



QUALITY ASSESSMENT ON ANTENATAL CARE  
AND PREVENTION OF MOTHER-TO-CHILD HIV  
TRANSMISSION SERVICES AT GAMBELLA  
REFERRAL HOSPITAL IN GAMBELLA,  
WESTERN ETHIOPIA

MSW DISSERTATION RESEARCH PROJECT REPORT  
MSWP-001

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Quality Assessment on Antenatal Care and Prevention of  
Mother-to-Child HIV Transmission Prevention at  
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Western Ethiopia

MSW Dissertation Research Project Report  
(MSWP-001)

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## DECLARATION

I hereby declare that the dissertation entitled QUALITY ASSESSMENT ON ANTENATAL CARE AND PREVENTION OF MOTHER-TO-CHILD HIV TRANSMISSION SERVICES AT GAMBELLA REFERRAL HOSPITAL IN GAMBELLA, WESTERN ETHIOPIA which is submitted by me for the partial fulfillment of the MSW to Indira Gandhi National Open University, (IGNOU) in New Delhi is my own original work and has not been submitted earlier, either to IGNOU or to any other institution for the fulfillment of the requirements for any other programme of study. I also declare that no chapter of this manuscript in whole or in part is lifted and incorporated in this report from any earlier work done by me or others.

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CERTIFICATE

This is to certify that Mr. SHIFERAWNEDAFUJIE who is the student of MSW Programme from Indira Gandhi National Open University, New Delhi was working under my supervision and guidance for his/her project work for the Course MSWP-001.

His Dissertation Research Project Work entitled QUALITY ASSESSMENT ON ANTENATAL CARE AND PREVENTION OF MOTHER-TO-CHILD HIV TRANSMISSION AT GAMBELLA REFERRAL HOSPITAL IN GAMBELLA, WESTERN ETHIOPIA, which he is submitting, is his genuine and original work.

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May 2015

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## Abbreviations and Acronyms

AIDS	Acquired Immuno-deficiency Syndrome
ANC	Anti- Natal Care
ARV	Anti Retro Viral
CSA	Central Statistics Authority
EDHS	Ethiopian Demographic and Health Survey
FDRE	Federal Democratic Republic of Ethiopia
HEW	Health Extension Worker
HIV	Human Immuno-deficiency Virus
HSDP IV	Health Service Development Plan IV
PICT	Provider Initiated HIV Counseling and Testing
MoH	Ministry of Health
MNCH	Maternal and New Born Child Health
MSG	Mothers' Support Group
PLWHA/PLHA	People Living with HIV/AIDS
PMTCT	Prevention of Mother-to-child HIV Transmission

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## Abstract

This thesis intended to assess quality of prevention of mother-to-child HIV transmission (PMTCT) services provided to pregnant HIV positive mothers at Gambella Hospital in Gambella, Western Ethiopia. In the study, mixed research design in which more of qualitative research methods and less of quantitative research methods mainly descriptive survey were employed. The study participants were users of the PMTCT services who were also by default went through other services like HCT and ANC. It was found that different aspects related to PMTCT services, such as ANC, HCT/VCT, family planning, ART, and PMTCT counseling services were provided to the infected pregnant mothers at the Gambella Hospital. The mothers were aware of the availability of these services through health education by the HEWs, and distributed leaflets and posted informative posters. Thus, none of the clients rejected the services provided. There was generally 55.0% satisfactory level on the part of the clients because 60.7% and 80.0% of them confirmed as highly satisfied and satisfied, respectively. Nevertheless, there were various internal and external factors, like limited efforts by the concerned stakeholders, blame and reluctance of the husbands, lack of awareness of the community members about the services, limited level of trust on result of blood screening for HIV, and cultural factors negatively impacted on the utilization of the services. The clients, however, showed positive attitude to the intensive and helpful services provided at the Hospital. It is, therefore argued that the provisions of those services have been successful, but less emphasis is given to the necessary supplies and inputs in the effective implementation of the Programme. It is also suggested that all concerned stakeholders at different levels should perform their actual duties and responsibilities by working shoulder-to-shoulder to improve the quality of those services.

# Chapter One

## Introduction

### 1.1 Background of the Problem

UNAIDS (2010) estimates that about 31.4-35.3 million people were estimated to live with AIDS worldwide till 2009. Women living with HIV/AIDS are estimated to be 15.9 million, while children living with HIV/AIDS estimated to be 2.5 million and 1.8 children were orphaned due to AIDS. Deaths due AIDS in 2009 were estimated to be about 16.6 million (UNAIDS & UNICEF, 2011).

Two-thirds of all people infected with HIV live in sub-Saharan Africa, although this Region hosts little more than 12 percent of the world's population. HIV and AIDS have caused immense human suffering in the continent. The most obvious effect of this crisis has been illness and death, but the impact of the epidemic has certainly not been confined to the health sector; households, schools, workplaces and economies have also been harshly affected. During 2010 alone, an estimated 1.2 million adults and children died as a result of AIDS-related illnesses in sub-Saharan Africa. Since the beginning of the epidemic, more than 15 million Africans have died of AIDS-related illnesses (UNAIDS, 2010).

A study conducted by the National Taiwan University College of Public health in 2007 shows that HIV in sub-Saharan Africa remained the exact outcome of poverty with sexual trade, migration, polygamy, and teenage marriages as its predictors. In this region, there is alarming rate of sexual trade with poverty as the main reason. Cultural practices like polygamy catalyzes the pandemic. It also states that, unless and until poverty is reduced or alleviated, there will be little progress either with reducing transmission of the virus or an enhanced capacity to cope with its socio-economic consequences. There is a need to take a multi-sectoral approach with a number of capacity-building programmes to combat the scourge (Mbirimtengerenji, 2007).

The first AIDS case in Ethiopia was reported in 1984. Since then, HIV/AIDS has become a major multi-dimensional public health concern, leading the Government of Ethiopia to declare a public health emergency in 2002. In 2011, adult HIV/AIDS prevalence rate in Ethiopia was estimated at 1.5 percent. Approximately, 1.2 million Ethiopians were living with HIV/AIDS in 2010. Data from the 2011 EDHS indicate that HIV/AIDS prevalence was higher among women (1.9%) than men (1.0 %). In urban areas, women are more likely to be infected than men (5.2% and 2.9% respectively). Children are also profoundly affected by HIV/AIDS. In 2010, an estimated 79,871 children under age 15 years were living with HIV, and 804,184 children under 18 years had lost at least one parent to AIDS. Despite the remarkable achievement in treatment, there is concern that PMTCT activities have been lagging behind. The number of pregnant women tested and found to be HIV-positive was 20,755 in 2010/11. However, only 8,365 received antiretroviral drugs (ARVs). Similarly, only 4,945 children born from HIV-infected mothers received ARV Prophylaxis (USAID-Ethiopia, 2012).

The diversity of the HIV epidemic in Ethiopia seems to be related to sexual behaviour patterns as well as by factors that affect transmission such as the presence or absence of male circumcision. Gambella Region unexpectedly exhibited the highest prevalence rate of any area like rural or urban, including Addis Ababa/the capital. Gambella is characterized by a relatively higher magnitude of risky sexual behaviour than any other region and male circumcision is less common. These two factors may be responsible for fuelling the epidemic in the region.

While Amhara and Tigray had always been identified as among the most affected regions of the country, prevalence in Amhara compared to other high-prevalence regions was much less than expected. Of greatest concern is the prevalence of close to 6% recorded in rural Gambella. Whether one could identify specific hot spots within the region or call into question the inescapable fact that something is happening within the region to push its HIV prevalence rate far above the national average. Further investigation is needed to understand the causes of this, but in the interim, interventions including both prevention and care programs should be targeted to Gambella as a

priority in addition to the current priority regions based on data from ANC surveillance (World Bank, 2008).

Studies show that circumcised men have a lower prevalence rate of HIV reduced the risk of female-to-male sexual HIV transmission by roughly 60.0%. To this end, one of the high risk factors in the Region, the Voluntary Medical Male Circumcision (VMMC) Programme (supported by Jhpiego and funded with PEPFAR grants through the Center for Disease Control and Prevention (CDC) Ethiopia (has circumcised over 32,000 adult men to reduce in Gambella Region since October 2009). However, there has been longstanding myths about male circumcision which was a challenge to be addressed with religious leaders, social mobilizers, HEWs, and government officials. Nevertheless, gradually, the benefits of male circumcision are being accepted by the community. The HIV prevalence rate in the Region is 6.5%, which is the highest in Ethiopia. HIV transmission in the Region is sustained by a low level of awareness, a high quantity of itinerant farm workers, and refugees from past conflicts in neighbouring South Sudan (Ahmed Mohammed, 2013).

There are complex array of factors that help explain and contribute further to the proliferation of the pandemic. HIV in Ethiopia is predominantly spread through unprotected heterosexual intercourse, which accounts for approximately 88.0% of all HIV infections. Mother-to-child transmission (MTCT) accounts for 8.0%-10.0%, and 2.0%-5.0% of HIV infections can be attributed to blood and blood-contaminated products, including un-sterilized needles (MoH, 2007).

The Ethiopian Ministry of Health informed the progress so far in the Programme of Prevention of Mother-to-Child HIV Transmission and the challenges, as well as its plan in regard to the PMTCT until 2015. Out of the progress achieved so far, 1445 health facilities throughout the country could be able to provide PMTCT services, policy guidelines and implementation manuals provided with the efforts to integrate the Programme with MNCH services, expansion of PMTCT and PICT sites, capacity building and provision of supplies with the effort to engage in helping PLHA. The challenges listed were: limited expansion of PMTCT services, inadequate use of

PMTCT services where it is available, limited access to and utilization of early infant diagnosis, low percentage of deliveries attended at health institutions, weak community-health facility referral linkages, and poor male partner involvement. Targets for 2015 documented in HSDP IV as follows:

- Provide ANC services to 90.0% of pregnant women;
- Ensure all women are attended at delivery (62.0% by skilled attendants and 38.0% by HEWs);
- Provide ARV Prophylaxis to more than 80.0% of HIV positive pregnant women; and
- Reduce national incidence rate of HIV infection by 50.0% (MoH, 2012).

As Gambella Region hosts the highest prevalence rate of HIV/AIDS among pregnant HIV infected women under the PMTCT Programme. Amongst the public health facilities nationwide, Gambella Referral Hospital is the one selected to provide the PMTCT services, where MNCH services, including Prevention of Mother-to-Child HIV Transmission. Therefore, it is important to undertake an empirical quality assessment on ANC and PMTCT services at Gambella Referral Hospital, Western Ethiopia.

## **1.2 Statement of the Problem**

Antenatal care (ANC) coverage is a success story in Africa because over two-thirds of pregnant women (69 percent) (UNAIDS, 2013) have at least one ANC contact. Prevention of mother-to-child HIV transmission (PMTCT) is also still the most effective intervention in combating new HIV infections. However, PMTCT is a multi-faceted intervention. It is not just a way to stop vertical transmission of HIV but also to provide access to treatment, care and support for women who would otherwise not get the chance to know their HIV status before it is too late. Despite its importance, the PMTCT Programme often suffers from poor allocation of resources that could threaten the success of the Programme.

