 1999-2008 and in 2009-2011 (6.4% versus 2.5% and 5.7% versus 2.9% individually) (Lorenzo et al 2012:9).

As Linguissi, Bisseye, Sagna, Nagalo, Ouermi, Djigma et al. (2012:991-994) explain, a study conducted at the Saint Camille Centre in Burkina Faso shows that the viability of HAART in comparison with ARV prophylaxis for reducing the rate of MTCT is questionable. Included were 1,300 pregnant women for the investigation, and 378 of them tested positive for HIV-1. As to ARVs, 69.84% of them got ARV prophylaxis and 30.16% got HAART for PMTCT. The prevalence of HIV-1 among their children by DNA-PCR was

0% and 6.82% among those born from mothers receiving HAART and ARV prophylaxis, respectively. The death rate was 1.32% among children who were born from HIV-positive mothers.

Nigerian researchers found that the prevalence of HIV among exposed infants of 298 children participated in the investigation. Out of these, 77.9% were brought to the hospital for early new-born child finding within three months of birth. The rate of MTCT was 2.1% after receiving PMTCT services. Proportionally, 72.7% of the infants were born to mothers with CD4 cell counts greater than 250 cells per mm3. Mothers who had been on HAART for quite a while, going back before their most recent pregnancies, had a chance of transmitting HIV to their infants (Esene & Omoigberale 2012:105-115).

According to Hussain, Moodley, Naidoo, and Esterhuizen (2011:1–7), there was a fundamentally higher incidence of preterm deliveries among HIV-positive women than among HIV-negative women (25.20% versus 19.78%). Women who got HAART were less at risk of delivering preterm infants when compared with those who hadn't gotten HAART but qualified to get HAART. Low birth weight was much more common in HIV-positive women. For this finding, 58.9% of the HIV-exposed children were tested for HIV by DNA PCR. Nine of these infants were affirmed to be HIV-infected at birth. The in-utero transmission rate was most elevated among the individuals who required HAART yet didn't get it (8.5%). followed by the individuals who got HAART (2.7%) and lastly, those not eligible for HAART, but getting ARV prophylaxis (0.4%).

A study was conducted in South Africa to determine the risk of being infected with server infections among HIV-exposed infants. A total of 55 infants were included in the study, of whom 27 were HIV-exposed uninfected and 28 were HIV-unexposed uninfected. All HIV-exposed uninfected infants remained HIV-uninfected at 6 and 12 weeks of age in the absence of breast feeding. Two HIV-unexposed uninfected babies at a half year old and one HIV-exposed uninfected infant at twelve months of age had moderate acute malnutrition. A total of 14 hospitalizations in the 10 HIV-exposed uninfected and four hospitalizations in the four HIV-exposed uninfected new-born children were accounted for. The relative risk of hospitalisation for HIV-exposed uninfected new-born children was 2.74 times greater than for HIV-unexposed uninfected infants. For the most part, Children exposed to HIV-exposed uninfected children experienced an increased risk of infection-related hospitalisation without the increased number of infectious agents, advanced maternal sickness or infant malnutrition (Slogrove, Reiki, Naidoo, Beer, Kevin, & Cotton

et al. 2012:506).

A study done in Rwanda to assess the child mortality within the national PMTCT programme revealed that a total of 3020 children were selected for the study, of whom 48.2% were HIV-exposed. Among the HIV-exposed children, 61 died by the age of 9–24 months, while 24 died among those not exposed to HIV. The cumulative risk of death was almost three times higher among those exposed to HIV as compared to those not exposed to HIV. With the exception of HIV status, family resources were primarily associated with death. Responsibility was fundamentally lower among families who lost children when compared with families whose children lived. Children whose mothers used at least four ANC visits had half the risk of death as children whose mothers used ANC services only once (Mugwaneza, Shema, Ruton, Rukundo, Lyambabaje, Bizimana et al. 2011:1-13).

A study from rural western Kenya showed that out of the 1, 668 mothers at first recognised as HIV-positive, the last HIV status after breast feeding was known for 309 children's salaries, saying that 260 were HIV negative and 49 were HIV positive, Thus, the rate of MTCT after the breast-feeding period was 15.86%. Out of the 767 new-born, 40.2% of the babies completed the follow-up, 3.6% passed on, and 19.3% were lost to follow-up. Therefore, to reduce the burden of paediatric HIV infection significantly, universal access to PMTCT services is crucial (Azcoaga-Lorenzo, Ferreyra, Alvarez, Palma, Velilla & Del-Amo 2011:274-280).

2.4.3 Health outcomes of mothers receiving PMTC services

The Nigerian study involved a population of 130 women between the ages of 17 and 40 who came to a hospital for ANC and PMTCT services. Also, the consequence of the investigation confirmed that HIV in pregnancy influences CD4 cell tally. Pregnancy by itself may partially deplete the CD4 cell count. Without going with sickness conditions, sequential age didn't influence the CD4 cell count (Ekwempu, Ekwempu, lkeh, Olabode & Agaba 2012:168-171).

A study was conducted in Kenya to examine CD4, viral reactions, and adherence among ARV nave breast-feeding women while receiving PMTCT services. At standard, the percentage of women with CD4 counts of 250 cells per micro liter decreased from 23% at standard to 5% at 24 weeks postpartum, and this was significant. At baseline, 6% of

participants and at 24 weeks postpartum, 79% of participants had undetectable viral loads. Among the individuals who took NVP-based ARVs, 89% achieved undetectable viral loads when compared to 98% of participants who took Nelfinavir-based ARVs. Adherence levels were fundamentally connected with the achievement of undetectable viral loads. A total of 82% of the adherent group achieved undetectable viral loads while only 65% of the non-adherent group achieved this (Okonji, Zeh, Weidle, Williamson, Akoth, Masaba et al. 2012:249–257).

2.4.4 Patients' satisfaction with prevention of mother-to-child transmission of HIV services

According to a study at Hamidia Hospital in Bhopal, India, patient satisfaction towards ART administrations was appraised to be excellent. Clients' attitudes towards doctors' services were rated as excellent for the following factors: feeling at ease with the doctor (83.98%), being able to tell the doctor one's problems (92.19%), doctors' listening to one's problems (87.90%), doctors' understanding of the patients' complaints (95.31%), doctors' effective explanations (93.34%) and doctors' help to improve the women's health (93.34%) (Kishor, Pal, Rama & Vishal 2011:241-243).

A study from public health facilities in Addis Ababa, Ethiopia, revealed that 61.6% of pregnant women utilised ANC services (including VCT) on the same day they visited the health facility. The average waiting time at the ANC clinics was 39.8 minutes, and the mean time for counselling (pre- and post-test sessions) was 14 minutes. The women apparently acquired new information from counseling about HIV and MTCT, including the requirement for partner testing, living with HIV if HIV-infected, and HIV prevention and transmission. Regarding customers' fulfilment levels, 82.5% of the respondents reported that counselling room privacy was kept up with and 92.2% were comfortable with the counsellors' handling of their clients and respectful of them. 91.5% of the clients announced that they were happy with the specialised skills and competencies of the counsellors (Ismail & Ali 2011:126–134).

2.5 FACTORS AFFECTING THE UTILISATION OF PMTCT SERVICES UNDER HBM'S MAJOR TENETS

A study conducted in sub-Sahara African nations utilised the HBM to comprehend social barriers' effect on the use of PMTCT services. The various parts of the model are disclosed comparable to the study. Perceived susceptibility has been utilised to clarify a woman's acceptance of HIV testing, getting the outcome and be experiencing that her new-born child is vulnerable to vertical transmission of HIV. Perceived benefits are identified with pregnant women's information and beliefs that PMTCT interventions are valuable. Perceived barriers include fears of knowing one's own HIV status, stigma and discrimination and opposition of male intimate partners. Self-efficacy shows the woman's degree of certainty that she can extensive the means fundamental for PMTCT adherence.

A study conducted in sub-Saharan African nations utilised the HBM to comprehend social barriers' effects on the use of PMTCT services. The various parts of the model are disclosed in a manner comparable to the study. Perceived susceptibility has been used to clarify a woman's acceptance of HIV testing, getting the outcome and experiencing that her new-born child is vulnerable to vertical transmission of HIV. Perceived benefits are identified with pregnant women's information and beliefs that PMTCT interventions are valuable. Perceived barriers include fears of knowing one's own HIV status, stigma and discrimination, and opposition to male intimate partners. Self-efficacy shows the woman's degree of certainty that she can achieve the means fundamental for PMTCT adherence. The researcher had the option to recognise both biomedical and social methodologies that are expected to address the complex behaviour of HIV-positive ladies' adherence to PMTCT (Hamanda 2013:2).

A study done in Kenya also used the HBM to examine the correlates of and motivations for HIV testing. The researchers used different variables that fit into the model: for the perceived risk component, anxiety about being infected with HIV; for modifying factors, HIV knowledge; beliefs about condom use for HIV prevention; and cues to action, information on HIV and knowing someone infected with HIV. Using this model, it was demonstrated that targeted interventions could help young people to assess their level of risk and increase their awareness of the benefits of VCT to enhance the utilisation of HIV/AIDS services (Kabiru, Beguy, Crichton & Zulu 2013:9).

2.5.1 Perceived susceptibility

As per Tesfaye et al. (2015:1-6), the women thought about the prevention of mother-to-child transmission of HIV and had a great mentality towards it. just as when they realize that antiretroviral drugs given to seropositive pregnant mothers could decrease the risk of HIV transmission. Therefore, women have been tested for HIV/AIDS and it is promoted to use ART and other PMTCT services.

A study conducted in the north-western areas of Ethiopia utilised the HBM method to identify factors associated with readiness for service utilisation among pregnant women attending ANC clinics. The variables considered by the study were knowledge about VCT, readiness to use VCT services during pregnancy, risk perceptions of being infected with HIV, educational status, gravidity, and gestation age. On the whole, the finding shows that the readiness to use VCT services among pregnant women was low (Moges & Amberbir 2011:1–8).

2.5.2 Perceived severity

A study conducted in western Ethiopia included 418 pregnant women attending ANC. Regarding VCT, 55.5% of them were not ready to use VCT services, and they indicated that pregnancy was not the right time for VCT. The reasons mentioned were fears of blood drawing and receiving HIV-positive test results; stigma and discrimination; and the husband's disapproval (Moges et al. 2011:1–8).

A study in the Oromia region of Ethiopia found that 62% of the study participants going to ANC were offered HIV counselling and testing, but just 47% of them acknowledged HIV testing. On top of that, the significant difficulties of the PMTCT program are human resource limitations, insufficient coordination, inconsistent supplies of laboratory test kits and ARV prophylactic drugs, and detachments between the regional health bureau and local levels in terms of communicating new policies and guidelines (Balcha, Lecerof & Jeppsson 2011:187-192).

2.5.3 Perceived benefits

According to Adedimeji, Abboud, Merdekios and Shiferaw's (2012:7) study in Arba Minch, most women attending to ANC realize that HIV testing is significant for a woman since there is a possibility of transmitting the virus to her child. Additionally, the importance of hospital delivery, counseling, ARV drugs, and avoiding breast feeding were deemed

necessary for PMTCT.

2.5.4 Perceived barriers

As per a systematic review from India, the intake of PMTCT services was low. Barriers to getting to PMTCT services incorporate the absence of preparation among health care providers and insufficient thoughtfulness regarding social and sex issues; perceived stigma and experience of discrimination in health facilities; poor education; low economic status of women; and lack of support from partners (Darak, Panditrao, Parchure, Kulkarni & Janssen 2012:1-15).

Stigma and discrimination are significant barriers that women living with HIV face in achieving their sexual and reproductive health rights. Individuals living with HIV, in particular, can face stigma, which occurs in families, communities, and healthcare facilities; HIV/AIDS stigma also demonstrates that various components of stigma, including expected stigma, perceived community stigma, enacted stigma, and self-stigma, negatively influence healthcare access, health outcomes, and quality of life (Kalembo & Zgambo 2012:1-19).

The reason is that of judgments made with regard to their behaviour by families and communities (Malave, Ramakrishna, Heylen, Bharat & Ekstrand 2014:396-403). In addition to that, in Sub-Saharan Africa, as women are more likely to be tested first with regards to PMTCT programmes, they are additionally bound to be blamed for bringing HIV into the family (Bott & Obermeyer 2013:5-16).

This potential result is not exclusively to influence women to reveal their HIV status, but also to compromise their safety because of threats or experience of violence. Narasimhan, Loutfy, Khosla & Bras (2015) found that sexual partners are less likely to find sexual partners as a result of their HIV status (Narasimhan, Loutfy, Khosla & Bras 2015:1-6).

Additionally, HIV programme staff discourage women living with HIV from having sex or blame them as being irresponsible in the event that they have unprotected sex, which can influence their sexual, emotional, and mental health and bear children (MacCarthy, Rasanathan, Ferguson & Gruskin 2012:119-140; Turan & Nyblade 2013:1-27). In general, HIV-related stigma arises as a significant obstruction to HIV-affected women and couples seeking services to minimise HIV risk during pregnancy of the PMTCT program (Goggin,

Mindry, Beyeza-Kashesya, Finocchario-Kessler, Wanyenze, Nabiryo & Wagner 2014:990-1009) HIV stigma is a key factor keeping women from getting back to a health facility to keep their HIV status undisclosed to other people. Stigma is also present in the hospital because health care providers are uninterested in dealing with HIV-positive women's deliveries. Another key issue, preventing pregnant women from returning to the health facility, was the lack of observation and referral structures inside the health facility. Health workers didn't have the framework to appropriately screen HIV-tainted women and follow them up to give them the necessary care and support. Inadequate human resources also posed challenges. Too few nurses provide PMTCT services. Different factors that influenced PMTCT services included inadequate ARV supplies, the cost of accessing the service, and the low socioeconomic status of women (Adedimeji et al. 2012:7).

A different study from India examined socio-demographic factors related to getting lost in follow-up of HIV-infected women utilising PMTCT services. Somewhere in the range of 2002 and 2008, a total of 950 HIV-infected women registered for the PMTCT programme. Relatively, 10.9% of them were lost to follow-up before delivery and 19.6% became lost to follow-up after delivery. When compared to graduates, a woman with less than graduate level educational status was 6.32 times more likely to be lost to follow-up. The other factors associated with losses to follow-up are poor family, a woman registered into a PMTCT programme following 20 weeks of pregnancy and a woman whose partner’s HIV status is negative or unknown (Panditrao, Darak, Kulkarni, Kulkarni & Parchure 2011:595).

2.5.5 Perceived self-efficacy

Mothers who had been involved with the programme reliably, nearness to those dealing with a comparative involvement in a positive way and the information that they had the ability to modify the risk of vertical HIV transmission through adherence to PMTCT protocols. Moreover, they felt empowered by beneficiaries, which improved their ability to negotiate for their reproductive issues (Shroufi, Mafara, Saint-Sauveur, Taziwa & Violes 2013:1-10).

2.5.6 Cues to action

As indicated by a study conducted across four African nations (Cameroon, Cote d'Ivoire, South Africa and Zambia), higher PMTCT service coverage was associated with HIV test kits being found in the ANC (as opposed to in the laboratory), HIV testing being available in the labour ward, availability of CD4 testing at the facility, infant testing with DNA-PCR availability on most days of the month and the presence of an ANC register with PMTCT information. Partner HIV testing and same-day HIV test results (Ekouevi, Stringer, Coetzee, Tih, Creek, Stinson et al. 2012:3-4).

2.6 CONCLUSION

The utilization of PMTCT service by pregnant mothers living with HIV did not show any improvement in over 20 years in Ethiopia. even if the MTCT of HIV is still high. The Amhara region (the study context) has a much higher MTCT of HIV rate than the national average. The utilization of the PMTCT program is crucial to reduce MTCT of HIV when there is effective male partner involvement and giving compassionate respective care by health providers in the Ethiopian health system. ANC clinics and maternity wards are supposed to provide promotive and preventive care services for pregnant mothers living with HIV. However, the key PMTCT program intervention coverage remains low at the country level.

Overall, the literature review revealed that information is available mainly on the PMTCT program, the causes and determinants of MTCT of HIV and recommended enhancement strategies for implementation of the PMTCT program and utilization of it. It lacks the existing guidelines about male partner involvement and compassionate respective care of health providers in PMTCT program intervention in ANC clinics and maternity wards. Thus, this research aimed to assess the implementation of the PMTCT program and at last develop the guidelines.

CHAPTER 3

RESEARCH DESIGN AND METHOD

3.1 INTRODUCTION

This chapter outlines the methodology that was adopted to conduct the study. method, study design, population, sampling technique, and how the data was collected. study design, population, sampling technique, and how the data was collected, analyzed, and reported as well as pilot study results. The issues of guaranteeing dependability and validity of qualitative approaches are discussed. Furthermore, how moral reflections are addressed, as well as the methodology used to develop guidelines.

3.2 RESEARCH DESIGN

According to Gounder (2012:59), research methodology is a systematic way to solve a problem. It is a science of perusing how research is to be carried out. Basically, it shows the procedures by which researchers go about their work of explaining, describing, and predicting phenomena. On the other hand, research methods are the various procedures, schemes, and algorithms used in research. In general, research methods aim at finding solutions to research problems. It focuses on the use of the right techniques to discover arrangements. It is therefore invigorating to take note that research methodology covers the way for research methods to be directed suitably.

Research design refers to the reasonable structure of the inquiry. It states what data is required, from whom, and how it is going to answer the research question. Qualitative data describes opinions, problems, behaviors, experiences, beliefs, and attitudes. It is non-numerical in nature, and can come from key informant interviews, open-ended questionnaires, field notes, or personal logs or journals and focus group discussions (Jalil 2013:1–40).

At the top of that, study designs guide a researcher in the various stages of research. The study design directs the techniques and choices that researchers should make during their studies and sets the rationale by which they make clarifications toward the end of their studies (Creswell & Plano Clark 2011:53). It is a plan that summarizes who collected

the data, how it was gathered, and how it was analyzed to answer the research question(s).

A qualitative case study design was chosen for this study because the researcher wanted to get a general view of PMTCT service from the perception and experience of the participants (midwives, nurses, and pregnant women living with HIV who were enrolled in the PMTCT program), and thus data were collected using in-depth interviews with a progression of profound inquiries questions to which they had to respond. The qualitative methods were predetermined and planned at the start of the research process, and the procedures were implemented as planned (Creswell & Plano Clark 2011:5).

The findings of the study were to be utilised to develop guidelines to upgrade the PMTCT programme usage. As such, it was imperative to investigate as generally as potential perspectives and encounters of people that were essential for the service delivery system as a framework. In such a manner, it was important to comprehend the perceptions and experiences of care providers and women.

3.3 RESEARCH METHOD

The chosen research method for this study was qualitative. Qualitative case study methodology offers mechanisms for researchers to study multifaceted phenomena within their situations. When the approach is applied correctly, it becomes a valuable method for health science research to develop theory, evaluate programmes, and develop interventions (Creswell 2014:43). In this investigation, the researcher was attempting to understand and portray the midwives' and nurses' and pregnant women's living with HIV behaviors; trying to track down their profound understanding of each other and give an understanding of their human behavior.

In this study, the purpose of the study is to require the researcher to get significant understanding with regards to the PMTC programme by in-depth interviewing the participants about their encounters and bits of knowledge. This was a descriptive study which used a subjective way to manage and assist the researcher with getting to understand the experiences of midwives, nurses, and pregnant women living with HIV on the PMTCT of the HIV programmer and how to run the programme in that unique situation. Case studies are designs of investigation that originate in many fields, especially evaluation, in which the researcher develops an in-depth investigation of a case, event, often a programme, activity, process, or one or more individuals.

Researchers collect detailed information gathered point-by-point data by utilising an assortment of information assortment systems throughout a supported timeframe (Yin 2012:141–155).

The essential assignment of the researcher was to uncover and explain (state exhaustively) the ways in which pregnant women living with HIV in the PMTCT programme come to understand, account for them, make a move and deal with their circumstances, just as the issues and hardships they experience. In this study, the emphasis is on the midwives and nurses working at the antenatal care clinic, who give PMTCT interventions to pregnant women living with HIV and pregnant women living with HIV at the facility level (specific setting). The institutional based case study was conducted in the antenatal care (ANC) clinic which provided the PMTCT programme in the Dessie City Administration and South Wollo Zone health institutions.

Thus, in this study, it was described how things are, the place where, when, and by whom, and it can likewise give an image of why results show in the manner they do. Then, at that point, the experience and perceptions of midwives, nurses and pregnant women living with HIV about the PMTCT service provided, about where it was given, when it was given (when pregnant women were tested positive for HIV and saved by the programme), by whom (midwives and nurses) and for whom (pregnant women) Notwithstanding, what are the associated factors with this programme? Besides, words from the midwives, nurses, and pregnant women living with HIV painted a picture of the PMTCT programme at the facility level.

3.3.1 Sampling

Sampling describes the procedure used to select a sample. On the other hand, a sample can be characterized as the people expected to address the populace to be contemplated (Henslin 2012:657). In this study, midwives and nurses who provided PMTCT services and pregnant women living with HIV utilized the PMTCT programme purposefully. They were key people in the HIV PMTCT program, having reached ideas and dealing with situations.

The purposive sampling technique is a non-probability means of sampling in which the researcher uses pre-determined standards as the reason for selecting the actual example for investigation or examination. In this methodology, the subjects were chosen from the population based on the study purpose with the anticipation that each participant would

provide exceptional and rich information of value to the study (Senam & Akpan 2014:472; Zhi 2014:105–111).

The possibility of purposeful sampling lies in selecting information-rich cases for study in complexity. Information-seeking cases are those from which one can learn a great deal about issues of focal significance to the motivation behind the request, thus the term "purposeful sampling. Studying information-rich cases yields in-depth understanding insights rather than empirical generalizations (understanding processes rather than proportions) (Patton 2015:265).

Purposive sampling is sometimes used to indicate that interviewees or participants are selected on the basis of their anticipated richness and relevance of information in relation to the study's research questions. Saturation has also become broadly documented as an indicator or a guide that sufficient data collection has been achieved (Yin 2011:311).

Qualitative methods are generally planned to accomplish profundity of comprehension and place primary emphasis on saturation (i.e., getting thorough comprehension by proceeding to test until no new considerable data is gained). So that individuals are chosen dependent with the understanding that they have information and involvement in the phenomenon of interest and, accordingly, will actually want to give data that is both point-by-point (profundity) and generalizable (expansiveness). Participants for a qualitative study are usually service providers and/or consumers drawn from the larger sample of participants (Palinkas, Horwitz, Green, Wisdom, Duan & Hoagwood 2015:533-544).

According to Palinkas et al. (2015:533-544), purposive sampling involves the researcher using judgment to select the cases that are most suitable for answering the research questions and to meet the objectives. And also, being taken is regularly not known at the beginning of a study. To define as the objective the sampling of information-rich informants that covers the range of variation assumes one knows that range of variation and there is no space to give equal chance to each participant. The researcher, on the other hand, used the conceptual framework and realized data to determine the saturation.

3.3.1.1 Population

Polit and Beck (2012:738) define a research population as a collective of all the individuals or objects to be studied with some common important features. The target population for the current study were nurses, midwives, and pregnant women living with HIV in the

antenatal clinic and maternity wards under the Dessie City Administration and South Wollo Zone health institutions. Midwives and nurses run the antenatal care (ANC) clinic and maternity wards in the health center and hospital. Their clients are pregnant women. living with HIV, who utilized PMTCT services. The targeted population (pregnant women living with HIV) was 18–49 years of age and the health providers drawn from the population of midwives and nurses were assigned to give PMTCT service in the antenatal care clinic and maternity wards, that is, whether they had a basic or advanced midwifery and nursing qualification. During the study period, pregnant women living with HIV who attended the antenatal clinic and maternity wards used in the PMTCT program were interviewed.

3.3.1.2 Study setting

This study was conducted in South Wollo Zone Dessie city administrations (first both of the include in one zone but now divided in two zones) which is found in Amhara Region in Northeast part of Ethiopia. The Zone is bordered by North Shewa on south, East Gojjam on west, South Gondar on northwest, North Wollo on north, Afar Region on northeast, and Oromia Zone and Argobba special district on east with possessing a total area of 17,067.45 square kilometers. It is one of the 11 Zones found in Amhara Region. The zone has twenty-two districts.

The total population of zone was estimated to be 2,518,862 and from those 1,248,698 were men and 1,270,164 women according to Central Statistical Agency (CSA) census of Ethiopia conducted in 2007. The population density of the zone is 147.58 per square kilometer. About 12% of the population inhabits urban areas ((Central Statistical Agency of Ethiopia (CSAE) 2011:2). The Zone has eleven governmental hospitals, one hundred twenty-nine health centers, and four hundred ninety-six health posts. The health institutions had their trained staff in growth monitoring and promotion at the health center and health post. GMP service is provided by health care workers for children less than two years at the health center integrated with health post according to information obtained from the South Wollo Zone Health Department.

3.3.1.3 Sample

In seeking respondents from whom to obtain information (i.e., in sampling), constructing an appropriate "sample" is a matter of considerable importance in designing a qualitative

study. As a result, researchers chose people they believed were well-positioned to shed light on the issue at hand. Knowledge of the object of study takes precedence over sampling theory (Cropley 2019:110).

Cropley (2019:110) asserts that in qualitative research, the critical inquiry of representativeness can be found from a different angle: it was not a question of "to what population can validly generalize from this sample?" but rather "what was the object of study for which these cases are relevant and appropriate?" Put in a less formal way, the key inquiry was, "Were the individuals from this sample" (individuals with whom I am talking) well-qualified to tell me about my object of study?" "Do they know a lot about it?" "Do they possess narrative competence?"

Purposive sampling refers to a non-probability sampling procedure in which the researcher uses their judgment to select those participants that best address the issues of the study. Furthermore, the selection follows some judgment or subjective thoughts of the researchers looking for a sort of "representative" sample, or researchers might even expressly seek variety; units are added continuously until researchers fulfill some criteria (Vehovar et al. 2016:328). The doctors and other categories of nurses who do not work in the PMTCT programme were not selected because only midwives or nurses who had actively worked in the PMTCT programme were mostly in ANC clinics.

One regular norm in qualitative sample size is arriving at thematic saturation, which refers to the point at which no new thematic information is gathered from participants. In addition, the idea of information power, or qualitative corresponding to statistical power, to oversee how many interviews should be collected in a study is introduced. They propose that the size of a sample ought to rely upon the aim, homogeneity of the sample, theory, and talk with a quality analytic strategy (Malterud, Siersma & Guassora 2016:6).

The total number of participants in this study was 3 nurses, 7 midwives, and 16 pregnant women living with HIV pregnant mothers. From the total population of midwives and nurses who provided PMTCT, 4 midwives and 2 nurses from the South Wollo Zone and 3 midwives and 1 nurse from Dessie City Administration health institutions were interviewed. Thus, a total of seven midwives and three nurses were interviewed for the study, and seven of them had a B.Sc. and three of them had a diploma in their profession. 16 pregnant women living with HIV were interviewed when they were attending an antenatal care clinic in the health centre and hospital to use the PMTCT programme at the time of the study period. In

general, these 26 participants were enough to get sufficient information and the idea was saturated.

The birth assistants, attendants, and pregnant moms living with HIV (test of 26 members) were exceptionally helpful with the end goal of this study in giving an image of PMTCT services at the facility. These participants were considered helpful for this study, in light of the fact that the midwives and nurses led the PMTCT programme, and the outcomes of the programme relied upon them and the number of pregnant women living with HIV.

3.3.2 DATA COLLECTION

Phase -I-

3.3.2.1 Data collection approach and method

The data collection instrument utilised in this study was the semi-structured interview questionnaire (Annexure 11). In-depth, face-to-face interviews were conducted using two arrangements of open-ended questions. The interview was semi-structured and questions were prepared based on the research objectives The wording of the questions is modified by the researcher to best fit based on the result of the pre-test of the interview questions for the interviewee and interview context.

3.3.2.2 Development and testing of the data collection instrument

- **Pilot study**

It is useful and a basic angle during the time spent conducting research as it features the unconstrained creation of the significant study (Abdul-Majid, Othman, Mohamad, Lim & Yusof 2017:7). So, the researcher conducted a pilot study (pre-tested) of the interview questions. The participants in the pilot study were not included in the study. Boru Hospital, located in the vicinity of Dessie City Administration and Worebabo health centre, located in South Wollo, was selected for the pilot study. Four people were used for pertest, including a nurse or a midwife and two pregnant women living with HIV.

The pilot study was conducting a survey similar to the major study. Semi-structured questions were asked for data collection The participants were approached to give perspectives on the interview tool like the length of the inquiries, timing, lucidity, state of language effortlessness, affectability, and propriety of the inquiries. Face-to-face in-depth

interviews were done in private rooms with closed doors at health institutions, and additionally, the interviews were carried out in Amharic language since Ethiopian is commonly used throughout the nation and it was easier for both the interviewer and interviewees to have agreeable conversations. A letter of informed consent was given to each participant, and the researcher obtained approval from both participants before the interview was conducted. The interviews were recorded using a digital recorder.

- **Finding of the pilot study**

The interviews with the professional nurse, midwives, and pregnant mothers took 30–45 minutes individually, and the questions were open-ended to permit the participants to answer freely and to express their sentiments, feelings, and experiences. Positive feedback was given and no problems were identified that required an adjustment or changes to the interview schedules. The nurses and midwives said that the overuse of antibiotics for pregnant women was normal and not insensitive in terms of triggering disturbing emotions and it was good to keep her confidentiality. The questions were ready to direct the interview sessions, and subsequently, participants did not depart from the topic. The participants were able to give a clear picture of their experiences with the PMTCT services at the facility level, and their recommendations were constructive and could be used to change or improve PMTCT services.

The pilot study assisted the researcher to build on the interview guide. As a result, the researcher changed the inquiries were restated and sequentially adjusted, and effective tests were made because of the issues that arose during the pilot study. Thus, the interview framework was returned to and an extra three focal inquiries were added to the interview framework to permit the nature of information and more profound reactions from the participants. Furthermore, to ensure its significance to accomplishing the aim of the study, the researcher included questions necessary to measure the concept (Castillo-Montoya & Dikko 2016:811–831).

3.3.2.3 Characteristics of the data collection instrument

Semi-structured interviews include a short list of 'directing' questions that are supplemented by follow-up and testing questions that are reliant upon the interviewee's responses (Rajaratnam, Marcus, Flaxman, Wang, Levin-Rector & Dwyer 2010:43). All questions should be open-ended, neutral, clean and free from driving language. gives details of the kinds of guiding questions, including ‘great visit’ questions, as well as (Spradley 2016:70) core questions and planned and unplanned follow-up questions. After developing the (semi-structured) guiding questions, it is important to pilot test the interview. Knowing the guide helped me step into the interview (and not run out of time), use a conversational tone, and make important changes to the questions.

3.3.2.4 Data collection process

The researcher conducted individual interviews in nine ANC clinics of the health institution; 26 participants (16 of them were pregnant women living with HIV) and 10 of them were health providers (nurses and midwives provided PMTCT services). The researcher selected the health institution based on the provision of PMTCT service for a long time. Unfortunately, at the time of data collection within two health institutions, there was a lack of HIV test kits. So, the researcher interviewed only the health providers within this institution but not the pregnant women living with HIV since they were referred to the health institution to get the service referred to other health institutions nearby. The researcher took a greater number of pregnant women living with HIV from the nearby health institution that provided the service.

The pilot study affirmed that questions were not insensitive or too personal as per health providers. The feedback input likewise affirmed that the participants could relate to the flow of questions, kept the context and gave relevant responses to the questions. The questions were, at that point, degusted, and the questions were straight to the point and not very long, permitting the participants to answer unreservedly. After the pilot study was finished, the researcher got the opportunity to transcribe word-for-word, manage, and code the data with two PhD course mates. The researcher exercised the gains gained from translating and dealing with the information, empowered with some information on the best way to sum up the records and recognise codes. Without uncertainty, the significance of the pilot study helped researchers to refine systems prior to leaving into the major study phase and,

furthermore, ensure its importance to accomplishing the aim of the study, and researchers included questions necessary to measure the concept (Castillo-Montoya & Dikko 2016:811–831).

Accordingly, the interview framework was revisited and an additional three central questions were added to the interview framework to permit quality of data and deeper responses from the participants. At the highest point of that, it was completed to research the appropriateness of the interview questions to look for data on the setting this study desired to investigate and as preparation for the major study. Significantly, the pilot study permitted the researcher to rehearse the interviewing techniques and the adjustments and ideas remembered for this paper derived from personal experiences with interviewing.

3.3.2.4.1 Interview with health provider (nurse or midwife)

As an update, the researcher visited the Dessie city health Sub-district office and South Wollo Zone in two days prior to conducting the interviews. The sub-district manager informed the participating clinics through letters seven days before data collection to make professional nurses and midwives aware of and prepared for deliberately investment. The researcher visited the clinics the following week and the information letters and consent forms were given and signed the same day by nurses and midwives who were voluntarily willing to participate in the study. All nurses and midwives who were willing to participate in the study work in ANC clinic provided PMTCT services.

Prior to the interview, a nurse or midwife assigned in the PMTCT programme in hospital or health centre was contacted by the head of MCH team to discuss the purpose of the study and elicit their willingness to participate in the study. Once the nurse or midwife agreed to participate the information was relayed to the researcher who a visit to the nurse or midwife in the hospital or health centre for further discussion and possible interview. All of the nurses or midwives agreed to be interviewed just after they went off duty.

A private room was used to conduct the interview prepared by the healthcare provider themselves. The interviews were conducted in the morning, before starting the clinic's routine activities, or in the afternoon, after the workload was reduced, depending on the preference of the participants with the agreement of the MCH team manager. Participants were requested to sign a consent form before starting at the time of the

interview after understanding the purpose of the study.

Participants were likewise informed that a recording device would be utilised to record the interviews and that they were allowed to pull out during the questions in the event that they so wished with no punishment. Participants were free to answer questions (Annexure 11) during the interview as the questions were explained in their local language, which the researcher also speaks. The interviews lasted between 45 and 60 minutes and as participants were free to share their views, which reveal their inner thoughts, beliefs, attitudes, and experiences and were allowed to do that to obtain adequate information (saturation idea), they were interviewed individually in all nine clinics (Edwards & Holland 2013:51).

3.3.2.4.2 Interview with pregnant women living with HIV

A private room was used to conduct the interview prepared by the healthcare provider themselves. The interviews were conducted in the morning, before starting the clinic's routine activities, or in the afternoon, after the workload was reduced, depending on the preference of the participants with the agreement of the MCH team manager. Participants were requested to sign a consent form before starting at the time of the interview after understanding the purpose of the study.

Participants were likewise informed that a recording device would be utilised to record the interviews and that they were allowed to pull out during the questions in the event that they so wished with no punishment. Participants were free to answer questions (Annexure 11) during the interview as the questions were explained in their local language, which the researcher also speaks. The interviews lasted between 45 and 60 minutes and as participants were free to share their views, which reveal their inner thoughts, beliefs, attitudes, and experiences and were allowed to do that to obtain adequate information (saturation idea), they were interviewed individually in all nine clinics (Edwards & Holland 2013:51).

The current study was conducted by health institutions found four in the South Wollo Zone and five of them in Dessie City Administration, and permission to access the premises was granted by the Amhara Regional State of Health Bureau Research Institution (AHBRI) and the South Wollo Health Department, and also by the Dessie health administration department. The data were collected between January 26th, 2017 and February 22nd, 2017 GC, after each institution agreed to conduct the study. The

interview was conducted using a semi-structured questioner (Annexure 11) with both the health provider and the mothers in the same phase.

In the interview session, after each interview, I considered the process to make meaning and comprehend the main points of contention that arose. On completion of the interviews in that health institution, the researcher made a cursory visit to the various segments of the hospitals and health centres. The researcher was also noted in aspects of the physical environment, communication between the staff and clients, and the overall mind-set of different clients and staff in the programmes. A moral mentality ought to go from the earliest starting point of the research project, even before you decide who to interview (Ruthellen 2013:227). It should integrate respect, sensitivity, and tact towards participants throughout the research process.

3.3.3 Ethical considerations

An ethical attitude ought to go from the earliest starting point of the research project, even before you decide who to interview (Ruthellen 2013:227). It ought to coordinate regard, affectability, and affability towards members all through the research process. Ethical clearance for the current study was given by the University of South Africa College of Human Science and Health Studies More Serious Level Committee upon endorsement (Annexure 1). Permission to access the health care facility, to use the documents involved, and to approach the participants was granted by the Amhara Region Research Director (ARRD) and Zonal Research and Community Service Coordinator of the South Wollo Zone Health Department and Dessie City Administration Health Department (Annexures 3 and 4).

Informed consent was acquired. Prior to giving their consent, the participants were completely informed about the nature and extent of the study, which indicated the aim of the study, i.e., to assess the perceptions of both midwives, nurses of the PMTCT services offered at the facility and to make recommendations in this regard. The information provided in the consent form informed and reassured the participants that the study was not aimed at identifying their mistakes or taking punitive steps against them. No one was coerced to participate in the study. However, participants were informed about the purpose and possible benefits of the study.

Informed consent was obtained from all the participants to use tape recorders in the interview sessions prior to the interview. The health centre and hospitals offer antenatal care services for 8 working hours during the daytime. Therefore, day-assigned staff were interviewed to get their experience and perception of the PMTCT programme as the service providers. The pregnant mothers were interviewed to get their experience and perceptions of PMTCT services as recipients after they got the service.

The questions were ready in English first and later changed to local (Amharic) language collated data, which permitted them to offer their viewpoints all the more without any problem. The participant's response was changed to English for analysis. Alongside that, the chance of causing emotional harm was also avoided. However, a debriefing session was offered to the participants to assist them with dealing with possible emotional aspects of the interview. Some of the midwives had some emotional experiences like having to deal with angry partners and having to counsel pregnant women living with HIV who were in denial about their HIV-positive status, which led to non-adherence to PMTCT treatment. Thus, a debriefing session was conducted after each interview session. No pictures were taken to protect the privacy of respondents.

As indicated earlier, confidentiality in terms of identity was ensured through the use of pseudonyms. The participants were informed that if the study got published, pseudonyms would be used. The participants were informed about shared confidentiality with the researcher. No additional questions other than those agreed upon were asked except for instances where clarification was required, where the researcher was requested to simplify questions for better understanding or when the researcher wanted the participants to elaborate, for example, "tell me more." The time frame agreed upon was kept.

The interview schedules were adhered to and no re-imbursement was needed because the study was conducted at work when the midwives were on duty, and the pregnant women living with HIV were interviewed at the clinic in a private room. All participants (midwives, nurses, and pregnant mothers) were debriefed individually after the interview where they were asked about their feelings and experiences while taking part in the study. The health institution where the study was conducted informed us that feedback was given after the completion of the study.

3.3.4 Data analysis

Typically, in qualitative research, data analysis effectively begins at the same time as data collection. The purposes of qualitative data analysis are to allow you to "sort out information as far as the participants' meanings of the circumstance, noticing designs, themes, classifications, and consistencies" (Cohen, Manion & Morrison 2011:7). A first step is to look at how the researcher can make the amount of text manageable. Decisions A decision had been made in the design stage on how to record events and the contributions of participants, and there was a common tendency to end up with far too much material, with special care to prevent missing important contributions. And also, not to impose the researcher's own view on the data. Nonverbal cues, such as nonverbal communication, that could not be captured on the tape recorder, were incorporated into the transcription.

The original material needs to be put into a format that not only allows you to explore it but also makes it transferable. It was confirmed as accurate and put into a format which allows for analysis. Therefore, interviews were transcribed—in other words, they became text. The important thing is that the interviews could be recorded and shared with the participant(s). The researcher ensured coherent and concise data by cleaning up the data. It had been done by seeking to return an edited version of the transcript to the participant, which had not only taken out errors and repetitions, but also an agreed transcript, which allowed us to go on to the next stage of data handling, which is coding. All transcripts for women were labelled consecutively, with the first as 'P1', the second 'P2', to 'P16'. Furthermore, for wellbeing suppliers, the first was marked as 'H.P1', the second 'H. P2', and so on to 'H.P10'. The researcher read every one of the transcripts, comparing them with the audio tapes prior to analysis.

To synthesise and make sense of this data, the numerous highlighted ideas are grouped together into meaningful units by examining which of these concepts relate to each other (grouping the codes into themes). This is generally termed thematic analysis, which is the cornerstone of most QDA. A reader or researcher tries to make sense of the belonging.

The phenomenon under exploration would then be able to very quickly make sense of the overall phenomenon by just reading the themes (Archer 2018:1-24). In this study, all interviews were transcribed and analysed using the six research strategy steps related to Tesch's eight stages in the coding cycle (Creswell 2014:183–199).