Antenatal care (ANC) coverage is a success story in Africa, since over two-thirds of pregnant women (69 percent) have at least one ANC contact. However, to achieve the

full life-saving potential that ANC promises for women and babies, four visits providing essential evidence based interventions – a package often called focused antenatal care – are required. Essential interventions in ANC include: identification and management of obstetric complications such as preeclampsia, toxoid immunization, intermittent preventive treatment for malaria during pregnancy (IPTp), and identification and management of infections, including HIV, syphilis and other sexually transmitted infections (STIs).

ANC is also an opportunity to promote the use of skilled attendants at birth and healthy behaviours like breastfeeding, early postnatal care, and planning for optimal pregnancy spacing. Many of these opportunities continue to be missed, even though over two-thirds of pregnant women received at least one antenatal visit. An effective ANC package depends on competent health care providers in a functioning health system with referral services and adequate supplies and laboratory support.

Preventing problems for mothers and babies depends on an operational continuum of care with accessible, high quality care before and during pregnancy, childbirth, and the postnatal period. It also depends on the support to help pregnant women reach services, particularly when complications occur. An important element in this continuum of care is effective ANC. The goal of the ANC package is to prepare for birth and parenthood as well as prevent, detect, alleviate, or manage the three types of health problems during pregnancy that affect mothers and babies:

- Complications of pregnancy itself;
- Pre-existing conditions that worsen during pregnancy; and
- Effects of unhealthy lifestyle.

However, many countries are struggling to achieve quality ANC provision, particularly in rural and semi-urban areas. Competition for staff and money as well as poor communication with other programmes or components (malaria, HIV, emergency obstetric care) can be found at different levels of the health system, particularly where policies are ill defined. National and sub-national level health budgets may be too small



and heavily dependent on donor funding. As a relatively low-profile service, ANC may not receive enough funding. Low managerial capacity is common at district level, and poorer districts may face difficulties in raising the funds for conducting essential ANC activities or in attracting and retaining Shortage of supplies, drugs and basic equipment can compromise the quality of care, motivation of staff, and the utilization of services (Lincetto et al., 2008).

Quantitative indicators of the quality of care that represents the needs, preferences and subjective experiences of patients, which is patient based outcomes, are used increasingly in quality improvement initiatives. Quality can be accessed from the point of view of the users (perceived) quality and the technical standards. Donabedian was one of the first persons to reflect up on quality, to operationaize the term and offer a frame of work for its definition based on the three major attributes, namely, *structure, process and outcome*. Structure refers to the attributes of the setting where health care occurs. Process also denotes what is actually done in giving and receiving care. Outcome indicates the effect of care on the heath status of patients and population.

Addressing client concerns is as essential to good quality health care as technical competence. Quality largely depends on client's interaction with provider, such attributes as waiting time and privacy, ease of access to care, and, at its most basic, whether or not they get the services they want.

Quality assessment studies usually measure one of the three types of outcome: medical outcomes, cost and client satisfaction. For the last one, clients are asked to assess not their own health status after receiving care but their satisfaction with the service delivered. Assessing outcome has merit both as an indicator of the effectiveness of different interventions and as a part of monitoring system directed to improving quality of care as well as detecting its deterioration. A better understanding of determinants of client satisfaction should help policy and decision-makers to implement programmers tailored to patients needs as perceived by patients and service providers (Negussie Desta & Misganaw Fentahun, 2009).

Prevention of mother-to-child HIV transmission (PMTCT) is still the most effective intervention in combating new HIV infections. When the possibility of having an efficacious vaccine seems questionable, as reported in a recent vaccine trial, holding on to PMTCT programmes gives some hope. PMTCT is a multi-faceted intervention. It is not just a way to stop vertical transmission of HIV but also to provide access to treatment, care and support for women who would otherwise not get the chance to know their HIV status before it is too late.

Globally, the challenges in implementing the PMTCT Programme combined with ever changing scientific advances call for frequent revisits of policies and strategies. In Ethiopia, the first PMTCT Guidelines were developed in 2001, incorporating early recommendations by the WHO on HIV Counseling and Testing, ARV Prophylaxis regimen, infant feeding counseling, infant HIV diagnosis algorithm, partner testing and referring HIV positive pregnant women for treatment, care and support. During the recent years, the WHO has made several policy changes to improve the performance in PMTCT Programme.

In 2004, the HIV Counseling and Testing Policy was shifted from client initiated opt-in approach to routine opt-out approach in order to improve women's access to prevention interventions and to contain HIV testing within the standard of care for pregnant women. In 2006, the antiretroviral (ARV) prophylaxis regimen was changed from short course single dose NVP (sdNVP) to a more efficacious multidrug zidovudine (ZDV) regimen. The infant feeding recommendation was also revised in 2006, when exclusive breast feeding became the preferred method for the first six months, plus complementary feeding from six months. As alternative feeding method, exclusive formula was recommended if formula was acceptable, feasible, affordable, sustainable and safe (AFASS). The National PMTCT Guidelines were revised in 2007, incorporating the policy changes made by the WHO from 2004 to 2006, while retaining the early recommendations on partner testing, (Mirkuz, 2010).

Without getting treatment, the likelihood of HIV passing from mother-to-child ranges from 15.0% to 45.0%. However, antiretroviral and other effective interventions for the

prevention of mother-to-child transmission (PMTCT) can reduce this risk to below 5 percent. According to the new consolidated WHO guidelines, effective PMTCT programs require women and their infants to receive a cascade of interventions including uptake of antenatal services and HIV testing during pregnancy, use of antiretroviral treatment (ART) by pregnant women living with HIV, safe childbirth practices and appropriate infant feeding, uptake of infant HIV testing and other post-natal healthcare services.

The World Health Organization (WHO) promotes a comprehensive approach to PMTCT Programme which includes:

- Prevention of new HIV infections among women of childbearing age;
- Preventing unintended pregnancies among women living with HIV;
- Preventing HIV transmission from a woman living with HIV to her baby; and
- Providing appropriate treatment, care and support to mothers living with HIV and their children and families.

WHO identified 22 priority countries, with the top 10 (i.e. Angola, Botswana, Burundi, Cameroon, Chad, Côte d'Ivoire, Democratic Republic of the Congo, Ethiopia, Ghana and India) countries which accounted for 75 percent of the need for the global PMTCT services. It was estimated that the effective scaling up of PMTCT interventions in these countries would prevent over 250,000 new infections annually.

Therefore, Ethiopia is one of these priority countries listed on the WHO global agenda on PMTCT Programme. In 2012, over 900,000 pregnant women living with HIV globally accessed PMTCT services - a coverage of 62 percent. Four priority countries (i.e. Botswana, Ghana, Namibia and Zambia) had achieved 90 percent coverage of PMTCT. However, Ethiopia was not on the list till 2012. In resource-poor settings, shortages of PMTCT staff, interruptions in treatment and supplies of medical equipment, as well as a shortfall in counseling services, all act as barriers to PMTCT services. These factors often mean long waiting times for post-test counseling and many leave without getting their HIV test results. One study from Kenya reported that 92 percent of respondents lacked privacy in their counseling rooms (Gottfried, 2013).

Regarding the coverage of PMTCT service in Ethiopia, a study has revealed that, from 2006 to 2010, the progress of ANC coverage assumes a linear trend. If the same trend is assumed to continue in the coming five years, the universal target of reaching all pregnant women for ANC can be achieved in 2015.

During the five-year study period, there has been a remarkable improvement in the potential coverage of PMTCT services due to rapid increase in the number of PMTCT sites. The number of mothers receiving PMTCT services has also shown significant progress. However, there was a corresponding increase in ANC service coverage. Thus, there is a demand for PMTCT services. This study showed that approximately one-third of mothers are receiving ANC services in either health centers which do not offer PITC-HIV services for pregnant women or at health posts by HEWs or rarely in outreach sites. These pregnant women constitute a significant number of missed opportunities for HIV counseling and testing, implying the need for a substantial programmatic approach to spread efforts and make service available to these pregnant women (Nigatu & Woldegebriel, 2011).

According to a study on Jimma University Specialized Hospital in 2005, effective coverage of PMTCT services were very low. It had also identified the level and bottlenecks PMTCT service delivery system that needs to be addressed in order to improve the coverage of HIV/AIDS intervention packages. Moreover, the study highlighted the gap between service expansion and utilization of HIV/AIDS prevention and care, policy, guideline and target coverage point of view (Hussen et al., 2005).

As to knowledge and service utilization of the pregnant mothers, there are a number of complex issues that have to be critically considered. One study highlighted a number of issues useful for understanding factors associated with the uptake of PMTCT services integrated into routine ANC Programmes at public health facilities in Addis Ababa. The study also demonstrated potential areas for improving PMTCT interventions as part of the ANC services. In this urban setting, pregnant women went to ANC clinics for check-ups, HIV testing and to receive ARVs to protect their new born babies from the virus. Nearly 24.0% of the respondents visited the ANC clinics four or more times during the

current pregnancy. A study conducted in Dire Dawa town also found that women who attended two or more ANC follow-ups at a hospital were about three times more likely to accept HCT than those with lower follow-ups. Such frequent visits provide an opportunity for teaching mothers about PMTCT and identifying HIV-infected women for such interventions.

The knowledge of the study participants about PMTCT was quite high (90.3%). In a study conducted in a similar setting, 90.0% of the postnatal mothers who delivered in Tikur Anbessa and Zewditu Memorial Hospitals knew that HIV could be transmitted from an infected mother to her child. This high level of knowledge may be attributed to various health education programmes being conducted at both health-facility and community levels and a broadcast on the mass media in this urban setting. The women's knowledge about PMTCT in the present study was better than the knowledge reported in other African settings.

In a health-facility study conducted in Uganda, 80.0% of the women knew that a mother with HIV could transmit the virus to her child. Similarly, the knowledge level was found to be 79.0% among the pregnant women studied at ANC Clinic in Khartoum, Sudan and 70.0% in rural districts of Zimbabwe. The high level of knowledge of mothers about MTCT is very critical for preventing the transmission of the virus from HIV-positive women to her child. Such Programmes should utilize various means of increasing the awareness and knowledge of the community through proper IEC/BCC interventions (Wakgari et al., 2014).

Based on the findings of the study conducted in Hawassa Referral Hospital, more than four-fifth (82.3%) of the mothers knew about PMTCT and 97.4% had good attitude towards it. Only about half (48.3%) of the respondents knew that antiretroviral drugs given for sero-positive pregnant mothers could reduce the risk of HIV transmission.

About 96.0% of mothers were tested for HIV/AIDS. Women's empowerment through education, improving ANC follow-up status and male involvement were significantly associated with knowledge about, attitude towards and uptake of the services. However,

some factors such as fear of stigma, discrimination and lack of confidentiality were hindering partners from knowing their sero-status. In contrast, community mobilization through community conversation had a potential to influence and to promote PMTCT services (Abajobir & Agegnehu, 2013).

There are challenges on the effective provision of the quality PMTCT services. Reducing mother-to-child transmission of HIV in sub-Saharan Africa will be more effective when unique contextual factors are identified and addressed than otherwise. Effectiveness of the PMTCT interventions rests on a well functioning health system that recognize the importance of social, economic, cultural contexts that HIV positive pregnant women live in. Despite the availability of services to prevent mother-to-child transmission (PMTCT) of HIV, socio-cultural, health system and operational factors constrain many pregnant women from accessing services or returning for follow-up thereby increasing the risk of vertical transmission of HIV to newborns.

Structural inadequacies also hinder the effectiveness of PMTCT services in many low- and middle-income countries. Health system factors, including the critical shortage of skilled manpower, high staff turnover, inadequate physical infrastructure, poor quality of pre-and post-test counseling, lack of monitoring and referral programmes, inadequate supply of antiretroviral drugs, and poor quality of service delivery have all been highlighted as barriers to the effectiveness of PMTCT services. Among many factors that play a role in the lack of effectiveness of PMTCT services in Arba Minch in Ethiopia, for example, showed that how the organization of pre- and posttest counseling could compromise confidentiality of results (Adebola et al., 2012).

### **1.3 Objectives of the Study**

The study generally aimed at assessing quality of ANC and PMTCT at the Health Departments in Gambella Referral Hospital in Gambella Region where pregnant mothers get antenatal and post-natal care, including HIV testing, and prevention of mother to child HIV transmission. Specifically, the study focused:

- ❖ To assess available ANC and PMTCT services provided to the pregnant HIV-positive mothers at the Hospital in Gambella Region;

- ❖ To identify the pregnant mothers' awareness about available ANC and PMTCT services and their willingness to utilize them;
- ❖ To examine the quality of ANC and PMTCT services to the HIV infected pregnant mothers in the Hospital;
- ❖ To assess the satisfaction level of ANC and PMTCT services provided by health professionals in the Hospital, the HEWs and the volunteers in the town;
- ❖ To investigate the pregnant mothers' attitude towards the ANC and PMTCT services provided in the Hospital; and
- ❖ To identify external factors influencing utilization of those services at the health Institution.

#### 1.4 Definition of Concepts

In this thesis, there are some key concepts which are very important for conceptualizing the ANC and PMTCT services provided to pregnant HIV infected mothers at Gambella Referral Hospital in Gambella, Western Ethiopia. These are:

- **Age dependency ratio** refers to the ratio of persons in the “dependent” ages (under 15 and older than 64 years) to those in the “economically productive” ages (15-64 years) in a population.
- **Antenatal Care (ANC) coverage** is the percentage of women who utilized antenatal care provided by skilled birth attendance for reasons related to pregnancy at least once during pregnancy as a percentage of live births in a given time period.
- Higher clinic is a health institution staffed at least by a general medical practitioner, a specialist and assisted by various specialists serve for general outpatient clinics. For emergency and delivery this clinic has up to 5 beds.
- **Hospital** is an establishment that provides general medical care round the clock.

It is at least equipped with basic laboratory, X-ray and basic treatment facilities. District /first level referral Hospital: serves for 250,000 people while Regional Hospital serves for 1 million people. A specialized hospital serves for 5 million people.

- **Population** All the inhabitants of a given country or area considered together.  
Estimates are based on a recent census, official national data or United Nations projections. Presented in thousands or actual value.
- Postnatal visits refer to women attended, at least once during postpartum (42 days after delivery), by health professional including HEW's for reasons relating to post partum.
- **Skilled Birth Attendant** is an accredited health professional such as midwife, doctor or nurse who has been trained in the skills needed to manage normal (uncomplicated) pregnancies, child birth and the immediate postnatal period and in the identification, management and referral of complications in women and newborn(excluding TTBA and HEWs).
- **PMTCT** refers to medical services provide to pregnant HIV infected mothers in order to prevent the transmission of HIV from her to the new born child.
- **Urban** refers to those working in urban areas or in planned metropolitan communities. It is developed areas designed to be self-sufficient, with their own housing, education, commerce and recreation.

### **1.5 Limitations of the Study**

This study was conducted in Gambella town which is situated more than 700 km away from Addis Ababa. The data collection process was undertaken with inconveniencies such as very long distance, and frequent appointment canceling that disrupted schedules of interviews with informants. This held true mainly on the part of administrators and service providers.

In regards to research methodology, due to ethical considerations, the investigator couldn't conduct FGDs with PMTCT user clients who are HIV positive not to avoid violation of confidentiality of their HIV status. Therefore, triangulation of the survey results with qualitative outcomes within the responses of the clients themselves was not



possible. However, the focus group discussion with mothers' support group members was helpful to see the service quality in and outside the institution.

Since there is no research fund available for this study, there was limitation to have more relaxed time in the field context. In addition, such a scarcity of finance somehow prevented the researcher from better observations of the process in the service provision in the facility, as well as to have higher number of sample size. Therefore, all those limitations may influence the findings of the quantitative and qualitative aspects of the study.

## **1.6 Organization of the Thesis**

The study consists of five chapters. The first chapter introduces the readers to background and statement of the problem, objectives of the study, definition of key concepts in the study, limitations of the study, and the organization of the thesis. Chapter two presents reviews of relevant literature available elsewhere in the world. The issues include: the national and regional level HIV/AIDS prevalence, impact of HIV/AIDS, more affected sections of society, mother to child transmission, ANC coverage, PMTCT service and other areas relevant to the topic under investigation. Next, the study design and methodology employed in the study, including the study area will be described. The fourth chapter dwells on data presentation, analysis, interpretation and discussion of the empirical findings with other studies in the globe. The last chapter will highlight those major findings of the study, conclusions drawn from them and suggest social work interventions to improve the ANC and the PMTCT services provided at Gambella Referral Hospital in Western Ethiopia.

## **Chapter Two**

## **Literature Review**

### **2.1 Introduction**

This chapter presents reviews of relevant literature available elsewhere in the world. The issues include: accelerated plan (A-Plan) to implement ANC and PMTCT services in general; quality improvement Models for ANC and PMTCT; scalable Models for prevention of HIV infections; HIV/AIDS and PMTCT Worldwide; HIV/AIDS in Sub-Saharan Africa (SSA); epidemiology of HIV/AIDS and its trends in Sub-Saharan; impact of HIV/AIDS in Sub-Saharan Africa; particularly on women and children; HIV/AIDS in Ethiopia and its impact; HIV/AIDS, its impact and related factors to HIV/AIDS and PMTCT in Gambella; quality of ANC and PMTCT services in the World, SSA, East Africa, Ethiopia and Gambella; determinant factors for utilization of ANC and PMTCT services; and challenges of implementing ANC and PMTCT services. Finally, it presents summary of highpoints which have been running throughout the different paragraphs in the chapter.

### **2.2 Accelerated Plan to implement ANC and PMTCT**

In the practice of health social work and public health, there are few effective quality improvement methods. Mate et al. (2013) argue that approaches are needed to speed the scale-up and adoption of effective, life-saving public health interventions within existing resource constraints. One of them is medical interventions that can virtually eliminate mother-to-child transmission (MTCT) of HIV. This method (Accelerated Plan) was effectively implemented in South Africa.

### **2.3 Quality Improvement Models for ANC and PMTCT**

The A-Plan uses four main principles of large-scale change to align the network of NGO partners and National Department of Health (NDOH: setting targets and improving data, simplifying processes and facilitating local execution, building networks and enabling coordination.

Coordination efforts focused on creating alignment between the NDOH, district departments of health and the existing NGO partners operating at the district level. For

each clinical process associated with the PMTCT care pathway, all stakeholders agreed to targets that were reported in the SA District Health Information System (DHIS) (e.g. >95% of cycles to improve performance at each step in the PMTCT cascade. Finally, a structured format, known as the Breakthrough Series Collaborative (BTS), was used to build networks of participating A-Plan facilities. In the BTS model, improvement is accelerated through opportunities for representatives from all levels of the health system to meet together ('learning sessions') to share lessons learned during the implementation of key PMTCT processes. In between the learning sessions, staff from partner NGOs visited clinical sites on a monthly basis to provide technical support to clinic staff as they planned, tested and evaluated changes to improve the PMTCT performance in repeated rapid improvement cycles.

The core quality improvement activity areas of the A-Plan intervention are described as under:

**Coordination and alignment** refers to strong alignment with the NDOH HIV/AIDS and STI strategic plan for South Africa; ownership by national, provincial and district leadership of the initiative and expectation that the district leadership would 'champion' the A-Plan as a priority activity and that the district management team would implement the initiative Integration of the A-Plan into existing PMTCT program efforts and operational plans of district health authorities Utilization and strengthening of existing relationships between districts and NGO partners.

**Aims and data improvement:** Development of district and facility specific aims based on past performance and future aspiration Direct mentoring of clinic staff by NGO partners in methods to use local clinic data to guide performance improvement. There is training of district information officers on data feedback, data process mapping and run-chart methods to improve the reliability of data collation and reporting Improvement to the reliability, accuracy and completeness of data that are being sent to the DHIS and feedback of core PMTCT indicators to district managers and facilities every month.

**Simplification and facility-level execution:** Simplification of the clinical PMTCT pathway, using process mapping methods, and pairing each step with a related core process indicator to make it possible to measure progress on a regular basis Identification of a core set of high-value ‘best practices’ that would result in removing specific bottlenecks when they emerged training of district managers and supervisors in the Model for Improvement, Plan-Do-Study-Act cycles, run-chart methods, root-cause analysis and process mapping.

**Network building:** Spread of best practices across and within districts through the use of ‘Breakthrough Series College’ learning networks making the maximum use of pre existing meeting structures and connectivity of partners Building of capacity for continuous quality improvement at district, provincial and national levels through participation in QI workshops and feedback of project progress and methods to senior leaders.

At the facility level, the complex PMTCT cascade was simplified to seven essential steps with best practices to improve care at each step. Facility-level improvement teams used the Model for Improvement and Plan-Do-Study-Act cycles to improve performance at each step in the PMTCT cascade. Finally, a structured format, known as the Breakthrough Series Collaborative (BTS), was used to build networks of participating A-Plan facilities. In the BTS Model, improvement is accelerated through opportunities for representatives from all levels of the health system to meet together (‘learning sessions’) to share lessons learned during the implementation of key PMTCT processes. Staff from partner NGOs, in between the learning sessions, visited clinical sites on a monthly basis to provide technical support to clinic staff as they planned, tested and evaluated changes to improve the PMTCT performance in repeated rapid improvement cycles.