The data were analysed as following six strategy steps and involved multiple levels:

- **Step 1.** Prepared the data for analyses from transcribing interviews; sorting and arranging the data depending on the source from women and health providers.
- **Step 2.** Read the all-translated data; provided the general sense of information ideas saying by the participants, its tone and the depth of their impression and take shape for visual data.
- **Step 3.** The data were started being coded by Tech's eight steps:
  - Jot down the ideas and transcribe carefully as the researcher read.
  - Pick one interview shorter and understanding the meaning.
  - Made a list of topics and then, cluster together into similar topics.
  - Abbreviate the topics as coded and write the codes next to the appropriate segment of the text.
  - Develop the most descriptive words for each topic and turn them in to categories.
  - Give final abbreviation for each category.
  - Assemble the data in each category in one place and perform a preliminary analysis.
  - Recode the category up to data analysis was finished.
- **Step 4.** Describing and thematized ideas according to coding.
- **Step 5.** Narrating the findings: detail discussion of themes (specific illustration, complete with sub-themes, multiple perspectives from the individuals and quotations.
- **Step 6.** Interpretation of the finding; discussed the result of this study with other studies.

An independent reviewer was engaged to review 30% of the transcripts against the audio tapes independently. The items were reliable with the first scripts. The transcripts were discussed with the nurses and midwives. Data reduction was done through coding, segmenting, and summarising the content of transcripts in relation to pre-determined categories. Transcripts from interviews and field notes were reviewed systematically to identify codes.

The analysis was both a deductive and an inductive investigation. The researcher reviewed the scripts and codes a few times to find consistency. Analysis identified patterns to generate themes. The generated categories and themes were additionally checked and refined, comparable to the codes.

At this stage (coding stage), the researcher was familiar with their own data well before starting. It is the most important stage of qualitative data analysis. The process of coding is a way of gauging the data to see what themes exist. Initially, to impressions of the data, the researcher analysed every word and line of text that effectively represented a different category (code). The data is, however, still unstructured.

The researcher grouped concepts together in meaningful units by related to each other (grouping the codes in to themes) to synthesise and make sense of the data and dubbed it thematic analysis, in which a researcher attempting to make sense of the phenomenon under investigation would then be able to very quickly first make sense of the overall phenomenon by simply reading the themes (Archer 2018:1-24), even though qualitative data typically consists of large amounts of text, so Therefore, the researcher organized and displayed the findings through the use of tables (Silverman 2011:30). The format was reviewed several times as new ideas were generated.

In general, with the end goal of the current study, the face-to-face interview was utilised to accumulate the information, which was captured through digital recording and handwritten notes (field notes) in the form of words and sounds. Furthermore, the digital-recorded interview was translated around the same time following the meeting, to keep away from the blending of data accumulated from various studies. The notes that were taken during the interview of the participants' body language, which could not be captured on the tape recorder, were integrated into the transcription. At the top of that, cleansing up data, coding, organizing the data, and displaying it in tables was done step by step. Finally, thematic categorization was employed after the transcribing was done, depending on the destinations of the study.

3.4 TRUSTWORTHINESS OF THE STUDY

It has additionally been noticed that a criterion for demonstrating and judging the quality of qualitative research is trustworthiness and originality (Daymon & Holloway 2011:84). Trustworthiness and originality are shown by the researcher's careful documentation of the process of the research and the decisions made along the way, as indicated by Daymon and Holloway (2011:84). A study is reliable when the systems utilised are appropriate for the genuine revealing of the participant's thoughts; when the study is sensible; and when it helps participants and similar groups to comprehend their reality and further develop it. The quality criteria for all qualitative research of trustworthiness

set forward by Korstjens & Moser (2018):120–124), credibility, transferability, dependability, and applicability were used to establish the trustworthiness of the qualitative study.

- **Credibility**

Credibility refers to the trust one can have in the reality of the findings (Ndapewa 2019). Williams (2018:73) states that exercises that expanded the believability of findings are: triangulation, peer review or questioning, external audits/auditing, part-checking, prolonged engagement, negative case analysis, iterative addressing. Researchers' foundation capabilities and experience, as well as an assessment of previous research findings In this study, two approaches—semi-structured interviews and field notes were used to assure credibility. The study likewise analysed perspectives according to alternate points of view like nurses, midwives, and clients to enhance data source triangulation. Moreover, the research process was reviewed by an independent reviewer. Interview transcripts were talked about with all the health expertise, nurses and midwives on the telephone to check the precision of realities and perceptions.

- **Transferability**

As indicated by Bhattacharjee (2012:5), transferability implores researchers to provide rich, definite descriptions of the research context ("thick depiction") and altogether depict the designs, suspicions, and processes revealed from the data so per user search independent evaluates whether and to what scope the reported findings are transferable to other settings. Adaptability in this study was accomplished through a rich interpretation of the study sites and a clear description of the methodology.

- **Dependability**

As per Bhattacherjee (2012:5), constancy, similar to reliability in quantitative research, can be seen as rehashed research by different researchers evaluating a similar circumstance utilising a similar arrangement of affirmations autonomously and coming to a similar end result. To achieve this, researchers must provide adequate details about their situation of interest and the social context in which it is embedded so as to allow readers to independently validate their interpretive inferences.

It fundamentally helps by using review trails. In this study, reliability was created through

giving sufficient documentation to work with request review. One independent reviewer reviewed 30% of the interview transcripts, self-supporting in the case of the audio tapes, and indicated consistency with the original transcripts. A similar independent investigator glances into the codes and themes that were produced by the researcher from the information (Bhattacherjee 2012:5). Then, at that point, a review of the approach, records, and framework of data analysis was confirmed.

- **Confirmability**

Confirmability refers to the degree to which the findings depicted in a study can be freely affirmed by others (Bhattacherjee 2012:110–111). As expressed by Korstjens and Moser (2016:345–369), the idea of conformability is the qualitative researcher's comparable concern to objectivity. Steps must be required to help verify as far as possible that the work's findings are the result of the experiences and ideas of the informants rather than the characteristics and preferences of the researcher. In this study, the transcripts were discussed with the health professionals that participated in the study on the phone. Consensus meetings were held with the women at their revisit time to discuss the transcripts. A comprehensive literature review was carried out to validate the findings.

Phase- II

3.5 DEVELOPMENT OF GUIDELINES FOR ENHANCING PMTCT PROGRAMME INPLEMENTATION

To draft the guidelines, the researcher process followed the key steps recommended by WHO, the findings from the studies, and an extensive literature review. WHO (2014a:19) recommends that many groups and individuals be involved from the start of the guideline development process. In accordance with this, for guideline development, the researcher utilized the Delphi Method. It is noteworthy that the presumption of the Delphi method is based on the fact that group opinion is more substantial than individual opinion (Keeney, Hasson & Mckenna 2011:3).

For any arrangement of issues or thoughts, the Delphi method is used to set priorities and fundamentally to acquire consensus (Keeney et al. 2011:5). Besides, 19 multidisciplinary experts' opinions and inputs were included and looked at for their expertise were involved in the draft guideline. It was to minimise the risk of bias as the recommendations were included in the guidelines (WHO 2014b:2).

3.6 CONCLUSION

In this chapter, the researcher described the philosophy of the current examination and illustrated the study design, population, sampling technique, sample, data collection, data analysis, and how to ensure trustworthiness and authenticity of qualitative studies. It additionally included how ethical considerations were addressed. The study design was exploratory, descriptive, and case study, and employed qualitative methods. Using mainly purposive sampling techniques, data was gathered from nurses, midwives, and women who utilised PMTCT services in the health centres and hospitals. Data were analyzed using thematic categorizations, which discussed how to develop the guidelines while keeping ethical considerations in mind throughout.

CHAPTER 4

ANALYSIS, PRESENATION AND DESCRIPTION OF THE RESEARCH FINDINGS

4.1 INTRODUCTION

This chapter presents and discusses qualitative data findings. Semi-structured interview guides were used to explore pregnant women living with HIV and professional nurses' and midwife's perception, knowledge, and experience with regard to prevention of mother-to-child transmission (PMCT) service at purposively selected antenatal care clinics located in South Wollo Zone and Dessie Town Administration hospitals and health centers. Participant demographics are shared followed by themes that emerged from data and the discussion.

4.2 DATA MANAGEMENT AND ANALYSIS

Data was collected from 16 pregnant women living with HIV and 10 nurses and midwives. Participants for in-depth interviews of pregnant women living with HIV were between 2 and 3 at each of the ANC clinics that provided PMTCT programme, and nurses and midwives were between 1 and 2 at nine ANC clinics provided PMTCT programme.

In-depth interviews were held with pregnant women living with HIV and professional nurses and midwives as the source of information. Information was caught through a sound recorder. Audio tape was utilized for recording the interviews. Likewise, field notes were taken during the interviews as back up and check of data acquired all through the meetings (Bowling 2014:397). Unstructured interviews guides were written in English and explanation of ideas done through Amharic during interviews with the women, as the researcher communicates in Amharic as a home language.

The collected data was classified, arranged and coded by health institutions and participants (health providers and pregnant women living with HIV) after each interview for validity and identification (Creswell 2014:22-250). Record and inclining to voice accounts were the same day with confirmation done by the utilisation of notes taken

during the interviews. The grounded hermeneutic technique for analysis was utilised i.e., analysis of data through themes emerging from participants' response (own stories) thematic method of analysis was also applied to achieve the objective of the study (Bowling 2014:402). Data was classified into major themes and sub-themes.

The research findings were presented according to the demographic characteristics, categories of clinics, major themes, sub-themes and sub-categories of individual participants' responses based on the objectives of the study. These subjects were assembled by the impression of pregnant women living with HIV to use PMTCT programme, about susceptibility to transmission of the disease to their children, severity to transmission of disease to their children and its consequence, perceived benefits of to use PMTCT programme and adhering to their anti-retroviral drug regimens, barriers to use PMTCT programme and adhering to their anti-retroviral drug regimens, they cues to action and intention to use PMTCT programme and adhere to their prescribed anti-retroviral drugs and the experience and perception the health provider about PMTCT programme.

4.3 PART 1: RESULTS OF STUDY ON THE KNOWLEDGE, PERCEPTION AND EXPERIENCE OF PREGNANT WOMEN LIVING WITH HIV ABOUT MTCT AND PMTCT PROGRAMME

4.3.1 Women's demographic characteristics

This sub-section presents information about participants' segment attributes acquired through inquiries in the segment of the interview schedule. These included participant mothers' age, resident, marital status, religion, educational level, occupational status and their economical level. A total of 16 respondents attended followed PMTCT programme at different ANC clinics in Dessie City Administration and South Wollo Zone participated in the study. Their demographic and socio-economic characteristics are presented in this sub-section.

4.3.1.1 Age categories of participant mothers

The age range of participants was between ages 20-39 as illustrated in Table 4.1.

Table 4.1 Age categories of mothers (N=16)

Age category	Number
20-24	3
25-29	4
30-34	5
35-39	4

The age distribution in Table 4.1 indicates that the mother of reproductive age groups as a standard (Central Statistical Agency of Ethiopia (CSAE) and ICF International 2012:1-452). The fertility age is between 15-49 years old. However, the findings indicate that most of them were included between the ages of 20-39 years and it also the median age of women who were in the PMTCT programme at the time of their pregnancy.

4.3.1.2 Place of residence of participant mothers

In this finding most of the participant utilised in PMTCT programme 13/16 (81%) were living in urban area and the other 19% were living in rural area.

4.3.1.3 Marital status of participant mothers

Concerning to the marital status of the participant mothers all of them were married.

4.3.1.4 Religion of the of participant mothers

When we come to their religion most of them were Muslims i.e., follow the religion called Islam (11/16) and 5/16 of them were following Orthodox Christianity as a religion.

4.3.1.5 Educational level of participant mothers

The levels of education of the participants and levels of adherence were cross tabulated. The results indicated that the respondents were mostly in three levels of education. More than half of them (10/16) are educated up to high school and one of them was educated in higher institution. Only two of them were illiterate.

4.3.1.6. Educational level of their partners

More than half of the respondents' partners (9/16) were illiterate. Five out of sixteen (5/16) learnt in elementary and high school and only two of them joined college and high-level education. As the finding got from the health professional participated in this study, the educational level of their partners affects proper implementation of PMTCT programme. So, some of the mothers say for their health provider "I have not disclosed my result to my partner as I thought he might not understand me and he might say it is up to you; where have you got the disease?".

4.3.1.7 Economical level of participant mothers

Most of the participants (10/16) were living in lower-level economic income groups. They got 500-999 Ethiopian Birr per month and the rest (6/16) of them lived with mid-level economy got 1,000-5,000 Ethiopian birr per month. The service was given free of charge. Hence, even though they lived within lower-level economy, the participant mothers in this study follow PMTCT programme continuously.

4.3.1.8 Occupations of participant mothers

Most of them (12/16) work in their home as housewives. One of them work as a secondary school teacher and the other three were daily laborers. This implied that, economic status, most of the participants (10/16) were living in lower level of income groups as they got 500-1,000 Ethiopian Birr per month.

4.3.2 Reproductive issue of participant mothers

This sub-section presents data about participants' reproductive issue got through inquiries in the reproductive issue part of the timetable. These incorporated participant mothers, number of pregnancies, number of deliveries, number of children alive, place of delivery on the last childbirth, duration of current pregnancy and number of visits in the current pregnancy. A total of 16 participants who attended PMTCT programme at different ANC clinic in Dessie city administration and South Wollo Zone participated in the study as presented below.

4.3.2.1 Number of pregnancies

From pregnant women living with HIV and who participated in this study, all of them except two had history of pregnancy more than two times (multi-para).

4.3.2.2 Number of deliveries

Two of the mothers gave birth more than four times; half of the participants (8/16) had histories of giving birth two to four times. Five of them gave birth only once and one participant had a history of one still birth.

4.3.2.3 Number of children alive

Those mothers got HIV free child due to the presence of PMTCT programme and utilization of the service in the previous time. They promoted to use the programme. The number of children of the participant mothers had alive children on the time of data collection. Five of them had only one child and half of the mothers (8/16) had two to four children and all of them were free from HIV.

4.3.2.4 Place of delivery on the last childbirth

Most of the participant mothers (13/16) gave delivery in health institutions and the other two gave delivery in their homes.

4.3.2.5 Duration of current pregnancy

Concerning to the duration of current pregnancy, half (8/16) of the participants were in the second trimester. Six of them in the third trimester and only two of them were in the first trimester.

4.3.2.6 Number of visits in the current pregnancy

Within this study, findings obtained from the health professionals provided PMTCT service say that when the results were HIV positive for the first time, the mothers lost from PMTCT programme or changed their environment and went to other health institutions and even started and interrupted the use of the drug. Two of the participants

visited other health institution in the previous pregnancy, but now all of them visited this health institution we have done this study. Five of them visited for the first time; some of them (7/16) visited two to four times and the rest of them visited more than four times. In general, this implies that most of the participants of this study followed PMTCT properly.

4.3.3 Clinical categories of participants

Taken part in the investigation and were coded in numbers as arrangement of interview time. The researcher moved to the next clinic as soon as data saturated in each clinic, prompting a reduced number of participants in subsequent clinics as the interviews continued. Seven clinics met the selection criteria (have ANC clinic to provided PMTCT service).

Table 4.2 Number of women interviewed in ANC clinics (N=16)

Clinics	Number of women
1	2
2	2
3	2
4	2
5	3
6	2
7	3
Total	**16**

4.3.4 Discussion of the findings

The research had introduced the findings as Parahoo (2014:254) states that findings ought to be written so that readers can feel when specific occasions or episodes are described and depicted as though they had been there. The reactions were classified by major themes and sub-themes. The major themes were in to five that depending on the destinations of the study and were grouped according to modifying factors that could influence pregnant women living with HIV to use PMTCT programme. It included pregnant women living with HIV perceived susceptibility to transmission of the disease to their children, and pregnant women living with HIV perceived severity to transmission of the disease to their children and its consequence, pregnant women living with HIV perceived benefits of using PMTCT programme and adhering to their anti-

retroviral drug regimens, pregnant women living with HIV perceived barriers to use PMTCT programme and adhering to their anti-retroviral drug regimens pregnant women living with HIV cues to action and intention to use PMTCT programme and adhere to their prescribed anti-retroviral drugs are presented in Table 4.3.

Table 4.3 Major themes and sub-themes

Major theme	Sub-theme
Theme 1: Perceived susceptibility to transmission of the disease to their children	• Knowledgeable and information • Knowing their status and live with HIV/AIDS • Knowing their husband status and live with HIV/AIDS fear of the transmission of the disease for their children
Theme 2: Perceived severity to transmission of the disease to their children and its consequence	• Misery due to loss of a partner • Experiences of loss of pregnancy and baby • Fear of stigma and discrimination • Fear of death • Fear of MTCT of HIV
Theme 3: Perceived benefits of to use PMTCT programme and adhering to their anti-retroviral drug regimens	• Get HIV free child • Manage a healthy lifestyle • Consider importance of the drug and PMTCT programme
Theme 4: Perceived barriers to use PMTCT programme and adhering to their anti-retroviral drug regimens	• Lack of interest to disclose their status • Their beliefs or misperceptions • Dissatisfaction with the provided service • Fear of divorce • Travelling challenges
Theme 5: Cues to action and intention to use PMTCT programme and adhere to their prescribed anti-retroviral drugs	• Effectiveness of the drug for disease prevention • HIV free baby as a motivator • Women health provider interaction

4.3.4.1 Theme 1: Perceived susceptibility to transmission of the disease to their children

When the mothers know the way of transmission of HIV from mother-to-child and know their HIV status, they understand their susceptibility of their children to acquire the disease from them. So, they are eager to utilize PMTCT service to gain HIV free child. It is discussed as follows.

4.3.4.1.1 Knowledgeable and Information

Majority of the pregnant women living with HIV and who participated in this study (11/16) 69% had a knowledge of the time when and how HIV is transmitted from mother to their child and how to prevent it. The mothers utilized PMTCT service and expressed as:

> **P1:**
> "Yes, I know the time of transmission; during pregnancy labour, and at the time of lactation period."
>
> **P5:**
> "Yes, I know the time of transmission; at the time of pregnancy, labour, and breast feeding."
>
> **P16:**
> "Yes, I know the time of transmission, when mothers give birth outside the health institution."
>
> **P3:**
> "Yes, I know the prevention method; ART can prevent MTCT."
>
> **P7:**
> "Yes, I have seen mother with HIV has born HIV free children because she follows PMTCT programme properly, even though there are mothers who do not believe by PMTCT."
>
> **P8:**
> "I had a knowledge of the way of MTCT of HIV at the time of pregnancy, labour and breast feeding, so I have been following and use PMTCT programme to prevent the transmission of the disease to my child."

Some participants were motivated by the health workers to take HIV test during ANC. When the pregnant women arrived at the ANC, the health service providers advise them to get tested because they would know their status and get counselled on how to protect their babies by regularly taking of ATR drug and follow PMTCT programme. They had taken the advice and attend for PMTCT programme regularly as explained by participant stated as follows:

P2:

"The health provider told me about the drug (ART), can prevent the transmission, so I take daily."

P11:

"I was advised by the nurse about the advantages using PMTCT programme and regularly use of the drug, so I have been taking the drug on a daily basis and follow PMTCT programme."

P11:

*Based on the information I got from health provider, I will give breast milk only for 6 months and continue additional food for the next month to minimize the transmission."

4.3.4.1.2 Knowing their Status and live with HIV/AIDS

The result of this study reveals that mothers who already know their status and live with HIV/AIDS were interested to use PMTCT programme in order to prevent the transmission. One HIV positive pregnant mother who became pregnant for the first time stated during the interview session:

P7:

"I already knew my status and live with HIV/AIDS. In order to prevent the transmission of the disease to my child, I came early before three months of pregnancy in antenatal clinic to follow the PMTCT programme."

4.3.4.1.3 Knowing Their Husband Status and Live with HIV/AIDS Fear of the Transmission of the Disease for their Children

Mothers that already have known the status of their husband lives with HIV/AIDS came to ANC clinic in order to start PMTCT. When pregnancy occurred, for fear of the transmission of HIV to their children, they reported as follows:

P5:

"My husband already knows his status and have been taking the drug, so when I Became pregnant, I came to health Institution and gave blood for screening and my Laboratory test result become positive for HIV and then I had started ART and followed PMTCT."

The finding of this study revealed that pregnant mothers having knowledge about the way of the prevention of MTCT of HIV and the way of its prevention, mothers know their HIV positive status and HIV status their husbands help to perceive their susceptibility to the transmission of HIV to their children. So, it is used as reinforcement to the mother come early in ANC clinic to utilize PMTCT services in order to prevent HIV transmission to their children. This finding is in line with the study of assessing factors associated with readiness for VCT service utilization among pregnant women done in North-western Ethiopia in focus group discussions (FGDs) that were reported as: "*Pregnant women who had high perceived susceptibility were three times more likely to accept VCT as compared to those who had low perceived susceptibility levels".* (Moges et al 2011:112)

4.3.4.2 Theme 2: Perceived severity to transmission of the disease to their children and its consequence

The mothers' belief about the seriousness of HIV, the sequence of MTCT of HIV and personal feelings related to the consequences of HIV condition, associated social consequence consists of effects on family life and social relation (perceived). Mortality and morbidity of HIV/AIDS were under another recurring theme in this study participants reported as enhancing for the use of PMTCT programme.

4.3.4.2.1 Misery due to loss of partner

The consequence of HIV; when their husband died by HIV and the mothers suffering from different problems and participant expressed their feelings as follows:

P15:

"My first husband died due to HIV/AIDS and I live with a 5-year-old child. two years back, I was critically sick of my uterus and it had sharp pain specially in the night. one night I was suffering from severe pain and my child was near to me alone. I asked why me and my child suffer in this world I took knife for slaughtering my child

and then me."

"When I regained my consciousness; I take away knife and I was crying, at the time of interview she said "oh, ofu-ofu" and she cried."

"After that, she said that I was treated and now I have been live with the 2nd husband have same status with me and take ART drug, and then I have been pregnant for the second child by utilise PMTCT programme in order to get HIV free child."

Pregnant women living with HIV who have been using ART drug for the past 13 years, participated in interview session and reported her life experiences as follows:

P2:
"My first husband died of HIV/AIDS, so I had a child without father. In order to live long time and give care to our child previously, I have used ART drug and. At this moment I have married the 2nd husband with same status to me and now I am pregnant and then to prevent MTCT of HIV, I have been following PMTCT programme regularly."

The finding of this study identifies that, the consequence of the disease (HIV) and its pain due to complication of it make the life of the mothers miserable and develop emotional stress when they lost their husband by death and living within their children alone, they dislike their life. They need a healthy life and stay for long time in order to give care for their children. It is in line with the study done on exploring factors that enhance utilisation of and adherence to prevention of mother-to-child transmission (PMTCT) of HIV, beyond a strong commitment to protect their infants from the HIV virus, women expressed a genuine desire to love and nurture their children's some, this gave them a purpose in life and at last motivation to remain alive (Karuta, Masho & Vanderbit 2014:11).

4.3.4.2.2 Experiences of loss of pregnancy and baby loss

The past experience of the reproductive issue of the mother had own positive impact to use the PMTCT programme. Eight-month HIV positive pregnant mother who participated in the interview session reported as follows:

P9:

"This is the 2nd time pregnancy I lost my first infant at the time of nine month of pregnancy within the follow up of PMTCT and taken the drug at the moment she cannot and she was crying, then she continues interview she said that, I have been not sure the drug to prevent MTCT, even though I have been taken the drug and followed PMTCT programme regularly in order to keep safe my unborn baby."

The fourth time pregnant women living with HIV in interview session reported that:

P1:

"I lost my child in the early life (at one year of life) without knowing my HIV status and without following up of PMTCT programme. so, now in order to prevent the loss that might occur again, I know my status had regularly use PMTCT programme."

P11:

"Within the first pregnancy I had story of still birth at the 8 months, so I have used Norplant to prevent pregnancy, but within it I was suspect and when I fill pregnancy manifestation at time of5 months due to fear of the previous event, my husband and I went to health institution to give blood for screening and my result was positive, then I started the drug to prevent still birth (MTCT of HIV) and in order to get healthy infant."

This study explored that those mothers had a history of child lost suspected with relation of MTCT of HIV. In the current pregnancy they come to PMTCT programme early in order to prevent previous problem. This study result is supported by study done in Corte d' Ivoire in Western Africa that reveals the inspiration to secure their unborn child was more articulated in moms who had previously lost young children because of HIV. They determined to prevent losing another child due to HIV by seeking to keep good adherence to ART during pregnancy as indicated by Buesseler, Kone, Robinson, Bakor and Senturia (2014:1-7). Furthermore, significant inspiration for women to adhere to ART during pregnancy, particularly for the people who had as of now lost a child by the disease (Elwell 2016:5).

4.3.4.2.3 Fear of Stigma and Discrimination

Those mothers perceived severity of the disease and its consequences that affect a

their social relation and their life experiences. Some of the mothers who participated in interview session say that:

P3:

“Due to fear of stigma for me and my families I came from far area (more than 300 km) for PMTCT follow up, even if there is PMTCT programme nearby my home.” This helps me stop the continuity of this kind of crisis for my child.”

P8:

“After finishing from PMTCT programme, I did not go to ART room, because the service is not isolated from others. So, it exposed me to the population and it may have developed stigma to me.”

P10:

“The disease is very serious for human being; it causes stigma and discrimination by the Community and my family. In addition, stigma became the cause of divorce from their partner, so, in order to stop this kind of disaster in the future and to get HIV free child, I have used PMTCT programme regularly and used ART drug continuously.”

P12:

“I had been already pregnant without know my status. but If the mother lives with HIV and know her status as much as possible, I give advice for them not to being pregnant.”

P10:

“I was sick for long time and my family gave good care for me, but I could not get better from my sickness. As a result, I gave the blood for test and when I knew my status, our neighbor stigmatizes me and my family. Beside to that my brother also stigmatised me and he said you transmitted the disease for my child when you kiss him, so you cannot live with us and he hit me and I was migrated f r o m my village to another place, ultimately, I have been married with the same status now and I have been pregnant, so I have been used the PMTCT programme and have been taking ART in order to minimise or stop the occurrence of that bad consequence again with my child.”

P8:

"I had seen those pregnant mothers suspected to HIV/AIDS, not attended to ANC clinic of blood screening and use PMTCT programme due to fear of stigma and discrimination."

P3:

"My husband supports me, so I have used the programme regularly, whereas I know some of the mothers did not been interested to screen, know their status and disclose to their partner due to the fear of discrimination and divorce."

HP/P3:

"The mothers are afraid about the people to know their status, and the consequences of it. that is stigma, discrimination and fear of divorce by their partner."

HP/P5:

"Most of the mothers are uninterested to disclose themselves to their family, partner and to the community". "I had been experiencing one mother, when she finishes PMTCT programme and link to ART room", "she said that" I did not go to ART room and I knew when she discontinued the drug."

HP/P6:

"The drug is very important; but some of the mothers cheat me about discontinuity of the drug and it is manifested by the occurrence of some sign of opportunistic infection, when they couldn't take the drug properly and it needs continues counselling of the mother in order to take the drug regularly."

The finding of this study shows that as most of health provider participated in this study expressed as pregnant mother living with HIV had frustrated on MTCT of HIV, it's side effect of drug to their children, shortage of in accessibility of ART drugs in the future and stigma and discrimination. Most of these issues have been discussed in the above had created frustration on mother. It may be necessary any human being the mothers need safe and hopeful life in the future.

The finding of this study revealed that regarding to stigma and discrimination it has its own negative effect to use PMTCT programme, lost from follow up and interrupted use of ART drug. Most of the mothers in this study supported by their husband had followed

PMTCT program and beside to that they expressed about other mothers, “due to fear of divorce, stigma and discrimination they were not attending in antenatal clinic, even they have suspected the presence of HIV virus within their blood”. This study results congruent to study done in Ethiopia. Adedimeji et al (2012:7) also say that stigmatization and poverty, which are sub-factors of socio-cultural and socioeconomic factors respectively. Some women fear negative reaction and rejection from their partners or discrimination from wider communities were discovered to be vital to the ineffectiveness of PMTCT programs.

This study finding revealed that those mothers disc rime and stigmatized by their family and the community. Due to fear of these sequences, some of them travel along distance to utilize PMTCT program and in order to minimize it and some of them migrated to other area to relive from them. Even though they use ART drug continuously and follow PMTCT program till now (in the interview session). It is associated to a study done by Behboodi-Moghadam, Khalajinia, Nikbakht, Mohraz and Gharacheh (2015:12) that pregnancy had been commonly associated with stigma and discrimination for all women, especially, for those HIV-infected. Most of women participated in this study experienced stigma, discrimination and isolation through their pregnancy time. Some of them feared the negative effects of pregnancy on their health; it may worsen their disease and led to premature death.

On the whole the seriousness of stigma and discrimination related to HIV had negative reinforcement to use ART drug and follow PMTCT program in order to cope it and it enhance to utilize them to protect this hazard for the next generation specially for their children.

4.3.4.2.4 Fear of death

Learning from their life experience how to pass its different consequences of the disease can confirm the importance of the PMTCT program, so the mothers should stick to use PMTCT program. The one pregnant mother living with HIV in interview session reported that:

P2:

"When I know my status for the first time, I felt like I cannot stay alive."

"So gave my daughter for foreign adoption, at that time I was fear that my child might be left on the rod without family, however due to continuous use of the ART drug and regular follow up of PMTCT program, I have been running a healthy life and I had born HIV free child and now to prevent the present fetus I have been using the drug like the previous time."

Those pregnant women living with HIV and use ART drug had fear of death in the future due to development of the shortage of ART drug.

P4:

"In order to prevent this dangerous disease from my child and to live healthy life I have used ART drug, even though I fear that when I become older is the disease develops complication and will get the shortage of the drug in the future."

The finding of this study revealed that those mothers living with HIV had develop fear of death and fell their children left without support, could encouraged them to use ART drug continuously. It may be the mother use the drug as a coping mechanism to relief from fear of death and it is congruent to the study finding of Behboodi-Moghadam et al (2015:12) say that the experience of pregnancy in HIV-infected woman is associated with hope and fear, sigma and discrimination, stability and security of marriage and trust to God. Despite concerns about the transmission of HIV to the baby, and uncertain life span, HIV-infected woman intended to continue pregnancy to experience motherhood and they view the child as window of hope. Beside to that, for woman the experience of motherhood was symbolized as the completion of being woman and a chance to enhance their life. Yet, they were afraid of their premature death and leaving their children alone growing up without mother.

4.3.4.2.5 Fear of MTCT of HIV

Some of the mothers' fear MTCT of HIV even though, they use drug and express their fear as follows:

P16:

I fear for my fetus not only for the transmission of the disease but also the drugs hurt him. During the interview she said “oh” when I knew my status before, I did not get pregnant. Even though I am pregnant now then, I have used the drug properly and followed PMTCT program to prevent the disease for my fetus.”

The finding of this study described that, mother’s belief about the seriousness of HIV, the sequence of MTCT of HIV and personal feelings related to the consequences of HIV condition, associated social consequence effect reflect on family life and social relation(perceived). And also, mortality and morbidity of HIV/AIDS were under another recurring theme enhancing for the utilization of PMTCT program. It is congruent to a study of factors influencing pregnant women to undergo HIV testing and counseling during antenatal clinic in Malawi, were stated that: Perceived threat (aggregate of the sum of perceived susceptibility and perceived severity) fails to produce a valid statistical association with HIV-test of ANC attendees and taken the drug. and the main motivating factor for taking HIV test is the desire to protect the unborn babies and to access HIV treatment and care when the results are positive (Mtumbuka, Maluwa, Malata, Pandani & Bultemeler 2012:6).

4.3.4.3 Theme 3: Perceived Benefits of to Use PMTCT Program and Adhering to their Anti-retroviral Drug Regimens

When mothers already understand the benefit to adhere to their anti-retroviral drug regimens and utilize PMTCT program. They take the drug regularly and follow PMTCT program continuously. Like, get HIV free child, run a healthy life, have good health condition and observe importance of ART drug and PMTCT program and pregnant women living with HIV who participated in interview session reported as follows.

4.3.4.3.1 Get HIV Free Child

Mothers got HIV free child due to use ART drug and follow PMTCT program, as she expressed as follows:

P4:

"I started the drug at the pervious time of pregnancy and continued until now; because of I had got HIV free child previous time."

The finding of this study showed that, a mother living with HIV got HIV free child when they use ART drug properly use PMTCT program interestingly. It may be when they got HIV free child and it motivated them as a reward. This is in accordance with the findings of Omonaiye, Kusljic, Nicholson and Manias (2018:18) past fruitful encounters of mothers taking ART that resulted in brought birth to healthy children, served as a pack up in which the mothers' adherence to medication.

4.3.4.3.2 Manage a Healthy Lifestyle

Some pregnant mothers living with HIV, got improve health status and got HIV free child, due to taking of ART drug and they reported their feeling as follows:

P6:

"PMTCT program and the use of ART drug was good and it is interesting specially for me and individuals' life with HIV/ADIS were like another individual doing normal daily activity. On the other hand, in order to prevent the child from the disease, I had been taking ART drug as soon as possible after I had known my status."

P2:

"I live safe life after I have been taking the ART drug so, in order to prevent MTCT of HIV I have been following PMTCT program."

Concerning to have a good health condition and any one does not stay in bed due to HIV, by using ART drug and the participant mother stated as follows:

P11:

"The present of ART drugs and PMTCT program were very interesting because we were in good health condition: we can work; we can learn and nowadays no one stay in bed due to HIV/AIDS. In addition, the death rate is decreased due to HIV/AIDS and we got HIV free child."

In this study those mothers both run a healthy life and had good health condition had enhancing to utilize PMTCT program and take ART drug properly. This condition may positively reinforce the mothers to use the program continuously.

4.3.4.3.3 Consider importance of the drug and PMTCT programme

When a mother already understands the purpose of the program, she uses it continuously and in the interviewed session they stated that:

> **P10:**
> "Starting from the previous pregnancy, I have been following PMTCT program. and continues taking of ART drug; I had got HIV free child and I am running a healthy life."

> **P3:**
> "Yes, ART can prevent MTCT of HIV so, I have used it."

The experience and their observation of the mothers have developed positive attitude towards PMTCT program and ART-drugs and appreciate its necessity. Related to this; the mother expresses as:

> **P7:**
> "I have started PMTCT program early in pregnancy because I had seen mothers with HIV had born HIV free child as a result of follow up PMTCT program regularly and taking ART drug properly."

When the mother understanding the importance of PMTCT program, the mothers have a power to tackle the challenges to use the program, and one pregnant mother living with HIV she has been taking ART drug for the past 12 years until now participated in the interview session stated that:

> **P8:**
> "The drug is important for my life; I came from long distance (200 km) to prevent stigma for myself and my family as well follow PMTCT program and have been using the drug until now and continue through my life."

The finding of this study explored that, those mothers already started to use ART drug and observed the importance of it and also understood its purpose. They had used PMTCT program and take ART drug continuously, Through the process they had been adhere to their anti-retroviral drug regimens. This finding is congruent to a study done on; Perceived the benefit of use PMTCT program including use of ART drug and how to feed their breast to their children and wending time and duration by HIV positive mothers'. It was increasing the utilization of the mothers of PMTCT program and adhering to their anti-retroviral drug regimens. Mother's belief in the efficacy of ARV was a significant factor advancing adherence treatment regimen. A few women's beliefs about treatment efficacy were reinforced by personal experience or witnessing positive health outcomes of peers after taking ARVs (Lumbantoruan, Kermode, Giyai, Ang & Kelaher.2018:7).

Moreover, this finding supported by study done in Arba Minch, Ethiopia, Adedimeji et al (2012:5) explain that most commonly in going to ANC, realized that HIV testing is important for a woman since there a is possibility of transmitting the infection to her child. Members further showed that clinic conveyance, directing, ART sedates and staying away from bosom taking care of were considered significant for PMTCT.

In addition to that, other research finding already report, an important facilitator during focus group interviews, was women noticing positive outcomes in the health and he wellbeing for other women taking ART within communities in Kenya and Malawi (Murithi, Masho, Vanderbilt 2015:645-654) and (Katirayi, Namadingo, Phiri, Bobrow, Ahimbisibwe, Berhan et al 2016:2).

4.3.4.4 Theme 4: Perceived Barriers to Use PMTCT Program and Adhering to their Anti-retroviral Drug Regimens

4.3.4.4.1 Lack of Interest to Disclose their Status

Some of the mothers participated in this study, hadn't interest to disclose their status for everyone, even for their partner and their mothers, and reported as:

P12:

"I had disclosed my status for my family, but some of the mothers keep their status as secret it, because they believe that this disease come associated with their bad behaviors."

The finding of this study revealed that, the mothers participated in this study had disclosed their status but, they know mothers do not disclose their status because of they believe this disease come associated with their bad behaviors and it has its own effect on the implementation of the program to prevent the disease. And this study results also, supported with other study done in Amhara Region of Ethiopia: states that, only 30.11% of the pregnant women disclosed their result to their partner this indicated that pregnant women were not freely discussing the issue of HIV to their partner according to Feleke and Wasie (2018:779).

4.3.4.4.2 Their Beliefs or Misperceptions

Their beliefs or misperception of the mother had its' own impact on the effectiveness of the PMTCT program. Some of the mothers participated in the interviewed session stated that:

P3:

"I don't believe in the transmission of the disease by breast feeding except when infant beats her breast, the cause of the disease is "evil", and HIV comes from "punishment of God" "and even I have been taking ART drug but I haven't belief on its efficacy of the drug prevention of MTCT of HIV."

P14:

"I know mothers believe that; HIV is not transmitted from mother to their child."

The result of the study shows that some of the mothers were taking ART drug and taking counseling on it. There did not believe efficacy of the drug and misperception about the Cause of the disease. This is congruent to several studies done in East Africa revealed that women's questions with respect to ARV efficacy were usually revealed as a main challenge to follow in PMTCT program for asymptomatic participants (Mtumbuka et al 2012:6).

Furthermore, this study is consistent with the study conducted on knowledge, perception about antiretroviral therapy (ART) and prevention of mother-to-child prevention (PMTCT) and adherence to (ATR) among HIV positive women in the Ashanti region, Ghana: it was found that the knowledge level of HIV positive women on ART and PMTCT are important factors in adherence to ART. It was additionally laid out that, in spite of the knowledge level on the transmission of HIV/AIDS, a few women likewise perceived it as transmitted through spiritual means according to (Boateng, Kwapong & Agyei-Baffour 2013:2).

4.3.4.4.3 Dissatisfaction with the provided service

Satisfaction of the mother service given by health professional and the environment of the health institution that affects the utilisation of PMTCT programme positively and negatively as stated as follows:

> **P6:**
> "I knew mothers that discontinue the PMTCT programme due to dissatisfaction of health professional, they were changed the health institution and some of them discontinue the programme."

> **P16:**
> "The present the health service with the same place(inclusively) for both pregnant mothers living with HIV and pregnant mothers without HIV served together in antenatal clinic was comfortable for us, because both of us served with one place can prevent stigma and discrimination by the community and we were free from this we utilised comfortably."

This study finding revealed that, those mothers participated in this study know other mothers were changed the health institution and even, discontinues service utilisation due to dissatisfaction by health providers given the service in the health institution. And it is supported by, A study done from Gambella, Ethiopia, according to Makonnen and Worku (2012:8) confirm that clients who were less satisfied with the service were profoundly to refuse HIV test than the people who were more satisfied with the previous service Furthermore, this study additionally, in accordance with other study done in central focal Ethiopia revealed that, mothers' satisfaction with the services were protective that is why they were barriers or hindrances which hider mothers from utilising PMTCT service (Merga, Woldemichael & Dube 2016:62).

4.3.4.4.4 Fear of divorce

Due to the fear of divorce the mothers did not disclose their status for their partners, because most of them were housewife and they live on the income of their partners. And concerning to this the participant reported as:

> **P1:**
> "I did not disclose my result for my partner he may not have understood me and he may say it is up to you, and he said, from where you got it."

> **P9:**
> "Most of the mothers were not volunteer to disclosed to their partner due to the fear of divorce, "like my case was an example of it. when we were tested and my result was positive and his result was negative, he divorced me and I suffered and got huge problem with one our child". "So, some of the mothers say that I did not disclose my result for my partner as he may not understand me and he may divorce me."

In this study findings show that when mothers disclose their HIV status for their partner. due to their status, their male partner divorced them. and the mothers got huge problem not only for themselves, but also for their children. The present finding supported by other study result Women in many African countries reported fear of rejection, divorce and physical harm as reason for wanting not to disclose to the male partner or husband. The reason is why in many developing country nation women are often not in position settle on independent choices about their own health or that of their infants (Moreira 2014:27).