## **2.4 Scalable Models for Prevention of HIV Infections**

Nowadays, there are scalable models to improve the uptake of ANC and PMTCT services. These models involve prevention of HIV infection consisting of a million condoms a month - massively increasing male condom distribution in major cities, male circumcision (MC), a community-level male circumcision training and service delivery

model; PMTCT - improving access to Life-Long ART, PMTCT mothers in rural primary healthcare clinics ; integrating ART ; ACTS – Advise, Consent, Test, Support ; the male “walk-in” clinic; ‘one-stop shop’ for social grants; decentralizing ART and decongesting large ART clinics; down referral of chronic stable ART patients; alleviating congestion at ART sites.

Tried and Tested Models for the scale up of HIV prevention, treatment and care from South Africa and beyond; Triage: red and green clinics in which Triage also allows the best use of limited resources to provide targeted adherence support, decongesting high volume ART clinics without burdening PHCs; decentralizing pediatric ART to primary care; measurement and management tools; monitoring and evaluating the ART programme; an antenatal PMTCT data tool; closing the gaps in antenatal PMTCT to get eligible pregnant women on to Life Long ART; closing the gaps in care - the breakthrough series: A systems improvement model for rapidly accelerating access to ART; Community based ART adherence support; community based support increases adherence to ART and TB treatment; Models of HIV/AIDS care for healthcare workers; Streamlining Tasks and Roles to Expand Treatment and Care for HIV (S-T-R-E-T-C-H ); training and structures for setting up nurse ART initiation and management in primary care; Tried & Tested Models for the scale up of HIV prevention, treatment and care from in the country and beyond; integrating HIV/AIDS into general care, using the WHO Integrated Management for Adolescent and Adult Illness (IMAI) tool to strengthen HIV/AIDS and general healthcare task shifting – sharing the clinic workload with lay healthcare workers.

## **2.5 HIV/AIDS and PMTCT Worldwide**

The number of people living with HIV rose from around 8 million in 1990 to 34 million by the end of 2010. The overall growth of the epidemic has stabilized in recent years. The annual number of new HIV infections has steadily declined and due to the significant increase in people receiving antiretroviral therapy, the number of AIDS-related deaths has also declined. Since the beginning of the epidemic, nearly 30 million people have died from AIDS-related causes. Newly infected adult & children is 2.7 million, adult

prevalence is about 0.8 and adult and children AIDS related deaths worldwide were 1.8 million in 2010 (UNAIDS, 2009 & 2010).

The recent UNAIDS Report (2013) states that ‘Globally, an estimated 35.3 (32.2–38.8) million people were living with HIV in 2012. There is an increase from previous years as more people are receiving the life-saving antiretroviral therapy. There were 2.3 (1.9–2.7) million new HIV infections globally showing a 33% decline in the number of new infections from 3.4 (3.1–3.7) million in 2001. At the same time the number of AIDS deaths is also declining with 1.6 (1.4–1.9) million AIDS deaths in 2012, down from 2.3 (2.1–2.6) million in 2005.

As a result of sustained progress, the world has the potential to reach at least 90% of pregnant women living with HIV with antiretroviral interventions by 2015. Antiretroviral coverage among pregnant women living with HIV reached 62% in 2012, and the number of children newly infected with HIV in 2012 was 35% lower than in 2009. However, achieving the global goal of reducing the number of children newly infected by 2015 will require similar scale-up of other prevention strategies, including primary HIV prevention for women and access to contraception and other family planning services. However, substantially greater efforts are needed to link pregnant women and children to HIV treatment and care; pregnant women living with HIV are less likely than treatment-eligible adults overall to receive antiretroviral therapy, and treatment coverage among children living with HIV in 2012 was less than half the coverage for adults.

Since 2012, over 900,000 pregnant women living with HIV globally received antiretroviral prophylaxis or treatment. Coverage of antiretroviral programmes for prevention of mother-to-child transmission (excluding the less effective single dose nevirapine regimen) increased from 57% (51–64%) in 2011 to 62% (57–70%) in 2012. Four priority countries (Botswana, Ghana, Namibia and Zambia) have already met the goal of providing antiretroviral medicines to 90% of pregnant women living with HIV. However, UNAIDS (2013) states that Ethiopia is one of the 22 priority countries for the global plan to eliminate new infections until 2015.

Key Elements of eliminating new HIV infections among children and keeping their mothers lives by 2015 recommended a set of priority actions under four key programmatic components as follows:

- Preventing new HIV infections among women of reproductive age;
- Helping women living with HIV avoid unintended pregnancies;
- Ensuring that pregnant women have access to HIV testing and counseling; and that those who test positive have access to antiretroviral medicines to prevent transmission during pregnancy, delivery or breastfeeding; and
- Providing HIV care, treatment and support for women, children living with HIV and their families.

The Global Plan prioritizes scale-up in 22 priority countries all being African nations including Ethiopia except India, that collectively account for almost 90% of pregnant women living with HIV.

Coverage of antiretroviral treatment services for pregnant women living with HIV in generalized epidemic countries in 2012 shown that 13 African nations reached 50%, ten of them are between 50-79% and other 12 African countries and Haiti covered 80% and above (UNAIDS, 2013).

Gaps in Key elements of PMTCT and Coverage of the Service for Pregnant Women and Children Worldwide:

While access to antiretroviral medicines to prevent mother-to-child HIV transmission has increased, progress has been more modest on other programmatic aspects of the Global Plan, including primary HIV prevention for women. The number of women newly infected with HIV declined by 44% from 2009 to 2012 in Ghana, by 23% in Uganda and by 21% in South Africa. In other priority countries, however, the decline in the number of new HIV infections among women has decreased more slowly or even stalled, and remains at high levels. Globally, the pace of decline in new HIV infections among

women has slowed since 2008, underscoring the need for intensified efforts to prevent new HIV infections among women and their sexual partners.

The unmet need for family planning services among women living with HIV continues to undermine efforts to eliminate new HIV infections among children. For women globally, unmet need for family planning declined from 15.4% in 1990 to 12.3% in 2010, according to a recent review of nationally representative surveys. In East Africa and West Africa, however, more than 20% of women had an unmet need for family planning services, with no reduction in unmet need reported since 1990.

In regards to treatment coverage among pregnant women who needed antiretroviral therapy for their own health in 2012, 58% received HIV treatment – lower than the 64% (61-69%) treatment coverage for adults overall. In ten priority countries in 2012, fewer than half of pregnant women living with HIV and with CD4 counts equal to or lower than 350 cells per micro-litre (the threshold for HIV treatment initiation under the earlier 2010 World Health Organization (WHO) antiretroviral treatment guidelines) received antiretroviral therapy for their own health.

However, the gap between pregnant women and all adults is declining as new guidelines are being rolled out on the importance of starting pregnant women on antiretroviral therapy; on the other hand, children living with HIV continue to experience persistent treatment gaps. In 2012, 647 000 children under 15 years of age were receiving antiretroviral treatment. HIV treatment coverage for children (34% (31-39%)) remained half of coverage for adults 64% (61-69%) in 2012. Although the number of children receiving antiretroviral therapy in 2012 increased by 14% in comparison to 2011, the pace of scale-up was substantially slower than for adults (a 21% increase). In priority countries, only three in 10 children receive HIV treatment. The failure to expand access in many settings to early infant diagnosis is an important reason explaining why HIV treatment coverage remains much lower for children than for adults. In three priority countries, coverage of less than 5% was reported for early infant diagnostic services in 2012, (UNAIDS, 2013).



Among 109 countries reporting results in the mid-term reviews, all but two identified elimination of new HIV infections among children and substantially reducing AIDS-related maternal death were national priority. In all countries recognizing this target as a national priority, it has been integrated into national strategic plans. Although most mid-term reviews in all 22 Global Plan priority countries concluded that these countries are on track to reach the 2015 elimination target, the 2013 Global Plan progress report suggests that only about half of priority countries are on track to achieve the 2015 target.

The Report of UNAIDS (2013) concludes that improving the situation would require a number of steps, including: reducing the number of women acquiring HIV infection, reducing the unmet need for family planning, increasing access to safe and non coercive HIV testing, improving the availability of antiretroviral medicines for pregnant women living with HIV and improving the diagnosis and treatment of HIV among children. An updated analysis of what it will take to reach a 90% reduction in new child infections between 2009 and 2015 shows that, given the achievements by 2012 in the 21 sub-Saharan African Global Plan priority countries, significant effort and innovation will be needed to reach the target.

If 90% of HIV positive pregnant women received combined ARV (50% started during the pregnancy and 40% started ART before the pregnancy) and 100% of those women received prophylaxis during breastfeeding HIV incidence was reduced by 50% among reproductive age women, and women living with HIV were able to meet their family planning needs the reduction in new child infections would still only reach an 83% reduction from 2009 levels in 2015. Additional efforts to reduce unmet need for family planning among women living with HIV and to reaching higher levels of ARV coverage will allow countries to reach the goal of eliminating new child infections.

National mid-term reviews noted several challenges to reaching the target of eliminating new HIV infections among children and substantially improving health outcomes for pregnant women living with HIV. These include operational issues (e.g. women's lack of awareness of services, loss of mother-baby pairs across the service cascade, insufficient male involvement, failure to identify many children exposed to HIV, stock-outs of key

commodities, difficulties in implementing recommended policy changes for infant feeding, shortages of essential human and financial resources, and insufficient integration and decentralization of services), issues of programmatic reach (e.g. late diagnosis of many pregnant women, inadequate access to safe delivery and post-delivery follow-up, a high proportion of home deliveries in many countries) and policy issues (e.g. deterrent effects of stigma and discrimination). The Global Plan provides a framework to enable countries to critically examine existing barriers and improve service delivery and health outcomes for mothers living with HIV and their children (UNAIDS, 2013).

## **2.6 HIV/AIDS in Sub Saharan Africa**

Based on a brief summary statistics on AIDS in Sub-Saharan Africa; there were 25 million PLWHAs, women age 15+ living with HIV/AIDS being about 12,900,000, whereas children living with HIV were 2.9 million in 2012. In addition, deaths due AIDS were 1.2 million people in 2012, and adult HIV prevalence rate was 4.7% in this same year. Two-thirds of all people infected with HIV lived in sub-Saharan Africa, although this Region contains little more than 12 percent of the world's population (WHO, 2013).

## **2.7 Epidemiology of HIV/AIDS and Its Trends in Sub Saharan Africa**

Sub-Saharan Africa still bears an inordinate share of the global HIV burden. The epidemics in sub-Saharan Africa vary considerably, with southern Africa still the most severely affected. An estimated 11.3 million [10.6 million-11.9 million] people were living with HIV in southern Africa in 2009, nearly one third (31%) more than the 8.6 million [8.2 million- 9.1 million] people living with HIV in the region a decade earlier. Globally, 34% of people living with HIV in 2009 resided in the 10 countries in southern Africa; 31% of new HIV infections in the same year occurred in these 10 countries, as did 34% of all AIDS-related deaths. About 40% of all adult women with HIV live in southern Africa.