4.3.4.4.5 Travelling challenges

Traveling long distance and shortage of transportation has its own effect on PMTCT program implementation. Those mothers participated in this study revealed as:

> **P3:**
> "The health institution is far from my home, due to shortage of transportation some time it interrupts regular take of the drug and the program may not be comfortable for some mothers." "Like me due to long distance travel they may miss the regularly take of drug."

This study finding revealed that, when there is no car rode and even when there is rod, due to shortage of money to reach health institution, has impact for the mothers to use PMTCT program and interrupts the regular use of the ART drug. This finding is similar to, a done on qualitative analysis of the barrio s and facilitators to receiving care in a prevention of mother-to-child program in Nkhoma, Malawi; Iroezi, Mindry, Kawale, Chikowi, Jansen and Hoffman (2013:10) explain transportation to the health institution was the most common barrier in accessing PMTCT services, (the distance needed to travel to the PMTCT program and the cost of transport).

Other study findings declared that through PMTCT service is known to lessen the transmission of HIV from mother-to-child its use has been limited because of various barriers; multi-cultural, social, financial and physical barriers that might destroy the achievement of HCT − an entry point for the program in both health centers and hospitals lack of awareness and information about PMTCT, insufficiency of trained staff on PMTCT, low partner support psychological unsuspecting to accept HIV-positive result, fear of disclosure of HIV-positive status to their partner, stigma and discrimination, financial and transportation problems were the main barriers identified in preventing mothers from HCT (Deressa, Seme, Asefa, Teshome & Enqusellassie 2014:13).

4.3.4.5 Theme 5: Cues to action and intention to use PMTCT programme and adhere to their prescribed anti-retroviral drugs

4.3.4.5.1 Effectiveness of the drug for disease prevention

The effectiveness of the PMTCT programme and ART drug; motivate for the utilisation of the mother in PMTCT programme. Those mothers who got HIV free child in the previous pregnancy by using of PMTCT programme, they are happy to share their experience and utilise PMTCT programme properly. Most of the mothers participated in interviewed session stated that:

> **P4:**
> "ART drug (very importance) can prevent MTCT of HIV; I got HIV free child due to regular follow up of PMTCT programme and live safe life and I have been running healthy life, by taking the drug continuously, so in the future I will be continuing to take the drug and use PMTCT programme in the present pregnancy and even the

next pregnancy."

P10:

"The health provider talked me about the drug (ART) can prevent HIV transmission, so, I take the drug on daily bases and the programme is comfortable; there had been good interaction between health provider and us, it is very interesting , due to the present of ART drug we are life like other individual and I was feeding my breast milk for the first 6 months and giving additional food and stopped breast feeding at the time of one and half year and also in this pregnancy I will be repeated this practice."

P12:

"I believed on ART drug to prevent the transmission of the disease."

P1:

"ART drug is very interesting at present we are in good health condition."

"Due to the present of ART; we can work, we can learn like other individuals and nowadays no one stay in the bed due to HIV/AIDS."

This study finding explored that, if the mother has beliefs on the use of PMTCT programme, including the use of ART drug and how to feed their infants can enhance to use the programme. and when the mothers observe decrease sickness due to HIV/AIDS promoted for the use of ART drug and follow the PMTCT programme. This study congruent to other research findings. Lumbantoruan et al (2018:7) describe factors that motivated PMTCT take-up and adherence were acceptable quality post-test HIV counselling, mother's belief in the efficacy of antiretroviral (ARV) accomplished through personal or peer experiences.

The findings of this study also revealed that; factors intention to use PMTCT programme adhere to their ART drug were their believe of the mothers on the efficacy of ARVs, when the mothers seen and got HIV free child, presence of good interaction between mother-health provider and comfort of the PMTCT service. In general, as cumulatively these factors were enhancing mothers to utilise PMTCT programme. This is similar to study done on motivating take-up and continuation in the PMTCT programme were those factors related with associated take-up and adherence included good quality post-test

HIV counselling, confidentiality of HIV status, positive women-health worker relationships, belief in the efficacy of ARVs to prevent transmission and further develop health prevent transmission and improve health, absence off stigma and discrimination at health facilities, and free HIV and comfortable services (Lumbantoruan et al 2018:7).

4.3.4.5.2 HIV free baby as a motivator

When pregnant mother living with HIV gives birth to HIV free child; whenever she followed PMTCT programme can be promoted the other mothers to use PMTCT programme. So, in order to reduce the risk of MTCT of HIV the mother. She becomes eager to follow the programme. For the first pregnant mother participated in interviewed session reported that:

> **P5:**
> "I have seen mother with HIV, she has born HIV free children, due to her follow up of the PMTCT programme properly and in my case, it had been enhancing to come PMTCT programme at early pregnancy."

The findings of this study show that the mother has understanding about MTCT of HIV and how to prevent it. When she became pregnant, she needs to screen her status and start the ART early and follow PMTCT programme regularly. Similar to this study, another study done on social setting of prevention of mother-to-child transmission of HIV(PMTCT) in Uganda, Rujumba, Tumwine, Tylleskär, Neema and Heggenhougen (2012:57) describes as, having powerful urge by pregnant women to safe their infants from HIV infection have been an inspiration for women to go through HIV testing from the beginning of the PMTCT programme, even where there was no treatment to improve the mother's health. even when there was no treatment work on the mother's wellbeing. What is more, it exploited to work on the use of PMTCT programme. Notwithstanding that, at present of both partners give high value for their children and they shared a common aim of protecting their babies from HIV infection, could be a building block to strengthen the PMTCT programme in African setting.

4.3.4.5.3 Woman health provider interaction

The presence of good interaction between the health provider and the mothers have

own advantage to enhance the implementation of PMTCT programme. And participated in this interview session stated about the interaction as:

P9:

"In the previous pregnancy I was lost my infant at nine months and also lost my belief on the programme, even though the health provider understood my problem and supported me by their advice, I have been stayed in PMTCT programme and utilised it."

P6:

"I believe the health provider than others (keep my confidentiality and share my problem) and without any side effect I have been using the drug more than 9 years."

P13:

"Due to the present of good interaction with the health provider, I have been following PMTCT programme regularly."

The finding of this study shows that, the presence of good interaction; like the health provider share and understand mother's problem, support by advice, give repeated counselling, and keep confidentiality. all of this assist to change mother's behaviour to talk the drug regularly. and then they can run healthy and save life, have ability to work and got HIV free child, as a result they got these benefits the mother follows PMTCT programme in the current pregnancy. This is in line with study of Dekeda (2013:1-59) explains; good antenatal communication is vital in view of the complexity of the issues involved in the provision of ART and PMTCT programmes. Planning of care ought to be prioritized and initiated early so that, the problems of adherence can be recognised early, and addressed in the restricted time advertised. Good midwife-client communication skills are the heart of success in maintaining adherence in clients.

Furthermore, it is supported by a study done on a cross sectional study in Ethiopia reported those mothers who were given accurate counselling on the appropriate intake of ART had 4.7 times higher odds of adhering to option B+ care and support than women who were not correctly counseled (Omonaiye, Kusljic, Nicholson & Manias 2018:1-20). This research finding show that the present of comfortable PMTCT programme (service) attract and stay mothers within PMTCT programme and utilised it. In other way explanation study done from Gambella additionally confirmed that clients who were less

satisfied with the service were six times more likely to refuse HIV test than those who were more satisfied with the service (Merga, Woldemichael & Dube 2016:10).

4.4 PART 2: RESULTS OF STUDY ON THE PERCEPTION AND EXPERIENCE OF NURSES AND MIDWIVES ABOUT MTCT AND PMTCT PROGRAMME

4.4.1 Introduction

The number of participants who were interviewed in each clinic was one or two nurses or midwives until the idea was saturated, and even though, it limited to the number of nurses and midwives assigned to that health institution to provide the PMTCT program, some health institutions only one nurse or midwife is assigned in one ANC clinic to provide PMTCT services. The interview was conducted in each of the nine purposely selected clinics of Dessie town administration and South Wollo Zone hospital and health centre and the purpose of the study was explained. Invitations were sent by the Woreda Health Office, expert of research and community service care participating clinics are presented in Table 4.6, voluntary participation and anonymity was ensured with professional nurses and midwives.

4.4.2 Demographic characteristics

Table 4.4 Number of nurses and midwives' in-depth interview (N=10)

Clinics	Number of participants
1	1
2	1
3	1
4	1
5	2
6	1
7	1
8	1
9	1
Total	**10**

Table 4.5 Age categories of nurses and midwives (N=10)

Age category	Number
20-24	3
25-29	4
30-34	5
35-39	4

The number of participants who were interviewed in each clinic was one or two nurses or midwives until the idea was saturated, and even though, it limited to the number of nurses and midwives assigned to that health institution to provide the PMTCT program, some health institutions only one nurse or midwife is assigned in one ANC clinic to provide PMTCT services. The interview was conducted in each of the nine purposely selected clinics of Dessie town administration and South Wollo Zone hospital and health centre and the purpose of the study was explained. Invitations were sent by the Woreda Health Office, expert of research and community service care participating clinics are presented in Table 4.6, voluntary participation and anonymity was ensured with professional nurses and midwives.

4.4.3 Discussion of the findings

The analysis of the finding was started the participants response with coded into themes and sub-themes. The major themes that emerged were factors that affect mothers to use PMTCT program, prospect of health provider on the use of PMTCT and prevention of HIV/AIDs of the mother, challenges for implementation of PMTCT program by health provider and understanding of the health provider about PMTCT program, implementation and on the prevention of HIV as illustrated in Table 4.6. Participants in health provider were identified according to health provider and participants' number: health provider (HP) participant 1 (HP/P1), health provider participant 3 (HP/P3) etc.

Table 4.6 Major themes, sub-themes and sub-categories of health providers' responses

Major theme	Sub-theme	Sub-category
Theme 1: Major challenges for the implementation of PMTCT programme	Related to the clients	• Denial of the mothers about screening result • Non-compliance to treatment • Partner participation • Lack of awareness of the mother and their partner • Lack of information
	`Related to the health institution	• Shortage of trained person • Shortage of HIV screening kit and guideline about discordance
Theme 2: Factors that affect mothers to use PMTCT programme	High participation	• Mothers know their status and already on ART drug • Use in the previous pregnancy • Good interaction between health provider and the mother
	Low participation	• Lack of knowledge of the mother about ART and PMTCT programme • Loss of follow-up women • Non-disclosure of the HIV status • Values and beliefs • Fear of divorce, stigma and discrimination
	No participation	• Lack of knowledge • Stigma and discrimination
Theme 3: The major concerns and worries that women express to health provider	Frustration (worries)	• MTCT of HIV • Side effect of the drug on their children • Shortage of the drug • Stigma and discrimination
	Responsibility of the mother	• For prevent MTCT of HIV • Protection of the community
Theme 4: PMTCT programme implementation	Health provider's perception	• Access to PMTCT programme • Women's experiences • Treatment management • About disclose mother's HIV status • Partner involvement • About the mothers feeding practice of their children • Factors exposed the mothers for HIV/AIDS

Major theme	Sub-theme	Sub-category
	Interaction between mothers and health provider (their relationship)	• Feelings and risks to health provider when working in PMTCT programme • Filling of health provider when communicate with HIV positive person in their family, with workplace and within the community • The work by itself exposed to the health provider to HIV • Health providers (their) role in PMTCT programme

4.4.3.1 Theme 1: Challenges in the implementation of PMTCT programme

4.4.3.1.1 Related to the clients

- **Denial of the mothers about their screening result**

Due to different reasons, some of the mothers deny about the result of their screening and regarding to this the health provider participated in the interview session revealed as:

> **HP/P9:**
> "Some of the mothers did not accept screening result. One mother she was screened for HIV and her result became positive. She said that I did not accept the result, because I have been married and how I am affected by HIV" and she is not interested to start the drug so, it was difficult to start the drug for her."

The finding of this study showed that some of the married women come to ANC clinic for the first time to screen HIV and then their result become positive they are not accepting their result instead they denial their result and they also did not interest to start the drug and follow PMTCT program. And other result also congruent to this study it revealed that, it was expressed by the mother themselves, the health provider and the counselors working at the PMTCT clinic. Denial following HIV test result was a prominent barrier to ART adherence. And also, women who are HIV positive but in doubt of their HIV status, they are unlikely to use PMTCT services while those who are HIV negative may not adopt HIV prevention behaviour and practices (Rujumba et al 2012:1-12).

Knowledgeable women on HIV/AIDS, for example, sufficient information on anti-retroviral therapy and on HIV positive living, can adapt stigma, discrimination and serotype. Adams, Kaplan, Sobko, Kuziemsky, Ravvaz and Koppel (2014:7-24) clarify, Perceived susceptibility to HIV was related with increased awareness of HIV services and higher utilisation of PMTCT services.

- **Non-compliance to treatment**

Some of the mothers had resistance to start the drug, even if with repeated counseling the mothers start to the drug but, within short time they lost from PMTCT follow-up and discontinue the drug. Regarding to this, the participants in interview session reported as:

> **HP/P3:**
> "Mothers come to this health institution for the first time for antenatal check-up had a challenge to start the drug. Even they start the ART drug in between they lost from PMTCT program and discontinues the drug."
>
> **HP/P2:**
> "In some of the mothers the reason, that to fear for starting the ART drug was hearing of gossip about the drug, that cause psychosis and emotional disturbance."
>
> **HP/P7:**
> "Mothers who come for the first time to PMTCT program were difficult to adhere to the ART drug."
>
> **HP/P4:**
> "No problem in all mothers to be screening HIV, whereas when the result is positive, they lost from the program or change their environment."
>
> **HP/P5:**
> "Yes "the mothers resist starting the drug, mother came in this ANC clinic live with HIV at 8 months and 9 months of pregnancy without any PMTCT follow up before and when I appointed them to start the drug, both of them did not come back again."

The result of this study revealed that, due to different reason mentioned by the health provider that, the mother come for the first time and due to fear of the side effect, some

of the mothers not interested to start the ART drug, even, they start it in between they lost from follow up. So, it causes difficulty to adhere to the ART drug. Also, this study finding like a study on Health care worker that a few patients may feel unready to begin lifelong drug therapy, especially in the event that they have been diagnosed as HIV-positive that same day. The immediacy of same-day initiation might overpower women who have multiple factors to consider and accept before being able to commit to lifelong treatment according to (DiCarlo, Gachuhi, Mthethwa-Hleta, Shongwe, Hlophe, Peters et al 2019:61). In another study Lumbantoruan et al (2018:13) also said that pregnant mother living with HIV had become non-adherent to ART drug when they had doubts about the efficacy of ARVs or experienced prolonged side effects.

- **Partner participation**

Male partner participation during antenatal care has been encouraged as an effective intervention to improve maternal and new-born health outcomes. it is also a vital issue to prevent Human Immunodeficiency Virus (HIV) transmission from mother-to-child and in between within the partners themselves. But some of the mothers did not come with their partner in the antenatal clinic. Concerning to this health provider participate in this interview session reported as follows:

> **HP/P7:**
> "Culturally the reproductive issue discussion between the partner takes as a taboo So, the mothers did not talk about PMTCT program with their partner and did not bring them. then it is difficult to discuss about their child to prevent the transmission within both partner and it creates a gap to effectiveness of the program."

> **HP/P8:**
> "As principle in the initial of PMTCT program both of the partners screening together. When we come to a practical one, when I talk to bringing their husband some of the mother resist to bringing them and some of them gave different reason and one mother said that I did not disclose my status and not bring him because, if he became negative, he would divorce me."

The finding of this study indicated that due to cultural issue and fear of divorced by their husband, some of the mothers did not interest to bring their partner to PMTCT

program. This study finding congruent to other study done in Ethiopia as Amsalu, Abajobir and Tiruneh (2013:16-25) that explain HIV positive result also associated with unfaithfulness of the women and the majority of male believed a positive HIV test result of the female partner implied her unfaithfulness.

Low participation of their partners affects the effectiveness of PMTCT program. Some of the health provider participated in interviewed session stated that:

> **HP/P3:**
> "Male partner participation was very low, even though they didn't come with them at the time of labor, so it is difficult to counsels about how to give nevirapine for their infant because she was in labour pain and so we talked for another person who came with mothers, due to this problem it affects the effectiveness of the PMTCT program."

> **HP/P4:**
> "When I got their male partner and I negotiated to participate them in PMTCT program and they came with their wife, but some of them said that "I am not pregnant, so she is" "then why do I come to the program? It is up to her", in general partner participation in PMTCT program was very low."

This study findings revealed as, reported by health provides, male partner involvement was very low. When we communicate with some of male partners, they gave different reason why they do not come with their wives; some of male partner have negligence (they assume pregnancy and childbirth issue is left for only for their wives'), even they did not come together at the time of labor. Due to this reason, health providers did not get the responsible person who gives counseling about infant nevirapine the mother soon after birth. and its causes a gap to the effectiveness of PMTCT program (as one health provider said).

This is similar to a study done on both individual factors, for example, fear of being tested, ignorance of the program benefit, and work-related activities. Furthermore, they feel that it is inappropriate for males to attend the program in light of the fact that the issue is viewed as women's domain, were impact for the inclusion of male partner's in PMTCT programme (Alemayehu & Haidar 2017:2).

It is also supported by other study done on; lack of male partner participation in PMTCT program deprives women of their partners care and support in coping with HIV infection, in taking antiretroviral therapy and settling on proper infant feeding choices (WHO, UNAIDS & UNICEF 2011). In other study additionally, restricted or lack of male accomplice association in PMTCT service is one of the significant obstacles in increasing and expanding population coverage of PMTCT. Male inclusion is Saied to be exceptionally low in many health facilities of Ethiopia and is one of the potential program gaps unfavorably affecting PMTCT services take-up in the country (FHAPCO 2012). Besides, male inclusion additionally, is one of the significant difficulties for PMTCT service program although all counseled and tested women advised and invited with invitation card to come up with their partners in their subsequent visits in Debremarkos district health office.

- **Lack of awareness of the mother and their partner**

Low awareness of both the mothers and their partner about HIV/AIDS; the way the disease is transmitted and the importance of PMTC program. The health provider learnt from their experience and two of them (midwives) participate in the interview session explored that:

> **HP/P5:**
> Some of the partners which engaged and live with marriage, they believe that HIV affect only an individual live Without marriage so, when they become pregnant, they do not come in PMTCT program."

The finding of this study revealed there is lack of awareness in both man and women, especially the women one about the way of the transmission of HIV/AIDS, and the preventive mechanism. So, they were not utilized the PMTCT program. This finding is congruent with in so many review studies several authors have contended that regardless of widespread information, education, and communication campaigns and the augmentation of PMTCT services, women's knowledge on risk factors of MTCT of HIV and periods of transmission is greatly limited (Abtew, Awoke & Asrat 2016:104) and fundamentally added to the ineffectiveness of the PMTCT strategy.

Because of women's knowledge of MTCT of HIV in Ethiopia is especially low when compared to other East African countries and it is in line with a study in Gondar town, North-West Ethiopia according to (Malaju & Alene 2012:1-22). A considerable percentage of mothers do not have knowledge of MTCT and PMTCT and the necessity of more effort to teach mothers about MTCT and PMTCT of HIV.

Another study done by Alemayehu and Haidar (2017:10) explains as conversely. those partners had inadequate knowledge of the transmission of HI/AIDS from mother-to-child during pregnancy, labour and delivery, and breast feeding were less likely to be tested than those who had adequate knowledge. Additionally, partners who had no formal education and completed grade 7-12 were probably not going to be tested than the people who had completed higher education.

- **Lack of information**

People live in some segment area of the country they did not have information about the availability of PMTCT service nearby with their health institution, so they were not utilizing the service. These were reported by the health provider in interview session as:

> **HP/P3:**
> "Some of the mothers who come from rural area, they had no knowledge about the program, so we can't say all mothers had participated and consumed in PMTCT program."

The result of this study revealed that, inaccessibility information of the present of the PMTCT service by the people live in segmented area of the country not utilized PMTCT program. This finding is similar to the study done by Merga et al (2014:62) lack of awareness and knowledge about the availability and benefit of ANC/PMTCT services mansion as a barrier to the mother to utilize PMTCT program. On other side, PMTCT of HIV service utilization is high among ANC attendees and knowledge of mothers about MTCT/PMTCT of HIV. In addition, on the other study that observed in the community by Feyera, Megerssa, Legesse and Hailemichael (2017:10) explore mothers from rural settings were less likely to utilize PMTCT services as compared to their urban counterparts.

4.4.3.1.2 Related to the health institution

- **Shortage of trained personnel**

For the implementation of PMTCT program, the presentation of well-trained person by PMTCT is very vital. Whereas when there is shortage, it causes hurdle the program and regarding this the participant stated as follows:

> **HP/P2:**
> "I was ok to work in PMTCT program, but due to shortage of trained person on PMTCT and we are busy, so the health provider not practicing as such to give long time for counseling and appointed the mothers for repeated counseling."

The finding of this study indicated as the health provider explain that, in principle to serve in PMTCT programme is given for long time to counsel the mother, whereas due to lack of train health provider, the health providers given short time for individual counseling to cover the whole mother come to PMTCT programme and if affects its quality. Similar to this study finding, that reported in other study also, the service providers mentioned with regards to the issue of PMTCT trained staff turnover and an increased workload among staff bringing about low execution of PMTCT services this is especially valid for those health care providers working in ANC/PMTCT and labor wards (Deressa et al 2014:1-13).

- **Shortage of HIV screening kit and guideline about discordance**

About other challenges related to use PMTCT program and the prevention of disease transmission, those health providers participated in this study revealed that:

> **HP/P8:**
> "The absence of any concept about the discordance in the guideline, most of the partner specially the male one had negative result. As I observed they got to other women and saying that I am not living with HIV and develop contact with them and transmitted the disease to other. And also, sometimes lack of HIV test kit, we we're not screening pregnant women who came for antenatal clinic".

The result of this study shows that shortage of screening kit and lack of any guide about discordance affect the preventive intervention of HIHV/AIDS. Like that of when there was shortage of HIV screening kit, even the pregnant mother return to their home without screening. And this study congruent to a study done Merga et al (2014:10) explain as shortage of HIV screening kit is sometimes one of the factor mothers return their home without screening in the health institution run PMTCT program.

4.4.3.2 Theme 2: Factors that Affect Mothers to Use PMTCT Program

4.4.3.2.1 High Participation

Factors enhance the program of PMTCT revealed by the health providers were positive impact to utilize PMTCT program; mothers know their status and already on ART drug, use PMTCT program in the previous pregnancy and when there was good interaction between the health provider and the mother, have high uptake of the mothers to PMTCT program.

- **Mothers know their status and already on ART drug**

Almost all 9/10 (90%) heath providers participated in this study stated that:

> **HP/P10:**
> "When the mothers already on ART, is easy to take the drug and follow PMTCT program properly."

- **Use in the previous pregnancy**

Regarding to this the health provider participated in this study reported that:

> **HP/P9:**
> "If the mothers had utilized PMTCT program in the previous pregnancy period, they come early to follow PMTCT program for the present pregnancy."

The result of this study revealed that, those mothers were utilized by PMTCT program in the previous time(pregnancy) have high interest to use PMTCT program in the continues pregnancy. This study result supported by other study, Mtumbuka et al (2012:6) as said that at the point when the mothers had ANC visits insight for previous pregnancies were mentioned as one of sources of women's awareness that HIV testing is performed at the health institution and their insight on the advantage of HIV testing.

- **Good interaction between health provider and the mother**

Regarding the interaction between the mother and health provider, most of the nurses and midwives participate in interview session expressed as follows:

> **HP/P1:**
> "Mothers trust us that they don't worry about confidentiality."
>
> **HP/P5:**
> "Most of the mothers' believe on the health providers (us) than others."
>
> **HP/P4:**
> "Initially when the health provider gives strong counseling about the disease, way of prevention of the transmission of the disease, importance of the program, keep their document secret and give service priority to other clients" due to the presence of this approaches the mother wants to stay here even, after one and half year they discharge from PMTCT program they want to stay here rather than go to ART room."

The findings of this study revealed that, as expressed by the health provider working in PMTCT program, the presence of good interaction (strong relationship) between the health providers and the mothers increases their(mother's) interested to use and stay within PMTCT program. even though after completing of one and half year service, so, good interaction has its own positive impact on the utilization of PMTCT. Moreover, Omonaiye et al (2018:18) describe as poor interventions included disrespectful behaviors like shouting and making rude comments. Provision of effective psycho-social support by health professionals were very much organized and precise guiding on the advantages of ART adherence during pregnancy. On the reverse, negative attitude of health towards women were barriers to ART adherence.

This study finding in accordance with UNAIDS (2014b) reports women feel regarded upheld and safe in healthcare settings, they will utilize them once more. Accordingly, affirming that health services are respectful of the rights of women and easy to understand for women living with HIV is essential to reversing the “cascade effect "(where women are lost to follow-up services)). Aware of the privileges of women and easy to understand for women living with HIV is fundamental to turning around the “cascade effect” (where women are lost to follow-up services).

4.4.3.2.2 Low Participation

Those factors that cause low participation of the mother to utilize PMTCT program, revealed by the health provider work within the program and participated in interviewed session were lack of knowledge of the mother, having long interval, low interest of disclose their status, their beliefs, fear of divorce, stigma and discrimination and low participation of their partner.

- **Lack of knowledge of the mother about ART and PMTCT program**

Those mothers do not have enough knowledge about ART and PMTCT not utilized on PMTCT program and it was reported by the participant as follows:

> **HP/P3:**
> “Those mothers who live in rural area and have not knowledge about ART drug and PMTCT, did not utilize the program.”

> **HP/P1:**
> “Yesterday one mother came to PMTCT follow up and was measured her CD4 count and she had low CD4 count, then “I gave INH and cotrimoxazole in addition to iron. At this time, she said that I have already taken ART drug and now you add other drugs and it may be dangerous for my fetus, so I don’t take it until I will get birth my fetus even if, I had counseled her repeatedly to her, she left me.”

The study finding of this research explained that low understanding of the mother for importance of the ART drug given for the mother and utilize PMTCT program at the time of pregnancy has its own impact to take the drug properly and to utilize by PMTCT

program. It is in line with other studies as Abtew et al (2016:104) described that as small number of mothers know that PMTCT of HIV could be prevented by the utilization of ARV drugs, breastfeeding as long as a half year, and safe delivery. It indicates there is lack of knowledge about the transmission and prevention of the infection in the women. then, at that point, lack of knowledge on MTCT of HIV among ANC followers added to the transmission of HIV from mother-to-children.

- **Loss of follow-up of women**

The accessibility of the health institution has its own impact to utilize the PMTCT program by pregnant mothers. Lost from follow up of women was one challenge to run effective PMTCT program and prevent MTCT of HIV. One midwife, she had three years of PMTCT working experience participated in interviewed session state that:

> **HP/P3:**
> "Most of the mothers follow the program as we counseled them, but some of them discontinued the drug due to shortage of transportation and having long distance to travel."

> **HP/P2:**
> "No problem in all mothers to be screened for HIV, whereas when the result was positive, they lost from the PMTCT program or changed their environment."

> **HP/P2:**
> "When I work with PMTCT program, except mothers who have already know their status and taken ART"." those mothers come here for the first-time test and know their status, they can't belief the result; even they lost from this program and some of them test again, with other institution and they were difficult to adhere to the drug."

The result of this study showed that the mother come from long distance to PMTCT program from their home, due to shortage of transportation interrupted to continuously follow-up of the program and taken the ART drug. The finding of the study supported with other study reported that, high paid for transportation from pregnant women living with HIV come to health institutions is one of the most key factors contributing for women

lost from follow-up from PMTCT program and adhered to ARV drug (Kweyamba, Buregyeya, Kusiima, Kweyamba & Mukose 2018:9).

- **Non-disclosure of HIV status**

Concerning interest of the mother to disclose to their status to the other and the participant stated as follows:

> **HP/P1:**
> Now there has been one mother admitted in medical ward she lived with HIV and she was followed PMTCT program and taken ART but, she discontinued the drug and she was sick and admitted to medical ward. When I heard her admission, I want to her to come to admission room and when I got her, she already discontinued the drug and delivered her baby, and I asked her who is your childcare giver? she speaks my mother- in-law, I asked her, is she give the drug properly? She said that she may, or she may not. I talked to her if she did not give properly, he (your infant) will get the disease and I ask reason why she discontinued the drug", she says that "my husband lives in another place and I have been living with his mother, so due to fear of disclosing my status to her, I prefer to discontinue the drug."

Some of the mothers have no interest to disclose their status for everyone, even for their partner and other family members, so it has own effect on the implementation of the program to prevent the disease, and the participants involved in this study were reported as:

> **HP/P9:**
> "Most of the mothers didn't disclose their status like to hypertension or diabetes millets."

The finding of this sudsy revealed that, it's important to have someone to listen to your concerns and to offer support. Disclosing HIV status can strain your relationship, so it is important to give counseling as to when and how to disclose herself. However, most of the mothers dislike to disclosing their status, even if the health providers counsel repeatedly. This is congruent to the previous report that disclosure of HIV status of every individual is very important in the efforts to minimize the spread of HIV-infection including

MTCT. Anyway, substantial number of women are reluctant to disclose their HIV status because of dread of negative outcomes like abandonment, violence relationship disintegration, stigma, loss of children or loss of their home (Obermeyer, Baijal & Pegurri 2011:1011-1023).

- **Values and beliefs**

Regarding the belief on PMTCT program, ART drug and MTCT of HIV, the study participant reported as:

> **HP/P6:**
> "Some of the mothers believe as the pregnant mother can't transmit disease to her child without the use of PMTCT and they do not want to use PMTCT program."

> **HP/P1:**
> "Some of the mothers those utilized PMTCT program and took ART drug say that we use the drug, but we believe by God to protect our children from HIV."

> **HP/P7:**
> "Some mothers believe in the fact that HIV is transmitted only by sexual intercourse, through PMTCT implementation when we discuss them, the mothers said that, unless the infant shares the meat meal with his mother and except the infant beat her breast, they believe breast feeding does not transmit HIV/AIDS and also some of them beliefs HIV/AIDS does not transmit at the time of pregnancy."

- **Fear of divorce, stigma and discrimination**

Fear has its own impact, especially divorce, stigma and discrimination to use and adhere to PMTCT program and the participants revealed as follows:

> **HP/P1:**
> "After finishing the PMTCT program in antenatal clinic, the mother dislikes to go in ART room to take ART drug and one mother due to fear of divorce throughout her PMTCT follow up she lies her husband about reason why she comes to hospital."

HP/P4:

"When the mothers finish the PMTCT program after one and half year of their children, go back to ART room. Due to the fear of stigma and discrimination to take ARV drug as like other people living with HIV in ART room, two of the mothers after they finished PMTCT program they discontinue the use of the drug."

The result of this study finding show that, fear is a psycho-social effects due to occurrence of divorce, stigma and discrimination to drop out of the program and citing reasons including "involuntary" HIV disclosure and negative community interaction. These causes hider the adherence of the mothers within ART drug and affect the prevention of HIV transmission. This study supported other study done Turan and Nyblade (2013:1-27) describe as effects of stigma and discrimination behavioral consequences on women of lack of disclosure, absence of HIV testing in ANC, decrease to join up with a PMTCT/HIV treatment program, absence of adherence to ART during pregnancy and furthermore absence of adherence to maternal/baby craftsmanship after birth.

4.4.3.2.3 No Participation

- **Lack of knowledge**

Regarding to knowledge of the mothers about PMTCT, and the participants in interview session stated as:

HP/P3:

"Those mothers who live in rural area and did not have knowledge about PMTCT program they had not utilized the program, as they told me when they come to our institution for other reason."

The finding of this study explored as reported by health provider work in PMTCT program. If the mothers did not have knowledge about the importance of following PMTCT program, they become pregnancy; they had not utilized the service. This study congruent to a study done on Knowledge of on pregnant women on mother-to-child transmission of HIV, its prevention, and related factors in Assosa town, Northwest Ethiopia, Abtew et al (2016:104) clarify knowledge on ANC attendants about MTCT and PMTCT in the study area. Along these lines, this might subscribe in to increased.

transmission of MTCT of HIV and achieve failed PMTCT intervention and repress the accomplishment of the goal of eliminating new HIV infection in children.

This findings agree with findings from Southern Ethiopia, Asefa and Beyene (2013:1-8) explain that pregnant women who attending in ANC had inadequate knowledge and awareness about MTCT of HIV and when the time the transmission is occur in Southern Ethiopia. So, strengthen the level of PMTC benefits in ANC settings and concocting instrument to advance inclusion of men in PMTCT services should be centered to expand women's information on MTCT of HIV, to reduce the transmission in Sub-Saharan Africa. Furthermore, on the other research finding women who have comprehensive knowledge on PTCT is low, Means, which will increase rapidly mother's knowledge on prevention of mother-to-child of HIV, should be emphasized (Mulugeta, Dejenie & Mulugeta 2018:2).

- **Stigma and discrimination**

Due to the present of stigma and discrimination, some of the mothers do not come to antenatal clinic to screen for HIV as participant reported that:

> **HP/P2:**
> "Some of the mothers come in our institution for delivery service without antenatal follow up due to fear of stigma and discrimination."

This study findings show that, it may be due to fear that the community and the family discriminate them due to their HIV status, not only themselves but also their family. They also, fill shame to tell their status. This study finding supported in study done in Malawi show that, the complexities of the issue of stigma and around women's drug adherence; where women reported as shame as the reason why they would not return to the PMTCT clinic after testing HIV and becoming positive (Elwell 2016:5).

4.4.3.3 Theme 3: The Major Concerns and Worries that Women Express to Health Provider

4.4.3.3.1 Frustration (Worries)

The observation of the nurses and midwives about their frustration (worries) of the mother was explain by health provider participants in interview session as follows about:

- **MTCT of HIV**

  HP/P1:
  "Some of the mothers are afraid of the transmission of the disease to their children. One mother said that oh if I knew my status, I would not get pregnant."

  HP/P5:
  "The mothers were afraid to the transmission of the disease to their children."

  HP/P6:
  "They are afraid of the transmission of the disease to their children, within taking of the ART drug and the others were afraid to severity of disease when they become aged."

- **Side effect of the drug on their children**

  HP/P7:
  "When the mother has low CD4 count I gave INH in addition to ART drug, she said that why you add another drug it may be hurtled my fetus, so I did not take it."

- **Shortage of the drug**

  HP/P2:
  "More than two mothers worry about their future life." they said that, how we will be able to live when there is scarcity of ART drug in the future."

- **Stigma and discrimination**

Concerning to this the study participants involved in the interview session revealed as follows:

HP/P1:

"There was one mother she had been following PMTCT program and using ART drug. At the moment she discontinued her drug and she was sick and admitted to medical ward". When I heard her admission, I went to her admission room and when I saw her, she had already delivered her child, and I asked her who had given care for her child, she said mother in-law and I asked her again. And is it she gave the drug properly? She said that she might/might not? I talk again when she is not giving the drug properly the baby will develop the disease, when she listened me, she started to cry and when I asked the reason off discontinuing the drug? She said that "my husband lives in another place far from me and I have lived with mother in-law, so due to fear of discrimination, she said I can't disclose to her and I prefer to discontinue the use of ART drug".

HP/P2:

"Volunteers and nongovernmental organization sometimes give support in different ways for the mother. But, one mother is being supported by a nutritional diet, she and her husband dislike taking about this nutritional diet due to fear of stigma and discrimination from their family and she interrupted her support."

HP/P4:

"Pregnant mother life with HIV came in health institution for PMTCT service, complain that they were suffering with sigma and discrimination, even they fear of stigma and discrimination in their community; some of the mothers said that they isolated themselves from the community and also not use common public services with community".

HP/P3*:*

"The mothers are afraid of the people to know their status, and the consequences of it that is stigma, discrimination and fear of divorce by their partner".

This finding is congruent a study to counter and identify HIV-related stigma facing pregnant women is mandatory to improved PMTCT program. Reducing stigma is a fundamental piece of delivering care for all women, men and children. Existing stigma-reduction interventions and tools just as measures to assess progress, can be adjusted for the particular necessities of pregnant women though it still can't seem to be completely recognized (Turan et al 2013). Karuta et al (2014:16) clarify on the other hand; the significance of family support for women living with can never be misjudged particularly when husbands and mothers-in-law extraordinarily plays usually played key parts in the consideration and keeping of expectant mothers.

4.4.3.3.2 Responsibility of the mother

Regarding to the health provider through their experience observes the mothers take their responsibilities revealed that some of the mother had high responsibility and the other not and express as:

- **For prevention of MTCT of HIV**

> **HP/P3:**
> "Some of the mothers don't come to the appointment time to take ART drug, so this creates a gap with our practice and in order to minimize the transmission."

> **HP/P4:**
> "When I had worked in this PMTCT program, no problem observed of the mothers to screen for HIV, whereas when the result was positive, some of them were absent in the PMTCT program or change their living environment to other area totally it exhibited the effectiveness of PMTCT program."

- **Protection of the community**

> **HP/P2:**
> "I had one experience of a mother she had a PMTCT follow up and taken ART drug and she started labor at her home and she had anti-partum haemorrhage so, her family (her aunt, grand mother and her brother) bring her from distance area by ambulance and the whole family gave good care for her by their bare hands and both of them were contaminated with her blood. Even she saw them when they

were contaminated by her blood, she didn't talk about her status for them or not protect them. Whereas, when I advised her not to teach (contact) her blood, she didn't like my advice, because she assumed that when I advised them. She thought that I was going to talk her status to them. At the end of the process when I discussed with her alone, I asked her why she was silent when they were contaminated them by her blood, she said that to me, it is up to them, but I did not disclose my status for them."

HP/P:2:

"Through my experience I saw a mother, she was coming to this institution and gave her blood for screening and when I told her positive result, she did not boozer about the result and initially she lost from follow up before she started the drug. So, I had her phone number and called for her, surprisingly she communicated with other languages, it was difficult to get her. Occasionally one day I saw her in one cafeteria. Then after I got her address, I and one volunteer mother support who live with HIV helped me to going to her cafeteria and advise the whole cafeteria workers to come in our health centre to screen for HIV at this spot when she saw mother support with me, she insults us and she said you did not come again within my cafeteria, so we could not convince her and it was difficult to bring her. It indicated that there is a gap to prevent the transmission."

HP/P3:

"All mothers like their children and take care for them; however, they don't care about their mothers; when they are contaminated by their blood at the time of labor."

HP/P10:

"Few of the mother who are on ART had been interested to care for their child and disclosed their status for their family and the community, and also give life testimony to the other."

The findings of this study revealed that from prospective of nurses and midwives precipitated in this study, about the mothers had taken their responsibilities; on prevent MTCT of HIV, prevention of HIV/AIDS in the community and about their health of the mother themselves and their children. As the health provider work in PMTCT program expressed as; some of the mothers take their responsibilities by "care for their child and disclosed their status for their family and the community, and also give life testimony to

the other". Whereas, some of them not interested to disclose their HIV status to other and especially when they work in public service like cafeteria to keep their contacts with their clients, they discontinue their follow-up.

On the other hand, to keep their status as secrete they did not bother about their family contaminated by their blood when they give care at labor time. some of the mothers discontinue their ART drug after per partum (after one and half year) period due to dislike serve with other people live with HIV in ART room, and some of the mothers cheat us, as they take the drug properly to tell us, but when we observe some manifestations of develop opportunistic infection and when we (health providers) confront them they talked the truth they did not take the drug continuously. So, they need continues counseling. At the sum of these may indicate that there is a gap to take their responsibilities of the mothers to prevent the transmission.

This study supported a study done on improving the usage of prevention of mother-to-child transmission of HIV services in rural Tanzania; Gourley (2015:110) explains counseling given by health-provider (example reassurance and explaining in simple terms about ARV drugs reduce transmission and no harm for unborn baby) could encourage women to take their treatments.

4.4.3.4 Theme 4: PMTCT Program Implementation

Prevention of mother-to-child prevention program starts most of the time within testing pregnant women for HIV when giving the result it needs a brief information and provide good counseling information including PMTCT options, about the ARV drug and soon. So, PMTCT has been considered as not a simple intervention but a comprehensive set of intervention and it needs a capable of health providers (Aishat & Olubunmi 2016:19).

4.4.3.4.1 Health Provider's Perception

The perception of the health providers (nurses and midwives) participated in this interviewed session about the PMTCT program and related concepts stated as:

- **Access to PMTCT program**

Regarding to the accessibility of the PMTCT program for the mothers, some of the mothers had not utilized PMTCT program. And the participants perceive as follows:

HP/P1:

"The presence of positive relationship of nurses and midwives with mothers improved health outcomes related to increase feelings of satisfaction with care by PMTCT program."