HIV incidence is falling in 22 countries in sub-Saharan Africa. The HIV incidence appears to have peaked in the mid-1990s, and there is evidence of declines in incidence in several countries in sub-Saharan Africa. Between 2001 and 2009, the incidence of HIV infection declined by more than 25% in an estimated 22 countries. In Zimbabwe, the main behavioral change appears to have been a reduction in the proportion of men with casual partners, while condom use with no regular partners has remained high since the late 1990s. With an estimated 5.6 million [5.4 million-5.8

million] people living with HIV in 2009, South Africa's epidemic remains the largest in the world. New indications show a slowing of HIV incidence amid some signs of a shift towards safer sex among young people. The annual HIV incidence among 18-year-olds in South Africa declined sharply from 1.8% in 2005 to 0.8% in 2008, and among women 15-24 years old it dropped from 5.5% in 2003-2005 to 2.2% in 2005-2008. Other epidemics in southern Africa have also leveled off at very high levels. At an estimated 25.9% [24.9%-27.0%] in 2009, Swaziland has the highest adult HIV prevalence in the world.

The epidemics in East Africa have declined since 2000 but are stabilizing in many countries. The HIV incidence slowed in the United Republic of Tanzania to about 3.4 per 1000 person-years between 2004 and 2008. The national HIV prevalence in Kenya fell from about 14% in the mid-1990s to 5% in 2006. The HIV prevalence in Uganda has stabilized at between 6.5% and 7.0% since 2001. The HIV prevalence in Rwanda has been about 3.0% since 2005 (WHO, 2012).

The HIV prevalence in West and Central Africa remains comparatively low, with the adult HIV prevalence estimated at 2% or under in 12 countries in 2009 (Benin, Burkina Faso, Democratic Republic of the Congo, Gambia, Ghana, Guinea, Liberia, Mali, Mauritania, Niger, Senegal, and Sierra Leone). The prevalence of HIV is highest in Cameroon at 5.3% [4.9%-5.8%], Central African Republic 4.7% [4.2%-5.2%], Côte d'Ivoire 3.4% [3.1%-3.9%], Gabon 5.2% [4.2%-6.2%], and Nigeria 3.6% [3.3%-4.0%]. Slight declines in prevalence have been detected in household surveys in Mali and Niger and among antenatal clinic attendees in Benin, Burkina Faso, Côte d'Ivoire, and Togo.

Recent surveys in several countries in sub-Saharan Africa have detected decreases in condom use and/or an increase in the number of sexual partners. Efforts to reduce transmission related to sex work and men who have sex with men remain insufficient, as evidence by recent trends in prevalence among these groups. However, prospects for strengthening prevention efforts have never been more promising, as a series of highly effective biomedical prevention tools have emerged in recent years to buttress the prevention benefits of behavioural and structural approaches. Momentum accelerated in 2012 towards the scale-up of one such biomedical intervention voluntary medical male circumcision.

Across sub-Saharan Africa, diverse countries have achieved notable reductions in HIV prevalence among young people (15–24 years). In sub-Saharan Africa, HIV prevalence among young women and men fell by 42% from 2001 to 2012. Even with these favorable trends, HIV prevalence among young women remains more than twice as high as among young men throughout sub-Saharan Africa (UNAIDS, 2013).

## **2.8 Impact of HIV/AIDS in Sub Saharan Africa**

HIV and AIDS have caused immense human suffering in the continent. The most obvious effect of this crisis has been illness and death, but as it is noted in the introduction the impact of the epidemic has certainly not been confined to the health sector; therefore households, schools, workplaces and economies have also been badly affected.

The impact of AIDS on the economy through its impacts on the labour force, households and enterprises, AIDS has played a significant role in the reversal of human development in Africa. One aspect of this development reversal has been the damage that the epidemic has done to the economy, which, in turn, has made it more difficult for countries to respond to the crisis.

One way in which HIV and AIDS affects the economy is by reducing the labor supply through increased mortality and illness. Amongst those who are able to work, productivity is likely to decline as a result of HIV-related illness. Government income also declines, as tax revenues fall and governments are pressured to increase their spending to deal with the expanding HIV epidemic.

The abilities of African countries to diversify their industrial base, expand exports and attract foreign investment are integral to economic progress in the region. By making labour more expensive and reducing profits, AIDS limits the ability of African countries to attract industries that depend on low-cost labour and makes investments in African businesses less desirable.

The impact that HIV and AIDS has had on the economies of African countries is difficult to measure. The economies of the worst affected countries were already struggling with development challenges, debt and declining trade before the epidemic

started to affect the continent. HIV and AIDS has combined with these factors to further aggravate the situation. It is thought that the impact of HIV and AIDS on the gross domestic product (GDP) of the worst affected countries is a loss of around 1.5% per year; this means that after 25 years the economy would be 31% smaller than it would otherwise have been reduced labour productivity.

The long period of illness associated with AIDS reduces labour productivity. One review reported that the annual costs associated with sickness and reduced productivity as a result of HIV/AIDS ranged from \$17 (£12; €19) per employee in a Kenyan car manufacturing firm to \$300 in the Ugandan Railway Corporation. These costs reduce competitiveness and profits. Government incomes also decline, as tax revenues fall, and governments are pressured to increase their spending, to deal with the rising prevalence of AIDS, thereby creating the potential for fiscal crises ( Dixon, 2003).

Women often experience the impact of HIV more severely than men. Women comprise about half of all people living with HIV worldwide. According to the Global Coalition on Women and AIDS, in sub-Saharan Africa, where the epidemic is most severe, they make up an estimated 57 per cent of adults living with HIV, and three quarters of young people living with HIV on the continent are young women. Women and girls are at an increased risk for HIV infection biologically. In unprotected heterosexual intercourse women are twice as likely as men to acquire HIV from an infected partner. Economic and social dependence on men often limits women's power to refuse sex or to negotiate the use of condoms. Reducing the impact of HIV requires that the needs and issues of women be addressed globally, nationally, and on the community level. Reversing the underlying socioeconomic factors contributing to women's HIV risk— gender inequality, poverty, lack of economic and educational opportunity, and lack of legal and human rights protections is critical for success (UNAIDS, 2013).

Convincing evidence from biological, epidemiological, socio-cultural and structural challenges identify women's vulnerability to HIV infection in Sub-Saharan Africa/SSA. The evidence shows that women in SSA are at higher risk of HIV infection compared to their male counterparts. Through gender power dynamics, women are embedded in relationships which increase their risk

even more. Other than personal behavior, several other issues such as structural influences are identified which are beyond women's control and are likely to affect women globally. Given the unacceptably high prevalence and incidence rates of HIV in young women in southern Africa, every effort to mitigate this risk is urgently needed with a combination of biomedical, behavioural and structural interventions targeted not only to the women but their sexual partner(s) as well. Recent advances in the HIV prevention field need to be stepped up by implementing appropriate HIV prevention packages taking into consideration the cultural environment, biological, socio-economic and structural risks facing women (Ramjee & Daniels, 2013).

It is hard to overemphasize the trauma and hardship that children affected by HIV and AIDS are forced to bear. The epidemic not only causes children to lose their parents or guardians, but sometimes their childhood as well. As parents and family members become ill, children take on more responsibility to earn an income, produce food, and care for family members. It is harder for these children to access adequate nutrition, basic health care, housing and clothing.

Because AIDS claims the lives of people at an age when most already have young children, more children have been orphaned by AIDS in Africa than anywhere else. Many children are now raised by their extended families and some are even left on their own in child-headed households.

As projections of the number of AIDS orphans rise, some have called for an increase in institutional care for children. However this solution is not only expensive but also detrimental to the children. Institutionalization stores up problems for society, which is ill equipped to cope with an influx of young adults who have not been socialized in the community in which they have to live. There are other alternatives available. One example is the approach developed by church groups in Zimbabwe, in which community members are recruited to visit orphans in their homes, where they live either with foster parents, grandparents or other relatives, or in child-headed households.

The way forward is prevention. Firstly, it is crucial to prevent children from becoming infected with HIV at birth as well as later in life. Secondly, if efforts are made to prevent adults becoming infected with HIV, and to care for those already infected, then fewer

children will be orphaned by AIDS. Otherwise inevitably, orphans fall through the cracks. Children from migrant families, for example, may not know their relatives. There is little institutional care, formal foster care, or adoption. Slowly, governments are responding Malawi was one of the first countries to develop a policy framework for orphans. Other governments, like those of Botswana, Uganda, South Africa, Zambia, and Zimbabwe, have followed suit, with policies and programs to support orphans and to protect their rights. Still, existing government welfare systems are inadequate to provide for a generation of orphans numbering in the millions (Gilborn, 2002).

In addition to any personal psychological maladjustment that may be precipitated in a small number of children who suffer extreme stress, a number of broader social trends are over the longer term likely to exert insidious and pervasively injurious effects both on children and on the society in which they live. Three such trends can be identified: school dropout; child labour; and sexual exploitation and child trafficking (Richter, 2008).

## **2.9 HIV/AIDS in Ethiopia**

As mentioned, the first HIV/AIDS report was reported 1984. Since then, HIV/AIDS has become a major public health concern, leading the Government of Ethiopia to declare a public health emergency in 2002, (UNAIDS-Ethiopia, 2012).

Evidence indicates that the epidemic may be less severe, less generalized and more heterogeneous than previously believed. It seems to have stabilized or even declined in most of the major urban centers, while increasing in the smaller towns. The rural epidemic appears to be relatively widespread but heterogeneous, with most regions having a relatively low prevalence of HIV, but a few demonstrating prevalence rates above 5%. Contrary to expectations, small towns included in the DHS survey exhibited a higher-than expected prevalence of HIV compared to bigger towns. These small towns may be HIV hotspots that have been neglected in HIV prevention efforts to date. The diversity of the HIV epidemic in the country seems to be related to sexual behavior patterns as well as by factors that affect transmission such as the presence or absence of male circumcision. Gambella region unexpectedly exhibited the highest prevalence of any area - rural or urban, including Addis Ababa. Gambella is characterized by a

relatively higher magnitude of risky sexual behavior than any other region and male circumcision is less common. These two factors may be responsible for fuelling the epidemic in the Region (HAPCO & GAMET, 2008).

### **2.10 Impact of HIV/AIDS in Ethiopia**

The emergence of the HIV epidemic is one of the biggest public health challenges the world has ever seen in recent history. In the last three decades HIV has spread rapidly and affected all sectors of society- young people and adults, men and women, and the rich and the poor. Sub-Saharan Africa is at the epicenter of the epidemic and continues to carry the full brunt of its health and socioeconomic impact. Ethiopia is among the countries most affected by the HIV epidemic. With an estimated adult prevalence of 1.5%, it has a large number of people living with HIV (approximately 800,000); and about 1 million AIDS orphans (FDRE, 2012).

After the first AIDS case in Ethiopia had been reported in 1984, it brought tremendous impact on the overall human wellbeing and development of the nation. In addition to morbidity and mortality, the HIV/AIDS pandemic in Ethiopia has adversely impacted the country's development. HIV/AIDS is affecting the agriculture, education, business and industry, and health sectors. Family and communities have also all been significantly affected by the pandemic.