HP/P6:

"No, due to the difficulty of transportation and its cost, the whole mother did not get the service."

HP/P4:

"I have seen a child aged 3 to 4 years to follow ART drug, it means that all mother did not use PMTCT program."

HP/P5:

"One mother came with HIV for 8 months without follow up and the other mother came within 9 months of pregnancy without any follow up and then when I appointed them to start the drug and came back again, but they did not come again and they may give birth at home or another health institution without using the drug."

HP/P2:

"No, all pregnant mother, not utilizing antenatal care I got the mother who delivers in her homes and when she was sick at the time of puerperium period came to here and when I tested for her to know her status and she was positive for HIV."

Based on the intervention they observed regarding to the accessibility of the PMTCT program, two of the health providers participate in this study as recommendation as:

HP/P7:

"In order to have access the PMTCT service for all pregnant mothers, the health Provider works outside of the health institution as outreach like vaccination to the community".

HP/P10:

"In order to make the PMTCT program effective the health professional who assigned in PMTCT program, has been interested to give strong and repeated counseling on how to take care of their child, breast feeding, importance of the drug (ART, nevirapine and cotrimoxazole drugs) and minimization of MTCT of HIV by proper management of labor".

HP/P10:

"To address the access of PMTCT program for all mothers, the health providers work outside the health institution' "and have been giving opportunity for volunteer mothers to learn their life testimony for newly diagnosed pregnant mothers".

The findings of this study revealed that; according to the perception of the health provider the present of positive relation between mother-health provider, the mothers feel satisfaction by PMTC service, the whole pregnant mothers do not get PMTCT service as one health provider (HP/P4) said:

"I have seen a child aged 3 to 4 years to follow ART drug, it means that all mother did not use PMTCT program. And also, they said that the health providers work outside the health institution' and have been giving opportunity for volunteer mothers to learn their life testimony for newly diagnosed pregnant mothers."

The finding of the study supported study done on associated factors to uptake of PMTCT; associated factors for uptake and adherence to PMTCT program including positive women-health provider interaction, great quality post-test HIV counseling, belief in the efficacy of ARVs to prevent transmission and improve health, conditionality of HIV status and absence of stigma. These factors motivating take-up and continuation in the program were grouped a heavenly body of relational, individual and institutional (Karutu 2016:20). From their experience of the nurses and midwives work in PMTCT programme who participated in interviewed session reflected about the mother's use PMTCT program, feeding their children and about their partner, the presence of stigma and discrimination had its own negative effect to use PMTCT program, and had its consequence of the mothers lost from follow up and interrupted use of ART drug.

Even if the mothers have access to get the PMTCT service there are factors to interrupt to use it reported by health provider as:

> **HP/P3:**
> "Most of the mother followed the program as we counsel them, but some of them Interrupt drug due to shortage of transportation and fear of stigma and discrimination."

> **HP/P9:**
> Due to fear of stigma and discrimination, some of the mothers talk for us not to put any sign within (on) their cards than others in ANC room. Otherwise, they will be out of the program."

> **HP/P3:**
> "Throughout my experience, there are difficulties like; taking the blood from infants for doing DBS at the time of 45 days of age and the mother had been work overloaded their home, so they want to take drug every two to three months than each month (due to shortage of transport fee)."

The finding of this study reported that, based on experience of the health provider and observation of the mothers, due to fear of stigma and discrimination they discontinue PMTCT follow up and support given by the PMTCT program and told us not put any sign that manifested their status on their card and also, they develop self-discrimination (isolated themselves and isolated themselves from the community) by stop utilization of common goods in the community. And other factors to interrupt the use of the drug were shortage of transportation fee. Beside to that, the health provider put as recommendation, due to workload of the mother the distribution of the drug become every two to three months and DBS examination was became early and it was difficult to draw the blood from infants so, the time become longer than this.

- **Women's Experiences**

According to Aishat et al (2016:6), prevention of mother-to-child transmission has been considered as not a straightforward intercession but rather a far reaching set of mediations requiring able wellbeing laborers. Along these lines, legitimate execution of counteraction of mother-to-child transmission (PMTCT) services require adequate

knowledge and appropriate attitudes and practices on the part of the health care providers Furthermore, it begins with testing pregnant people for HIV, preferably during their first antenatal visit. As soon as giving the test result, health care workers should provide good counseling, including information about PMTCT alternatives. The general coverage of PMTCT actually stays as low as 41% of the expected eligible population (FHAPCO 2017).

As the health provider explored in interview session when mothers got bad experience, it had own impact positively and negatively on the use of PMTCT program, and expressed as:

> **HP/P4:**
> "Positively, some of negative experience of the mothers can stimulate mother to use PMTCT program, like a history of death in the previous child without use of PMTCT program."

> **HP/P6:**
> "Negatively, negative experience on mother affects the use of PMTCT program of other mothers. When mothers hear divorce and discrimination on another mother by their partner due to disclose their HIV status for their partner and family. So, the mothers do not disclose their status for everyone, it can affect the effectiveness of PMTCT program."

The findings of the study show that some factors at the level of individuals have affect the effectiveness of the program. As the health provider expressed that bad experience related to reproductive issue of the mother had its own impact positively and negatively, the mothers lost from follow up especially they come for ANC for the first time and the mothers lack of interest of disclose their HIV status on utilization of PMTCT program. This study supported by Gourley (2015:2) describes the adequacy of PMTCT program to almost take out vertical transmission of HIV will stay evasive except if barriers are handled, and inclusion is reached out to (at this point) unreached unprotected populations; under-researched area. Factors (barriers) contribute to the low take-up of ARVs for PMTCT in sub-Saharan Africa, at level of individuals, their local area (fear of disclosure, of stigma and absence of partner support) and health institution (staffing and service accessibility).

- **Treatment management**

From the component of PMTCT program, supply of the drug (ART) to the mother is vital, so regarding to the use of drug of the mother, the health provider perceived and express as follows:

> **HP/P9:**
> "Some of the mothers were consciously using their drug, understand and know about it. even If asking question when there was any change of the color of the drug, and they understand the use of ART drug in PMTC program."
>
> **HP/P6:**
> "Properly counseling of HIV positive pregnant mother about the ART drug and how to give nevirapine and cotrimoxazole to their children is crucial to continuously take of the drug at the time of pregnancy and throughout their life."
>
> **HP/P2:**
> "When the mothers understand use of drug and absence of its major side effect, it gave the power for them to follow PMTCT program and take the drug for long time."
>
> **HP/P9:**
> "Now a days ,the drug is very important for their children and mothers, "mothers have not waited their death as pervious time. On top of that, when they take the drug properly and they have hoped to see their grandchildren."
>
> **HP/P2:**
> "Pregnant mother was worrying about side effect of the drug of taking (ART) on their children during pregnancy than the transmission of HIV to their children and I had experienced some of the mothers did not use PMTCT program and did not take the drug properly."

The presentation of MTCT of HIV within the mothers utilizing PMTCT program and taking ART drug. The possible reason that the participants revealed as follows:

HP/P2:

"The reason why their child become positive was that the mother didn't use to take the drug properly (continuously) and they did not use treatment of any infection at early time".

The finding of this study shows that, most of 8/10 (80%) the health providers participated in interview session expressed that through their work experience, the mother follows PMTCT program and ART take drug properly got HIV free child and as much as possible the transmission rate become less than 1%. But 2/10 (20%) of the health provider seen mothers on ART and gave birth HIV positive child, and they suggested on the reason why the presence of MTCT of HIV were "the mother didn't take the drug properly (continuously) and they did not treatment of any infection at early". This study finding is similar to that, MTCT of HIV still remains to be a challenge for the country. even if, the number of facilities providing PMTCT service has increased intensely in Ethiopia. Due to high missed opportunities and dropout rates in addition to low coverage and utilization of services (FMoH 2013b:10).

In this study the health provider revealed about utilization ART drug by the mothers that, "when the mothers understand how to use the drug and absence of its major side effect, by giving continuously counseling, they follow PMTCT program properly and take the drug for long time". Due to the presence of ART the mother and their children (free from HIV) live healthy life, had improved their health, and they live hopefully for the future respectively. Even though, some of the mothers worry about the side effect of the drug than MTCT of HIV and they did not use PMTCT program and they did not take the drug properly. This study finding is similar to a study state, having good knowledge eon ARV and PMTCT is not only a factor for women to adherence to the drug regimen. But also, they have belief in the benefit of ARVs to improve health status and prevent HIV transmission. At the top of that of improving mother-provider interaction have the greatest direct impact on PMTCT services use by the mothers (Abtew et al 2016:104).

This study finding is upheld with other study, Lumbantoruan et al (2018:7) clarify mothers themselves were a significant factor promoting adherence to the programme is belief in the efficacy of ARV. A few women's beliefs about treatment benefit were strengthen personal experience or finding positive health outcomes of peers after taking ARVs.

- **About disclose mother's HIV status**

The perception of the health providers participated in this study 7/10 (70%) of them on factors affected the mothers to disclose or not to disclose their status for their partner and for other individuals were stated as:

> **HP/P2:**
> "Most of the mothers associated with HIV to sexual behavior", when they disclose their status, they believe that they lose themselves by their own and their family dignity. So, they are not interested to disclose their status."

> **HP/P7:**
> "One of the factors that affect to disclose their status was culture". Discussing on reproductive issue is taboo according to their society, so they are to fear to talk to their partner and others about their status".

> **HP/P3:**
> "Most of the mothers were housewife and they had not any income within their own hand, so they did not have decision-making power within their home and they were not interested to disclose their status for their husband due to fear of divorce."

The finding of this study reported some of the mother's HIV status associated with bad sexual behavior. So, when they disclose their status and they assume that it undermined the dignity of their family, within this study community discuss about reproductive issue is a taboo. Thus, the mother did not discuss their HIV status with their partner and women are economically male dominant. So, when they disclose their status, they fear divorced by their husband. The above factors were a tackle to disclose their HIV status to others. This study finding is similar to a study, women economic dependence on male partners had adverse relation to disclose their HIV status for their partners. Most women who tested positive for HIV do not disclose their sero-status to their partners because of fear of divorce, stigma and violence. Also, it is identified with. As a result, they [women] are reluctant to take the ARVs at all or take it secretly and incorrectly (Deressa et al 2014:12).

This study finding supported by other study that, pregnant women living with HIV non-discloser their HIV status have different reasons in differently; some of them believed that

non-disclosure was helpful for their sexual partners as it shields them from stress a lot. Some of them to guarantee their work and that of their children stay undisturbed. Without a doubt, the everyday struggles and concerns for women living with HIV to secure their own and their infant's survival among poverty and marginalization have been documented as common realities of women in the Africa setting. Close to that, most HIV positive women decided on non-disclosure of HIV status to their partners (Rujumba 2012:50) and furthermore, it is upheld by other study discuss about as the interconnection of sexual orientation, ladies' reliance on men, polygamous marital relationship and motherhood role expectations compounded the women's fears of disclosure (UNAIDS 2011).

- **Partner involvement**

The perception of the health providers about the participation of male partners on PMTCT program, 6/10 (60%) of them were express factors for low participation of the partner as follows:

> **HP/P2:**
> "Either low interest of the mother to disclose their status for their partner was contribute low participation and support for their partner, or their own negligence of the husband about the issue of childcare and also the male is belief and left reproductive issue for the women."

Regarding to the practice of male partners in PMTCT program, the health provider revealed as in different perspectives and stated as:

> **HP/P1:**
> "Because of the mother's hatred to disclose their HIV status for their husband, due to fear of divorce and stigma. When the mother positive, we can say please bring her husband. Some of the mothers said that "oh, no we don't like to disclose for our husband."

> **HP/P2:**
> "Due to polygamy when the husband has more than one wife; he dislikes supporting HIV positive mother even if he knows her status."

HP/P4:

"When we get their partner and negotiate with them and come with their wife, the partner said "I am not pregnant, she is here why I came to the program? It is up to her. So that, participation was very low even though they don't come with the mother at labor time, then it is difficult to counsel about how to give nevirapine for the infant, because she is in labor pain and so we talked for another person that come with her not concerning to care for the child."

HP/P9:

"When pregnancy progressed, some of the partners support their wives, because in initial time up to 6 months, they quarreled each other and then resolved the problem and supported each other."

HP/P5:

"In some cases, mothers face difficulty to start the drug, and bringing their partner, even though when we call their partner and come to here no problem with them, because some of their partner already started drug alone so, in this case it was simple to support their partner to use the drug properly."

The findings of this study revealed that, as the perception and experience of health provider revealed that, there was low male participation in PMTCT program. The reason for their low participation were the mothers not had interest to disclose for their partner due to fear of divorce and stigma, their own negligence (male partner) left the reproductive issue for their wives. When the present of polygamy marital status even if, she discloses him he was not supported her and not participate in PMTCT program. And some of the male partner at initial time even the mother discloses her status he did not participate in PMTCT program. Because of they were quarreled each other after that when become pregnancy progressed; they come with their wives and supported each other. On the other side when the male partner knows their status before and she disclosed her status to him he accepted her and participated in PMTCT program.

This study finding is congruent to other study that, lack of male involvement in PMTCT dispossess women of their partners care and support in adapting up to HIV infection in taking antiretroviral therapy and proper infant feeding choices (WHO, UNAIDS, UNICEF 2011). And furthermore, supported of other study, absence of male during HCT has been considered as one of the critical barriers to take-up of PMTCT services trouble of

choosing to start ARV by the pregnant mother, just as a large portion of the mother tested for HIV might choose not to disclose, their HIV sero-status to their male partners because of outcome including domestic violence, divorce or for women to be abandoned by their husbands and families (Deressa et al 2014:12). Moreover, as indicated by Belato, Mekiso and Begashaw (2017:1-19) low male involvement in PMTCT service affects successful implementation of the PMTCT program

The same to that, this study the result is in line with study done in south Omo zone, south Ethiopia; Partner counseling and testing is one part of PMTCT. Yet, (45%) mothers brought their partner to HIV counseling and testing. Among these just (25%) were tested. Since males were not accepting test and it likewise influence the execution of the program (Godana & Atta. 2013:128).

- **About mothers feeding practice of their children**

In the implementation of PMTCT program counseling is the main tool communicate the whole issue related to perinatal care including teaching about child feeding practice of pregnant mothers. Then About their child feeding practice of the mother experienced by the health providers participated in this study and 9/10 (90%) of them stated as follows:

> **HP/P2:**
> "All of the mothers like their child and take care for their children, so they come repeatedly and take advice from us (to give only breast milk for the first 6 months and then give supplementary food) and they implement properly (accept and practice as we counsel them)."

Through their experience health providers participated in this study, expressed the feeding practice of the mothers as follows:

> **HP/P3:**
> "About their child feeding they accept and practice as we counsel them and Until now the result of their children is negative except, those mothers started follow-up in other health institution."

HP/P 4:

"We are advising them about their children feeding type and its program and they say that they do as we counsel them."

HP/P5:

"They accept our advice to give breast milk only for the first 6 months and give supplementary food, and some of the mothers told us why they stopped breast milk to prevent (minimize) the transmission rate of the disease before 6 months."

HP/P8:

"Most of the mother gave breast feeding only till six months."

HP/P9:

"Mothers come repeatedly and take advice from us and implement properly in cause of child feeding".

This study finding show that, as the health provider involved in the study explained that, through their experience most of the mothers feed their children according to the health provider(us) counseling them, even if when there is any confusion, they come to us and understand it on the top of that due to fear of MTCT of HIV they stop breast feeding before 6 months. It may be due to the mother like her children more than her to safe her child.

- **Factors exposed the mothers for HIV/AIDS**

Most of the women live in the third world have no resource (economy) with their hand. If an individual economically underpowered, no power to say anything that decided the other person concerning to her. So, the women without screening for HIV/AIDS engaged to marriage. and at the top of that, the women are care giver for the whole family and high chance to be contaminated by the disease. Regarding to this their perception of the participants stated as:

HP/P5:

"I know one mother of a 7-month pregnancy with HIV, she divorced from the first husband and within short time she married the second husband without HIV screening but now she divorced both of them and as she expresses for me the present pregnancy has been from the first husband. I perceived that it is due to economic problem of her even, before checking of the present of pregnancy to

solve her economical problem she married the second husband and she get HIV."

The result of this finding reported that, as it expressed by health provider economical problem had impact to the mother to engage marriage without screening and then she developed the disease. It may be due to some the third word dependent to male economically.

4.4.3.4.2 Interaction between Mothers and Health Provider (their relationship)

The perception of health provider about the impact of interaction between the mothers and health providers for PMTCT programme most of them 8/10 (80%) express as follows:

HP/P4:
"The present of good mother to health provider interaction key for PMTCT utilization by pregnant mothers, especially the present positive attitude mother and keep their confidentiality".

HP/P2:
"By giving repeated counselling for the mothers, some of them were bring their Husband and test again their blood together as new cases then after the test counsel them and start the drug; and some of the husband support their wives and make the PMTCT programme effective."

HP/P4:
"When a health provider gives repeated counselling about the disease, that the way how to prevention the transmission of the disease and the importance of the utilization of PMTCT programme initially, keep their document secret and give service priority to them than the other clients" due to the present of this approach the mothers want to stay here after even, discharge from PMTCT programme."

The finding of this study revealed that a continuous counseling of the health provider for the mother about the importance of the drug, the transmission and prevention of the disease. The health providers also have positive attitude for the mother and they express it by keeping mothers' confidentiality, giving priority to them than others. All of these contribute to change the behaviors of the mothers as well as their partners to use PMTCT programme.

This finding is supported with Mitike Sisay and Addissie's (2017:10) study and explains the considerable barriers to uptake of PMTCT services that must be tackled in order to successfully eliminate new pediatric HIV infections. And in term build on patient-provider relationships may have the greatest immediate impact on PMTCT service use by the mothers.

- **Feelings and Risks to Health Provider When Working in PMTCT Program**

With regarding to their feelings when assigned in PMTCT program, they stated as follows:

HP/P6:

"Yes, when I was assigned in PMTCT programme, I was happy because it is an issue of saving the life of the child."

HP/P1:

"Yes, I was interested to work with these programmes, so when I was assigned in PMTCT programme I was happy."

HP/P2:

"Work within PMTCT programme is interesting because it is always new, you feel like HIV positive mother, by sharing her pain and I have counselled repeatedly and changed her mood and discuss with them as friendly and make continues communication with them."

HP/P2:

"When I work in this programme, I have been happy because all mothers especially mother use ART before pregnancy get HIV free children". "Even though, I had trained on PMTCT, when we see it the real situation it is not easy. Any ways it is interesting and need embracing that, being to fill her pain is occurring as on you self"." When, I talk about her result, I feel about her and condition that I can't familiar, it is always new, when I discuss positive result with mother", "but after that I counsel her and change her mood and as much as possible and do repeatedly to accept the result, that I communicate friendly and as a family and exchange our phone, I communicate at any time and discuss about the overall condition of her."

HP/P8:

"By the time I have been working within PMTCT programme; I have been both happy and sad. Because one mother had a PMTCT follow up but, she got two HIV positive infants with the use of ART drug."

Regarding to the professional risk exposed to HIV due to their job in the PMTCT programme, the health provider perceived and responded as follows:

HP/P2:

"It is "obvious" our profession by itself risk for HIV. Especially when mothers come at active phase of 2nd stage of labour in delivery room, we give more concern to delivery of the fetus and take care for mother than our contamination, so the work by itself exposed to the disease."

HP/P3:

"Yes, some of our staffs (three of them) were exposed to their blood, but they take prophylaxis and they become HIV negative."

The findings of this study revealed that, most of 8/10 (80%) the health providers (nurses and midwives) involved in this study, and express by themselves were felt happiness when, they assigned in the PMTCT programme for the first time. Because it is safe the life of the children. Even though it is not an easy it needs commitment and needs empathy (feel their pain as it occurred to you).and regarding to the professional risk for HIV, as one midwife said that "it is obvious our profession by itself exposed to risk, especially when conduct labour and taking blood from early infant for DBS examination". It may work with pregnant mother living with HIV it creates and need kindness to human being most of them have stress related to pregnancy and the disease. So, it needs psychological support in addition to counselling to them.

- **Feelings of Health Provider When Communicate with HIV Positive Person in Their Family, with Workplace and within the Community**

The experience of the health providers the way how to communicate and live with people who live with HIV/AIDS, expressed by the participants as follows:

HP/P9:

"My aunt lives with HIV and she discloses her status for me. and I communicate with her as usual and I counsel her how to live with HIV."

HP/P7:

"I have ankle daughter and she live with HIV and she follows PMTCT in my health institution. She does not want to disclose for me about her status. So, when I present in antenatal clinic, she returns to her home without the utilization of PMTCT programme. When I saw her, I came out from antenatal clinic in order to help her to utilize the service by other health provider because her husband discloses about him and her for me and discuss about different issues related to their disease."

HP/P1:

"When I work in this antenatal clinic to give PMTCT service, one day I see my friend document she utilizes the PMTCT programme. I keep her secret and also, she says for my colic she works with me do not tale about her status and I left when she comes here".

HP/P3:

"I know my sister lives with HIV and she even disclose her status for the family, but she dislikes to discuss about the disease for me".

This research finding show that, most of the mother living with HIV did not interest to disclose and discuss with health providers found within their family.it may the mothers associated the disease with bad sexual behavior.

- **The work by itself exposed to the health provider to HIV**

Regarding to working in PMTCT programme of the health provider by itself exposed to HIV discuss in interview session and reported as follows:

HP/P9:

"I knew more than three health professionals exposed by pricing needle and by taking a prophylaxis, they were free from HIV."

HP/P10:

"I knew one nurse exposed by pricing needle and she refused to take a prophylaxis and she develop a disease; she changes the environment and life with HIV."

HP/P6:

"I knew tow health professional exposed by pricing needle and by taking a prophylaxis after that, I do not know their status, because they dislike to disclose themselves".

The finding of this study shows that, no one explain had experience expose to HIV, but discuss their work exposed to the disease and the study participant know an individual (health provider) exposed to HIV by piercing needle and take prophylaxis to HIV. It may be contaminated by piercing need at the time of blood drawing and at time of conduct labour.

- **Health Providers (their) Role in PMTCT Programme**

When the health providers assign in PMTCT programme has different role for effectively implement the programme. And the participant revealed as follows:

HP/P1:

"My role was giving advice about the importance of the PMTCT programme and counselling about ART drug to prevent MTCT of HIV".

HP/P3:

"My role was giving counselling and follow the mothers how to use the ART drug."

HP/P4:

"My role was as focal person, follow the PMTCT programme in around, counseling the mother about the drug (how to use it, its continuity), their child feeding and delivery within health institution and attending labour and to find the mothers that discontinues the programme."

HP/P5:

"My role was followed the mother for adhere to their drug and proper use of drug."

HP/P8:

"My role was to run the PMTCT programme in order to birth HIV free child."

The result of this study finding show and as the health provider themselves reported as the role of health provider in implementation of PMTCT programme were counseling of the mother all round to PMTCT programme and give ART drug, follow the mother how to use the drug and feeding their children, survey the mother which are discontinues the PMTCT programme and attending to labour. This may show the health provider assign to PMTCT programme had understood their responsibility.

4.5 DISCUSSION OF RESEARCH FINDINGS

4.5.1 The Whole Findings Obtained from Pregnant Women Living with HIV are Discussed Here

In all round it indicated that:

- When the mothers have knowledge about HIV, knowing their status and live with HIV knowing their HIV status and fear of MTCT of HIV were perceived susceptibility to MTCT of HIV and its consequence of HIV. Thus, in order to minimize the risk, the pregnant women living with HIV have been utilized PMTCT programme. Whereas some of the mothers as express by mothers utilized PMTCT programme does not recognize their susceptibility not utilized in PMTCT programme.
- Those mothers perceived severity the disease on them and on their children; like had history of death of previous their husband, bad experience of reproductive issue (repeat still birth and early child death), fear of the occurrence of stigma and discrimination on their children in the future, fear of death and fear of MTCT of HIV. So, in order to decrease its' severity, they utilized PMTCT programme and take ART drug regularly.
- When the mother already understands the benefit of adhere to their anti-retroviral drug regimens and utilize PMTCT programme. Like, get HIV free child, run a healthy life, have good health condition and observe importance of ART drug and PMTCT programme. They take the drug regularly and follow PMTCT programme continuously.
- Barriers that, affects adhere to ART drug and follow PMTCT services perceived by

pregnant women living with HIV were sigma and discrimination, lack of interest to disclose their status, mother's belief or miss perception, mothers service dissatisfaction, fear of divorce and travelling long distance shortage of transportation and low involvement or support of male partner.

- Some events that develop mothers to intention to use and adherence to their drug were effectiveness of the drug, having seen born HIV free child and presence or good mother to health provider interaction and partner involvement.
- The presence of repeated counselling, confidentiality and supported by the health professional, the mother takes the drug as soon as possible, after she knows her status and when her support her to take the drug regularly. and then the mother runs healthy life and got HIV free child.
- Those mothers who have HIV free child in the previous pregnancy by utilising PMTCT programme were happy to share their experience and utilise PMTCT programme properly to date.

4.5.2 The Whole Findings Obtained from Health Provider

Based on both their experience and perception of nurses and midwives with their observation; those challenges that had impact on use of PMTCT programme by pregnant women and effectiveness of the programme was the same expressed by women participated in this study were:

- Fear of stigma and discrimination.
- Resistance to start the drug and lost from follow-up.
- Low interest to disclose their status.
- Their belief and misperception.
- Dissatisfaction of the mother by health provider service (their interaction).
- Shortage of kit and trained health provider.
- Low participation of their partner.
- Fear of divorce, stigma and discrimination.
- Low awareness of the mother and their partner.
- Due to traveling long distance and shortage of transportation.
- Some of mothers take high responsibility to prevent their children to prevent from HIV infection than other community.

- The present of good mother health provider interaction enhance PMTCT programme.
- Work in PMTCT programme by itself exposed to HIV.

NB: In general, the finding gets from the women and health providers highlighted to that all pregnant women living with HIV were not utilised in the PMTCT programme.

4.6 CONCLUSION

Chapter 4 presented the description and presented the description and explanatory analysis of the qualitative research design. The presentation and discussion of results that gather from an individual level of the mothers and health providers. Chapter 5 was signifying the integration and discussion of the qualitative results and also include literature review to support or dispute the findings.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter covered the entire process of the study, including the conclusion, recommendations, and conducting remarks based on the study's core findings. The contribution of the study to developing guidelines to enhance strategies for the implementation of the PMTCT program in ANC clinics and maternity wards and its limitations were also listed. This study incorporated care providers as well as the users of the service so as to have a comprehensive view of experiences. Qualitative methods were utilised to acquire information.

5.2 DESIGN AND METHOD

The qualitative research approach was used with a case study design. Semi-structured interview guides were used and clarification of concepts done through Amharic during interviews with women, as the researcher speaks Amharic as a home language. And also, confirmation of information obtained throughout the interviews.

The Data were analyzed by utilizing thematic method of analysis by using the six procedural steps in addition to it the Tesch’s eight steps were used in the coding system. The data were classified into major and sub-themes. They were analyzed through themes emerging from participants responses and furthermore applied from the objective of the study.

5.3 SUMMARY OF RESEARCH FINDINGS

In this session before conclusion, the research findings, already discussed in chapter 4, were summarized.

5.3.1 Summary of the participants' demographic characteristics

5.3.1.1 Participants mothers' demographic characteristics

Some of the respondents 5/16 (31.25%) fell within the 30-34-year age group, even though, all of them 16/16 (100%) participating mothers' ages ranged from 20 to 39. All of respondents 16/16 (100%) were married place of residence, most of the respondents 13/16 (81%) were living in urban area. More than half of them 10/16 (62.5%) were educated up to high school and one of them was educated in higher institution only two of them were illiterate .and more than half of the respondents' partner (9/16) were illiterate, (5/16) learnt in elementary and high school and only two of them join college and high-level education.

As the finding obtained from the health providers participated in this study "some of the mothers informed the health provider (nurse) that they did not disclose their result for their partner since they were afraid that their partners did not understand them and they might say them it was not their concern and might ask them from where they brought the case". This implied that, the educational level of their partners had poor communication with their partners and affected for proper implementation of PMTCT programme.

Most of the respondents were living in lower-level economy income groups (10/16) had 500-1000 Ethiopian Birr per month and the rest of them lived with mid-level economy (6/16) had 1,000-5,000 Ethiopian birr per month which was equivalent to 19 USD dollar. The service was given free of charge for the pregnant women though they lived within lower-level economy. From the mothers who followed PMTCT programme, most of them (12/16) worked in their home as housewives, one of them worked as a teacher and the other three were daily laborer.

5.3.1.2 Reproductive issue of participant mothers

From the pregnant women living with HIV participated in this study; all of them except two had history of pregnancy more than two times (multi-para). Half of the respondent mothers (8/16) had history of giving birth two to four times, two of the mothers gave birth more than four times, five of them gave birth only once and one respondent had a history of one still birth. Regarding the number of children that the respondent mothers had at the time of data collection, five of them had only one child and half of the mothers (8/16) had two to four children and all of them were free from HIV.

Most of the respondent mothers (13/16) were giving delivery in health institution and the other two of them gave delivery in their homes. Concerning to the duration of current pregnancy; Half (8/16) of the respondents were in the second trimester, six of them in the third trimester and only two of them were in the first trimester. Within this study findings got from the health provider say that; “when the result of the mother had HIV positive, for the first time the mother lost from PMTCT programme or change their environment and go to other health institution and even interrupted the use of the drug”.

whereas the mothers participated in this study except two of them visited other health institution in the previous pregnancy, but now all of them visit in this health institution we have done this study. Five of them have been visited for the first time; near to half of them (7/16) visited two to four times and the rest of them visited more than four times. In general, this implies that most of respondents participated in this study followed PMTCT programme properly.

5.3.1.3 Nurses and midwives’ demographic characteristics

The respondents (health providers) involved in this study were seven female and three males totally 10 in number; (6/10) 60% respondents were in the age between 25-29 as shown in Table 4.1. Concerning to their educational status, three Nurses and five Midwives had first degree and the other two Midwives had diploma and their work experience was from nine months to five years in PMTCT service in average. And also, all of them got PMTCT training.

5.3.2 Findings got from pregnant mother living with HIV utilised PMTCT programme

5.3.2.1 Pregnant mother living with HIV perceived susceptibility to the transmission of the disease (HIV) to their children and its consequence

5.3.2.1.1 Knowledgeable and information

The pregnant women living with HIV who participated in this study (11/16) 69% had knowledge (during pregnancy, labour and at time of lactation period by breast feeding as said by them) when HIV transmitted from mother to their child and know consequences that aggravated to MTCT were giving birth outside the health institution. And the importance of PMTCT programme when they have seen other mothers living with

HIV had born HIV free child by regular use of PMTCT programme and taken ART drug. So, they utilised PMTCT programme in order to prevent MTCT of HIV.

5.3.2.1.2 Knowing their status and live with HIV/AIDS

Mothers who already know their status and live with HIV/AIDS were interested to use PMTCT programme and come early in order to prevent the transmission.

5.3.2.1.3 Knowing their husband status and live with HIV/AIDS

The results of this study reflected that a small number of women who knew their husband's status as HIV positive before and when they became pregnant, went to health institutions and started the PMTCT programme early.

5.3.2.1.4 Fear of the transmission of the disease for their children

When a mother has repeated stillbirths, she becomes concerned about the presence of HIV in her blood and undergoes HIV testing and treatment to reduce transmission to her children. Based on the result of this study, the mother had knowledge about ART drugs to prevent MTCT of HIV, knowledge about them and their husband's status, and fear of the mother about MTCT of HIV to their children. It helps to perceive the presence of high susceptibility to the disease for them and their children. It had motivated them to accept counseling from a health provider about the use of the PMTCT program, and it was reinforced to use an ART drug and follow the programme properly.

The findings of this study revealed that the mother is afraid of HIV MTCT and also knows about ARV drugs to prevent HIV MTCT; pregnant women accept professional advice about using PMTCT and knowing their and their husband's HIV status; it helps to perceive the presence of high susceptibility of the disease for them and their children and also reinforces the use of PMTCT program

5.3.2.2 Pregnant mother living with HIV perceived severity of disease on themselves and their children

5.3.2.2.1 Misery due to loss of partner

When the mothers lost their husbands (dead due to HIV/AIDS) and remained with their children alone, they had initiatives to use ART drugs in order to live for a long time and to give care for their children. They started to follow the PMTCT programme in the present pregnancy after the current marriage.

5.3.2.2.2 Experience of baby loss

The past experience of the reproductive issues of the mother had its own positive impact on using the PMTCT programme. When a mother had a history of still birth in the different stages of pregnancy, she had been developing a commitment to screen for still birth early in the present pregnancy and follow the PMTCT programme to prevent loss of their children as in previous times and to get HIV-free children in the future.

5.3.2.2.3 Fear of divorce

In this study, most of the mothers reported that the root cause of the mothers not to disclose to their case to their partners was fear of divorce. If they disclose themselves for their partners and when they got divorced, they believed that there would be in a big problem for themselves and also to their children. The mothers perceived that their husband did not understand them and they may ask them from where they got it. Then, they divorced them. This created great impact on them in their social status and may face great crises in the economic aspect. They thought they may be in trouble of stigma and discriminations a result of the status of the HIVE positive. This also had impact on the proper use of PMTCT program.

5.3.2.3 *Fear of stigma and discrimination of their children*

Through their life experiences, when the mothers were victimised to stigma and discrimination due to the presence of HIV within their blood, the community chose migration to another place. In order to eliminate the occurrence of this burden on their

.

children (the occurrence of stigma and discrimination on their children in the future), the mothers are devoted to using the PMTCT programme properly to prevent the transmission of the disease to their children.

5.3.2.2.5 Fear of death

Due to fear of death to themselves, their children, and their husbands and understanding that a crisis had occurred in their family, they mostly convinced themselves to use the ART drug. Then, due to the lesson learned from their life experience (how to pass the different consequences of the disease), they could confirm the importance of the PMTCT programme, so the mothers committed to sticking to the use of the PMTCT programme.

5.3.2.2.6 Fear of MTCT of HIV

The mothers' fear of HIV transmission to their children during the peripartum period (during pregnancy, labor, and breast-feeding) motivates them to use ART drugs and adhere to the PMTCT program.

5.3.2.3 Pregnant mother living with HIV perceived benefits of adhering to their anti-retroviral drug regimens

Likewise, "observed advantage" is referred to as one's belief in the disease-redacting activities' adequacy and one's confidence in the viability of the encouraged to reduce wellbeing hazard. For performing a health action, one's attitude of health behavioral change is dependent on one's view of the health belief.

5.3.2.3.1 Get HIV free child

According to one of the mothers, a mother who used ART drug in a previous pregnancy and had an HIV-free child had motivation to stick to the ART drug and properly follow the PMTCT program in the current pregnancy.

5.3.2.3.2 Healthy lifestyle

Mothers in this study who used ART drugs developed a willingness to take the ART drug for the rest of their lives and use the PMTCT program. The individual mother had delayed the AIDS stage and was in good health due to regular use of the ART drug. Then they work, learn and develop long-term plans for themselves and their family life. So, they have been taking the ART drug without conservation.

5.3.2.3.3 Consider importance of the drug and PMTCT programme

In their life experiences, the mothers saw the importance of attending a PMTCT program that other mothers used to have HIV-free children and understood the prevention of MTCT of HIV and living a long life without developing a disease (AIDS) by taking ART. So, it gave power to the mother to take an ART drug throughout her life.

In general, perceived benefit is referred to one’s belief in the disease-redacting actions' effectiveness and one’s belief in the efficacy of the advised to reduce wellbeing hazard perceived advantage of making a well-being move. The attitude of changing one's health behavior is dependent on one's view of the health belief for performing a health action. The perceived benefits of the PMTCT program, such as the use of ART drugs and how to feed their breasts, as well as the wending time and duration, are increasing HIV positive mothers' participation in the PMTCT program and adherence to their anti-retroviral drug regimens.

5.3.2.4 Pregnant women living with HIV perceived barriers to adhering to antiretroviral drug regimens and have follow up PMTCT program

The observed barriers were analyzed as impediments that could make the utilization of PMTCT services to adhere to antiretroviral drug regimens difficult for the women.

5.3.2.4.1 Lack of interest to disclose their status

Some of the mothers reported that they knew there were mothers who did not have an interest in disclosing their status to everyone. They did not dare disclose the case, even to their partner and their mothers. This had its own effect on the implementation of the program to prevent disease transmission. Unlike mothers who participated in this study, who had already disclosed to their family and their partners that they had got support to follow the PMTCT program.

5.3.2.4.2 Their beliefs or misperception

Their beliefs or misperceptions of the mother's had their own impact on the effectiveness of the PMTCT program. Some of the mothers believed that the cause of HIV/AIDS was an evil eye and that it was a punishment from God; some of them had a misconception about the cause of MTCT (they believed that breast feeding did not transmit HIV to their children); and some of them believed that the ART drug did not prevent HIV MTCT even though the mother was currently taking it.

5.3.2.4.3 Dissatisfaction of the mother by health provider service

When there was dissatisfaction with the service given by the health provider, it affected the utilisation of the PMTCT programme. The mothers did not have any direct experience of the problem, whereas they expressed other mothers' experiences. Due to the presence of service dissatisfaction (negative attitude of health provider), the mothers changed from one institution to another institution and even discontinued the regular use of the PMTCT programme and stopped taking the drug reported by the participant.

5.3.2.4.4 Travelling challenges

Travelling long distances and a shortage of transportation had their own effect on PMTCT programme implementation. Even when their home was found nearby the institution where there was an implemented PMTCT service, the mother chose long distance to reach the faraway health institution. This was because of the fear of the stigma and discrimination in their local areas. Both the mothers and also the health providers came from more than 200 km away.

In general, the effects of the barriers expressed in this study were observed from the perception of the mothers. The participants' perceived barriers impacting on the use of the PMTCT programme and interrupting it were as a result of fear of stigma and discrimination. The loss of follow-up, resistance to starting the drug, loss of interest in disclosing their status, their belief, dissatisfaction of the mother by health professional service, low participation of their partner were pushing factors for long distance journeys. In addition, fear of divorce, low awareness of the mother and their partner, having to travel a long distance, and shortage of transportation were also the causes and challenges of travelling long distances.

5.3.2.5 Cues to action and intention to use PMTCT programme and adhere to their prescribed anti-retroviral drugs

With regards to the HBM, prompts to activity are methodologies that initiate "preparation" and might be occasions, either real or imagined by an individual, or natural, that motivate an individual to take action. Reminders such as information on somebody with HIV or a woman who was HIV positive and had an HIV-negative child can encourage a pregnant woman to take action to make certain that she can keep her child from becoming infected with HIV. Additionally, efficacy or efficaciousness is the capacity to deliver a planned outcome and self-viability refers to trust in one's capacity to take action. In this study, it was implied that the capacity of an HIV-positive pregnant woman to effectively attempt all interventions would assist her to prevent MTCT of HIV.

5.3.2.5.1 Effectiveness of the drug for PMTCT of HIV

This study discovered that mothers who had HIV-free children in the previous child birth a safe and healthy life (good health condition to learn and work). In the case of using ART drugs and following the PMTCT program, they were interested in sharing their experience and improving the utilisation of the PMTCT program properly. When the mothers have beliefs about the ART drug, they follow the PMTCT program continuously and take the drug regularly.

5.3.2.5.2 Having seen born HIV free child

When the mothers saw other mothers reducing their HIV/AIDS-related illnesses and a pregnant HIV-positive mother giving birth to an HIV-free child, they were inspired. Then, when those mothers became pregnant for the first time, they became motivated to screen their status and use of the drug, and hence, they started coming early to follow the PMTCT program.

5.3.2.5.3. Women's health provider interaction

The result of the study revealed that those health providers communicate with the mothers compassionately and respectfully when they give advice, support them, counsel them, and keep their secrets (confidentiality). Then it changes their behavior to use the PMTCT program, and knowing about MTCT of HIV aids in taking ART medication. Finally, it prompts them to take the drug as soon as they know their status.

5.3.2.5.4 comfortable service of the PMTCT program

The presence of the PMTCT programme within different governmental institutions and giving in antenatal clinic for both pregnant mothers living with HIIV and pregnant mothers with negative HIV status had decreased the mothers' fear of stigma and discrimination, allowing them to have a comfortable environment in order to use the service. Due to fear of stigma and discrimination, they did not utilise health institutions nearby their home, and even though they had the chance (alternative service), they used it in another institution.

5.3.3 Experience and perception of the health provider on MTCT and PMTCT programme

5.3.3.1 Challenges of PMTCT programme identified by health provider

5.3.3.1.1 Related to the client

- **Denial of the mothers about their result**

The result of the study revealed that some of the mothers believed that their married partners had not been affected by HIV. When they came to the antenatal clinic for an antenatal check-up and were screened for HIV positive, they became angry and denied their result, refusing to accept the result. "They said that it was not their result as they were married." It would be difficult to give advice and counseling services for them easily."

- **Drug adherence**

Adherence of the mother to the ART drug was affected by exaggerated gossip about the side effects of ART drugs. It was said that it could cause emotional disturbance and psychosis. As a result of this, the mother developed a fear of starting the drug and even if they started the drug, they lost interest in the follow up and changed their environment. So, it was difficult to adhere to their treatment regimen. At the beginning when mothers came for the first time in the PMTCT programme, they did not dare adhere to the drug.

- **Brining their partner**

In this finding, the health provider revealed that "as a principle in the initial of the PMTCT

programme, both partners had to screen together for HIV, but some of the mothers resisted bringing their partners" to the health institution. It was learned that there was no habit of discussion about the reproductive issues between the partners and it was considered taboo. So, the mothers did not talk about their PMTCT program with their partners and they did not bring them. They gave different reasons for not attending the programme with their partners. At the top of this, a mother reported that she did not bring him, because he would divorce her if he got the chance of being negative.

- **Low participation of their partner**

Male partners' involvement was critical to preventing Human Immunodeficiency Virus (HIV) transmission from mother-to-child since it is quite expectable that women were the most vulnerable and high-risk population portion.

- **Low awareness of the mother and their partner**

This study revealed that both women and their partners had low awareness of HIV and understood that those married couples did not need to screen for HIV. So, the mother did not come to the antenatal clinic to use the PMTCT program.

- **Lack of information**

As described in result of this study, the health providers reported that people living within the rural segment area did not have information about the presence of the PMTCT programme and they did not use the programme.

5.3.3.1.2 Related to the health institution

- **Shortage of trained person**

For intervention of PMTCT programme, trained health provider is vital. In study area there was scarcity of trained manpower compared to service given for the community.

- **Shortage of HIV screen kit and guideline**

The present guideline lacks any concept about discordance, especially when I observed

(one health provider) the man who had a negative result go to other women and contaminate them. In addition to that, when there was a shortage of HIV kit, even if the pregnant mother came to the PMTCT programme, they went back without HIV screening.

The challenges that occurred at the time of the implementation of the PMTCT programme reflected by the health provider were: shortage of trained people; denial of the mothers about screening results; drug adherence of the mother; difficult to bring their partner; low participation of their partner, low awareness of the mother and their partner; shortage of HIV screening kit; lack of implementation guidelines about discordance and resistance of the mother from starting the drug for the first time.

5.3.3.2 Factors that were identified by the health providers that affected the mothers to utilize PMTCT programme

Different views were raised by participants regarding factors that affect mothers' use of the PMTCT programme. Reasons for either the low or high participation of mothers in the PMTCT programme were given by participants. The responses of participants (health providers) With regard to the reasons, the participation of the mothers to utilise the PMTCT programme is considered important because they already worked with them and knew details of their (mother's) condition.

5.3.3.2.1 High participation

The factors that enhanced the utilisation of the PMTCT programme revealed by the health providers in this study were: mothers knew their status and were already on an ART drug; they used the PMTCT programme in the previous pregnancy; there is good interaction between the health providers and mothers; and when there is good interaction between the health providers and mothers, the programme has a high uptake. Giving repeated counselling services had a positive impact on utilisation of the PMTCT programme.

5.3.3.2.2 Low participation

Some of the factors that were reported by the health providers as the cause for the low participation of the mothers to use PMTCT programme were lack of knowledge about the presence of the programme, their beliefs, having long interval, fear of divorce, low interest

to disclose their status, stigma and discrimination and low participation of their partner.

5.3.3.2.3 No participation

As the health providers reported in this study, individuals were stigmatised and discriminated themselves from the community was not only because of their HIV- positive status but also because of what that status implies. In general, due to the presence of stigma and discrimination and also lack of knowledge about the programme, the mothers did not come to antenatal clinic to screen for HIV and use PMTCT programme.

5.3.3.3 The major concerns and worries that women express to health provider when utilised PMTCT service

5.3.3.3.1 Their frustration(worries)

From the prospective of the health providers who were working in PMTCT programme and who participated in this study on the time of their practice they observe (seen) the frustration of the mothers was related to; MTCT of HIV, side effect of the drug to them and their children, stigma and discrimination, divorced by their partner and shortage of the drug and the severity of the disease for the future.

5.3.3.3.2 Responsibility

Responsibility of the mothers on the prevention of MTCT of HIV, prevention of HIV/AIDS in the community and about health of their family and their children; the result of this study showed that most of the mothers had high responsibility to protect the transmission of the disease from their family, their children and the whole community. But some of them were protecting only their children.

5.3.3.4 Understanding of the health providers on PMTCT programme implementation and on the prevention of HIV

Appropriate intervention of mother-to-child transmission (PMTCT) services is supported by sufficient information and positive attitudes and practices with respect to health care provided by the Readfield perception at the time of data collection. Discrimination was

not seen at both health institutions. There was no extreme use of precautions, including masks and gloves, in executing routine tasks or in executing routine undertakings or when meeting HIV+ women. Women participants also stated that they were not treated differently after being diagnosed with HIV. None of the participants revealed ceasing treatment because of discrimination at the health facilities.

5.3.3.4.1 Their perception

- **About PMTCT programme**

From their general understanding and perception of the health providers, they described that due to various reasons all pregnant mother living with HIV did not utilize PMTCT programme, and also it was reported by them children aged three to four years had seen to taken ART drug. some of the mothers came to PMTCT programme for the first time at eight and nine months of pregnancy and they did not come again to the programme and they came to get delivery service, and some of them came within puerperium period with HIV without PMTCT follow up in the time of their pregnancy.

- **Disclose their status of the mother**

The health providers revealed about the mothers' disclosure of their status in this finding stated as; some of the mothers were not interested to disclose their status to their husband, family and community. The reason was that they believed that the community associated the disease with bad sexual behavior.so when they disclose their status; they felt that they lose their own and their family's dignity. Beside to that, discussion on sexual issues with partners were considered taboo culturally in the society. Hence, they fear to talk with their partner about the issue and at the top of that economic status of the mother can affect to disclose to their husband due to fear of divorce.

- **Participation of male partner**

Concerning the factors that affected the participation of male partner in PMTCT programme, the health providers reported lack of interest of the mothers to disclose their status for their partner, negligence of the husband to care for their child and belief of male partner that the reproductive issue was only for the mother due to these three reasons the male partner had not participated to PMTCT programme (low participation).

- **About child feeding**

The health provider expressed their perception about the mother's child feeding practice as; mothers liked their child more than themselves. Thus, they gave breast feeding exclusively up to six months as the health providers gave advices and continuously consult them. Then gave additional meal to their child after six months.

- **About the drug**

Efficacy of antiretroviral drug regimens have been the cornerstone of PMTCT programmes. Proper counselling of pregnant mother who live with HIV about the ART drug and how to give nevirapine and cotrimoxazole to their children is crucial for the proper use of the drug at the time of pregnancy and throughout their life. So, the health provider expressed their observation about practice of the mothers as "some of the mothers took their drugs properly and understood its use".

- **Factors exposed the mothers for HIV/AIDS**

The health providers reported that most of the mothers who were exposed for HIV/AIDS were those who were in the low economic status. The economic status had its own impact women. It forced them to engage in marriage without HIV screening. In order to get supports from her husband, she simply joined to him without the HIV screening and she caught the HIV virus.

- **Mother-health provider interaction**

The finding of this research indicated that the perception of the health providers about

their interaction with mothers who have continuous follow up in the health institution was good. They elaborated the presence of smooth relationship between health providers and the mothers. This created positive impact on mothers to use the PMTCT programme and on mother's health status.

- **Their feelings and risks of health provider when working in PMTCT programme**

The findings in the present study revealed that midwives or nurses working in the PMTCT programme had a good attitude towards the prevention of mother-to-child transmission of HIV/AIDS. Most health providers said that "when assigned to the PMTCT programme, they remembered and felt happiness, because it was the way to save the lives of the children. When they engaged in the PMTCT program, the work was interesting. It means that it is always new when a client comes and discusses their problem, especially if it is not easy. She is aware of her condition and cannot be familiar with it while speaking. They counselled them and shared their feelings (empathy). Perhaps by giving repeated counseling, the health provider was able to change the mother's mood.

5.3.3.4.2 Their experience

Based on their experience the health provider revealed the general view of the PMTCT programme intervention as:

- **In PMTCT programme**

The associated factors that positively or negatively affected for the implementation of PMTCT programme; there was a gap on the implementation of PMTCT and it was implicated by; the presence of pregnant mothers living with HIV did not come to PMTCT programme and still the presence of MTCT of HIV. Some of negative experience (infant death in the previous pregnancy without use of PMTCT) had positive impact on the utilisation of PMTCT programme on the other hand negative experience also had negative impact on mothers to use PMTCT programme in addition to that, (the presence of discrimination in the society and the occurrence of divorce seen in another family due to HIV status of the mother).

Due to fear of stigma and discrimination by their family like mother in-law and the community they discontinue the drug, they developed internal stigmatization. So, some of the mothers isolated themselves from the community and did not use common services in the community and discontinues the non-governmental support. And mothers also negotiated with the health provider about not put any sign with their cards that indicated their status rather than others in ANC room. The PMTCT programme had been launched at 2003 in the country to serve for all HIV positive pregnant mothers to prevent MTCT of HIV, but there was a gap on its implementation.

The health provider put as recommended about the mothers had over loaded work, so as to minimise their stress give ART drug every two to three months, that was to take every month and take blood as early as within 45 days from infants it was too early for DBS has difficulties, so made the time more than this.

- **About the mother feeding of their children**

The findings of the study as reported from health providers through their work experience, they had been observed and understood the mothers. The mothers' practice breast feeding properly as the health provider counselled them. Even, when they missed the advice, mothers came back again and discussed with the health provider(us) about their children feeding practice.

- **About MTCT of HIV**

In this study finding the health providers had reported about the reason to have the presence of MTCT of HIV within taking ART drug was may be due to "the mother didn't use to take the drug properly (continuously) and they did not use treatment of any infection at early time".

- **About their partner**

Health providers expressed their experience about the participation of male partner in PMTCT programme. this study finding show that, male partner involvement in the PMTCT programme was low. some of the mothers' dislike to disclose their status to them (their partner) and bring them. At the top of that when male partner had more than one wife, they dislike to support the mother even if, he knows her status and the other male partners also left reproductive issue for their wives they did not come with their wives in PMTCT programme and within labour time, so their participation was low and had its own negative impact on the effectiveness of PMTCT programme specially it is difficult to counsel about child nevirapine soon after child birth care and the use of barrios at the time of sexual intercourse.

In some cases, when the mothers disclosed her status and discussed with her partner in the early pregnancy. Then, they quarrel each other by HIV issue and the male partners did not support their wives, but through the process; when the pregnancy prognosed they were agreed with each other and came together in PMTCT programme and supported their wives. Whereas in a few cases, the male partner started the drug alone before their wives, and came together with their wives. so, it was easy to counsel and screen together and the male partner supported their wives. and it promoted the mothers in order to utilise PMTCT programme.

- **The importance of positive interaction between the mothers and health provider**

Through their experience the health provider recognised the importance of positive interaction between the mothers and health provider and reported in this study as; continuous counselling of health provider for mothers and their partner contribute to change the behaviour of the mother to follow PMTCT programme properly. Moreover, when the health provider communicates as friendly; By giving repeated counselling, give priority for health care when they came within health institution and keeping their confidentiality had encouraged the mothers to use PMTCT programme and even the mothers did not want to go ART room from PMTCT programme after one and half years (after they finished PMTCT programme).

- **The way (manner) how to communicate the health provider with HIV person in the family, with workplace and within the community**

The health providers expressed about their pattern of communication with people living with HIV. They reported that they had familiar relationship with the patients and with their family and individual family member life with HIV like other family without discrimination in the workplace and in the community as a whole. in some of the family member of health provider life with HIV had disclosed their status to health provider and discuss with them but, the other not to disclose their status and even did not serve (give service) in the health institution when the family member work in it.

- ***The exposure of the health provider to HIV as a result of their work***

  During an interview session all the health providers expressed that none of them had the positive results in the HIV cases. However, they mentioned that the nature of their work had the possibility of exposing them to the disease. They mentioned that they knew the cases of some individuals who were exposed to HIV by piercing needle on their duty and take prophylaxis to HIV. The health providers expressed the experience of some of their colleagues who were exposed (contaminated) to HIV by piercing needle and took the prophylaxis and protected themselves from HIV whereas there were others those who pierced by needle and did not take prophylaxis and developed the HIV and changed their workplace to other sites as described by the health providers in discussion session.

- **Health providers (their) role in PMTCT programme**

The result of this study revealed that the role of health provider who work in PMTCT programme was expressed by themselves as discussed in 4.4.3.5.10, their roles included counselling the mothers and their partners about the PMTCT programme, giving advice on the ARV drug, gave advices about feeding practice of their children , advices on the importance of follow up to mothers, working as focal person, to survey the mothers who discontinue the PMTCT programme and run to PMTCT programme.

5.4 CONCLUSION

The conclusion of this chapter is synthetized from the key findings. Thus, the key findings are described below to provide an insight into the full insight of the study results that were presented and summarized in chapter 4 and in sections 5.2 and 5.3 of this chapter.

5.4.1 Conclusion: Results got from pregnant women living with HIV utilised PMTCT programme

The factors associated the mother's utilisation of PMTCT services under South Wollo Zone and Dessie city Administration governmental health institutions were assembled by the significant tents of the HBM, to be specific on perceived susceptibility, perceived severity, perceived barriers, benefit and cue to action.

5.4.1.1 Perceived susceptibility to transmission of the disease (HIV) to their children and its consequence

The results of this study showed that, women participated in the study perceived themselves to be susceptible to transmit the disease to their children and utilised PMTCT programme, were those who:

- Had knowledge about the time when MTCT of HIV occur
- Knew their status
- Knew their husbands' status
- When the occurrence of still birth repeatedly

5.4.1.2 Perceived severity of disease on them and their children

The findings on mothers' perception on the severity of the disease reported by the participant mothers had been understand of the fact that utilised PMTCT services when they perceived severity of HIV and its' consequences like:

- Lost their husband by HIV death
- Fear of the death of themselves and their children
- Fear on the occurrence of still birth
- Fear the occurrence of stigma and discrimination on their children in the future

5.4.1.3 Perceived benefits of adhering to their anti-retroviral drug regimens

The findings of this study on perceived benefits of taking the ART reported by participant mothers as having a number of benefits. Some of these included

- Born HIV free child (by follow PMTCT service)
- Run healthy life
- Have good health condition (delay development of AIDS stage)
- ART drug prevents MTCT of HIV

5.4.1.4 Perceived barriers to adhering to antiretroviral drug regimens and have follow up PMTCT programme

The findings of this study indicated that there were many barriers that made the use of PMTCT services difficult, these included

- Stigma and discrimination
- Lack of interest of the mothers to disclose their status
- Their belief or their miss perception
- Mothers' dissatisfaction on hearth provider's service
- Fear of divorce
- Having long voyage and shortage of transportation
- Lack of partner support

5.4.1.5 Cues to action and intention to use PMTCT programme and adhere to their prescribed anti-retroviral drugs

The findings of this study on the motivations of t the mothers who were following the PMTCT services properly were described as follows. The participant mothers expressed ;

- The effectiveness of the drug for PMTCT of HIV
- They saw the birth of HIV free child when the mothers use PMTCT programme
- The presence of good mother and health provider interaction
- Had comfortable service (environment) of PMTCT programme

5.4.2 Findings got from health providers who work in PMTCT programme

Like that of the mothers within same health institution, the result got from their perception and experience of the health providers working in antenatal clinic that showed similar results with PMTCT of the mothers

5.4.2.1 Challenges in the implementation of PMTCT programme identified by health provider

The health providers revealed that there were inhibiters for the implementation of PMTCT service from the clients' including:

- The mother's denial of their result
- Difficulty to adhere the drug regimen
- To bring their partner
- Low participation of the male partner
- Low awareness' of the mothers and their partner
- Lack of information
- The institution side were the shortage of trained person and HIV screening kit.

5.4.2.2 Factors associated with mothers to utilise PMTCT programme identify by health provider

The finding showed that mothers had previous positive experience were motivated to use PMTCT service. However, there were factors that inhibit the use of PMTCT service. This included lack of knowledge, having long distance, low interest of disclose their status, their beliefs, fear of divorce, stigma and discrimination and low participation of male partner and totally the mother did not use PMTCT programme as a result of shortage of information to those mothers who live in the segmented area.

5.4.2.3 The major concerns and worries that women express to health provider when utilised PMTCT service

- **PMTCT programme**

Due to different reasons some of the mothers did not utilize PMTCT service and some of them discontinued the drug in between after they started it. There were mothers who were inaccessible to PMTCT service due to their livelihood in the segmented area and lack of information about the availability of the service.

- **Disclosure**

The mother did not disclose their status due to:

- Their belief to keep their dignity
- Fear to discuss with their partner
- Fear of divorce
- Fear of discrimination

- **Male partner participation**

There was low participation of the partner because of:

- The mothers were not interested to disclose their status for them
- The male partner themselves had negligence in the PMTCT programme participation
- They left reproductive issue for their wives.

- **About child feeding**

That is obvious the mothers like their children rather than others so, they feed their children as we counsel them based on WHO guideline.

- **About the drug**

When the mothers had belief on the drug, they used it than other factors.

- **Factors exposed the mother for HIV**

Economic issues were the predominant factor that the mothers were exposed HIV within their marital life.

- **Mothers to health provider interaction**

Presences of positive interaction between the mothers and health provider have high impact on the mothers to utilise PMTCT programme.

- **Their feeling and risks work in PMTCT**

Most of the health providers had felt happiness when they are assigned in PMTCT programme because, it is saving the life of the child. But it is not easy work up on it and it is not familiar to mothers feeling so, it is always new and challenging.

- **Utilization of PMTCT programme**

The findings showed that the utilisation mothers in PMTCT programme specially to adhere the drug regimen depend on the past positive or negative experience they already pass on it.

- **Child feeding**

The mothers feed their child properly as the health provider(s) counsel them.

- **About their partner**

Due to different reasons, male partner participation in PMTCT programme was low.

5.4.2.4 Understanding of the health providers on PMTCT programme implementation and on the prevention of HIV

The findings of health provider in the implementation of PMTCT services classified in to two their perception and their experience.

5.4.2.4.1 Perception

The findings from health providers' perception about all related to PMTCT programme and HIV include:

- **PMTCT programme**

Due to different reasons some of the mothers did not utilise PMTCT service and some of them discontinued the drug in between after they started it. There were mothers who were inaccessible to PMTCT service due to their livelihood in the segmented area and lack of information about the availability of the service.

- **Disclosure**

The mother did not disclose their status due to:

- Their belief to keep their dignity
- Fear to discuss with their partner
- Fear of divorce
- Fear of discrimination

- **Male partner participation**

There was low participation of the partner because of:

- The mothers were not interested to disclose their status for them
- The male partner themselves had negligence in the PMTCT programme participation
- They left reproductive issue for their wives.

- **About child feeding**

That is obvious the mothers like their children rather than others so, they feed their children as we counsel them based on WHO guideline.

- **About the drug**

When the mothers had belief on the drug, they used it than other factors.

- **Factors exposed the mother for HIV**

Economic issues were the predominant factor that the mothers were exposed HIV within their marital life.

- **Mothers to health provider interaction**

Presences of positive interaction between the mothers and health provider have high impact on the mothers to utilise PMTCT programme.

- **Their feeling and risks work in PMTCT**

Most of the health providers had felt happiness when they are assigned in PMTCT programme because, it is saving the life of the child. But it is not easy work up on it and it is not familiar to mothers feeling so, it is always new and challenging.

5.4. 2.4.2 Their experience

- **Utilisation of PMTCT programme**

The findings showed that the utilisation mothers in PMTCT programme specially to adhere the drug regimen depend on the past positive or negative experience they already pass on it.

- **Child feeding**

The mothers feed their child properly as the health provider(s) counsel them.

- **About their partner**

Due to different reasons, male partner participation in PMTCT programme was low.

- **Interaction of health provider with people living with HIV**

The health provider's approach to communicate and treat the victim professionally and ethically as usual the same to other individual. Whereas the mothers who disclose their status with relative health providers, some of them did not disclose their status and even they were not utilising in the health institution the family member work in it.

- **Work on PMTCT**

When working in antenatal clinic which give PMTCT service and labour ward; work by itself exposed to the disease.

- **Their role**

The role of the health provider in PMTCT programme were give counselling for the mother, their partner and about child feeding, distribute ART drug, focal person to survey the mother interrupted the drug regimen.

5.5 RECOMMENDATIONS

The recommendations were given based on the conclusions (presented in terms of the study objectives') given.

5.5.1 Perceived susceptibility to transmission of the disease (HIV) to their children and it's consequence

The findings of the study showed that most the respondent mothers learned that they were susceptible to the transmission of HIV to their children as they had great contacts with them. From this it can be concluded that if the mothers had the information about MTCT of HIV and the time when it occurs, they could have the possibility of halting the transmission of the disease from them to their children. So, they could use the MTCT services to enable them prevent the transmission of the diseases to their children. The health provider and other concerned bodies should give health information by using

different media for other mothers who did not have the information on the way they halt the transmission of the disease to their children. The information should be given to their partners and to the community on the advantage of screening and the MTCT programme. The partners of the pregnant mothers should be given advices on the HIV screening to know themselves and to be in the side of their wives.

The fact that all of the respondents knew that HIV could pose double life-tricking effect on both the mother and their children when they did not follow the PMTCT service and even cause death, then they follow the programme. But there were mothers did not able to adhere optimally to their ART and the others not totally utilised the PMTCT programme. The antenatal clinic run PMTCT programme should address this apparent discrepancy by conducting a campy by prepared an individual can share their life-testimony to pregnant women living with HIV to increase the awareness' of them and to improve PMTCT utilisation.0987390717.

5.5.2 Perceived severity of disease on them and their children

Mothers understood the benefits of the ART drug and follow PMTCT programme regularly. They learned this from their own or the experience of others in the previous pregnancy. They got the real result of PMTCT for them. The health provider in the education section uses volunteer mothers to give evidence about it. In order to enhance the mothers, adhere on ART regimen.

5.5.3 Perceived benefits of adhering to their anti-retroviral drug regimens

Mothers understand the benefits of the ART drug and follow PMTCT programme regularly; from their or others experience in the previous pregnancy and got the real result. The health provider in the education section uses volunteer mothers to give evidence about it. In order to enhance the mothers, adhere on ART regimen.

5.5.4 Perceived barriers in adhering to antiretroviral drug regimens and have follow up PMTCT programme

- Six maternal-related barriers were distinguished during the current study. All of these barriers could affect mothers' utilization of PMTCT service and decrease treatment adherence levels.
- Health education should be given to resolve issues of stigma and discrimination.

5.5.5 Cues to action and intention to use PMTCT programme and adhere to their prescribed anti-retroviral drugs

While the participant women in this study had knowledge about important of utilise PMTCT services and adhere to their ART regimens. On the other hand, there was pregnant mothers living with HIV did not utilise the PMTCT service, so promoted the mother and their partners by different means in order to critically recognised it because. It is an issue of their children; research should be sustained to enhance these abilities of mothers attending the PMTCT programme.

5.5.6 To decreased challenges in the implementation of PMTCT programme

- Health education shall be given for the whole mothers to come to antenatal clinic about HIV that affect both married and non-married mothers, about the important of ART drug adherence, and for the community teach about MTCT of HIV and the availability of the PMTCT free in charge service. In general, to teaching for male partners the importance of screening HIV with their partners; to supporting the mother, mainly to practicing safe sex, and totally to saving their children shall be given emphasis.
- The higher concerned bodies shall address shortage of trained person and shortage of screening kit. They have to recruit PMTCT trained health

providers proportion to the served community and all clinics should ensure that they have sufficient supplies of HIV screening kit.

- For the accessibility of PMTCT programme, those mothers living with some marginal areas of the region were inaccessible for PMTCT programme. Hence, the health providers participated in this study recommended that, in order to access to all mothers by PMTCT programme the health provider shall work outside of health institution like outreach.
- In this study economic issues were prevailing factor for exposure of the women for HIV. So, addressing the women by empowering educationally and economically is vital.

5.5.7 Recommendations to improve the PMTCT services in South Wollo Zone and Dessie City Administration

- The male partner participation is crucial to the mothers to utilise PMTCT programme effectively by; supporting their partner to adhere ATR drug, to follow PMTCT service and to give nevirapine for their children soon after labour. Efforts shall be made to address male partners in different means to encourage for participation in PMTCT programme.
- Health education has encouraged discussions on reproductive issue between the partners and the cause of HIV is not necessarily by only sexual intercourse. The study findings revealed that, the society associate the cause of HIV with sexual intercourse create impediment for pregnant women living with HIV to disclose their status. Addressing the importance of disclosing their status for their partner to the whole family. It must address for all people living with HIV have responsibility of prevent transmission of disease not only, for their children but also the whole community. Work in PMTCT programme by itself risk for exposed HIV then the ministry of health gives health insurance for the health provider who work in PMTCT programme.

5.5.8 Recommendations to utilise PMTCT services in South Wollo Zone and Dessie City Administration

- Evidence suggested that discrimination and stigma at community levels are strong barriers to ART adherence during pregnancy. Also, the fear of disclosure of HIV status and the negative consequences that come with such disclose arose dependably across a scope of settings in sub-Saharan Africa as a significant boundary to ART adherence. Educate the mother and the community as a whole about stigma and discrimination and its impact for the prevention of the disease and the importance every woman knows their HIV status before pregnancy.

- Health education address to increase the knowledge of the mothers about the side effect of the drug compares to the importance of ARV drug and improves the shortage of the drug in the future. And also developing campy to share experience; the mothers utilised PMTCT service for long time and had beneficiary from the programme to the other mothers. to address the mothers, worry about the side effect of the drug, it is shortage and MTCT of HIV.

5.5.9 Recommendation to enhance PMTCT services rendered by health provider

- Management ought to guarantee that there are adequate numbers of nurses/midwives on the job to take care of patients. For example, the unavailability of HIV screening kit ought to be recorded and investigated to prevent comparative future lack.
- Nurses/midwives ought to get regular in-service training on PMTCT service provision, research was being directed in this field, and the health outcomes of women and babies who were treated by explicit offices.
- The essential educational programme (basic curriculum) nurses/midwives should be overhauled consistently to ensure that the nurses/midwives are acquainted with the most recent country-explicit rules.
- Management should ensure that there are adequate numbers of nurses/midwives working to go to all patients inside sensible timeframes. And also maintain their positive attitude starting from assigning in PMTCT programme by improving their monthly salary and so on.

- Behave compassionated respective care of the health provider is golden gate for entering point for PMTCT service. So, as much as possible communicate the mothers as friendly and feel their problems as empathy.
- As a recommendation the health providers said that, for effectiveness of the programme, interested health provider should be assigned to PMTCT programme to give strong and repeated counselling for the mothers and manage labour properly. And volunteer mothers share their life testimony about the importance of PMTCT programme when they adhere to ART drug and follow the programme. At last offering quality counselling on MTCT, PMTCT and the importance of male participation on PMTCT programme to all pregnant mothers, their partners and strong promotion to the whole community, developing providers' ability to deliver quality and extensive PMTCT interventions are suggested. Furthermore, promoting mother-health provider communication and devising methods of increasing clients' satisfaction with PMTCT services are advisable.

5.5.10 Recommendations from study participants

Recommendations regarding the provision of the PMTCT programme were shared by participants as follows:

- Smooth way of communication between health providers and the mothers is key for effectiveness of PMTCT programme. So, assign committed sufficient number of midwives and nurses' proportion to the need of the programme is crucial to minimise work overload of the professionals and fill the gap in the intervention of PMTCT programme due to shortage of PMTCT trained professional.
- In order to reach to pregnant mother living with HIV by PMTCT programme work the health professional outside the health institution.
- Training of all categories of nurses and midwives. HP/P1: "I also recommended that the government must conduct workshops, training continuously for all staff".
- Obviously African women have work overloaded, and it affects the use of PMTCT programme, to minimise this difficulty, monthly based distribution of the drug has to be done for two to three months.
- "Test for DBS at 45 days was difficult to take the blood form infants so, as much as possible it gives time to be done" as recommended by the health providers.

- All in-depth interview with the nurses and midwives contributed towards the arrangement of the PMTCT administration through recommendation. The vast majority of participants were worried about PMTCT programme execution to reduce MTCT of HIV.

5.5.11 Recommendations for future research

- Unstructured and semi-structured questions were used with mothers and health providers were collecting data by individually to conduct in-depth interviews. Future studies will be done qualitative and quantitative study life experiences of using PMTCT services mothers and health providers who provide PMTCT service especially quantitatively to know its magnitude of the problem.
- Pregnant mothers living with HIV who didn't utilise PMTCT administrations ought to be designated by future investigations to recognise reasons why those mothers neglected to use by available PMTCT services in a similar region. Additionally, mothers who ended utilising PMTC administrations ought to be focused on for future investigations to distinguish reasons why they do as such.
- Further research should be conducted among mothers who did not disclose their status for everyone and assess the reason why the mother develops internal discrimination.
- Men’s involvement in the PMTCT programme, some of the mothers who participated in the study overwhelmingly felt that men should part of the programme. Research is needed to explore possible ways to ensure that antenatal clinic is men friendly. In this context, such a project could also investigate the perceptions of men regarding their participation in the programme.

5.6 CONTRIBUTION OF THE STUDY

- The future focus of PMTCT services on mothers may yield information about real-life occurrences of patients and health care providers in these settings.
- It is an opportunity to understand the knowledge of pregnant women living with HIV about PMTCT and MTCT in an interview session. After the interview, the researcher filled in the knowledge gap that was observed from.
- Some of the mothers who live within a segmented area had no information about it. Even the presence of the PMTCT programme was not utilised in the PMTCT service. So, as much as possible, the health manager establishes means to reach
- This study discusses the initiative factors of the mothers for utilisation of the PMTCT service, which were perceived susceptibility, severity of the disease, and its transmission. and also understand the benefits of the program and taking the ART drug. Finally, the mother's opportunity cue to action was improved to encourage mothers to use PMTCT, revealing the mother's perception of the health provider's implementation of the PMTCT program.
- It identifies economic factors that expose them to HIV/AIDS for concerned bodies in order to empower women and prevent them from contracting the disease.
- Assessment of their perception and experience of health providers who worked in the PMTCT programme got real information about the process of PMTCT, mothers' practice, about their child feeding, their partner and risks work on.
- Obtaining concrete information from mothers who used PMTCT services, as well as the experience and perception of the health provider providing the service.
- The development of these guidelines to improve PMTCT program implementation is informed by the factors that discourage mothers from using the PMTCT program; obstacles to effectively implementing the PMTCT program; and the risk of exposing mothers to HIV. The guidelines document that emanated from the study is also the first that has defined a framework for implementing PMTCT service more compassionately and with respected care.

5.7 LIMITATION OF THE STUDY

The following are limitations of the study:

- Condemnation evened out at qualitative research overall regularly evened out at subjective exploration overall frequently refer to issues of small sample and interpretation. The researcher is of the view that data collection methods, the rich description of the example, and the course of investigation exhibits the straightforward idea of the research.
- One of the constraints is that the information was gathered through semi-structure poll and top to bottom meetings; a direct observation of the experts at work would have added one more dimension to improve the findings. However, the participants were exceptionally open and plainly expressed subtleties of their experiences.
- The findings of the study were not generalisable because not only the study was done in one zone and one town administration health institution in the Amhara Reign of North-East Ethiopia and also by nature of the qualitative methods, it very well might be adaptable to different settings of comparative attributes. It should be noted additionally that greater part of the themes recognised were upheld by local and international literature. Accordingly, the findings could be exceptionally helpful to health organisation that longing to upgrade (scale up) to PMTCT administrations. The findings may likewise direct future research.

5.8 CONCLUSIONS AND REMARKS

The study set out to identify factors influencing mothers' decision to use PMTCT services. The findings indicated that the findings indicated that mothers had knowledge about MTCT of HIV and PMTCT, know their own and their husband's status, experiencing fear of death and MTCT of HIV, had got HIV free child in the previous pregnancy by using PMTCT service and taken ART drugs, the presence of good mother to health provider interaction, the presence of male partner support, comfortable environment in PMTCT programme were enhanced the utilisation of mothers.

On the other hand, those berries that influenced mother's decision to utilise PMTCT service include their belief, miss perception, stigma and discrimination, low male participation, negative mothers to health provider interaction, fear of divorce, having long travel and shortage transportation, lack of belief on drug efficacy ad lack of information about the presence of PMTCT services. Also, the challenges revealed by the health providers in the implementation of PMTCT programme were denial of mothers about their HIV result, drug adherence, bringing their partner for PMTCT service, lack of interest to disclose their HIV status for their partners and shortage of trained person and HIV screen kit.

These health institution-based study on the appropriate study population that were on HIV positive pregnant mothers who utilised PMTCT service and health providers who provided PMTCT service has provided awareness to the health team of mother and child health in antenatal clinic, the hospital and health centre management, the collage of Midwifery and Nursing, the college of Medicine, the health providers and mothers with scientific and current information on enabling and inhibiting factors for utilisation of PMTCT programme, PMTCT, MTCT among pregnant mother living with HIV at the participation antenatal clinic.

The prompt activity is to foster a rule which will increase the mother's PMTCT usage utilising health belief model with demonstrated results. It is an ideal opportunity to act against MTCT of HIV to get HIV free generation. It is necessary to stress importance of male-partner participation and the ART drug, positive interaction between the health providers and mothers (develop compassionate respective care) in PMTCT service, the danger of pregnant mothers living with HIV does not utilise PMTCT programme.

By the nature of qualitative study, it is unable to put generalizations of the results for other site in addition to that due to resource constraint this research does not incorporate pregnant mothers who are not utilised in PMTCT programme out of the health institution site.

CHAPTER 6

PROPOSED GUIDELINES ON MALE PARTNER INVOLVEMENT AND COMPASSIONATE RESPECTIVE CARE OF HEALTH PROVIDER ON PMTCT PROGRAMME TO ENHANCE PMTCT SERVICE UTILISATION IN THE NORTH-EAST ETHIOPIA

6.1 INTRODUCTION

The core aim of developing these guidelines is to enhance the strategies for implementing the PMTCT program in ANC clinics and maternity wards in Ethiopia. In this chapter, the importance of developing the guidelines on the main sub-sets of the PMTCT program; male involvement and compassionate respective care of the health provider; guiding principles; scope; objectives, methodology, strategic objectives, proposed activities, monitoring and evaluation modalities are included in the content.

It was drafted by the researcher based on the empirical evidence generated in the data gathering and analysis phase mentioned in chapters 4 and 5 of this study. Moreover, the draft was reviewed by the invited expert panels involved in the Delphi study. Lastly, the guidelines are finalized by incorporating the comments given by the expert panel until they reach a sort of consensus. The main targets for these guidelines are health providers and male partners with their partners who are living with HIV and pregnant in ANC clinics and maternity wards in Ethiopia.

For the aforementioned ambitious goal, male involvement is highly demanded, especially in low and middle-income countries where the community is patriarchal. Globally, male involvement has been identified as a priority target area to be strengthened in the prevention of mother-to-child transmission (PMTCT) of HIV (Hussen Zenebe, Mamo, Shake 2022: 1–10). Ethiopia has adopted the global target for PMTCT, which is to nullify mother-to-child transmission by the year 2030 (WHO 2012).

Compassionate, respectful, and caring (CRC) creates a pleasant environment for health providers, customers, and families. For the past five years, the Ethiopian Ministry of Health (EMoH) has developed a CRC plan to improve person-centered care (Jemal, Samuel, Geta, Desalegn, Gebiru, Tadele, et al 2022: 1–13).

In Ethiopia, many professionals are compassionate and respectful of the skills they need. However, a significant proportion of health care providers regard patients as cases and do not provide CRC to their patients and families (Shea and Lionis 2014: 2). To address these gaps, the Ethiopian government has already established a CRC program and initiatives in health care services that go beyond morbidity or mortality prevention (Jemal, Hailu, Makonnen, Tesfa, Bekele, and Kinati 2021). So, this guideline will be the means to implement the initiatives already started by the government.

6.2 RESEARCH METHODS

This research employed an explanatory qualitative design that involved purposive sampling methods and semi-structured questioners were employed (Creswell 2014:274-282) to understand the factors associated with utilisation and implementation of PMTCT service, the perception and experience of pregnant women living with HIV and health providers (nurses and midwives) on MTCT of HIV and PMTCT in the north-east part of Ethiopia. The key findings of the researchers were discussed in chapter 4 of the main study and revealed that there was low utilisation of PMTCT services and they were not properly scaled up as desired for the prevention and control of HIV/ADS in Ethiopia. As a result, the lack of male involvement and compassionate respective care were critical in this study's findings. Consequently, these guidelines are developed dependent on the critical findings of the study that were discussed in the previous chapters and reviewed literature.

6.3 THE NEED FOR DEVELOPING GUIDELINES

The Ethiopia Ministry of Health developed the National Guidelines for PMTCT in 2007 and reconsidered them in 2012 using a four-pronged approach: primary prevention of HIV infection (ABC approach), avoidance of unintended pregnancies among women infected with HIV, prevention of HIV transmission from infected women to their infants, and treatment, care, and support of women infected with HIV, their infants, and their families (prevention and treatment of OI and ART, positive living).

The existing trend of the low utilisation of PMTCT programs in Ethiopia means paediatric HIV infections will continue to reverse the gains made through child survival programs unless there are strategies to enhance PMTCT service uptake. In light of this, the development of this male partner involvement and compassionate respective care guidelines in the PMTCT programme is a supplement to increase universal access to high-quality, integrated couple-friendly PMTCT interventions in the health services of Ethiopia.

These guidelines are primarily intended for ANC clinics and maternity wards; however, a portion of the strategic recommendations are also aimed at the higher-level health system, including the woreda/district health offices, zonal health department (ZHD), regional health bureau (RHB), and federal. On the whole, these guidelines are one of the vital commitments from this study and will be conveyed essentially to the study area's health faculties and health managers, RHB, Federal Ministry of Health (FMoH), and other creating partners who are supporting the PMTCT programme in Ethiopia. According to World Health Organization (WHO) guidelines, the developed guidelines must have a notable end-user, and the proposals for the guidelines should be specifically made to the audience identified as the end-user (WHO 2014a:17).

On the whole, the main influencing factors for the utilization of the PMTCT program were the mothers to health providers' interaction and low male partner participation. So, when these factors are resolved, the other factors are also resolved. So, what motivated the researcher to develop guidelines on health provider comprehensive respectable care and male participation in the PMTCT program?

6.4 GUIDELINES PRINCIPLES

The accompanying core values were taken for during the improvement process during the drafting stage by the scientist and assessing by the invited expert panels involved with the Delphi study, such as continuum of care, evidence-based, participatory, acceptable, high effect reconciliation, quality of care, community & health system strengthening, feasible, cost-effective, engaging communities, multi-sectoral collaboration, alignment with global and Ethiopian practice.

6.5 OBJECTIVES

6.5.1 General objective

The overall objective of these guidelines is to add to a means to decrease of MTCT of HIV and further develop the health condition of the mothers by upgrading the quality and service utilisation of the PMTCT in the ANC clinic and maternity ward of Ethiopia.

6.5.2 Specific objectives

- Improve the quality and service use of the PMTCT services in the ANC clinic and maternity ward of Ethiopia.
- Promote involvement of male partner in their family health care especially in PMTCT programme to support their partner and maintain healthful lifestyle.
- Practice compassionate respectful care by the health provider pregnant women living HIV and their male partner in PMTCT programme implementation.
- Explore specialists' commitments through the Delphi strategies for their remarks and arrived at a specific agreement.
- Develop approved guidelines that are specially made to the audience distinguished as the end client.

6.6 SCOPE

The extent of these guidelines is for all levels of health institutions that give PMTCT services. The general initiative for the execution of these guidelines is expected from the worda/district health office and ZHD to the Federal Ministry of Health. Notwithstanding, there are some essential headings that are put down in the guidelines that have ideas at RHB and FMOH levels. For example, endorsing the current strategy course and systems in the PMTCT service provision at ANC clinics and maternity wards. Consideration for distinct creating partners who are assisting Ethiopian public authorities benefited from contextualizing and adjusting this guideline for the viability of PMTCT services in Ethiopia.