HIV/AIDS is increasingly affecting the agriculture sector, economically the most important sector in Ethiopia, accounting for an average of 48% of gross domestic product (GDP), and 90% of exports. The fact that HIV prevalence is increasing in rural areas, where 83.9% of the 73.9 million Ethiopians lived (CSA, 2008), has become a major concern to the development efforts in the country.

As in other Sub-Saharan countries, the education sector is being severely compromised by the HIV pandemic. A 5% increase in death amongst teachers in Ethiopia has been noted between 1999 and 2001, some of which can be attributed to AIDS. The pandemic



has hampered the efforts of the education sector by reducing the supply of teachers, reducing school enrollment and increasing dropout rates.

Business and industry are similarly feeling the effect of HIV. The fact that the pandemic is predominately affecting individuals between the ages of 14-59, the productive age group, is a significant loss of labor supply. The protracted morbidity and eventual mortality resulting from HIV/AIDS causes significant lost time to illness, reduced productivity, and shortage of manpower, increased absenteeism and rising medical costs. The traditional right of funeral attendance further compounds workplace absenteeism.

The severely constrained health care system is also being further challenged by the HIV pandemic. According to the MoH, about 40% to 60% of hospital beds in Ethiopia were occupied by AIDS patients in 2001. The increased number of patients seeking medical care for HIV/AIDS related ailments, such as Tuberculosis (TB) and other opportunistic infections (OI) are stifling the already limited health care system in Ethiopia.

As reflected above, HIV/AIDS impacts the society at many levels and thus requires a multi-spectral approach. In order to address this devastating impact, the Ethiopian government has underscored its commitment to fight the epidemic by launching its quadrennial strategic plan for intensifying multi-sectoral HIV/AIDS response (2004 – 2008) with the goal of reducing the spread of HIV infection and alleviating its social and economic impact (UNAIDS, 2013).

The relationship between the HIV epidemic and the food security situation in Ethiopia is complex. However, it is likely that the epidemic will contribute to worsening widespread food insecurity, and conversely, food insecurity will increase vulnerability of the population to HIV infection. Currently, the absence of evidence of the bi-directional impact of HIV on food security is hindering programme response. At a household level, there is a two-way relationship between livelihoods and HIV/AIDS. Insecure livelihoods exacerbate the risk and vulnerability environment for HIV/AIDS. At the same time,

illness and death associated with AIDS undermine livelihoods options. Vulnerable people are forced to make decisions, often involving trade-offs among basic needs. For example, a family with insecure livelihoods, but with a fair amount of food on hand, may have to sell stocks of food now in order to raise cash for school fees or medical care - even though they know they will have to buy back food later at a higher cost. In this environment, insecure livelihoods exacerbate the risks and vulnerabilities of HIV and AIDS. Lack of options can push some people into activities or situations that put them and others at high risk of HIV, such as sex work. Lack of food, money and health care are key factors in rapid progression from HIV infection to onset of AIDS (Drimie et al., 2006).

### **2.11 HIV/AIDS and Its Impact in Gambella**

According to a World Bank Report, rural Gambella exhibited nearly 6% HIV rate of prevalence in which it was stated in the report as a great concern. The findings of the Ethiopian Demographic and Health Survey of 2011 show the prevalence rate of HIV in Gambella was higher in urban areas (4.2 percent) than in rural areas (0.6 percent). Among regions, HIV prevalence is highest in Gambella (6.5 percent) and in Addis Ababa (5.2 percent). Regional estimates of HIV rate of prevalence among youth are similar, with one exception - in Gambella HIV rate of prevalence among young women was much higher (9 percent) than in other regions of the country (CSA, 2011).

There are a number of facts that DHSE report of 2011 reveals that may contribute to the highest prevalence rate in the Region. The following are some of the facts on the report:

*In this survey there is no marked difference between HIV prevalence among circumcised and uncircumcised men, and, due to the small number of uncircumcised men, detailed comparisons are not reliable however, It must be noted that in Gambella the HIV prevalence among the uncircumcised men is almost double that of the circumcised men. The extent of polygyny has declined only slightly over the past six years, from 12 percent in the 2005 EDHS to 11 percent in the 2011 EDHS. Regarding marriage and sexual activity, 61 rural women were more likely to be in polygynous unions (12 percent) than urban women (5 percent). The Regional distribution also showed substantial variation. The prevalence of polygyny was lowest in Tigray (1 percent) and highest in*

*Somali (27 percent). Polygyny was also relatively common in Afar (22 percent), Gambella (20 percent), and Benishangul-Gumuz and SNNP (both 18 percent).*

In the Gambella Region, a notably higher proportion of women than in other regions reported that they had two or more partners in the past 12 months (11 percent compared with 1 percent or less elsewhere) in 2011. Besides, women in the Gambella Region reported a markedly higher mean number of lifetime sexual partners (8.1) than women in other regions (1.2 to 2 partners). Among all women who had two or more partners in the past 12 months, 47 percent reported using a condom during last sexual intercourse in 2011.

Among regions, on the other hand, the highest proportion of men with two or more sexual partners in the past 12 months was seen in Gambella (9 percent), followed by Afar and Benishangul-Gumuz (both 8 percent). But the percentage of men with two or more partners in the past 12 months in those Regions decreased with increment of educational and wealth statuses in the society. Amongst the Regions, the proportion of men paying for sex ranged from 2 percent of men in Somali and Harari to 15 percent in Gambella (CSA, 2012).

## **2.12 Related Factors to HIV/AIDS and PMTCT**

The age of first marriage in Gambella Region for women was 17.4 and 23.9 for men. Teenagers in rural areas were much more likely to have started childbearing than their urban counterparts (15 and 4 percent, respectively), due mainly to the high prevalence of early marriage in rural Ethiopia. Among regions, the percentage of women aged 15-19 who began childbearing ranged from 3 percent in Addis Ababa to 21 percent in Gambella.

With regards to the use of family planning methods, the percentage of non-users who were visited by a fieldworker and who discussed family planning varied notably by region. The highest percentage was in Tigray (28 percent) and the lowest percentages were observed in Somali (7 percent), Afar (8 percent), and Gambella (9 percent), (CSA, 2012).

Under-five mortality rates ranged from a low of 53 per 1,000 live births in Addis Ababa to a high of 169 per 1,000 live births in Benishangul-Gumuz. Under-five mortality was also relatively high in Afar, Gambella, and Somali Regions (CSA, 2012).

De-worming is part of the ANC in only a few regions. This explains the wide variation in the percentage of women who took intestinal parasite drugs during their last pregnancy from 3 percent in Somali, Dire Dawa, and Afar Regions to 12 percent in Gambella (CSA, 2012). Most of these empirical findings were also supported by the results of the Mini Demographic and Health Survey conducted in 2014 (CSA & MoH, 2014).

### **2.13 Quality of ANC and PMTCT Services in the World**

Around the world, low- and middle-income countries struggle to implement large-scale HIV/AIDS programs with limited or declining resources (Stringer et al., 2010). Despite availability of evidence-based protocols, increasing medication availability, and favorable policy and legislative environments; Programmes on maternal and child health have yet not achieved population-level health targets (Bryce et al., 2010; Carlo et al., 2010). Approaches are needed to speed the scale-up and adoption of effective, life-saving public health interventions within existing resource constraints.

Medical interventions that can virtually eliminate mother-to-child transmission (MTCT) of HIV are well described. In the USA and Europe, MTCT rates have been reduced to <2%, yet high transmission rates persist in developing countries as they struggle to implement the complete package of PMTCT services (Mate et al., 2013). More recent data in South Africa suggest that in 2010, these rates have fallen to 1.9 from 6.2%, according to the same document. Higher rates of infection can be expected for infants exposed to HIV-infected breast milk in the first 2 years of life. Existing difficulties in the country in terms of delivering key antiretroviral interventions to HIV-infected mothers and their children have contributed to worsening maternal, infant and child mortality rates over the past decade (Garrib et al., 2006 cited in Mate et al., 2013).

A research carried out in a university hospital in Brazil also showed that patients generally stated to be satisfied with the rendered service and positively appraised the

quality of provided service. Even, their satisfaction held true when critical factor that undermined quality of service provision seem to exist).

#### **2.14 Quality of ANC and PMTCT Services**

This section of the thesis highlights some basic issues related to quality of ANC and PMTCT services in Sub-Saharan Africa, East Africa, Ethiopia, and then in Gambella. A significant proportion of the global burden of preventable morbidity and mortality occurs in low-income countries with some of the highest rates being in the sub-Saharan African region. Most nationally led efforts towards addressing the health related millennium development goals have rightfully focused on providing the necessary inputs (management functions, training and recruiting personnel, building more facilities, and providing more equipment etc.). Donor-driven efforts have also been heavily skewed towards provisions of necessary inputs. Despite this, most countries especially in sub-Saharan Africa have only made modest gains towards achieving the aspirations of the health related Millennium Development Goals.

Over the last few decades, there has also been a growing drive towards examining the processes of care and improving these processes (quality improvement) in addition to providing inputs with an aim of improving health outcomes. Considerable experiences and results exist on applying quality improvement in resource-rich country settings. Adaptation and applications of similar methodologies in middle- and low-income countries have also demonstrated reasonable success. However, there are several shortcomings of most of the documented evidence on application of quality improvement to strengthen the health sector in low-income country settings. First, many published studies have mainly provided data on the application of quality improvement to single technical areas such as scaling up active management of third stage of labor, as opposed to integrated health care services. Second, these studies have mainly concentrated on adherence to standards and guidelines. It is worth noting that a majority of the inhabitants in low-income countries especially in sub-Saharan Africa may not reach the health care facility and seek alternative health care from traditional healers/practitioners and traditional birth attendants. Therefore, concentrating solely on adherence to clinical

standards at points of care without deliberate attention to increasing utilization of critical services such as antenatal care (ANC), skilled delivery, prevention of mother-to-child transmission of HIV/AIDS (PMTCT), and early newborn care, among others, may not have a significant impact on population health outcomes in rural resource-poor settings.

Kenya is a low-income country in sub-Saharan Africa. The country has some of the poorest health indicators and overall is not on track towards achieving most of the health related millennium development goals. The health delivery system in the country is organized in a hierarchical pattern with six distinct levels. The community health activities are categorized as level one, while the national referral hospitals are level six. Most health facilities in the country are level 2 (dispensaries) and level 3 (health centers). These facilities are managed by approximately two to four nurses only. Each district may have many of such small facilities with one district hospital (level 4). A similar arrangement is seen in other sub-Saharan African countries.

Although the country's health indicators are generally poor, regional disparities exist. Rural districts that account for 60% of the population tend to perform worse than urban centers. Given this scenario, Researchers in Kenya examine the application of quality improvement to increase utilization of integrated health services (ANC, PMTCT, and skilled delivery) and improve adherence to clinical standards and guidelines in an entire rural district over a 20-months period beginning from January 2011 to August 2012 (Mwaniki et al., 2014).