6.7. METHODOLOGY

6.7.1 Delphi techniques

Delphi techniques are group discussion procedures in which complex issues about which uncertain and incomplete knowledge exists are assessed by experts in an iterative and structured process. The researcher used the technique by keeping anonymity. Each is used to evaluate the drought guidelines.

WHO (2014a:19) argues forward that many groups and individuals will be engaged from the beginning of the guideline development process. It should include multidisciplinary expertise and seek their opinions and contributions to the draft guidelines. This is relied upon to limit the risk of bias in the proposals made for the guidelines (WHO 2014b:2).

In accordance with this, to develop this guideline, the researcher utilised the Delphi method. As Adebiyi, Mukumbang, Okop, and Beytell (2018:1-27) stated, there is no agreement on the sample size of the participants in the Delphi discussion forum. The researcher identifies relevant policy-makers, health providers, and health policy advocators to participate in a Delphi contribution forum to refine the guidelines of two rounds of seeking comments.

6.7.2 Selection of the experts for Delphi study

Purposely selecting an expert who is proficient in accordance with the drafted guidelines is one of the vital steps in the Delphi method technique (Keenan, Sinuff, Burns, Muscedere, Kutsogiannis, Mehta et al. 2011:7). In this way, first the researcher drafted the guidelines dependent on the key research findings and literature reviewed to upgrade the quality and service utilisation of the PMTCT programme in the ANC clinics and maternity wards of Ethiopia Following that, 19 experts were distinguished and selected. The experts were selected from the FMoH, ICAP at regional and zonal level, RHBS, developing partners, and university lecturers who are the key experts to give training on PMTCT and HCT and have skills and experience in developing different guidelines.

These partners have been supporting and counseling the FMoH and RHBs in the improvement of various guidelines, soliciting advocacy for policy change, disseminating technical, leading the implementation and managerial guidelines, and screening and assessing PMTCT programmes at national and regional level (FMoH 2015:50-51).

Following the selection of the experts, they were approached by the researcher either by telephone or face-to-face, and key findings and the study objectives were briefly discussed with them. The incorporation if the anonymity of the responses was given by every expert and the right to decline at any time by the members of the Delphi study group was explained. By ensuring the anonymity of each panel member, they got an equal chance to present and react to ideas without any impact from knowing the identities of other experts on the panel (Keeney et al. 2011:7).

6.7.3 Communication modality

Prior to processing into the next steps, the verbal consent of each expert was sought after verifying their participation. Then the researcher sent draft guidelines for improving the quality and utilization of PMTCT services in Ethiopian ANC clinics and maternity wards via care email and followed up with instant messages to browse their email inbox on a regular basis and look for their response for confirmation. Also, on the last page of guidelines, a straightforward evaluation checklist was incorporated to assess the overall presentation of the guideline, level of detail, thoroughness or content applicability, addition target, and any suggestions for improvement, removal, or modification.

The experts were coordinated to go ahead and give their specialists' assessment and interaction on the body of the draft rule through embedding remarks and additionally track changes. Moreover, they were urged to compose in any way they felt, including their overall inclination, thoughts, and remarks, notwithstanding the few criteria proposed in the evaluation checklist (Table 6.1).

Table 6.1 The check list on which experts provide feedback and suggestions on the proposed guidelines to improve strategies for implementing the PMTCT program in ANC clinics and maternity wards.

Themes	Comment/suggestion	Area for improvement	Input for Improvement
Content			
Level of detail			
Presentation			
Relevance			
Applicability			
Target			

When the agreed-upon cut-off time for responses had passed, the researcher compiled the comments and incorporated them into the second version of the guideline. Once more, the subsequent adaptation, including the summary of the first-round responses, was sent to the experts, and the interaction continued until the experts' desert to share their response and/or affirm their agreement (Keeney et al. 2011:10).

6.7.4 Expert follow up process

Delphi techniques are a structured and multistage process in which a panel of experts is invited to be a part of a series of rounds to identify and achieve consensus on a specific issue. Consensus is sought through information feedback and iteration in the form of phases and rounds. It is offered by anonymity to reduce decision-making inhibition (Durham, Al-Baghdadi, Baad-Hansen, Breckons, Goulet, Lobbezoo, and et al. 2016:1-24). It is important to build agreement and allow groups to judge frameworks (Ogden, Culp, Villamaria, Ball 2016:1-17 and Paquette-Warren, Tyler, Fournie, Harris 2017:1-15).

In the whole interaction, the experts were stimulated by the researcher either by email or phone to give their important remarks on the progress of the draft guidelines. In the first round, 84.2 percent (n = 16) of the experts responded with feedback and comments. The suggestions from the entire expert group are then distributed for all of them to give their opinions in the second round. Lastly collect their suggestions and come to a consensus to incorporate them into the guidelines.

6.8 STRATEGIC OBJECTIVES AND ACTIVITIES

The identified experts in the field of the PMTCT programme shared their valuable experiences and remarks to build the draft guidelines in at least two rounds of feedback. Subsequently, the under fixation key targets and rundown of exercises were finished to work on quality and service use of the PMTCT programme in the ANC clinic and maternity ward of Ethiopia.

1 Strategic objective: Develop high engagement of the male partner in PMTCT Programme

Activities:

- Conduct community preparedness activities with male leaders and opinion leaders related to reproductive health issues.
- Develop male-sensitive support groups (volunteer male individual who know their HIV status teach other community member by their life testimony) where men can get support with dealing with issues such as voluntary counselling and testing of HIV. The FMoH at country level can take the initiatives.
- Ensuring regular catchment-based programme specific mentorship/supervision of health providers from PHCU, HCs, and Wereda health office to improve male involvement and build the confidence and competency of the male partner at community level.
  - Adapt the current social conduct change correspondence (SBCC) devices like mobile health (miHealth) and print materials on the misconception on ANC clinic is utilised by women yet additionally it consolidates the male partners in PMTCT programme. Then, at that point, HWs and HEWs convey the adapted tools and provide a continue sensitization and counselling for families, pregnant women, men and communities at large.
  - Male partner involvement important to support their wives economically and psychologically. In order to put at ground level a sustained engagement and commitment by all stakeholders are mandatory.
  - Change in clinics must be completed with the cooperation of multilevel stakeholders. National level health officials and NGOs must come together to allocate more resources for male-focused strategies at the facility-level. And also, these adjustments would require minimal resources for execution. Larger changes, such as implementation of provider- initiated HIV testing for services specifically targeting men will require additional substantial resources provided by international organisation now funding most HIV programmes.
  - Stresses the need for a wider understanding of how men are disproportionally suffering from HIV. Because of the healthcare system is not oriented to their needed services or male-focused strategies at the facility-level. so, the PMTCT programme follow focus on family center care.

2 Strategic objectives: Improve male involvement and support their partner's in PMTCT Programme

Activities:

7 Encourage young men and male partners/husbands to take part in childcare and also in ensuring PMTCT programme.

8 The participation of male partner in counselling and testing of HIV with their partner put as compulsory to come in ANC clinic with his wife. Thus, set up a framework to guarantee the usefulness of the male corner in the health centres and primary hospitals. And furthermore, changing the clinical setting to be more male accommodating is basic for male acknowledgment of the clinics. The lead health facility within health facility level can take the initiatives.

9 The male partner supporting their wives to adhere to the therapy and follow PMTCT programme regularly.

10 Extend opening occasions to accommodate men who work, and clinics that utilise male staff, have shown achievement in expanding the number of men who get to and stretch out opening occasions to accommodate men who work, and facilities that utilise male staff, have shown accomplishment in expanding the number of men who access VCT (Isehak

2013:150).

- Using the pregnant women living with HIV conference to improve the awareness of mothers and families on the importance of discloser of their status for their partner in order to increase their partner involvement to PMTCT programme.
- Build the communities thrust on ANC clinic and in maternity wards quality of PMTCT services for pregnant women living with HIV. That includes facilitating of the communities to utilise PMTCT service as outreach, exhibit the available ART drugs, supply and the barrier for discordance couples.
- Use the testimonies of the voluntary couple to teach the couples from the recipients to advance, awareness the service is given free of charge, and work with conversation with the local area agent to look for their commitment.
- Develop a standard activity strategy to build up a functional referral linkage and correspondence within health facilities; arrive at agreement on the cycles for starting referrals and counter-referrals. A sick new born who requires referral, the referral follows a pre-set-up arrangement that can be executed right away whenever
- Using mass media to arrive a wider community about the timely starting of ANC follow up which will have association with a better outcome of pregnancy and male partners should be encouraged to take part in counselling and testing with their partner at early pregnancy and PMTCT activities.

- Teach the importance of negotiation within the partners at community level by the community health worker. In order to prevent and reduce the number of unintended pregnancy and develop behavior to screening for their HIV status before they plan to be pregnant and when use family planning method.
- The commitment of men can undoubtedly be productive; their affiliation should never encroach on the rights and autonomy of women. At the same time, ensuring that men have support to get services would likewise ensure that women are less inclined to contract HIV regardless.
- Support their wives to take ART drug regularly, seeking to health care if the women have some infection on time and remember the women for time to check for her viral load regularly.
- In addition to come with their wives at the time of labour ward and take the responsibility to give nevirapine and discuss with health provider the dose of the drug, give, how many times per a day and how to give for the new born baby when the mother in labour pain and choice of child feeding in order to have HIV free child.
- The male partner come together for the checkup of their child HIV status at 45 days and at the time of one and half years old for HIV confirmatory test.
- The health provider addresses the couple's innate need for connection and relationships with in the PMTCT service utilisation.
- The health provider ensuring a friendly and supportive environment is a key enabler for individuals to feel respected and maintaining their dignity.

3 Strategic objective: Promote the couples counselling and testing to prevent transmission of the HIV with discordance partner

Activities:

- Establish panel discussion with a mass-media about the concept of discordance between the couples and the barrier how to use it for prevent the transmission of HIV throughout their life. The initiatives taken by FMoH.
- Discuss the concept of discordance at the community level to minimise divorce instead of that the couples used condom as a barrier and can live together. And also deal in detail when the partner positive for HIV test it is not saying she come the disease. The initiatives taken by the health extension workers.
- Explain with details when one couples become negative and the other one negative, it is not necessarily mean he/she will be negative throughout their life. So, they must be use condom always and regularly. it initiated at early in the time of testing and counselling of the couples by the nurses, midwives and the doctors who provided the PMTCT programme.
- Using the barrier, highly responsive taken by the male partner than the women. Because of the male have decision power in most of reproductive issue of the family for utilisation of both type of condom.
- The midwife or nurse practice in PMTCT service have respect for and facilitation of mothers and families, participation in decisions and care especially for starting of the therapy.

4 Strategic objectives: Improve the PMTCT service utilisation of pregnant mother living with HIV in ANC clinics and maternity ward and discloser their HIV status to their partner

Activities:

- Mobilize peer mother support groups and male partners to promote HIV-positive pregnant women's timely initiation of treatment.
- Promote women living with HIV work outside health services, reinforcing the capacity of health workers to manage their job and ensuring that pregnant women and mothers with HIV have an inside and out comprehension of their real factors. Acting as doctors, nurses and expert clients/mentors, women living with HIV counsel and support clients in order to generate not only greater adherence to the care that keeps women and their children healthy, but to ensure that they remain adhered to their care.
- The health provider practices a feeling of deep sympathy and sorrow for the suffering of others accompanied by implement truly patient-centered care.

- Strengthening the arrangement of sort of care, in any setting, which supports and advances women and doesn't undermine an individual's dignity, paying little heed to any distinctions
- The nurses or midwifes ensures mother's respect by maintain privacy of their information, autonomy and trustful relationship with them.
- MCH team leaders have intersecting roles as public servants, as health care providers, and as managers of both healthcare professionals and other staff in ANC clinic and maternity ward in all health institution provided PMTCT programme.
- Mapping of stakeholders to identify the target groups and gather information about them.
- Engaging the existing community platforms and structures for increasing demand for services utilisation for pregnant women living with HIV.
- Check the client frequently, regularly communicate and collaborate with the healthcare team regarding the client treatment.

5 Strategic objective: Improve compassionate respectful care between health provider and pregnant women living with HIV and their male partner

Activities:

- Counselling training: Ongoing preparing will work on counsellors' certainty and job satisfaction, which thusly builds interest and take-up in PMTCT programmes (Isehak 2013).
- Train health-care workers on non-discrimination, confidentiality, informed consent and other human rights and ethical principles (United Nations Population Fund Agency [UNFPA] 2012).
- Facility managers will ensure availability of supplies and motivated staff to provide preventive and curative STI including HIV services, provide adequate supervision and monitoring, as well as mechanisms to improve motivation to provide high quality services.
- When the health providers give PMTCT service within every health institution they Consider clients as human beings with complex: Psychological, social and economic needs and Provide person centered care with empathy
- When serve the women and their partners in the PMTCT programme is based on the Ethiopian constitution of human rights article 25 and 26 states that the rights to equality and privacy.
- The implementation of CRC has benefits for the women but also, for the health provider to ttheir work more meaningful and gratifying, provide quality care, decreased medical errors and decreased lawsuits, short-term and sustained improvement in well-being and attitudes and a major predictor of patient loyalty.
- The head of the woreda and zonal department organise the system the health providers Positively affects sufferers, and increased people's capacity for empathy and compassion and promotes positive relationships within PMTCT programme.

- Advocate CRC has to be a culture, self-driven inner motive and a legacy that the current generation of practitioners leaves to their successors. And being the health provider non-condemning and non-judging (Mean not judging a person's pain or distress, but simply accepting and validating their experience).
- Conduct on service training the health provider to capture capacity to be sensitive and to maintain open attention, enabling them to notice when others need help. to make sense of their feelings and their own emotional responses. and is the process of "being in another person's shoes".
- Health team leaders demonstrate their commitment to CRC and set expectations for those who work in the organisation and evaluate the culture on a regular basis.

6 Strategic objective: Enhance respective care to pregnant women living with HIV and their male partner in PMTCT service

Activities:

- The improvement of caring, respectful and compassionate health providers requires a multi-pronged approach and its advance nature of PMTCT service, Lower malpractice sues, Staff will be more faithful to their hospital or health care system, Resources can be monitored and more prominent representative fulfillment and decreased employee turnover.
- To work with resolution of conflicts in a conscious environment with regard for the interests, rights, and responsibilities of between the health provider and furthermore between the couples.
- In the initiation of care the healthcare provider established positive environment by greets the client respectfully (properly introduce himself/herself and status, as a bridge to achieve earlier and more accurate diagnoses, Respect from the client/patients, Protect against professional stress, burnout, substance abuse and even suicide attempts.
- Being sensitive to clients' needs, involving them in decision making, respecting their individually, allowing them to do what they can for themselves and giving them privacy and their own personal space.
- Encouraging everyone can provide ample learning opportunities and scope for improving practice and it develop A culture that enables health care providers to speak up when they come across substandard quality of care.
- The midwifes and the nurses who provided PMTCT service Equipping ("action and activities coordinated towards helping, supporting or empowering one more individual or group with apparent or expected necessities to work on a human condition or life way or to face death. Moreover, they moving toward their clients as people and seen their health problems and experiencing this vantage point. And furthermore, a capacity to perceive another person's sentiments, inspirations and intensions.

7 Strategic objectives: Improve the quality of management of labour and new born care

Activities:

- Provide on-job refresher training on management labour of pregnant women living with HIV at labour ward kindly by minimise the discomfort with standard of care.
- Practice quality of health providers-patient communication with; to expanded actual working, enthusiastic health and diminished physical symptoms of pain in patients.
- Women who conceive birth in a health facility and their babies ought to be surveyed for issues with checklist. The midwife ought to work with conversation with the parents to work on their abilities on the arrangement of fundamental infant care ought to be set up, regardless of whether everything is working out positively, and be encouraged to return generally on the off chance that they notice any danger signs. It should be customized and utilise mobile health innovation as an update at whatever point achievable.
- Strive to change the attitude of health professionals in the maternity ward to hold women and their infants for something like 24 hours after birth.
- The health provider has relational communication skill by giving continues CRC training: a body language as initial, resonate with their women s' emotions and the influence that their virtues in this process, physical displays of caring, and listening and supportive word and to some extent the women feel that health care providers are actively present in the clinical encounter.
- The midwife be having skill to a timely and receptive desire to actively engage in and address a person's multi-factorial suffering and to attend to a mother's immediate needs.
- The midwife responds promptly and professionally when the mothers ask questions, engage himself/herself with the mothers (sits on the bedside, making conversation with the client, gives proper information at the time of labour.

8	**Strategic objectives: Improve planning, monitoring and evaluation system of the PMTCT services**

Activities:

- Facilities will also be engaged in conduction community-based interventions in close collaboration with HEWs: HIV testing and counselling, including voluntary HIV counselling and testing, locally situated testing and counselling for partners and community mobilization.
- priorities setting in health care is the ranking of health service and the ranking of recipients of these services. Priorities are repeatedly set though a process of decision – making.
- The head of the health institution develop a point which different administration frameworks and subsystems are associated and incorporated to give the most ideal possible health to every one of the planned beneficiaries of those services.
- Leaders crate compassionate cultures and develop mindful practice for Enhancing relationships and partnerships what's more, Effective administration frameworks are constantlykept up with, update, and improved to serve changing organizational needs and resources.
- The self-assessment (evaluate their own behavior using different methodologies) of compassionate leaders should be conducted every six months and all information is well documented, so the framework doesn't depend on knowledge of individual. A service given by an individual or group to help patients, families, surrogates, health care providers, or other involved parties. And furthermore, it tends to uncertainty or conflict regarding value laden issues that emerge in health care.
- Develop effective communication with health care teams, mothers and health professionals related to PMTCT programme.
- The health managers expediting the process of implementation and ensuring sustainability of CRC in a health system. And they serve as a moral guidance that directs our motivation and potentially our decisions and actions.
- Documenting and applying lessons learned on what does work and it doesn't work is an integral part of “Best Practice” with the goal that similar kinds of mistakes can be kept away from during implementation of CRC.
- Leaders must undertake behaviors that foster an environment conducive to ethical practices by effectively integrate ethics into the overall organizational culture.
- Practice quality of health providers-patient communication with; to expanded actual

working, enthusiastic health and diminished physical symptoms of pain in patients.

- The FMoH Zonal Health Department, and woreda health office sharing best practice during review meetings, supervision and experience sharing events. Through the national Ethiopian Hospital Alliance for Quality imitative where hospitals create a cohesive cluster to share their practices for better implementation of initiatives, conducting regular monitoring and evaluation sessions are important to evaluate how employees are implementing CRC practice, patients and families should be part of CRC monitoring and evaluation in PMTCT programme and effectively eliciting stakeholders' views on their relationship with the health facility CRC practices.
- Support more noteworthy male engagement in community programmers to stop intimate partner violence, advance more prominent take-up of treatment among individuals (for both their own wellbeing and to limit HIV transmission).

9 Strategic objective: other cross-cutting activities which are significant for other strategic objectives

Activities:

Human resource for health

- Boosting the commitment of nurse and midwives by reacting to the administrations issues which are constantly complained health provider.
- Advocate for the minimization of limit for the unplanned, urgent and non-health related activities of PMTCT programme for nurse or midwife who provide the service.

Services availability

- Advocate for the opening of the ANC clinic often to provide curative care services by nurses or midwives whenever the pregnant women living with HIV is debilitated sick or get advice and the family seeks care

Improving supply chain

- Develop a functional supply chain system to keep away from the interference of ART drugs and supplies at health facilities.
- Equip rural health centres and health posts with fundamental medications and supplies to give the required care for pregnant women.
- Regular furnishing of maternity wards with fundamental supplies and drugs like nevirapine and other for management of the emergency new born care signal functions and routine care for new born.

Service delivery standards

- Availing PMTCT guidelines in health faculties for the everyday direction at ANC clinic and maternity wards.
- Establish quality improvement drive at all health institution establishment that is additionally captivating networks. This will foster a collective leadership to collect pregnant women living with HIV data tracking and data for decision making at facility level to improve the quality of care as culture. Likewise, it will assist the facility to improve compassionate respectful care and service mother-provider communication.

Quality improvement

- Develop a SOP for quality of care build up a quality improvement initiative at PHs, HCs and HPs connected with accountability framework to work on the way of life on quality of care for pregnant mothers and new born.
- Encourage peer-based clinical mentoring and self-evaluation within the health facility to improve the quality of care for PMTCT programme. This assists with ensure adherence to on the utilisation of national PMTCT guideline; and easily recognise the skill gaps among the health workers.

- Improving a facility and community based MTCT of HIV evaluating for new borns with appropriate action plan to improve the implementation of PMTCT programme.

Basic amenities

- Ensure that all health facilities to have a suitable physical environment, with adequate water supply, handwashing facilities, housekeeping tools and consumables, sanitation facilities, power supplies, waste disposal facilities and other infection prevention practices as standard of care.

Communication and negotiation skills

- Improve the interpersonal communication skills of the health manager and health provider at all levels.
- Supporting HEWs in the correspondence endeavors community awareness and involvement in PMTCT programme.
- Improving the HEWs and WDAs ability in communication skills and building a decent connection with the family when making a home visit.
- Adapting setting explicit social behavior communication tools to further develop the PMTCT programme.

6.9 MONITORING AND EVALUATION

Monitoring and evaluation are integral parts of the proposed guidelines to upgrade the PMTCT service in the ANC clinic and maternity wards of Ethiopia. The guideline has recommended indicators that are connected with the objective and activities and are expected to be captured routinely to inform the implementation progress. In this manner, the indicators will be collected, aggregated and investigated by the FMoH, RHBs, zonal health departments, and Worda health offices with the current health management board data framework to have the option to provide timely and relevant information for decision-making purposes (FMoH 2017:10). Activity-based indicators are relied upon to be collected in the implementation process for every action specified in the guidelines according to each strategic objective.

6.10 PROPOSED OUTCOME LEVEL INDICATORS

- Number of pregnant women living with HIV enrolled to the facility: proportion of pregnant mother living with HIV among pregnant women screening for HIV.

- Antenatal care (ANC) coverage: Proportion of women who received antenatal care at least four times during current pregnancy period.
- Number of pregnant women living HIV and follow the PMTCT programme continuously and take ART regularly: The proportion of pregnant women living with HIV take ART from the total women who get tested and positive for HIV.
- Number of pregnant women come to ANC clinic and positive for HIV and they did not start ART drug. The proportion of pregnant women living with HIV and take HIV screening they refuse for therapy from the total HIV positive mothers who test in ANC clinics.
- Number of pregnant women come to ANC clinic and positive for HIV test and have started ART therapy and discontinues the therapy: The proportion of pregnant women living with HIV discontinues the drug from the total HIV positive mother who test in ANC clinics.
- Skilled delivery attendance: Number of births attended by skilled health personnel at a health facility.
- Early neonatal death at community: The extent of deaths within the first seven days of life from total births of the new-born child brought from women living with HIV in that inclusion
- Number of male partners involved in PMTCT program: Proportion of male partner participated in PMTCT programme from the total pregnant women living with HIV utilising in PMTCT services.
- Referral rate: Proportion of pregnant women living with who are referred to Another health facility for delivery service
- ART drugs and nevirapine availability: The number of months in which ART and nevirapine drug was available found the middle value of overall.
- Number's discordance couples practice preventive barriers: proportion of couples who correctly and continuously use of preventive barriers from the total discordance couples.
- Programme management inclusion: Percentage of health institution covered with a programme explicit regular supportive supervision.
- Performance observing and responsibility: extent of woredas health offices /hospital administration utilising PMTCT service provision indicators for their performance monitoring and accountability.

- Number of health institutions have template to check the practice of CRC. Proportion of health institution using temple (check list) to check the practice of CRC in the implementation of PMTCT services.
- Availability of plan for the PMTCT programme interventions: Proportion of Health centres/hospitals with key PMTCT activities remembered for their yearly arrangement.

9.11 CONCLUSION

In this part, the guidelines drafted by the researcher and reviewed by the welcomed expert panels assumed in the Delphi study were talked about. The researcher is sure that the guideline will add to improving the quality and use of the PMTCT services in the all-health institution provided of Ethiopia.

LIST OF REFERENCES

Abajobir, AA & Zeleke, AB. 2013. Knowledge, attitude, practice and factors associated with prevention of HIV/AIDS among pregnant mothers attending antenatal clinic in Hawassa referral hospital, south Ethiopia. *Journal of AIDS and Clinical Research*, 4(6):1-6. From: https://doi:10.4172/2155-6113.1000215.

Abd-elfattah, M, Alghamdi, T & Amer, E. 2014. Dashboard technology-based solution to decision making. *International Journal of Computer Science Engineering and Information Technology Research (IJCSEITR)***,** 4(2):59-70.
From: https://resaerchgate.net/publication/277140671.

Abdi, F, Alimoradi, Z & Alidost, F. 2019. Pregnancy outcomes and effects of antiretroviral drugs in HIV-positive pregnant women: a systematic review. Future Virology, 14(3):197-210. From: https://doi:10.2217/fvl-2018-0213 C 2019 (accessed 15 December 2018).

Abdul-Majid, MA, Othman, M, Mohammed, SF, Lim, SA & Yusof, A. 2017. Plotting for interviews in qualitative research: Operationalization and lessons. *Journal of Social Sciences Research,* 7(4):7.

Abtew, S, Awoke, W & Asrat, A. 2016. Knowledge of pregnant women on mother-to-child transmission of HIV, it's prevention and associated factors in Assosa town, Northwest Ethiopia. *Journal of HIV/AIDS Research and Palliative Care*, 8:101-107.
From: https://Doi.org/10.2147/HIV.S100301 (accessed 23 February 2016).

Adams, MB, Kaplan, B, Sobko, HJ, Kuziemsky, C, Ravvaz, K & Koppel, R. 2014. Learning from colleagues about healthcare its implementation and optimization: Lessons from a medical informatics listserv. *Journal of Medical Systems,* 3(1):7-24.
From: https://doi.org/10.1007/s10916-014-0157-3.

Adane HA, Assefa N, Mengistie B, Demis A.2018. Male involvement in prevention of mother to child transmission of human immunodeficiency virus and associated factors in Enebsiesarmider District, north West Ethiopia: a cross-sectional study. BMC Pregnancy Childbirth, 20(1):144. From: https:// doi: 10.1186/s12884-020-2837-y.

Adebiyi BO, Mukumbang FC, Okop KJ, Beytell AM. A 2018. modified Delphi study towards developing a guideline to inform policy on fetal alcohol spectrum disorders in South Africa: a study protocol. *BMJ Open*; 8(4): 1-27. From: doi: 10.1136/bmjopen-2017-019907.

Adedimeji, A, Abboud, N, Merdekios, B & Shiferaw, M. 2012. A qualitative study of barriers to effectiveness of interventions to prevent mother-to-child transmission of HIV in Arba Minch, Ethiopia. *International Journal of Population Research* 11(2012):1-8. From: https://doi:10.1155/2012/532154.

Aishat, U & Olubunmi, A. 2016. Prevention of mother-to-child transmission of HIV/AIDS: Perception of health care workers in rural area of Oyo state. *Hindawi Publishing Corporation. Scientifica;* 5(2016):*5.* From: https://doi.org/10.1155/2016/4257180.

Aizire, J, Fowler, GM & Coovadia, MH. 2013. Operational issues and barriers to implementation of prevention of mother-to-child transmission of HIV (PMTCT) interventions in Sub-Saharan Africa. *Curr HIV Res,* 11(2):144-159. From: https://doi:10.2174/1570162x113110200007.

Alemayehu, MT & Haidar, J. 2017. Male involvement in prevention of mother-to-child transmission of HIV in the context of partner testing in Goba town, Ethiopia. A facility-based cross-sectional study. *South Africa Medical Journal;* 107(10):1-10. From: https://Doi:10.7196/SAMJ 2017.v107i10.11371.

Amhara HIV/AIDS Prevention and Control Office (AHPCO). 2013. *Issue of HIV/AIDS in Ethiopia.* From: www.etharc.org (accessed 2 July 2013).

Amsalu, E, Abajobir, A & Tiruneh, G. 2013. Level of male partner involvement and associated factors in prevention of mother-to-child transmission of HIV/AIDS services in Debremarkos town, Northwest Ethiopia. University of Debremarkos Ethiopia. *African Journal of AIDS and HIV Research*, 1(2):16-25. From: https://doi.org/10.7196/samj. 2017.v107i10.11371.

Anindita, M & Shaluhiyah, Z. 2016. Non-disclosure of HIV positive status of women to their partner: implication for PMTCT. *Jurnal Promosi Kesehatan Indonesia,* 8(1):39-48.

From: https://doi.org/10.14710/jpki.

Asefa, A & Beyene, H. 2013. Awareness and knowledge on timing of mother-to-child transmission of HIV among antenatal care attending women in Southern Ethiopia: a cross sectional study. *Reproductive Health,* 10(66):1-8.
From: https://doi.org/10.1186/1742-4755-10-66.

Assefa, A & Mitike, G. 2014. Prevention of mother-to-child transmission (PMTCT) of HIV services in Adama town, Ethiopia: Client's satisfaction and challenges experienced by service providers. *BMC Pregnancy Childbirth,* 14(57):1-7.
From: https://doi:10.1886/1471-2393-14-57 (accessed 1 February 2014).

Archer, E. 2018. *Qualitative data analysis:* A primer on core approaches*. Psychological Society of South Africa (PsySSA).* From: https://www.research gate.

Azcoaga-Lorenzo, A, Ferreyra, C, Alvarez, A, Palma, PP, Velilla, E & Del-Amo, J. 2011. Effective of PMTCT programme in rural Western Kenya. *AIDS Care*, 23(3):274-280.

Balcha, TT, Lecerof, SS & Jeppsson, AR. 2011. Strategic challenges of PMTCT programme implementation in Ethiopia. *Journal of the International Association of physicians in AIDS Care,* 10(3):187-192.
From: https://doi:10.1177/154510971036993sci5.

Belato, DT, Mekiso, AB & Begashaw, B. 2017. Male partner involvement in prevention of mother-to child transmission of HIV services in Southern Central Ethiopia: In case of Lemo District, Hadiya Zone. *AIDS Research and Treatment*:1-19.
From: https://doi.org/10.1155/2017/8617540 .

Behboodi-Moghadam, Z, Khalajinia, Z, Nikbakht, AN, Mohraz, M & Gharacheh, M. 2015. Pregnancy through the lens of Iranian women with HIV: A qualitative study. *Journal of the International Association of Providers of AIDS Care,* 15(2):12.

Besser, M. 2011. Mothers 2 mothers: Prevention of mother-to-child HIV transmission in Africa using new paradigms in health care delivery. *Journal of Health and Medicine:*1-85.
From: https//www.slideshare.

Bhattacherjee, A. 2012. Social science research: Principles, methods and practices. Social science research: principles, methods and practices. *Global Text Project.* From: https://www.researchgate.net/publication/235424905.

Boateng, D, Kwapong, GD & Agyei-Baffour, P. 2013. Knowledge and perception about antiretroviral therapy (ART) and prevention of mother-to-child transmission (PMTCT) and adherence to ART among HIV positive women in the Ashanti Region, Ghana: A cross-sectional study. *BMC Women's Health,* 13(2):1-2.
From: https://doi:10.1186/1472-6874-13-2.

Bowling, A. 2014. *Research method in health: Investigating health and health services*. 4th edition. Milton Keynes, United Kingdom: Open University Press.

Bott, S & Obermeyer, CM. 2013. The social and gender context of HIV disclosure in sub-Saharan Africa: A review of policies and practices. *SAHARA Journal*, 1(01):5-16.
From: https://doi:10.1080/02664763.2012.755319 (accessed 1 July 2014).

Buesseler, HM, Kone, A, Robinson, J, Bakor, A & Senturia, K. 2014. Breastfeeding: the hidden barrier in Cote d'Ivoire's quest to eliminate mother-to-child transmission of HIV. *Journal of the International AIDS Society*, 17(18853):1-7.
From: doi.org/10.7448/IAS.17.1.18853 (accessed eCollection 2014).

Castillo-Montoya, M & Dikko, C. 2016. Preparing for interview research: The interview protocol refinement framework. *The Qualitative Report*, 21(5):811-831.
From: https//: nsuworks.nova.edu/tqr/vol/ss5/2.

Centres for Disease Control and Prevention. 2012*. HIV among pregnant women, infants, and children in the United States.* Atlanta: CDC.
Collins English Dictionary. 2012. Complete and unabridged digital edition.
From: www.exclusivebooks.co.za/product/9780007522743.

Central Statistical Agency of Ethiopia (CSAE). 2011. *Ethiopia and ORC. Macro. Ethiopia demographic and health survey*. Ethiopia and Calverton, Maryland, USA: Central Statistics Authority and ORC Macro, Addis Ababa.
Central Statistical Agency of Ethiopia (CSAE) and ICF International. 2012*. Ethiopia*

Demographic and Health Survey 2011. Addis Ababa, Ethiopia: Central Statistical Agency and ICF International.

Chagomerana, MB, Miller, WC, Tang, JH, Hoffman, IF, Mthiko, BC & Phulusa, J. 2018. Optimizing prevention of HIV mother-to-child transmission: Duration of antiretroviral therapy and viral suppression at delivery among pregnant Malawian women. *PLOS ONE,* 13(4):1-13.
From: https://doi.org/10.1371/journal.pone.0195033.

Cohen, L, Manion, L & Morrison, K. 2011. *Research methods in education*. 7th edition. London: Routledge.

Country Reports1997-2021. https://www.countryreports.org/country/Ethiopia/geography.htm.

Creswell, JW. 2014. *Research design: Qualitative, quantitative and mixed methods approach*. 4th edition. United States, California. Sage.

Creswell, JW & Plano Clark, VL. 2011. *Designing and conducting mixed methods research*. 2nd edition. Thousand Oaks, CA: Sage.

Cropley, AJ. 2019. *Qualitative research methods: A practice-oriented introduction for students of psychology and education*. Riga, Latvia: Zinātne. Arthur Cropley of Hamburg (whole book).
From: https://doi:10.13140/RG.2.1.3095.6888.

Darak, S, Panditrao, M, Parchure, R, Kulkarni, V, Kulkarni, S & Janssen, F. 2012. Systematic review of public health research on prevention of mother to child transmission of HIV in India with focus on provision and utilization of cascade of PMTCT services. *BMC Public Health*, 12(320):1-15.
From: https://doi.org/10.1186/1471-2458-12-320 (accessed 11 December 2019).

Daymon, C & Holloway, I. 2011. *Qualitative research methods in public relations and marketing communications.* 2nd edition. London and New York: Routledge, Taylor & Francis Group.

Dekeda, KF. 2013. *Factors contributing to non-adherence among pregnant women on antiretroviral treatment at Amathole district, Eastern Cape*. University of Fort Hare.

Denoeud-Ndam, L, Fourcade, C, Ogouyemi-Hounto, A, Azon-Kouanou, A, Almeida, M, Azondékon, A et al. 2013. Predictive factors of plasma HIV suppression during pregnancy: A prospective cohort study in Benin. *PLOS ONE,* 8(3):1-13.
From: https://doi:10.1371/journal.pone.0059446 (accessed e59446).

Derebe, G, Biadgilign, S, Trivelli, M, Hundessa, G, Robi, ZD, Gebre-Mariam, M & Makonnen, M. 2014. Determinant and outcome of early diagnosis of HIV infection among HIV-exposed infants in southwest Ethiopia. *BMC Research Notes*, 7(309):1-8.
From: doi.org/10.1186/1756-0500-7-309.

Deressa, W, Seme, A, Asefa, A, Teshome, G & Enqusellassie, F. 2014. Utilization of PMTCT services and associated factors among pregnant women attending antenatal clinics in Addis Ababa, Ethiopia. *BMC Pregnancy and Childbirth*, 14(328):1-13.
From: https://doi.org/10.1186/1471-2393-14-328.

DiCarlo, A L, Gachuhi, AB, Mthethwa-Hleta, S, Shongwe, S, Hlophe, T, Peters, ZJ et al. 2019. Health care worker experiences with option B+ for prevention of mother-to-child HIV transmission in eSwatini: findings from a two-year follow-up study. *BMC Health Services Research,* 19(210):1-13.
From: https://doi.org/10.1186/s12913-019-3997-1.

Ebuy, H, Yebyo, H & Alemayehu, M. 2015. Level of adherence and predictors of adherence to the option B+ PMTCT programme in Tigray, northern Ethiopia. International Journal of infectious disease; 33:123-129. From: https://doi:10.1016/j.ijid.2014.12.026.

Edwards, R & Holland, J. 2013. *What is qualitative interviewing?* A&C Black.

Ekouevi, DK, Stringer, E, Coetzee, D, Tih, P, Creek, P, Stinson, K et al. 2012. Health facility characteristics and their relationship to coverage of PMTCT of HIV services across four African countries. *PLoS One,* 7(1):3-4.

Ekwempu, AI, Ekwempu, CC, Ikeh, E, Olabode, A & Agaba, E. 2012. Comparison of CD4 cell counts in pregnant HIV sero positive and HIV sero negative Nigerian Women. *Lab Medicine*, 43(5):168-171.
From:https://doi:10.1309/LMM55QSHUTTX1OEA.

Elwell, K. 2016. Facilitators and barriers to treatment adherence within PMTCT programmes in Malawi*. AIDS Care*. 28(8):5.
From: https://doi:10.1080/09540121.2016.1153586.

English Dictionary. 2019*.* Available at: www.cambridge.org.

Esene, H & Omoigberale, AI. 2012. Prevalence of HIV among exposed infants in University of Benin teaching hospital, Benin city, Edo state, Nigeria. *Journal of Medicine and Biomedical Research,* 11(1):105-115.
From: https://www.Researchgate.net/publication/287698412.

Ethiopian Federal Ministry of Health 2016 National Comprehensive PMTCT training participants manual. Adama.

Ethiopian Federal Ministry of Health 2014 National guidelines for comprehensive HIV prevention, care and treatment. Addis Ababa.

Evans, DW, Davis, KC, Umanzor, C, Patel, K and Khan, M. 2011. Evaluation of Sexual Communication Message Strategies. *Reproductive Health;* 8(15):1-11.
From: http://www.reproductive-health-journal.com/content/8/1/15.

FDREMoH see Federal Democratic Republic of Ethiopia Ministry of Health.

Federal Democratic Republic of Ethiopia Ministry of Health. 2015a. *National strategy for new-born and child survival in Ethiopia 2015/16-2019/20*. Addis Ababa, Ethiopia.

Federal Democratic Republic of Ethiopia Ministry of Health. 2015b. *Health sector transformation plan 2015/16-2019/20. Investment case/PDF/2.72Mb.* Addis Ababa, Ethiopia.
From: https://www.globalfinancingfacility.org/sites/gff_new/files/Ethiopia-health-sy.

Federal HIV/AIDS Prevention and Control Office. 2017. *Prevention of mother-to-child transmission of HIV.* Addis Ababa: Federal Ministry of Health.

Federal HIV/AIDS Prevention and Control Office. 2013. Guidelines for Prevention of Mother-to-Child Transmission of HIV in Ethiopia. Addis Ababa: Federal Ministry of Health.

From: http://www.etharc.org/.

Federal HIV/AIDS Prevention and Control Office. 2012. *Country progress report on HIV/AIDS response.* Federal Democratic Republic Ethiopia. UNAIDS.

Federal HIV/AIDS Prevention and Control Office Federal Ministry of Health. 2011. *Guidelines for prevention of mother-to-child transmission of HIV in Ethiopia:*1-2.

Federal Ministry of Health Ethiopia. 2017. *Integrated community case management of new-born and childhood illnesses chart booklet (ICCM).* Addis Ababa, Ethiopia.

Federal Ministry of Health Ethiopia. 2015. Guideline for the establishment of *standardized maternity waiting homes at health canters/facilities*. Addis Ababa, Ethiopia.

Federal Ministry of Health. 2013a. *Reference Manual for PMTCT option B+ update trng.* Addis Ababa, Ethiopia.

Federal Ministry of Health. 2013b. *The National Strategic Plan for elimination of mother to child transmission of HIV* (e-MTCT of HIV) 2013-2015. Addis Ababa, Ethiopia

Federal Ministry of Health. 2011. *Manual for the implementation of prevention of mother-to-child transmission of HIV in Ethiopia*. From: Google scholar.

Feleke, EB & Wasie, B. 2018. Challenges of PMTCT service utilization in Amhara region: a comparative cross-sectional study. *Ethiopian Journal of Health*, 28(6):779. From: https://doi.org/10.4314/ejhs. v28i6.13.28.779-785.

Feyera, A, Megerssa, B, Legesse, D & Hailemichael, F. 2017. Prevention of mother-to-child transmission of HIV/AIDS: Service utilization and associated factors among selected public health facilities in Ethiopia. Ethiopia: Management Sciences for Health (MSH). *Medical Practice and Review*, 8(1):1-13.