Mwaniki et al. (2014, p ), in Kwale District of Kenya, confirmed that a sizeable proportion of those pregnant women who were attending ANC clinics did not receive essential services (such as hemoglobin measurement, blood grouping, blood pressure measurement, provision of three months' supply of iron and folate, administration of at least two doses of tetanus toxoid vaccination, two doses of prophylaxis against malaria, supply of long-lasting insecticide-treated nets, and counseling on danger signs of pregnancy, birth preparedness, PMTCT and the need for postnatal family planning).

Villadson et al. (2014) argued that there were no National Guidelines for ANC in Ethiopia. Within the health system, the teaching of health professional students was given high priority, and that contributed to a lack of continuity and privacy. To the women, poor user-provider interaction was a serious concern hindering the trust in the health care providers. Further, the care provision was compromised by the inadequate laboratory facilities, unstructured health education, and lack of training of health professionals. Therefore, health system trials are needed to study the feasibility of ANC strengthening in the study area. Nationally and internationally, the leadership needs to be strengthened with supportive supervision geared towards building trust and mutual respect to protect maternal and infant health.

With support from PEPFAR in USA, Bella Hospital in Ethiopia has been recognized for its high-quality prevention of mother-to-child HIV transmission (PMTCT) Programme, which was assessed using a nationally developed PMTCT performance standard. The performance assessment took into consideration all the inputs and processes needed to provide a high-quality PMTCT Programme. According to the performance standards, hospitals that scored at least 80 percent in each of the assessment areas would be recognized for the quality of their PMTCT Programmes. Many initially considered the 80 percent target performance standard to be unreachable in the general context of health system performance in the country. Bella Hospital proved this thinking wrong.

With support from the Emergency Plan, the hospital began implementation of standards-based management for a high-quality PMTCT Programme. The Hospital held a series of modular workshops that were carried out at three-month intervals. During the first stage of implementation, Bella Hospital promoted agreed-upon standards, changed management practices, and conducted a baseline assessment of services. The next steps in the process included gap identification, cause analysis, intervention selection, and gap filling.

After implementing interventions to address performance gaps, a final external assessment of PMTCT services at Bella Hospital was conducted, and the hospital scored above the 80 percent standard of excellence. This was a great success for both the

Hospital staff and the partners, who worked closely through each step of the implementation process. The Hospital's success shows that a standards-based management approach can successfully improve health care, even in resource-limited settings (Office of U.S. Global AIDS Coordination, 2007).

Other study conducted in Adama town in Ethiopia indicated that a high proportion (74.7%) of clients reported that they were satisfied with the service they had received. In this respect, there was no statistically significant difference in satisfaction among clients who experienced waiting time of less than or equal to 15 minutes, and those who had to wait more. However, long waiting time (more than 15 minutes), poor counseling service, and lack of privacy were reported to be the main challenges in the provision of maternal, neonatal, child & adolescent health services in Ethiopia in the five year period, 2005 to 2010 (FMoH, 2012). This high proportion of satisfied clients might be due to the fact that clients may not report dissatisfaction with services even when services seem to be poor.

The study further concludes that clients' satisfaction with PMTCT service at Adama town (in public and private hospitals and HCs) was sub-optimal and PMTCT service providers are confronted with challenges which, in turn, could hinder them from providing quality services. Hence, key actors and implementers of PMTCT Programme need to address bottlenecks which have hampered the delivery of full package of PMTCT services in line with the National PMTCT Guidelines. Based on the findings of this study, it is recommended that there should be an offer for quality counseling on MTCT and PMTCT to all pregnant women, strengthening the providers' capacity and motivation techniques to help them deliver quality services, and comprehensive PMTCT interventions. Furthermore, it is suggested that there should be improvement in provider-client communication and in devising ways of increasing clients' satisfaction with PMTCT services (Assefa Anteneh & Getnet Mitike, 2014).

Another study in Addis Ababa documents that most of the FGD participants discussed different barriers that prevented them from proper utilization of ANC/PMTCT services at the health facility. The way health workers treated the mothers (i.e. mistreatment), the time taken to get ANC service (for example, long waiting time, long time to get



laboratory tests and obtain results), and client load to the health facilities were among the barriers that contribute to the low utilization of ANC/PMTCT services in the City (Deressa W. & Seme A., 2014).

Nowadays, Jhpiego which is an NGO tried to build partnership with a total of 33 hospitals in Ethiopia to help them to implement Standard Based Management and Recognition (SBM-R). An assessment was also made on 29 of these hospitals to find out the quality of PMTCT services provided. The study came up with issues which indicated what went well, key factors led to success, and what challenges the successful implementation of the SBM-R in Addis Ababa. Accordingly, the findings show that,

*PMTCT services integrated with ANC in 90% of the hospitals studied and 80% of them were found to implement the standards. The key changes in PMTCT services including: re-arranging rooms to accommodate PMTCT services; appropriate allocation of resources and staff for PMTCT; increased demand for and effort to collect IEC materials; training on post-exposure prophylaxis was organized for hospital staff who are service providers; and the MOH strengthened the National Quality Improvement Team Members using SBM-R.*

In addition, the study found out those key factors leading to success in the Programme. These include: on-site assistance to hospitals to conduct baseline assessments and support to fill gaps; requests for on-the-job training in PMTCT and infection prevention as a result of motivation to achieve the standards; provided relevant national guidelines and reference materials to sites; and SBM-R orientation workshops conducted to strengthen partnership in implementing SBM-R Hospitals' commitment to use SBM-R for PMTCT.

## **2.15 Challenges of Implementing ANC and PMTCT Services**

There are, in contrast, challenges which may run against the successful implementation of the Programme under investigation in Ethiopia in general. Those challenges related to ANC and PMTCT Programmes were found to be the following: slow institutionalization of SBM-R process at all levels, high turnover of staff, lack of strong supply chain management system and inadequate initial involvement of the Regional Health Bureaus (RHB) and the MOH (Nurhuseien, 2011).

## **2.16 Determinant Factors for Utilization of ANC and PMTCT Services**

Mother to child transmission is the most common mode of HIV transmission in children which can be vertically transmitted from HIV positive pregnant woman to her unborn baby during pregnancy, labour and delivery or through breastfeeding after delivery. During 2002, UNAIDS estimated that worldwide through Mother to Child Transmission approximately 800,000 children acquired HIV infection, including 720,000 in Sub-Saharan Africa.

HIV counseling has been defined as a confidential dialogue between a person and a care provider aimed at enabling the person to cope with stress and make personal decisions related to HIV/AIDS. The counseling process includes an evaluation of personal risk of HIV transmission and facilitation of preventive behaviour.

There are two approaches (opt-in and opt-out) to HIV testing in the ANC (including labour & delivery) settings. Each provides easily understood information to the client about HIV and the risks and benefits of testing. The approaches differ in how patients agree to test for HIV.

Socio-cultural context in which the couples found, their reproductive history and the availability of the services are factors that affect the agreement of couples. Husband wife communication on family planning matters has a significant effect on couple's use of contraceptives. In addition age of the couples and approval of contraceptive use found to be significant factor for couples to use contraceptives. Age and duration of couples' marriage also found to be important factor for the couples fertility desire.

There are factors influencing and determining the utilization of ANC and PMTCT services in different parts of the world, including Ethiopia and its Regional States and city administration. In Addis Ababa, Goncho Moges (2008) states that those factors determining the utilization of the services were: individual, socio-cultural and economical factors (such as availability policy on the services, legal framework resources, husbands' and wives' fears and attitudes towards the services, organizational contexts, and predisposing factors [like gender and age]). Moreover, the same source indicates, the

clients' perceptions of ANC and PMTCT services and the benefits secured from them; inadequate knowledge about the benefits from the utilization of those services; inadequate maternal and child health services; experience of health workers on PMTCT services; involvement and increased awareness of community leaders on the benefits of PMTCT services; improved services seeking behaviour in the community, especially among women; pregnant women's knowledge of the future; adequate information on the consequences of utilizing PMTCT services; positive attitude towards and prompted practices of utilizing ANC and PMTCT could hinder the effective utilization of those services or facilitate the utilization.

Hussein Ismail (2008) argues that multi-faceted factors contributed their share to low level utilization of the ANC and PMTCT services. Such factors as stigma and discrimination against the clients and their family members; lack of confidentiality; health care providers' attitude to PMTCT; adequate number of and skills-mix of health workforce; shortage of human resource in general; lack of important equipment and supplies; inconsistent supply of logistics; inadequate infrastructure in health facilities; fears and attitudes amongst health care workers and organizational problems may have either positive or negative impact on utilization of the PMTCT services.

In the same framework, Edao Tesa (2008) indicates that various types of factors at different levels highly determined the service utilization. These were individual, socio-cultural and economic factors, and predisposing factors (like age, gender issues, marital status and educational level).

### **2.17 Summary**

Health is one of the fundamental human rights and the national governments have also responsibility for the health of their people and to ensure adequate and standard health services. Basic principles of human rights hold that health care must be accessible and affordable to all, irrespective of race, ethnicity, gender, religion, geography, and income.

Access to HIV prevention, care and support are generally health rights to those in need. All pregnant women have a right to these services and voluntary institutions offering

VCT/PMTCT services should consult the WHO/UNAIDS guiding principles to keep the rights of clients, which all members of African states have agreed and signed (CHAG cited in Goncho, 2008).

The act of improving health care, ANC and PMTCT services is possible in very small rural health facilities in low-income settings without provision of external resources. The quality improvement principles and approaches can be applied to target increasing access and improving adherence to standards at points of care. Overall, the results of empirical studies elsewhere provide further evidence for the value of quality improvement approaches in ANC and PMTCT services delivery in low-income countries as a core part of the repertoire of strategies aimed at accelerating efforts towards achievement of the health related Millennium Development Goals. Longer follow up studies are, however, needed to elucidate how such strategies can be sustained and their impact on core outcomes such as improvement of ANC and PMTCT service, among others.

In order to improve and speed up the utilization of ANC and PMTCT services, there is the Accelerated Plan. For this purpose, the A-Plan employs those four main principles to improve those services. Empirically tested and accepted scalable Models are available. These Models were developed as a result of the pandemic and its multi-dimensional impact not only on different aspects of society in the world, but on basic social institutions in Ethiopia, including Addis Ababa, Jimma, and Gambella as well.

# **Chapter Three**

## **Study Design and Methodology**

### **3.1 Introduction**

**This chapter introduces the study design and methodology employed in undertaking the empirical study. It also describes the study area, and explains the specific study methods, universe of the study, sampling methods, and tools and procedures used in data collection.**

**Besides, both quantitative and qualitative data analysis techniques are described.**

### **3.2 Description of the Study Area**

The study was conducted in Gambella town. The Gambella Regional State is located in the Western tip of Ethiopia. Gambella borders Sudan in the west, south, and north; the Southern Nations, Nationalities and Peoples' Region, and in the south and east; and with the State of Oromiya in the north and east.