FHAPCO see Federal HIV/AIDS Prevention and Control Office.

FMoH see Federal Ministry of Health.

Gebru, T, Lentiro, K & Jemal, A. 2018. Perceived behavioural predictors of late initiation to HIV/AIDS care in Gurage zone public health facilities: a cohort study using health belief model. *BMC Res Notes,* 11(2018):336.
From: https://doi.org/10.1186/s13104-018-3408-4.

Glanz, K. 2012. *Social and behavioural theories. e-source behavioural and social sciences research at University of Pennsylvania.* Pennsylvania.

Global information and education on HIV and AIDS 2018. Prevention of mother-to-child transmission (PMTCT) of HIV World Health Organization PMTCT guidelines; Available From: https://www.avert.org/professionals/hivprogramming/prevention/prevention-mother-child. Accessed April3, 2021.

Godana, W & Atta, A. 2013. Prevalence of HIV/AIDS and its associated factors among Prevention of Mother-to-Child Transmission (PMTCT) Service Users in Jinka Town Health Institutions, South Omo Zone, South Ethiopia. *Science Journal of Public Health,* 1(3):125-130.
From: https://doi:10.11648/j.sjph.20130103.13.

Goggin, K, Mindry, D, Beyeza-Kashesya, J, Finocchario-Kessler, S, Wanyenze, R. Nabiryo, C & Wagner, G. 2014. Our hands are tied up: Current state of safer conception services suggests the need for an integrated care model. *Health Care for Women International*, 35(7-9):990-1009.
From: https://doi.org/10.1080/07399332.2014.920023 (accessed 1 September 2015).

Gong, T, Wang, H, He, X, Liu, J, Wu, Q & Wang, J. 2018. Investigation of prevention of mother-to-child HIV transmission programme from 2011 to 2017 in Suzhou, Chania. *Scientific Reports*, 8(2018):1-7.
From: https://doi.org/10.1038/s41598-018-36623-6 (accessed 25 November 2018).

Gopaldas, A. 2016. A front-to-back guide to writing a qualitative research article, qualitative market research. *An International Journal*, 19(1):115–121.
From: https://Doi.10.1108/QMR-08-2015-0074.

Gounder, S. 2012. Research methodology and research method. Victoria University of Wellington.
From: https://www.researchgate.net/publication/333015026.

Gourley, A, Birdthistle, I & Mburu, G. 2013. Barriers and facilitating factors to the uptake of antiretroviral drugs for prevention of mother-to-child transmission of HIV in sub-Saharan Africa: a systematic review. *Journal of the International AIDS Society,* 16(1):1-2. From: https://doi: 0.7448/IAS.16.1.18588.

Gourlay, A. 2015. Improving the usage of prevention of mother-to-child transmission of HIV services in rural Tanzania. PhD thesis. *London School of Hygiene and Tropical Medicine*:1-385.
From: https://doi.org/10.17037/PUBS.02101870.

Guey, SB, Diop-Ndiaye, H, Diouf, O, Sow-Ndoye, A, Touré, F, Ngom-Faye, NF et al. 2019. Effectiveness of the prevention of HIV mother-to-child transmission (PMTCT) programme via early infant diagnosis (EID) data in Senegal. *PLoS ONE;* 14(5):1-9. e0215941.
From: https://doi.org/10.1371/journal.pone.0215941.

Hampanda, K. 2013. Vertical transmission of HIV in sub-Saharan Africa: Applying theoretical framework to understand social barriers to PMTCT. *Hindawi Publishing Corporation ISRN Infectious Diseases,* 420361(2013):5.
From: http://dx.doi.org/10.5402/2013//420361.

Hamanda, MK., Abuogi, LL & Ahmed, Y. 2017. *HIV-positive women taking lifelong antiretroviral therapy report better adherence than women taking short-course prophylaxis during and after pregnancy under PMTCT programme option A in Lusaka, Zambia*.

Hardon, A, Vernooij, E, Bongololo-Mbera, G, Cherutich, P, Desclaux, A & Kyaddondo, D. 2012. Women's views on consent, counselling and confidentiality in PMTCT: A mixed-methods study in four African countries. *BMC Public Health*, 12(26):1-15. From: https://doi.org/10.1186/1471-2458-12-26.

Hassen, F & Deyassa, N. 2013. The relationship between sexual violence and human immunodeficiency virus (HIV) infection among women using voluntary counselling and testing services in South Wollo Zone, Ethiopia. *BMC Res Notes,* 6(271):1-9. From: https://doi:10.1186/1756-0500-6-271.

Henslin, JM. 2012. *Sociology. A down-to-earth approach*. 11th edition. Google home.

Hussain, A, Moodley, D, Naidoo, S & Esterhuizen, TM. 2011. Pregnant women's access to PMTCT and ART services in South Africa and implications for universal antiretroviral treatment. *PLoS One,* 6(12):1-7. From: https://doi.org/10.1371/journal.pone.0027907 (accessed 5 December 2011).

Hussen R, Zenebe WA, Mamo TT, Shake MF 2022. Determinants of HIV infection among children born from mothers on prevention of mother to child transmission programme of HIV in southern Ethiopia: a case–control study. *BMJ Open* .12:1-10. doi:10.1136/ bmjopen-2020-048491.

Isehak, A. 2013. *Overview of the PMTCT programme in Ethiopia: Experience in rolling out option B+ approach*. Addis Ababa, Ethiopia.

Ismail, H & Ali, A. 2011. Pregnant women's satisfaction and comprehension level of information given during HIV counselling and testing for PMTCT in public health facilities in Addis Ababa. *Ethiopian Journal of Health Development,* 25(2):126-134.

Jalil, MM. 2013. *Practical guidelines for conducting research: Summarising good research practice in line the Doner Committee for Enterprise Development (DCED)*. The Doner Committee for Enterprise Development:1-40.
From: www.enterprise-development.org.

Jemal K, Samuel A, Geta A, Desalegn F, Gebiru L, Tadele T, and et al 2022. compassionate and respectful care implementation status in model healthcare facilities: a cross-sectional study. *Arch Public Health*; 80(84): 1-13. From: https://doi.org/10.1186/s13690-022-00845-y

Jemal K, Hailu D, Mekonnen M, Tesfa B, Bekele K, Kinati T. 2021. The importance of compassion and respectful care for the health workforce: a mixed-methods study. *Z Gesundh Wiss.* 11(2021):1-12. From: doi: 10.1007/s10389-021-01495-0.

Kabiru, CW, Beguy, D, Crichton, J & Zulu, EM. 2011. *HIV/AIDS among youth in urban informal (slum) settlements in Kenya: what are the correlates of and motivations for HIV testing?*
From: http://www.biomedcentral.com/1471-2458/11/685.

Kalembo, FW & Zgambo, M. 2012. Loss to follow up: A major challenge to successful implementation of Prevention of Mother-to-Child Transmission of HIV-1 Programs in Sub-Saharan Africa. *International Scholarly Research Notices*,10(2012):1-19.
From: https://doi.org/10.5402/2012/589817. PMID: 24052879; PMCID: PMC3767368.

Karuta, L, Masho, S & Vanderbit, A. 2014. Factors enhancing utilisation of and adherence to prevention of mother-to-child transmission (PMTCT) service in an urban setting in Kenya*. Pub Medical.*
From: https://doi:10.1007/S10461-014-0939.

Karuta, CK. 2016. Understanding the barriers and facilitators to the retention of HIV positive women along the prevention of mother-to-child transmission of HIV (PMTCT) continuum in Kenya. Boston university: Ann Arbor.

Kassa, GM. 2018. Mother-to-child transmission of HIV infection and its associated factors in Ethiopia: a systematic review and meta-analysis. *BMC Infectious Disease*, 18(216):1-34. From: https://doi.org/10.1186/s12879-018-3126-5.

Katirayi, L, Namadingo, H, Phiri, M, Bobrow, EA, Ahimbisibwe, A, Berhan, AY et al. 2016. HIV-positive pregnant and postpartum women's perspectives about option B+ in Malawi: a qualitative study. *Journal of international AIDS Society*, 19(1):1-2.
From: https://doi:10.7448/IAS.19.1.20919.

Keenan, SP, Sinuff, T, Burns, KEA, Muscedere, J, Kutsogiannis, J, Mehta, M et al. 2011. Clinical practice guidelines for the use of non-invasive positive-pressure ventilation and non-invasive continuous positive airway pressure in the acute care setting. CMAJ; 183(3):1-20. From: https://doi.org/10.1503/cmaj.100071.

Keeney, S, McKenna, H & Hasson, F. 2011. *The Delphi technique in nursing and health research*. United Kingdom: Wiley-Blackwell, A John Wiley & Sons.

Kevin, A, Mutugi, M & Wanzala, P. 2014. Knowledge and attitude of women on the available PMTCT services at the antenatal clinic of the Coast Province General Hospital. *The Pan African Medical Journal*, 18(4):1-8. From: https://doi:10.11604/pamj.3839.

Kharsany, AB & Karim, QA. 2016. HIV infection and AIDS in Sub-Sahara Africa: Current status, challenges and opportunities. *The Open AIDS Journal,* 10:34-48.
From: https://doi.org/10.2174/184613601610010034.

Kishor, BV, Pal, DK, Rama, L & Vishal, B. 2011. Clients' satisfaction with antiretroviral therapy services at Hamidia Hospital Bhopal. *National Journal of Community Medicine,* 2(2):241-243.
From: http://www.njcmindia.org/uploads/2-2241-243.

Korstjens, I & Moser, A. 2018. *Series: Practical guidance to qualitative research.* Part 4: Trustworthiness and publishing. *European Journal of General Practice*; 249(1):120-124. From: https://doi.org/10.1080/13814788.2017.1375092.

Kweyamba, M, Buregyeya, E, Kusiima, J, Kweyamba, V & Mukose, AD. 2018. Loss to follow-up among HIV positive pregnant and lactating mothers on lifelong antiretroviral therapy for PMTCT in rural Uganda. *Hindawi Advances in Public Health;* 7540587(2018):9.
From: https://doi.org/10.1155/2018/7540587.

Ladzani, R, Peltzer, K, Mlambo, MG, Phaweni, K. 2011. Infant-feeding practices and associated factors of HIV-positive mothers at Gert Sibande, South Africa. *Acta Pædiatrica*, 100(4):538-42.
doi: 10.1111/j.1651-2227.2010.02080. x. Epub 2010 Dec 1. PMID: 21062356.

Lerebo, W, Callens, S, Jackson, D, Zarowsky, C & Tommerman, M. 2014. Identifying factors associated with the uptake of prevention of mother to child HIV transmission programme in Tigray region, Ethiopia: a multilevel modelling approach. *BMC Health Service Research* 14(181):1-35.
From: https://doi.org/10.1186/1472-6963-14-181.

Lettow, MV, Bedell, R, Landes, M, Gawa, L, Gatto, S, Mayuni, I et al. 2011. Uptake and outcome of a prevention of mother to child transmission programme in Zomba district, Malawi*. BMC Public Health*; 11(426):1-2.
From: https://doi:10.1186/1471-2458-11-426.

Linguissi, LS, Bisseye, C, Sagna, T, Nagalo, BM, Ouermi, D & Djigma, FW et al. 2012*.* Efficiency of HAART in the prevention of mother to children HIV-1 transmission at the Saint Camille medical Centre in Burkina Faso, West Africa. *Asian Pacific Journal of Tropical Medicine,* 5(12):991-994.
From: https://doi:10.1016/s1995-7645(12)60188-6.

Lorenzo, O, Beck-Sague, C, Bautista-Soriano, C, Halpern, M, Roman-Poueriet, J, Henderson, N et al. 2012. Progress towards Elimination of HIV Mother-to-Child Transmission in the Dominican Republic from 1999 to 2011. *Infectious Diseases in obstetrics and Gynecology;* 9(2012): 1-10.
From: https://doi.org/10.1155/2012/543916.

Lumbantoruan, C, Kermode, M, Giyai, A, Ang, A & Kelaher, M. 2018. Understanding women's uptake and adherence in Option B+ for prevention of mother-to-child HIV transmission in Papua, Indonesia: A qualitative study Indonesia. Centre for Health Policy. *PLoS One;* 13(6):7-13.
From: https://doi.org/10.1371/journal.pone.0198329.

Lussiana, C, Clemente, SV, Ghelardi, A, Lonardi, M, Tarquino, IA & Floridia, M. 2012. Effectiveness of a prevention of mother-to-child HIV transmission programme in an urban hospital in Angola. *PLoS One*, 7(4):1-14.
From: https://doi:10.1371/journal.pone.0036381.

MacCarthy, S, Rasanathan, JK, Ferguson, L & Gruskin, S. 2012. The pregnancy decisions of HIV-positive women: the state of knowledge and way forward. *Reproductive Health Matter*, 20(39):119-140. doi: 10.1016/S0968-8080(12)39641-9. PMID: 23177686.

Makonnen, FW & Worku, A. 2012. Determinants for refusal of HIV testing among women attending for antenatal care in Gambella Region, Ethiopia. *Reproductive Health,* 9(1):8.
From: https://doi:10.1186/1742-4755-9-8.

Malave, S, Ramakrishna, J, Heylen, E, Bharat, S & Ekstrand, ML. 2014. Differences in testing, stigma and perceived consequences of stigmatization among heterosexual men and women living with HIV in Bengaluru, India; *AIDS Care,* 26(3):396-403.
From: https://doi.org/10.1080/09540121.2013.819409 (accessed 26 May 2014).

Malterud, K, Siersma, VD & Guassora, AD. 2016. Sample size in qualitative interview studies: Guided by information power. *Qualitative Health Research,* 26:6.
From: https://doi.org/10.1177/1049732315617444.

Marconi, C. 2012. Vertical Transmission of HIV in Sub-Saharan Africa: Applying Theoretical Frameworks to Understand Social Barriers to PMTCT. *ISRN Infectious Diseases,* (420361):5.
From: https://doi.org/10.5402/2013/420361.C.

Malaju, MT & Alene, GD. 2012. Determinant factors of pregnant mothers' knowledge on mother to child transmission of HIV and its prevention in Gondar town, North-west Ethiopia. *BMC Pregnancy Childbirth,* 12(73):1-22.
From: https://doi.org/10.1186/1471-2393-12-73.

Manji, KP, Duggan, C, Liu, E, Bosch, R, Kisenge, R, Aboud, S et al. 2016. Exclusive Breast-feeding Protects against Mother-to-Child Transmission of HIV-1 through 12 Months of Age in Tanzania. *Journal of Tropical paediatric'*, 62(4):301-307.
From: https://doi.org/10.1093/tropej/fmw012.

Merga, H, Woldemichael, K, Dube, L, 2016. Utilization of prevention of mother-to-child transmission of HIV services and associated factors among antenatal care attending mothers in Sebeta Town, Central Ethiopia. *Advances in Public Health*, (2016):10.
From: https://doi.org/10.1155/2016/6250898.

Merga, H, Woldemichael, K & Dube, L. 2014. Utilisation of prevention of mother-to-child transmission of HIV services and associated factors among antenatal clinic attending mothers in Sebeta town, central Ethiopia*. Hindawi Publishing Corporation Advances in Public Health*:62.
From: https://doi:10.1155/2016/6250898 (accessed 18 August 2016).

Mitiku, I, Molla, M & Addissie, A. 2017. Perceptions and experiences of pregnant women about routine HIV testing and counselling in Ghimbi town, Ethiopia: A qualitative study. *BMC Research Notes*; 10(101):1-8.
From: https://doi:10.1186/s13104-017-2423-1.

Moges, Z & Amberbir, A. 2011. Factors associated with readiness for VCT service utilization among pregnant women attending antenatal clinics in North-Western Ethiopia. a Health Belief Model approach. *Ethiopian Journal of Health Science,* 21:1-8.
From: https://www.researchgate.net/publication/221878487.

Moreira, R. 2014. *Human development and family science.* NDSU. North Dakota state University.

Mtumbuka, E, Maluwa, A, Malata, A, Pindani, M & Bultemeier, K. 2012. Factors influencing pregnant women to undergo HIV testing and counselling during antenatal clinic in Malawi. *Journal of Research in Nursing and Midwifery*, 14*:*1-6.

Mugwaneza, P, Lyambabaje, A, Umubyeyi, A, Humuza, J, Tsague, L, Mwanyumba, F et al. 2018. Impact of maternal ART on mother-to-child transmission (MTCT) of HIV at six weeks postpartum in Rwanda. *BMC Public Health,* 18(1248):1-20.
From: https://doi.org/10.1186/s12889-018-6154-6.

Mugwaneza, P, Shema, NU, Ruton, H, Rukundo, A, Lyambabaje, A, Bizimana, J et al. 2011. Under-two child mortality according to maternal HIV status in Rwanda: assessing outcomes within the national PMTCT program*. Pan African Medical Journal*, 9(37):1-13.
From: http://www.panafrican-med-journal.com/content/article/9/37/full.

Mulugeta, YA, Dejenie, TH & Mulugeta, SA. 2018. Mother's knowledge on prevention of mother-to-child transmission of HIV, Ethiopia: A cross-sectional study. *PloS ONE*, 13(9):1-2.
From: https://doi.org/10.1371/journal.pone.0203043.

Mutabazi, JC, Zarowsky, C & Trottier, H. 2017. The impact of programs for prevention of mother-to-child transmission of HIV on health care services and systems in Sub-Saharan Africa-A review. *Public Health Rev,* 38(28):1-27.
From: https://doi.org/10.1186/s40985-017-0072-5.

Murithi, LK, Masho, SW & Vanderbilt, AA. 2015. Factors enhancing utilization of and adherence to prevention of mother-to-child transmission (PMTCT) service in an urban setting in Kenya. *AIDS Behaviour*; 19(4):645-654.
From: https://doi:10.1007/s10461-014-0939-0.

Narasimhan, M, Loutfy, M, Khosla, R & Bras, M. 2015. Sexual and reproductive health and human rights of women living with HIV. *Journal of the International AIDS Society*; 5(18):1-6. From: https://doi:10.7448/IAS.18.6.20760.

Ndapewa, IS. 2019. *The role of reading enhancing English second language learning of ordinary level learners*. University of Pretoria. Namibia.

Nesheim, S, Taylor, A & Lampe, MA. 2012. A framework for elimination of perinatal transmission of HIV in the United States. *paediatric*, 30(4):1-6.
From: https://doi:10.1542/peds.2012-0194.

Nigatu, T & Woldegebriel, Y. 2011. Analysis of the prevention of mother-to-child transmission (PMTCT) Service utilization in Ethiopia: 2006-2010. *Reproductive Health*, 8(6):1-8.
From: https://doi:10.1186/1742-4755-8-6.

Obermeyer, CM, Baijal, P & Pegurri, E. 2011. Facilitating HIV disclosure across diverse settings: a review. *Am J Public Health,* 101:1011-1023. [PMC free article] [PubMed] [Google Scholar].

Okonji, JA, Zeh, C, Weidle, PJ, Williamson, J, Akoth, B, Masaba, RO et al. 2012. CD4, viral load response, and adherence among antiretroviral-naïve breast-feeding women receiving triple antiretroviral prophylaxis for prevention of mother to child transmission of HIV in Kisumu, Kenya. *Journal of Acquire Immune Deficiency Syndrome*, 61(2):249-257.
From: https://doi:10.1097/QAI.0b013e31826251.

Omonaiye, O, Kusljic, S, Nicholson, P & Manias, E. 2018. Medication adherence in pregnant women with human immunodeficiency virus receiving antiretroviral therapy in sub-Saharan Africa: A systematic review. *BMC Public Health,* 108(2018):1-20.
From: https://doi.org/10.1186/s12889-018-5651-y.

Palinkas, LA, Horwitz, SM, Green, CA, Wisdom, JP, Duan, N & Hoagwood, K. 2015. Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration Policy Mental Health*, 42(5):533-544.
From: https://doi:10.1007/s10488-013-0528-y.

Panditrao, M, Darak, S, Kulkarni, V, Kulkarni, S & Parchure, R. 2011. Socio-demographic factors associated with loss to follow up of HIV infected women attending a private sector PMTCT programme in Maharashtra, India. *AIDS Care, Psychological and Socio-medical Aspects of AIDS/HIV*, 23(5):593-600.
From:https://doi:10.1080/09540121.2010.516348

Parahoo, K. 2014. *Nursing research: principles, process and issues*. 3rd edition. United Kingdom. University of Ulster, Coleraine Campus: Red Glob Press.

Patton, MQ. 2015. *Qualitative research and evaluation methods: Integrating theory and practice.* 4th edition. Thousand Oaks, CA: Sage.

Peltzer K, Abbamonte JM, Mandell LN, Rodriguez VJ, Lee TK, Weiss SM, Jones DL. 2019. The effect of male involvement and a prevention of mother-to-child transmission (PMTCT) intervention on depressive symptoms in perinatal HIV-infected rural South African women. *Arch Women's Ment Health.* 23(1):101-111. doi: 10.1007/s00737-019-00955-7.

PMTCT Flipchart. 2021.

Polit, DF & Beck, CT. 2012. *Nursing research: Principles and methods*. 7th edition. Philadelphia: Lippincott.

Potty, RS, Sinha, A, Sethumadhavan, R, Isac, R & Washington, R. 2019. Incidence, prevalence and associated factors of mother-to-child transmission of HIV, among children exposed to maternal HIV, in Belgaum district, Karnataka, India. *BMC Public Health*,19:386.
From: https://doi.org/10.1186/s12889-019-6707-3.

Psaros, C, Remmert, JE, Bangsberg, DR, Safren, SA & Smit, JA. 2015. Adherence of HIV care after pregnancy among women in Sub-Saharan Africa: Falling off the cliff of the treatment cascade. *Curriculum HIV/AIDS Reports*, 12(1):1-5.
From: https://doi.org/10.1007/s11904-014-0252-6.

Rahman, MS. 2016. The advantages and disadvantages of using qualitative and quantitative approaches and methods in language "testing and assessment" research: A Literature review. *Journal of Education and Learning,* 6(1):1-11.
From: https://doi:10.5539/jel. v6n1p102.

Rajaratnam, JK, Marcus, JR, Flaxman, AD, Wang, H, Levin-Rector, A & Dwyer, L. 2010. Neonatal, post neonatal, childhood, and under-5 mortality for 187 countries, 1970-2010:

a systematic analysis of progress towards Millennium Development Goal 4. *The Lancet*; 375:43.

Risenga, PR. 2017. Factors contributing to non-compliance with feeding practices by HIV positive women in Limpopo Province, South Africa. *Journal of AIDS Clinical Research and STDs,* 4(10):2572-7370.
From: https://doi:10.24966/ACRS-7370/100010.

Rujumba, J, Tumwine, JK, Tylleskär, T, Neema, S & Heggenhougen, HK. 2012. Listening to health workers: lessons from Eastern Uganda for strengthening the programme for the prevention of mother-to-child transmission of HIV. *BMC Health Services Research*, 12(3):1-12.
From: https://doi.org/10.1186/1472-6963-12-3.

Ruthellen, J. 2013. Interviewing for qualitative inquiry: A relational approach. *Qualitative Psychology,* 7(3):227.
From: https://doi.org/10.1037/qup0000191.

Sarah, AG. 2015. *Is mother-to-child HIV transmission preventable?* Community Health Systems, School of Nursing, UCSF. Fact Sheet:
From: https://prevention.ucsf.edu/research-project/mother-child-prevention-mtct-1.

Salari, R & Filus, A. 2016. Using the health belief model to explain mothers' and fathers' intention to participate in universal parenting programs. *Prevention Science*, 18:83-94.
From: https://Doi10.10007/s11121-016-0696-6.

Selvaraj, S & Paintsil, E.2013. Virologic and host risk factors for mother-to-child transmission of HIV. *Current HIV Research*, 1(2):93-101.
From: https://doi:10.2174/1570162x11311020003.

Senam, N & Akpan, U. 2014. The survey communication research. *International Journal of Education and Research,* 2:1-18. ISSN: 2201-6740.
From: www.ijern.com.

Shamoo, A & Resnik, D. 2015. *Responsible conduct of research.* 3rd edition. New York:

Oxford University Press.
Shea S, Lionis C 2014. Introducing the journal of compassionate health care: Springer

Showkat, N & Parveen, H. 2017. *Non-probability and probability sampling.* Aligarh Muslim University.
From: https://www.researchgate.net/publication/319066480 research gate.

Shroufi, A, Mafara, E, Saint-Sauveur, JF, Taziwa, F & Viñoles, MC. 2013. Mother to mother (M2M) peer support for women in prevention of mother to child transmission (PMTCT) programmes: A qualitative study. *PLoS ONE*, 8(6):1-10.
From: https://doi.org/10.1371/journal.pone.0064717.

Silverman, D. 2011. *Doing qualitative research: A practical handbook.* 3rd edition. London: Sage.

Slogrove, A, Reiki, B, Naidoo, S, Beer, CD, Kevin, H, Cotton, M et al. 2012. HIV-exposed uninfected infants are at increased risk for severe infections in the first year of life. *Journal of Tropical Paediatric,* 58(6):505-508.

Spradley, JP. 2016. *The ethnographic interview*. Waveland Press.
From: https://www.worldcat.org/title/ethnographic-interview/oclc/942396921.

Sutton, MY, Zhou, W & Frazier, EL. 2018. Unplanned pregnancies and contraceptive use among HIV-positive women in care. *PLoS One*, 13(5):1-16.
From: https://doi.org/10.1371/journal.pone.0197216.

Tesfaye, G, Tufa, B, Likisa, J, Alebachew, M & Temesgen, G. 2015. Knowledge, attitude and practice towards PMTCT of HIV among women attending Ambo Hospital ANC clinic, West Ethiopia. Journal of AIDS Clinical research; 6(1):1-6. doi: 10.4178/epih. e2016043
From: https://doi:10.4172/2155-6113.1000407.

Teshome, GS & Madiba, LM. 2020. Strategies to eliminate mother-to-child transmission of HIV in Addis Ababa, Ethiopia (qualitative study). *HIV AIDS (Auckl)*, 12:821-837.
From: https://doi.org/10.2147/HIV.S277461.

Thomas, TK, Masaba, c, Borkowf, CB, Ndivo, R, Zeh, C, Misore, A et al. 2011. Triple-antiretroviral prophylaxis to prevent mother-to-child HIV transmission through breastfeeding: The Kisumu breastfeeding study, Kenya: Clinical Trial. *PLoS Med*,8(3):1-2. From: https://doi:10.1371/journal.pmed.1001015.

Turan, JM & Nyblade, L. 2013. HIV-related stigma as a barrier to achievement of global PMTCT and maternal health goals: A review of the evidence. *AIDS and Behaviour*, 17:1-27. From: https://doi:10.1007/s10461-013-0446-8.

UNAIDS see United Nations Programme on HIV/AIDS.

United Nations Population Fund Agency (UNFPA). 2012. Engaging men and boys in gender equality and health*:* A global toolkit for action, 201.
From: http://www.unfpa.org/public/home/publications/pid/6815 44 APN+, Positive and pregnant.

United Nations Programme on HIV/AIDS. 2019. *Global epidemic of HIV 2019.* Geneva: UNAIDS.

United Nations Programme on HIV/AIDS. 2016. HIV/AIDS fact sheet: Governance(/topics/governance), HIV programming and implementation science (/topics/HIV-programming-and-implementation-science), international cooperation/topics/international cooperation).
From: http://www.UNAIDS.org/en/resources/fact-sheet

United Nations Programme on HIV/AIDS. 2014a. *The gap reports*. ISBN: 978-92-9253-062-4 (accessed 12 July 2015). [Google Scholar].

United Nations Programme on HIV/AIDS. 2014b*. A focus on women: a key strategy to preventing HIV among children. Joint United Nations Programme on HIV/AIDS (UNAIDS).*
e-mail at: publicationpermissions@unaids.org.

United Nations Programme on HIV/AIDS. 2013. *Global report: UNAIDS report on the global AIDS epidemic*. Geneva: UNAIDS.
United Nations Programme on HIV/AIDS. 2012. *Report on the Global AIDS epidemic.* Geneva: UNAIDS.

United Nations Programme on HIV/AIDS. 2011. *Global plan towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive. 2011-2015*. Geneva: UNAIDS.

Vehovar, V, Teoepel, V & Steinmetz, S. 2016. *Non-probability sampling. The Sage handbook of survey methodology*. London*:* Sage:329-345.

VOCH-GHANAS. 2014. G*hana health service supports VOCH-GHANAS nationwide campaign for children living with HIV*. Ghana.
From: vochghana.wordpress.com.

WHO see World Health Organization.

World Health organization HIV-AIDS history, 2018. Available: https://wwwwhoint/news-room/fact sheets/detail/HIV-AIDS.

World Health Organization 2013. Scaling up HIV services for women and children: towards elimination mother-to-child transmission and improving maternal and child health in the context of HIV. Towards universal access: scaling up priority HIV/AIDS interventions in the health sector. *Geneva*.

WHO 2016. *WHO HIV Prevention and Treatment Guidelines. Antiretroviral Drugs for Treating Pregnant Women and Preventing HIV Infection in Infants, Towards Universal Access: Recommendations for a Public Health Approach*. Geneva.

World Health Organization (WHO): Male involvement in the prevention of mother-to-child transmission of HIV. 2012

WHO, UNAIDS & UNICEF. 2011. G*lobal HIV/AIDS response: Epidemic update and health sector progress towards universal access: Progress report.* Geneva, Switzerland: WHO.
From: https//:apps. Who? int/iris/handle/10665/44787.

Wikipedia. 2021. Addis Ababa. From: (https://www. Cia. Gov//library).

Wiktionary. 2020. From: https://www.definitions.net/definition/guideline.

Worg, EB, Omar, T, Setelhako, GJ, Osilh, R, Feldman, C, Murdoch, DM. 2012. Causes of death on antiretroviral therapy: A post-mortem study from South Africa. *PloS One*, 7(10):
From: https://doi:10.1371/journal.pone.0047542.

World Health Organization. 2016. *HIV/AIDS: Data and statistics*.
From: www.who.int/hiv/data/en (accessed 25 July 2017).

World Health Organization. 2015. *WHO handbook for guideline development*. 2nd edition. Geneva, Switzerland: WHO.
From: https://apps.who.int/iris/handle/10665/145715.

Williams, N. 2018. *Research methods: the basics*. 2nd edition. Routledge, England.

World Health Organization. 2014a. *IMCI chart booklet*. Geneva: WHO.
From: http://www.who.int/maternal_child_adolescent/documents/IMCI_chartbooklet/en/ (accessed 21 November 2016).

World Health Organization. 2014b. *WHO handbook for guideline development*. 2nd edition. Geneva: WHO.
From: http://apps.who.int/iris/bitstream/10665/145714/1/9789241548960_eng.pdf?ua=1 (accessed 6 November 2015).

World Health Organization. 2013. *Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection: Recommendations for a public health approach.* Geneva, Switzerland: WHO.

Yah, CS & Tambo, E. 2019. Why is mother-to-child transmission (MTCT) of HIV a continual threat to new-born in sub-Saharan Africa (SSA). *Journal of infect Public Health*, 12(2):213-223.
From: https://Doi:10.1016/j.jiph.2018.10.008.

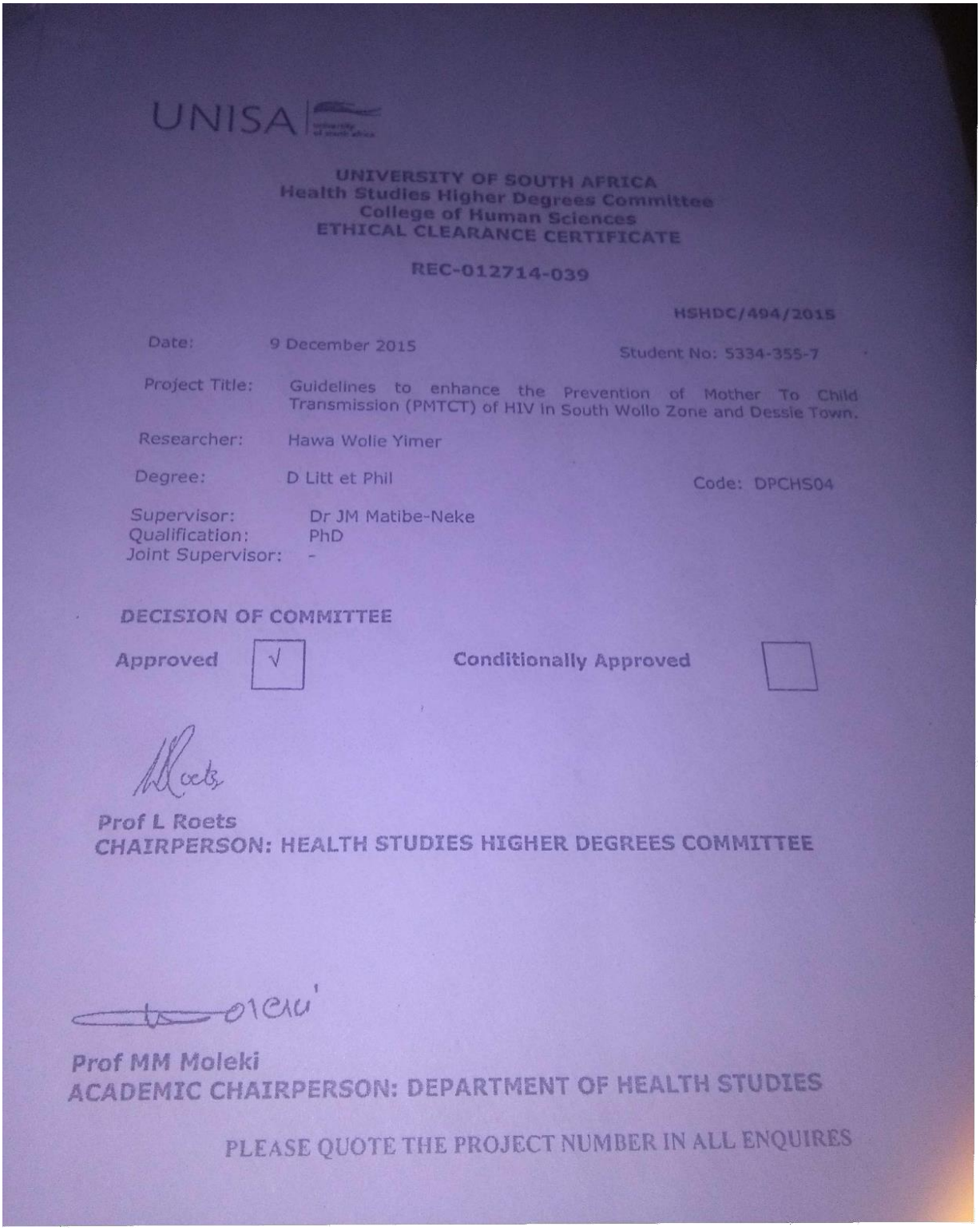
Yin, RK. 2012. *Case study methods*. American Psychological Association.
From: https://doi.org/10.1037/13620-009 .

Yin RK. 2011.Qualitative research from start to finish, 3rd edition. New York: The Guilford Press.

Zhi, HLZ. 2014. A comparison of convenience sampling and purposive sampling. *Pub Facts,* 61(3):105-11.
From: https://Doi:10.6224/JN.613.105.

ANNEXURES

Annexure 1: Ethical clearance from the Department of Health Studies, UNISA



UNISA

UNIVERSITY OF SOUTH AFRICA
Health Studies Higher Degrees Committee
College of Human Sciences
ETHICAL CLEARANCE CERTIFICATE

REC-012714-039

HSHDC/494/2015

Date: 9 December 2015 Student No: 5334-355-7

Project Title: Guidelines to enhance the Prevention of Mother To Child Transmission (PMTCT) of HIV in South Wollo Zone and Dessie Town.

Researcher: Hawa Wolie Yimer

Degree: D Litt et Phil Code: DPCHS04

Supervisor: Dr JM Matibe-Neke
Qualification: PhD
Joint Supervisor: -

DECISION OF COMMITTEE

Approved √ Conditionally Approved

Prof L Roets
CHAIRPERSON: HEALTH STUDIES HIGHER DEGREES COMMITTEE

Prof MM Moleki
ACADEMIC CHAIRPERSON: DEPARTMENT OF HEALTH STUDIES

PLEASE QUOTE THE PROJECT NUMBER IN ALL ENQUIRES

Annexure 2: Request for permission to conduct the study

Hawa Wolie Yimer
Addis Ababa, Ethiopia
13898
10 December 2016

The Amhara Region Health Bureau Research Committee
Amhara Region Health Bureau
Bahir Dar
495

REQUEST FOR PERMISSION TO CONDUCT A STUDY

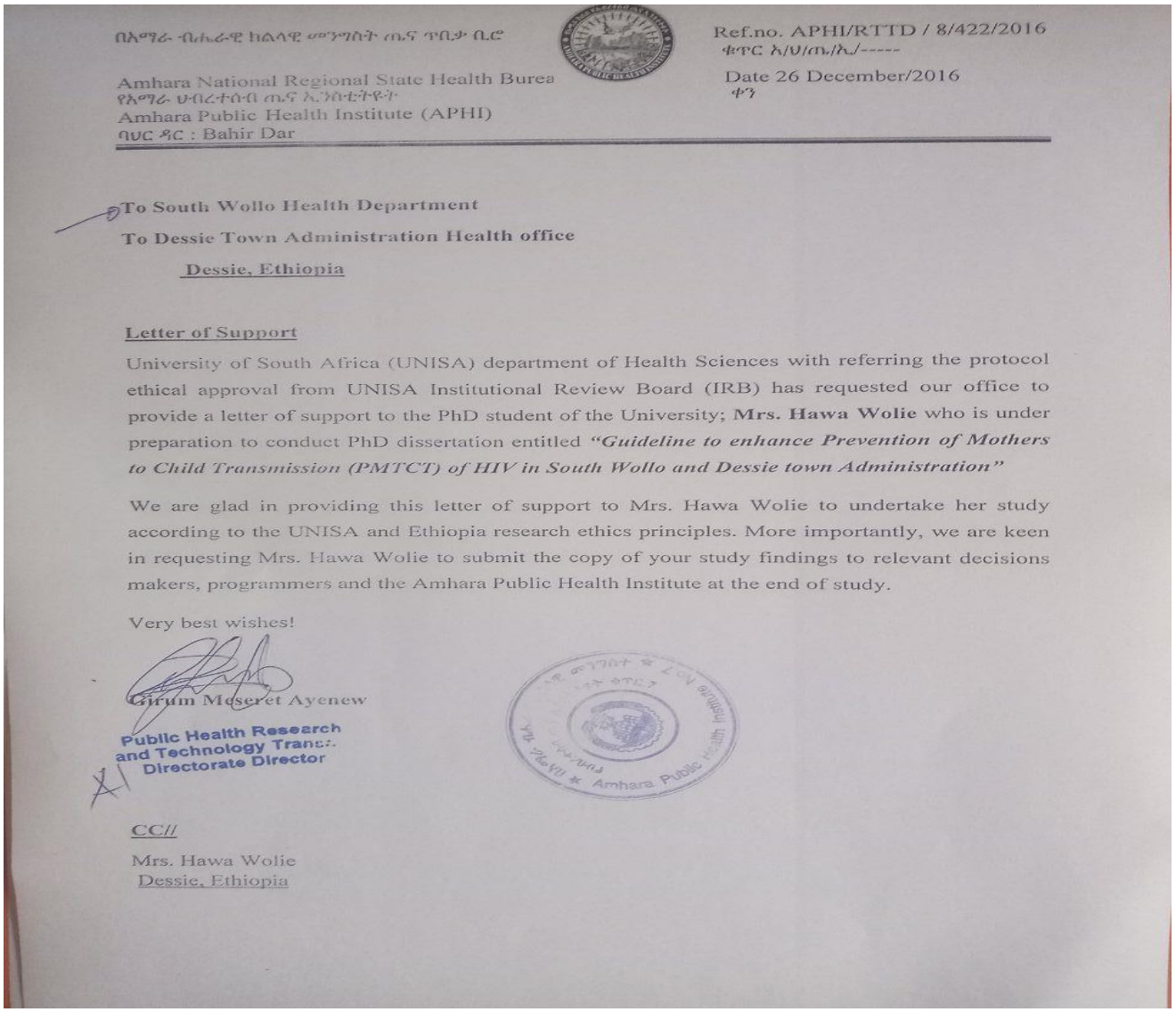
I am currently studying towards a degree of Doctor of Literature and Philosophy degree in Public Health at the University of South Africa. In order to meet the requirements of this qualification, I am undertaking a research paper with the tittle: “Guidelines to enhancing strategies for prevention of mother-to-child transmission (PMTCT) in the North-east Ethiopia”.

I would like to get your approval to conduct such research at selected hospital and health centres to enhancing PMTCT programme in ANC clinic of in each health institution in Dessie administration city and North Wollo Zone. Please find my Research Proposal attached for your perusal.

Yours sincerely

HW Yimer
Researcher

Annexure 3: Letter of permission from Amhara National regional State Health Burea to conduct the study under South Wollo Health Department Health Institution



በአማራ ብሔራዊ ክልላዊ መንግስት ጤና ጥበቃ ቢሮ

Amhara National Regional State Health Burea
የአማራ ህብረተሰብ ጤና ኢንስቲትዩት
Amhara Public Health Institute (APHI)
ባህር ዳር : Bahir Dar

Ref.no. APHI/RTTD / 8/422/2016
ቁጥር አ/ህ/ጤ/ኢ/-----
Date 26 December/2016
ቀን

To South Wollo Health Department

To Dessie Town Administration Health office

Dessie, Ethiopia

Letter of Support

University of South Africa (UNISA) department of Health Sciences with referring the protocol ethical approval from UNISA Institutional Review Board (IRB) has requested our office to provide a letter of support to the PhD student of the University; **Mrs. Hawa Wolie** who is under preparation to conduct PhD dissertation entitled ***"Guideline to enhance Prevention of Mothers to Child Transmission (PMTCT) of HIV in South Wollo and Dessie town Administration"***

We are glad in providing this letter of support to Mrs. Hawa Wolie to undertake her study according to the UNISA and Ethiopia research ethics principles. More importantly, we are keen in requesting Mrs. Hawa Wolie to submit the copy of your study findings to relevant decisions makers, programmers and the Amhara Public Health Institute at the end of study.

Very best wishes!

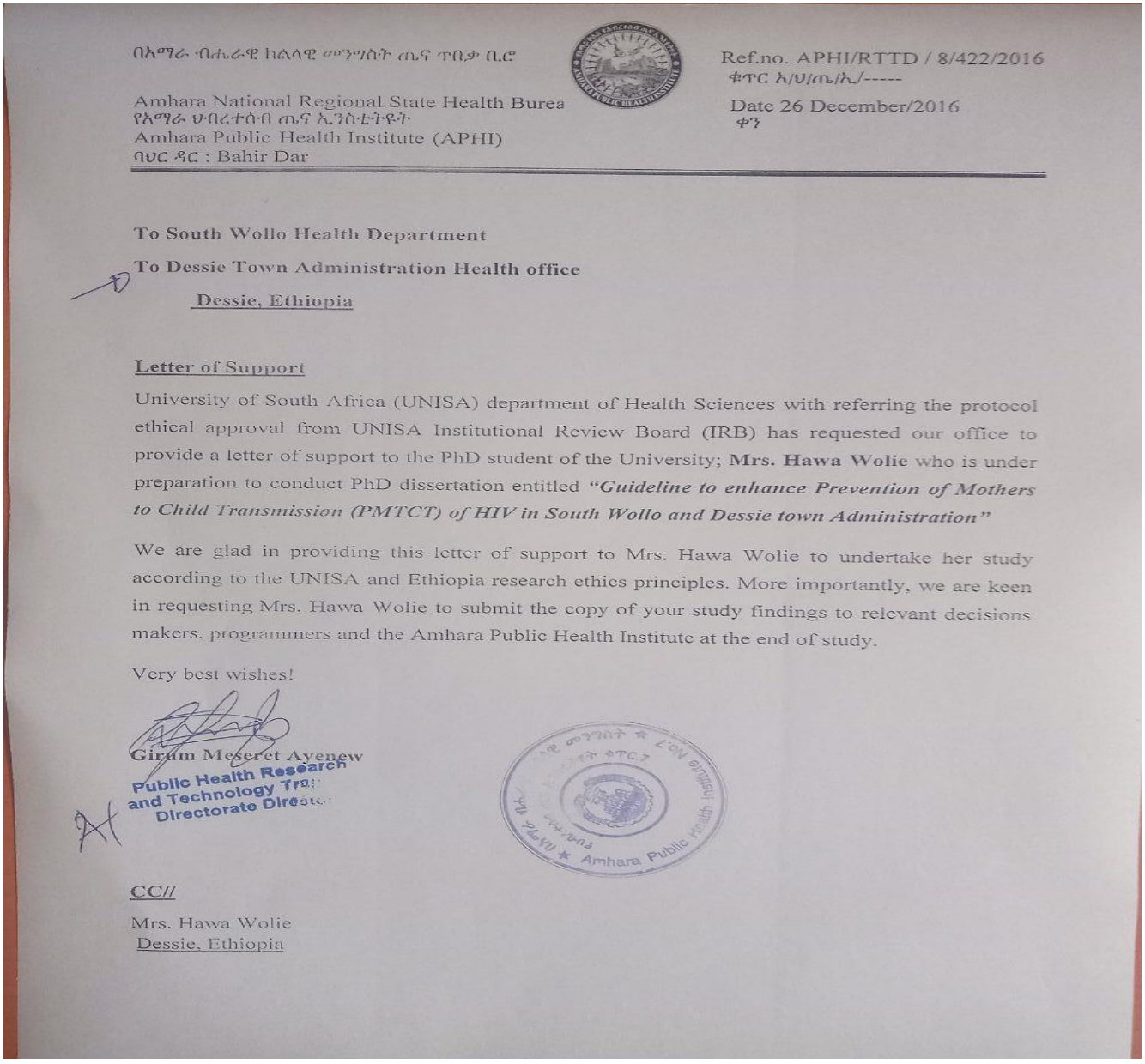
Girum Meseret Ayenew
Public Health Research and Technology Transfer Directorate Director

Amhara Public Health Institute

CC//

Mrs. Hawa Wolie
Dessie, Ethiopia

Annexure 4: Letter of permission from Amhara National Regional State Health Bureau to conduct the study under Dessie Town Administration Health Office Health Institution



በአማራ ብሔራዊ ክልላዊ መንግስት ጤና ጥበቃ ቢሮ

Amhara National Regional State Health Burea
የአማራ ህብረተሰብ ጤና ኢንስቲትዩት
Amhara Public Health Institute (APHI)
ባህር ዳር : Bahir Dar

Ref.no. APHI/RTTD / 8/422/2016
ቁጥር አ/ህ/ጤ/ኢ/-----
Date 26 December/2016
ቀን

To South Wollo Health Department

To Dessie Town Administration Health office

Dessie, Ethiopia

Letter of Support

University of South Africa (UNISA) department of Health Sciences with referring the protocol ethical approval from UNISA Institutional Review Board (IRB) has requested our office to provide a letter of support to the PhD student of the University; **Mrs. Hawa Wolie** who is under preparation to conduct PhD dissertation entitled ***"Guideline to enhance Prevention of Mothers to Child Transmission (PMTCT) of HIV in South Wollo and Dessie town Administration"***

We are glad in providing this letter of support to Mrs. Hawa Wolie to undertake her study according to the UNISA and Ethiopia research ethics principles. More importantly, we are keen in requesting Mrs. Hawa Wolie to submit the copy of your study findings to relevant decisions makers, programmers and the Amhara Public Health Institute at the end of study.

Very best wishes!

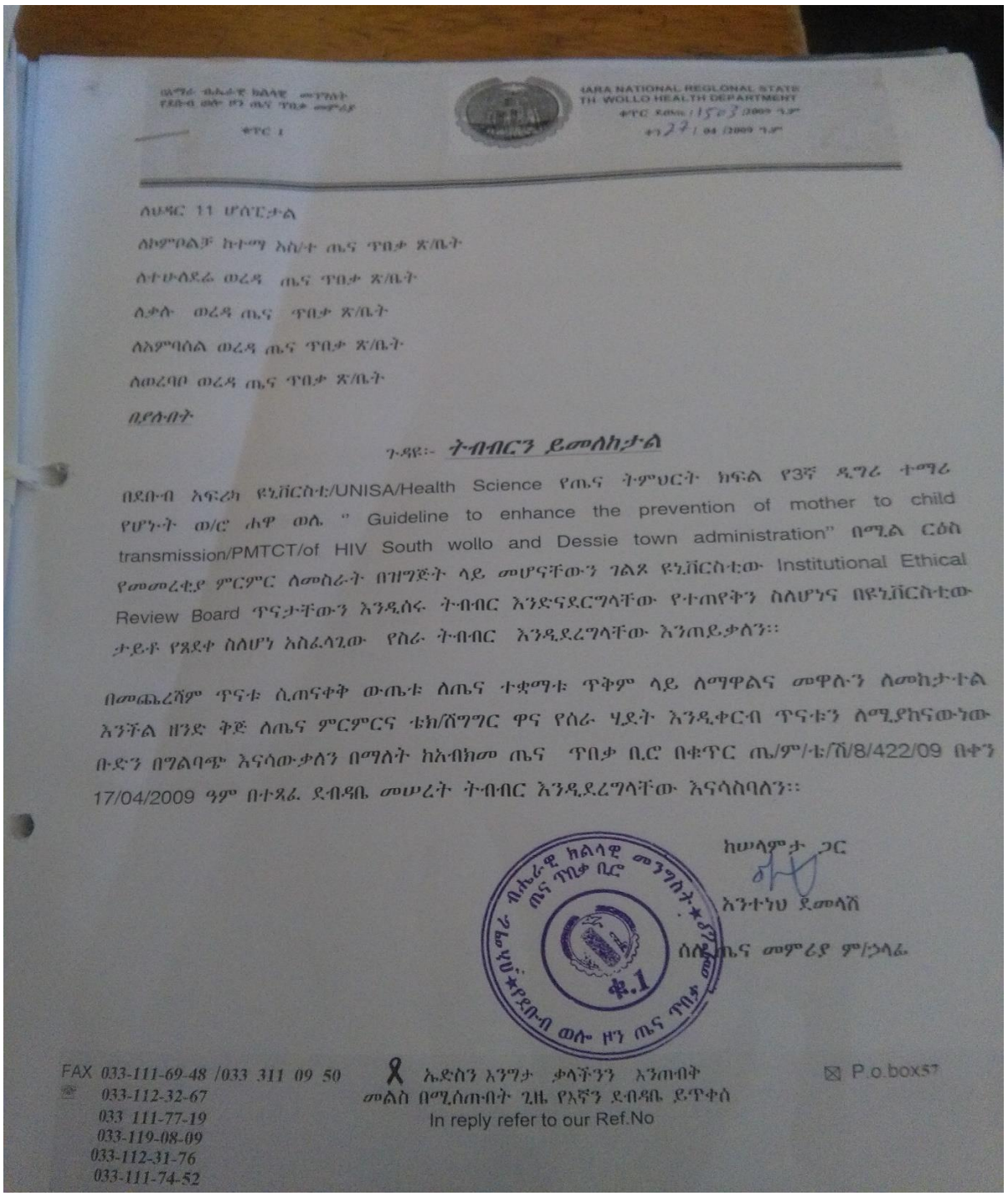
Girum Meseret Ayenew
Public Health Research and Technology Tra...
Directorate Direc...

Amhara Public Health Institute

CC//

Mrs. Hawa Wolie
Dessie, Ethiopia

Annexure 5: Letter of permission to conduct the study from the South Wollo Health Department



አማራ ብሔራዊ ክልላዊ መንግስት
የደቡብ ወሎ ዞን ጤና ጥበቃ መምሪያ

ቁጥር 1

AMARA NATIONAL REGIONAL STATE
TH WOLLO HEALTH DEPARTMENT

ለሀዳር 11 ሆስፒታል

ለኮምቦልቻ ከተማ አስተ ጤና ጥበቃ ጽ/ቤት

ለተሁለደራ ወረዳ ጤና ጥበቃ ጽ/ቤት

ለቃሉ ወረዳ ጤና ጥበቃ ጽ/ቤት

ለአምባሰል ወረዳ ጤና ጥበቃ ጽ/ቤት

ለወረባቦ ወረዳ ጤና ጥበቃ ጽ/ቤት

ቢሮአቸው

ጉዳዩ፡- **ትብብርን ይመለከታል**

በደቡብ አፍሪካ ዩኒቨርስቲ/UNISA/Health Science የጤና ትምህርት ክፍል የ3ኛ ዲግሪ ተማሪ የሆኑት ወ/ሮ ሐዋ ወሉ " Guideline to enhance the prevention of mother to child transmission/PMTCT/of HIV South wollo and Dessie town administration" በሚል ርዕስ የመመረቂያ ምርምር ለመስራት በዝግጅት ላይ መሆናቸውን ገልጸ ዩኒቨርስቲው Institutional Ethical Review Board ጥናታቸውን እንዲሰሩ ትብብር እንድናደርግላቸው የተጠየቅን ስለሆነና በዩኒቨርስቲው ታይቶ የጸደቀ ስለሆነ አስፈላጊው የስራ ትብብር እንዲደረግላቸው እንጠይቃለን፡፡

በመጨረሻም ጥናቱ ሲጠናቀቅ ውጤቱ ለጤና ተቋማቱ ጥቅም ላይ ለማዋልና መዋሉን ለመከታተል እንችል ዘንድ ቅጅ ለጤና ምርምርና ቴክ/ሽግግር ዋና የሰራ ሂደት እንዲቀርብ ጥናቱን ለሚያከናውኑው ቡድን በግልባጭ እናሳውቃለን በማለት ከአብክመ ጤና ጥበቃ ቢሮ በቁጥር ጤ/ም/ቴ/ሽ/8/422/09 በቀን 17/04/2009 ዓም በተጻፈ ደብዳቤ መሠረት ትብብር እንዲደረግላቸው እናሳስባለን፡፡

ከሠላምታ ጋር

አንተነህ ደመላሽ

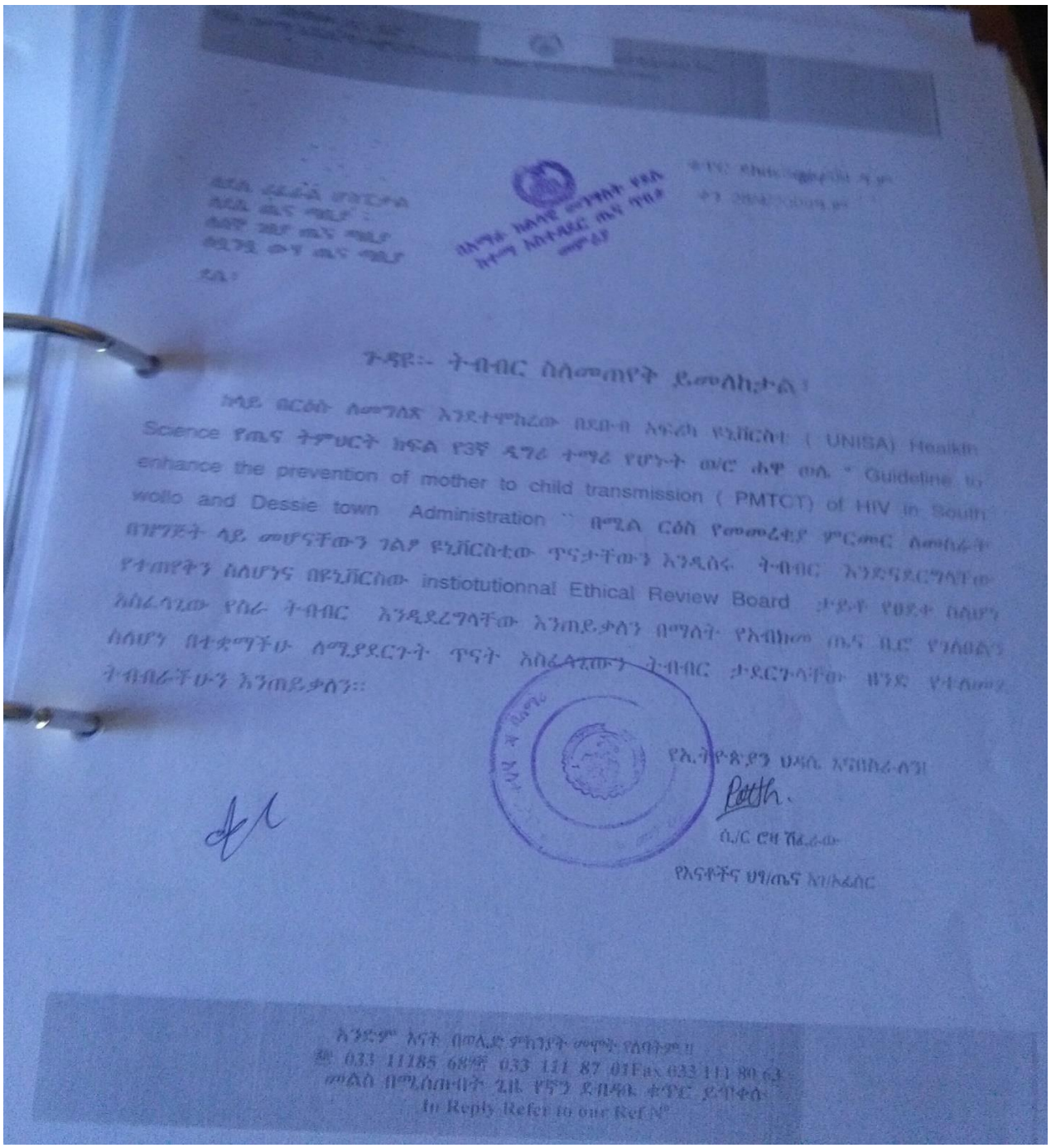
ሰሜን ጤና መምሪያ ም/ኃላፊ

FAX 033-111-69-48 /033 311 09 50
033-112-32-67
033 111-77-19
033-119-08-09
033-112-31-76
033-111-74-52

ኤድስን እንግታ ቃላችንን እንጠብቅ
መልስ በሚሰጠበት ጊዜ የእኛን ደብዳቤ ይጥቀሰ
In reply refer to our Ref.No

P.o.box57

Annexure 6: Letter of permission to conduct the study from the Dessie Town Administration Health Office



Annexure 7: Information letter for the qualitative interviews

I am Hawa Wolie. I am working in the College of medicine and Health Science, Wollo University. I am doing research on to develop a model for enhancing strategies for the prevention of mother to child transmission (PMTCT) HIV/AIDS here in south Wollo Zone and Dessie town. The overall aim of the study is to strengthen the services and thus ultimately contribute to reduce MTCT.

I would like to ask if you would be willing to participate in this study. If you are willing to do so, I will interview you for about your personal experience. I want to emphasised that Participation is voluntary. If you feel uncomfortable with some of the question you have the right not to answer. If you decide not to continue the interview as some point, you have the right to do so. If you are agreed to be interviewed, you should know that I will not record your name or your identification will be protected and will not appear in any document. The interview data will be handled by me and my advisors only.

Finally, if you have any questions, please ask either during the interview or afterwards.

Annexure 8: Information letter Amharic version

<u>የቃለ መጠይቁ መግለጫ</u>

የእኔ ስም ሐዋ ወሌ ይባላል፡፡ በወሎ ዩኒቨርሲቲ የህክምናና ጤና ሳይንስ ኮሌጅ ስር በነርሲንግ ትምህርት ክፍል በመምህርነት እየሰራሁ እገኛለሁ፡፡

ይህ ጥናት የ3ኛ ድግሪ መመረቂያዬ ሲሆን የሚያካትተው በደሴ ከተማና ደቡብ ወሎ ዞን መስተዳድር ስር በሚገኙ ሆስፒታሎችና ጤና ጣቢያዎች ኤች አይ ቪ ከእንት ወደ ልጅ እንዳይተላለፍ መከላከያ ፕሮግራም ላይ(ፒ ኤም ቲ ቺ ቲ የሚጠቀሙ እናቶችና በዚህ ፕሮግራም ውስጥ የሚሰሩ አዋላጅ ነርሶችና ነርሶችን በማሳተፍ ሲሆን ፤ አላማውም ኤች አይ ቪ ከእናት ወደ ልጅ የሚተላለፈውን መጠን ለመቀነስ የሚረዳ መመሪያ ለማዘጋጀት ነው፡፡

የምንጠይቀዎት ፈቃደኛ ሆነው በቃለ መጠይቁ እንዲሳተፉና ስለፕሮግራሙ ያለዎትን ልምድ እንዲያካፍሉ ሲሆን፤ ሆኖም ግን የማይመቾዎትን ጥያቄ ያለመመለስ መብት እንዳለዎትና በማንኛውም ጊዜ ቃለ መጠይቁን ማቋረጥ እንደሚችሉ ነው፡፡ በቃለ መጠይቁ ላይ በሚሳተፉበት ጊዜ ስመዎ የማይገለጽ መሆኑንና በማንኛውም ፅሁፌ ውስጥ የማይጠቀስ መሆኑን ነው ፡፡ የቃለ መጠይቁ ሀሳቦች በሙሉ በእኔና በአማካሪ(አድቫይዘሬ) እጅ ብቻ እንደሚያዝ እገልፅለዎታለሁ ፡፡ ተጨማሪም የሚጠይቁት ማንኛውም ጥያቄ ካለዎት በቃለ መጠይቁም ጊዜ ሆነ ከዚያ በኋላ መጠየቅ የሚችሉ መሆኑን ነው፡፡

Annexure 9: Consent form English version

CONSENT FORM

Dear Participants

My name is Hawa Wolie. I am a student at the University of South Africa, undertaking a PhD in health Science. I am carrying out a study to develop a model for enhancing strategies for the prevention of mother to child transmission (PMTCT) in South Wollo Zone and Dessie Town. I am kindly requesting you to participate in my study. The information obtained will be treated in confidence and the study findings will be used to assist the process of perfecting the PMTCT programme. Your identity will not be disclosed and code numbers will be used for identification, so feel free to participate.

Your decision to participate or not will not affect the care given to you or your family or your relationship with the health care providers. Your participation is voluntary and you are free to withdraw anytime without any penalties. If you agree to participate may you sign in the space provided below. If you have to communicate with me or if you need any clarification my contact address is:

Wollo University, Collage of Medicine and Health Science
Department of Nursing Science

PO Box 1145 Cell: 0914-714604
WU/Dessie

If you agree to participate, please show by signing:

Investigator Signature_____Date_____
Participant Signature_____Date _____

Thank you for your participation.

Witness:_____Date _____

Annexure 10: Consent form Amharic version

<u>የቃለ መጠይቁ የስምምነት ፎርም</u>

<u>የተከበሩ ተሳታፊ፡</u>

የእኔ ስም ሐዋ ወሌ ይባላል፡፡ በወሎ ዩኒቨርስቲ ጤና ሳይንስ ኮሌጅ ስር የነርሲንግ ትምህርት ክፍል መምህርት ስሆን በአሁኑ ጊዜ በደቡብ አፍሪካ ዩኒቨርሲቲ በጤና ሳይንስ ኮለጅ ስር የ3ኛ ድግሪ ተማሪ ነኝ ። ይህ የመመረቂያ ጥናት ከእናት ወደ ልጅ የሚተላለፈውን የኤች አይ ቪ በሽታ ለመከላከል የሚካኤደውን ፕርግራም ለማጠናገር የሚያግዝ መመሪያ ለማዘጋጀት የሚያስችል ሲሆን በደሴ ከተማና በደቡብ ወሎ ዞን መስተዳድር ስር በፕሮግራሙ ላይ የሚሳተፉትን እናቶችና አዋላጅ ነርሶች ወይም ነርሶችን በመጠየቅ የሚሰራ ስለሆነና ተሳትፎዎ ትልቅ ግብአት በመሆኑ ፕሮግራሙ እንዲሻሻል በፈቃደኝነት ላይ ተመስርተው እንዲሳተፉ እየጠየኩ፤ በዚህ ቃለ መጠይቅ ላይ የምታደርጉት ማንኛውም ንግግር ሚስጥራዊነቱ የተጠበቀና ስማችሁም የማይገለጽ መሆኑን እየገመፅኩ ፤ በዚህ ጥናት ላይ የእናንተ ተሳታፊ መሆን ወይም አለመሆን ለእናንተም ሆነ ለኔተሰባችሁ የሚደረገውን አገልግሎት የማይነካና ግንኙነታችሁን በምንም መልኩ አይረብሽም ።

በጥናቱ በፈቃደኝነት መሳተፍ ብቻም ሳይሆን በጥናቱ ወቅት በማንኛውም ጊዜ ማቋረጥ የሚችሉ መሆኑን ነው፡፡ በጥናቱ ለመሳተፍ ፈቃደኛ ከሆኑ ከዚህ በታች ባለው ቦታ ፊርማዎን ያስቀምጡ፡፡
ወሎ ዩኒቨርሲቲ - 09 14 714604

የተሳታፊ ፊርማ ---------- የጥናቱ ሀላፊ ፊርማ----------

የሚስጥር ቁጥር ---------- ቀን----------

Annexure 11: Data collection tool English version

Instrument 1. Semi-structured interview schedule: mothers

Antenatal clinic site_____Code Number _____

PART I: DEMOGRAPHIC CHARACTERISTICS

1.1 How old are you?_____years

1.2 Where are you living currently?

1. Urban 2. Rural

1.3 What is your marital status?

1. Single 3. Married
2. Divorced 4. Widowed

1.4 What is your religion?

1. Orthodox 3. Protestant
2. Catholic 4. Muslim 5 Others, specify _____

1.5 What is the highest level of education you completed? _____

1.6 What is the highest level of education your husband completed? _____

1.7 How much your family income per month?_____Eth. Birr

1.8 Where are you working?

PART II: OBSTETRIC CHARACTERISTICS

2.1 How many pregnancies do you ever had? _____

2.2 How many deliveries do you ever had? _____

2.3 How many living children do you have? _____

2.4 How many of them life with HIV/AIDS? _____

2.5 Where did you deliver your last child?

2.6 How long you have pregnant now? _____

2.7 Have you visited other health facility in this pregnancy for ANC?

2.8 How many antenatal visits do you have so far?

PART III: AWARENESS, PERCEPTION AND PRACTICE OF MTCT/PMTCT AND PARTNER INVOLVEMENT IN PMTCT

3.1 Have you heard about mother to child transmission (MTCT) of HIV and where you get the information?

3.2 Do you think woman with HIV infection can infect their babies with HIV during pregnancy, labour and delivery and through breastfeeding?

3.3 Do you think there are medications which HIV infected mothers can take to prevent mother-to-child transmission of HIV?

3.4 Are you comfortable about PMTCT service?

3.5 What other preventive measures for MTCT know other than medicine?

3.6 Is your husband know (discussed) about it?

3.7 What do you plan to feed your baby?

3.8 What about disclose your status to your partner and others?

3.9 About the service given by health provider.

INSTRUMENT 2: SEMI-STRUCTURED INTERVIEW SCHEDULE: MIDWIFE/NURSES

PART I: DEMOGRAPHICS CHARACTERISTICS

Code number _____

Health centre _____

Sex_____

Age_____

Education_____

PMTCT training _____

Year of experience in nursing/midwifery _____

Year of experience in PMTCT _____

PART II: THEIR EXPERIENCE AND PRACTICE ABOUT PMTCT SERVICE

1 What are the major problems that you experience working as PMTCT service givers?

2 How did you feel prepared to work with PMTCT?

3 How do you see your role in PMTCT?

4 What do you say to the women about?

a. PMTCT

b. Disclosure

c. Partner involvement

d. Infant feeding

e. ART

f. Sex

5 What are the major concerns and worries that women express to you?

6 What would you say characterizes the ones that bring their partner for counselling?

7 How many times do you see an HIV negative woman? An HIV positive woman?

8 How would you describe women's trust in the health care system in general and in PMTCT in particular? Have you ever experienced that the women do not trust you or that they doubt your confidentiality?

9 Do you know any of the women enrolled in the PMTCT programme? If so, how does that affect their attitude towards you?

10 How in your experience are the women who get infected with HIV? Do you see any pattern? (social and economic factors or other)

11 Whom would you say are in general at risk today?

12 Do you have any personal experiences with HIV in your family? Among friends? Will you tell us about it? How is your relationship with that afflicted person today?

13 Are you afraid of getting HIV?

14 Do you consider yourself at risk?

16 Have people working in the health care system get infected. How do people talk about the sources of infection?

Annexure 12: Data collection tool Amharic version

መረጃ መሰብሰቢያ 1፡ ቃለ መጠይቅ፡ ለእናቶች

የሚስጥር ቁጥር _____

የድርጅቱ ስም _____

1.መሰረታዊ መረጃ

1.1 እድሜ_____

1.2 አድራሻ ከተማ_____ ገጠር_____

1.3 የጋብቻ ሁኔታ_____

1.4 ሀይማኖት_____

1.5 የት/ት ደረጃ _____

1.6 የባልተቤዎ ት/ት ደረጃ _____

1.7 የወር ገቢ መጠን_____

1.8 የስራ ሁኔታ_____

2. የስነተዋልዶ- ጤና ሁኔታ

2.1 ስንት ልጆች ወልደዋል?

2.2 አሁን በሂምት ያሉት ስንት ናቸው?

2.3 ስንተኛ እርግዝናዎት ነው?

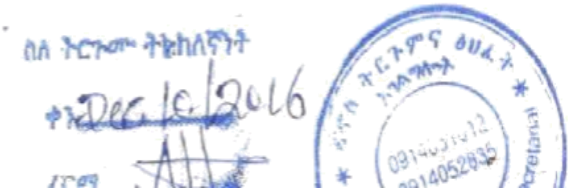
2.4 ስንቶቹ ከኤች አይ ቪ ጋር ይኖራሉ?

2.5 የመጨረሻ ልጂዎን የት ነው የወለዱት?

2.6 የአሁኑ እርግዝናዎ ስንት ወር ሆኖታል?

2.7 የነፍሰጡር የህክምና ክትትል በሌላ የጤ/ድርጅት ተጠቅመው ያውቃሉ?

2.8 እስከ አሁን ለምን ያክል ጊዜ ክትትል አድርገዋል



3. ስለኤች አይ ቪ/ኤም ቲ ሲ ቲ ግንዛቤ

3.1 ኤች አይ ቪ ከእናት ወደ ልጅ እንደሚተላለፍ ሰምተው ያውቃል

3.2 ከኤች አይ ቪ ጋር የሚኖሩ እናቶች ወደ ልጆቻቸው በሽታውን ያስተላልፋሉ ብለው ያስባሉ መቼ

3.3 ኤች አይ ቪ ከእናት ወደ ልጅ እንዳይተላለፍ የሚከላከል መድሃኒት አለ ብለው ያስባሉ

3.4 ኤች አይ ቪ ከእናት ወደ ልጅ እንዳይተላለፍ በሚደረገው ፕሮግራም ላይ ተጠቃሚ ነምት ወይ

3.5 ኤች አይ ቪ ከእናት ወደ ልጅ እንዳይተላለፍ የሚደረገው ፕሮግራም ለሁሉም እናቶች የተመቻቸ ነው ብለው ያስባሉ ካልሆነስ ምክንያቱ ምንድን ነው

3.6 በእናቶችና በጤና ባለሙያዎች መካከል ያለው ግንኙነት ምን ይመስላል

መረጃ መሰብሰቢያ 2፡ ቃለ መጠይቅ፡ ለነርሶችና ለአዋላጆች

የሚስጥር ቁጥር_____

1.መሰረታዊ መረጃ

1.1 የጤና ድርጅቱ ስም_____

1.2 እድሜ_____

1.3 ጸታ_____

1.4 ሀይማኖት_____

1.5 የት/ት ደረጃ_____

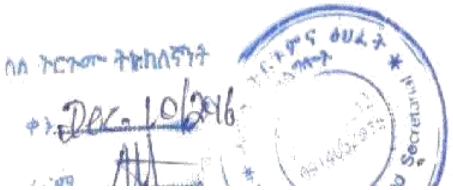
1.6 የጋብቻ ሁኔታ_____

1.7 የወር ገቢ _____

2. ፕሮግራሙን(ፒ ኤም ቲ ሲ ቲ) በተመለከተ:

2.1 የኤም ቲ ሲ ቲ ስልጠና ወስደዋልን?

2.2 በሙያዎ ያለዎት የስራ ልምድ (ለምን ያክል ጊዜ) አገልግለዋል?



2.3 በዚህ ፕሮግራም ለምን ያክል ጊዜ ሰርተዋል?

2.4 እዚህ ፕሮግራም ላይ ሲሰሩ በስራዎ ላይ ያጋጥሙ የነበሩ ችግሮች ምን ምን ነበሩ?

2.5 በዚህ ፕሮግራም ላይ ለመስራት ሲመደቡ ምን ተሰማዎት?

2.6 በዚህ ፕሮግራም ላይ የእርሰዎ ሚና ?

2.7 ግሮግራሙን ተጠቃሚ የሆኑ እናቶች ምን ይላሉ?

ሀ. ስለ ፒ ኤም ቲ ሲ ቲ ሐ. ስለትራር ጋሮቻቸው ተሳትፎ

ለ. ራስን አውጥቶ ስለመግለፅ መ. ስለልጆቻቸው አመጋገብ

ሠ. ስለመድሃኒቱ

2.8 እናቶች የሚገልጹላችሁ ስጋቶች ምን ምን ናቸው?

2.9 እናቶች በእናንተ ላይ ያላቸውን እምነትና ጥርጣሬ እንደት ገልጹታል ?በተለይ ስለ ፕሮገራሙ

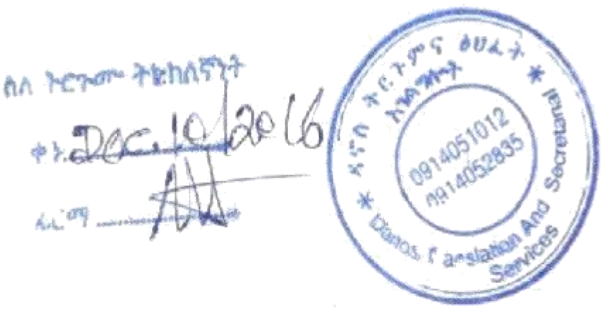
2.10 እናቶች ለኤች አይ ቪ ያጋለጣቸውን ምክንያት ምንድን ናቸው ይላሉ? ኢኮኖሚ ወይስ ሌላ?

2..11 በቤተሰበዎ ወይም ከጓደኞቸዎ ከኤች አይ ቪ ጋር የሚኖር ሰው አለ ? ከኤች አይ ቪ ጋር ከሚኖሩ ሰዎች ጋርያለዎት ግንኙነት ምን ይመስላል?

2.12 እናቶች ኤች አይ ቪ ከእናት ወደ ልጅ እንዳያተላለፍ በሚደረገው ፕሮግራም ሙሉ ተሳታፊ ናቸው ወይ?

2.13 በጤና ሙያ አገልግሎት ላይ የተሰማሩ ሠራተኞች በስራቸው ምክንያት ለበሽታው ተጋልጠዋል ወይ?

2.14 እናቶች የበሽታውን መንስኤ እንደት ይገልጹታል?



Annexure 13: Letter of confirmation from English Amharic translator

D

Danos translation service

Tel: 09-14-05-10-12/ 09-14-05-28-35 fax:033-111-91-42

Subject:-Letter of confirmation from English- Amharic translator

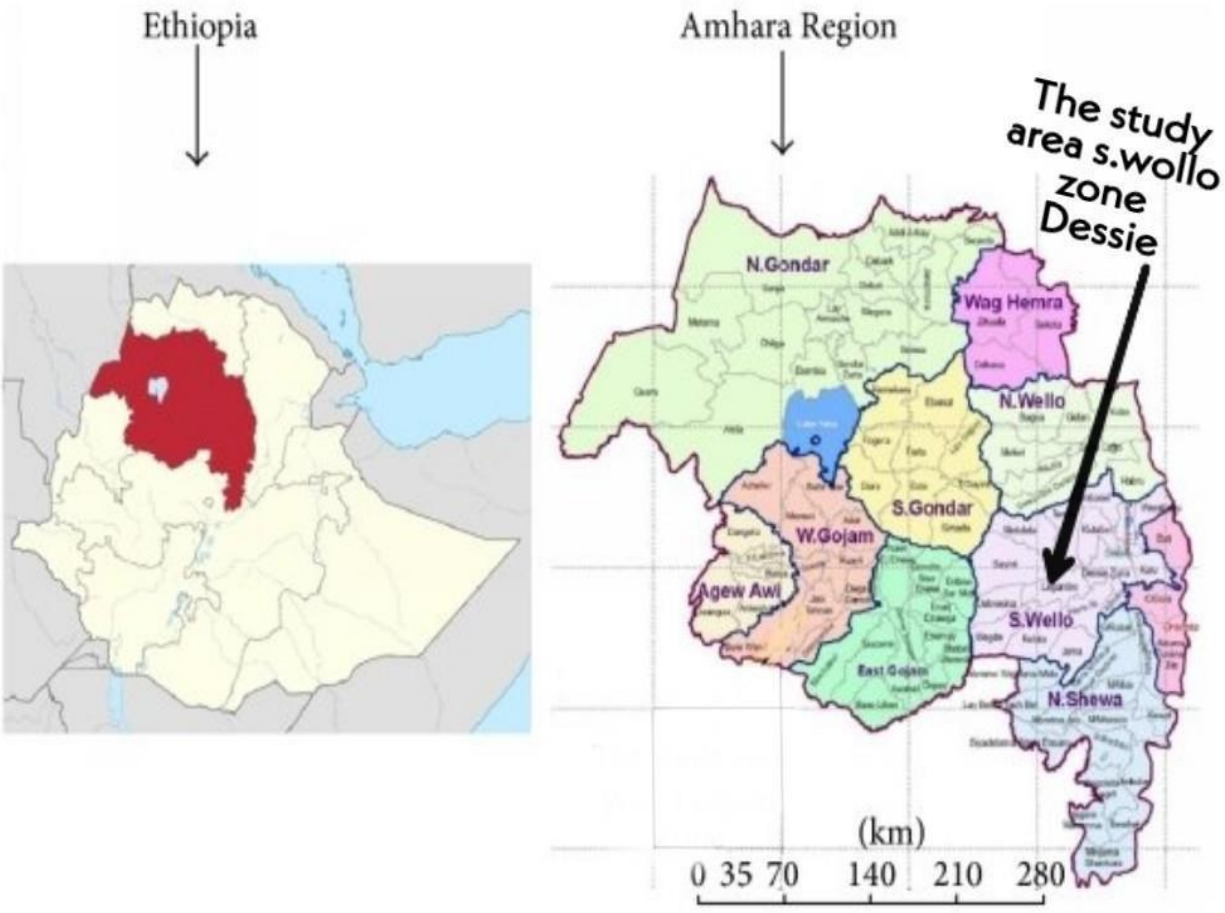
This is to confirm we have supported Hawa Wolie Yimer during the translation of her data collection tool from English to Amharic. The translated data collection tool is semi-structured interview schedule for the thesis titled **"Develop guideline for enhancement of PMTCT program implementation is Dessie town Administration and North Wollo Zone".** We made sure that the meaning of English in the semi-structured interview schedule is similar to the meaning of the Amharic semi-structured interview schedule. Hence, we confirm that the meaning of the English and Amharic semi-structured interview schedules the same.

With kind regards

Dec. 10/2016

0914051012
0914052835
Danos Translation And Secretarial Services

Annexure 14: Study area in Map of Ethiopia



Annexure 15: Letter from the language editor

ወሎ ዩኒቨርሲቲ
የተቋማዊ ጥራት አግባብነት
ማረጋገጫ ዳይሬክቶሬት ጽ/ቤት
ደሴ

Wollo University
Institutional Quality
Relevance & Assurance Directorate
Dessie

Ref. No WU/EQRA/068/2013
Date OCT 19 2021

To: University of South Africa

Subject: Language Eduiting

I hereby witness that I have read Hawa Wolie Yimer's thesis work entitled "Guidelines for Enhancing the Implementation of PMTCT Program in South Wollo Zone and Dessie City Administration in North East Ethiopia".

Accordingly, I hereby testify that I have edited the language and grammar of Hawa's thesis work within a month.

Regards

አሊ ያሲን (ዶ/ር)
Ali Yasin (PhD)
ወሎ ዩኒቨርሲቲ የትምህርት ጥራት
ማረጋገጥ ዳይሬክተር
Wollo University Director for
Academic Quality Assurance

ስ/ተ ☎ 033312-3616 Fax 033-311-52 50/033-311-52 32 ✉ 1145

Annexure 16: Turnitin originality report

- Processed on: 14-Sep-2021 13:18 SAST
- ID: 1648186807
- Word Count: 68984
- Submitted: 1

GUIDELINES FOR ENHANCING STRATEGIES FOR THE P...By Hawa Wolie Yimer

Similarity Index
35%

Similarity by Source

Internet Sources:
33%

Publications:
7%

Student Papers:
9%