The surface area of Oromia is estimated to be 25,274 square kilometre (not including a district recently integrated in to the Region). The State of Gambella is composed of three administrative zones (Anuak Zone, Mezhenger Zone, and Nuer Zone) and eight districts.

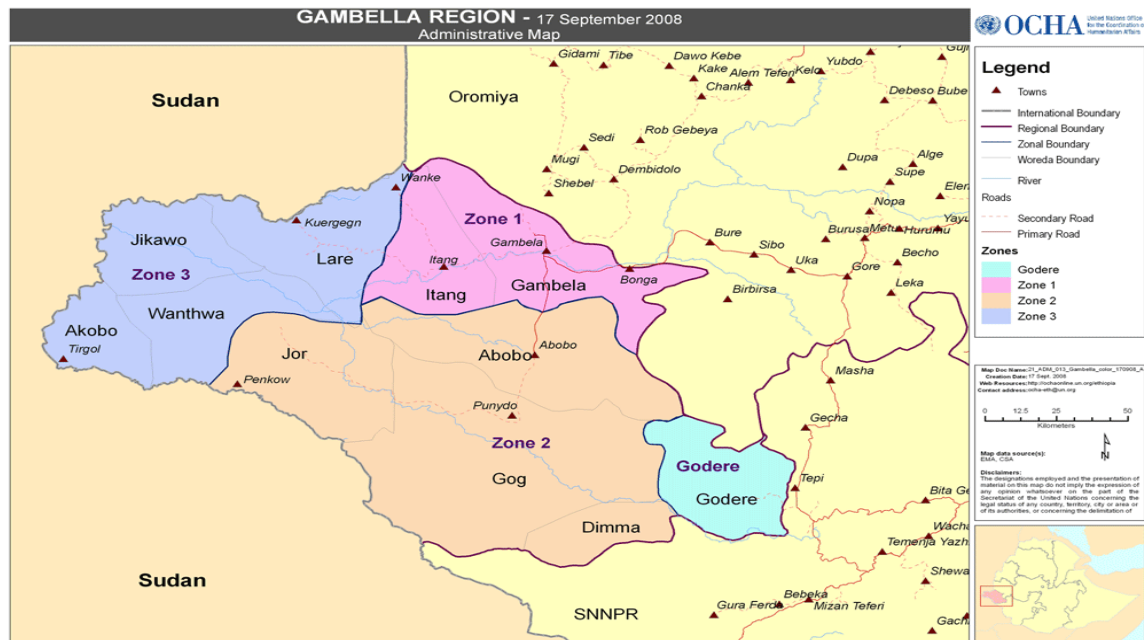
Most of the topography of the Regional State is flat and has hot humid weather. Annual rainfall registered at Gambella station for 17 years is 615.9mm while the minimum and maximum temperatures are 21.1°C and 35.9°C respectively. Baro River, the only navigable River in Ethiopia, is found in this State. It also connects the Region with Sudan.

Pastoralism is the leading preoccupation of the people. People are also engaged in the cultivation of sorghum, bean, sesame, mango, banana, etc. for their livelihood.

Based on the 2007 Census conducted in Ethiopia, CSA (2008)) documents that the total population of Gambella was 307,096 (consisting of 159,787 men and 147,309 women). Urban inhabitants accounted for 77,925 or 25.37% of the total population. With an estimated area of 29,782.82 square kilometres, this Region has an estimated density of 10

persons per square kilometer. For the entire Region, 66,467 households were counted which results in an average for the Region of 4.6 persons to a household, with urban households having on average 3.8 and rural households 4.9 people.

The main ethnicities of the Region are the [Nuer](#) (46.66%), the [Anuak](#) (21.16%), [Amhara](#) (8.42%), [Kafficho](#) (5.04%), [Oromo](#) (4.83%), [Mezhenger](#) (4%), [Shakacho](#) (2.27%), [Kambaata](#) (1.44%), [Tigrean](#) (1.32%) and other ethnic groups predominantly from southern Ethiopia 4.86%. [Nuer](#) is spoken as a first language by 48.35%, 22.02% speak [Anuak](#), 11.11% [Amharic](#), 4.85% [Oromiffa](#), 4.65% [Kafa](#), 2.48% [Shakacho](#), 1.47% speak [Kambaata](#), and 1.32% speak [Tigrinya](#); the remaining 3.75% spoke all other primary languages reported. 70.1% of the region's population are [Protestant](#), 16.8% [Orthodox Christian](#), 4.9% [Muslim](#), 3.8% practice [traditional religions](#), 3.4% [Catholic](#)<sup>[2]</sup> Gambela is the historic home of the indigenous Anuak (CSA, 2008).



**SOURCE: OCHA, 2008.**

**Figure 3.1 Map of Gambella Regional State, Western Ethiopia**

### 3.3 Study Design and Methods

In this study, a mixed research design was employed in that both quantitative and qualitative research approaches. Quantitatively, the researcher used descriptive cross-sectional sample survey, triangulated with exploratory qualitative research method. Specifically, three methods were employed in the study, including administration of a structured interview schedule (questionnaire, focusing on client exist interviews), focus group discussions with selected discussants, and semi-structured interviews with health professionals delivering the ANC and PMTCT services. In addition, the researcher used documentary analysis in order to substantiate data and information generated through descriptive cross-sectional survey and focus group discussions.

#### 3.3.1 Quantitative Survey

Facility based cross-sectional data collection was conducted using structured researcher-administered interview schedule (questionnaire). The purpose of the questionnaire was to assess utilization of the available ANC and PMTCT services, test acceptance and factors affecting PMTCT service utilization among pregnant women, as well as the clients' attitude towards the quality of these services.

#### 3.3.2 Qualitative Survey

In conducting the qualitative survey, the researcher used in-depth interviews with case informants, focus group discussions and documentary analysis methods to generated pertinent pieces of information. Such ample information were used to collect firsthand information and then to address some of the issues under investigation which might not be adequately captured through the descriptive cross-sectional survey. Such a research design aims to draw from the strengths and to minimize the weaknesses of both in single research study, as well as across studies within and across the stages of the research undertaking.

**Semi-Structure In-depth Interviews:** The purpose of the interviews was to gather detail pieces of information from key informants who had had better knowledge, status, or access to sensitive issues denied to the researcher and who were willing to share their knowledge and experience. The semi-structured interviews were conducted with health

workers who were delivering PMTCT services in the Hospital and the Medical Director and CEO of the Hospital, as well as with the focal person who is in charge of the PMTCT Programme in the Regional Health Bureau of Gambella.

**Focus Group Discussions (FGDs):** The purpose of focus group discussions (FGDs) was to probe and explore the experiences of unprofessional services of mothers' support group established by the Hospital with the help of Jhepigo/NGO. The group meant for providing counseling, home visit, follow up and reminder, as well as experience sharing which is more of peer support than professional service. The discussion is used to assess the nature of the services, moods of interaction with clients, the unique importance of such peer support services with some short term trainings, the success and challenges to assess the "how" and "why" questions with diverse opinion and experience of each participant during the session.

**Documentary Analysis:** The researcher first identified relevant documents such as published and unpublished research materials, dissertations, theses, research reports, progress reports, web-based files and others. Then, these documents were thoroughly read in order to identify themes to the research questions and the objectives of the study under investigation.

### **3.4 Universe of the Study**

The study area was selected purposively because Gambella Region is one of the highest HIV/AIDS prevalence spot in the country. Gambella Referral Hospital is also one of the public health hospitals nationally selected for PMTCT services and it is the only hospital available in the Region. The only Referral Hospital in Gambella Regional State is situated at the administrative Regional town. There are no other public or private hospitals though there were health centers in most of the districts and zones in the Region. The Hospital has been selected by the Ministry of Health (MoH) when the Ministry Office began working on availing PMTCT services in the country. Currently, the Hospital provided PMTCT services for 714 mothers who had got follow-up during the study period. Amongst these mother clients, a total of 150 women who got those



services in the Hospital in 2012/13 to 2013/2014 were selected as sample respondents for the study.

### **3.5 Sampling Methods**

In the study, stratified sampling method was employed. To this end, those HIV positive pregnant mothers or those who delivered in the past six months were first identified and approached using the stratified sampling method. In this regards, 150 mothers were selected from the MNCH Department based on the list of HIV positive mothers (i.e. sampling frame) who accessed the Hospital for services (like ANC, HCT, and PMTCT). The sample size for clients' exit interview was determined using a single population proportion formula by taking an assumption that 90 % of the clients would be satisfied by ANC and PMTCT services (to get a conservative estimate of the sample size). As there was no information on the proportion of clients satisfied with PMTCT services in the Region, the 90 % P-value (probability level) was taken from similar study conducted in Adama town, Oromia Region), with 5% precision, 95% confidence level and possible non-responses of 10%. Hence, the calculated sample size was finally 154 mothers as respondents of the survey amongst the total clients. Every pregnant woman who was for the first time exposed to HIV counseling during the data collection period was invited for then exit interview. The researcher tried hard to collect data from 150 sampled pregnant mothers.

Regarding the sample selection in the qualitative study, the researcher with the help of knowledgeable people in Gambella town managed to identify and select a total of 13 key informants and FGD participants. The samples in the qualitative study were selected using selected purposive sampling method. The composition of the sample in the study is summarized in tabula format as follows:

**Table 3.1 Summary of study subjects, tools and methods/approaches**

S. No.	Instruments	Number of Participants	Source of population/targets
1	Clients' interviews	150	Community members who have been using PMTCT service at Gambella Hospital
2	IDI <ul style="list-style-type: none"><li>• health care providers</li><li>• CEO</li><li>• Medical Director of the Hospital</li><li>• Regional HB PMTCT focal persons</li></ul>	3 1 1 2	Health care providers working in Gambela hospital at the time of data collection, and regional health bureau PMTCT experts and focal persons.
3	FGD <ul style="list-style-type: none"><li>• With MSG</li></ul>	6	Mothers' Support Group Members at Gambela Hospital

**SOURCE: Compiled by the researcher, June 2014**

### **3.6 Tools and Procedures for Data Collection**

After letter of support had been written by the International Programmes Office of St. Mary's University, the researcher contacted to the Regional Health Bureau and the Gambella Referral Hospital in order to secure permission for the data collection process. The structured interview schedule was developed based on intensive and extensive reviews of the available empirically tested research tools/instruments in Ethiopia (such as those of BSS-Ethiopia, FHI, and WHO). The questionnaire was first tailored and prepared originally in English. However, the actual data collection was carried out as an exit interviews with ANC attendees of Gambella Hospital and by moving to some of the interviewees' houses by the guiding of mothers' support group members. Specifically, women attending antenatal clinic services who were offered VCT, PMTCT service in the data collection period were invited to participate in the survey questionnaire upon exit. They were first told of the study and then screened for eligibility if they expressed an interest in participation. Once eligibility had been established; informed consent was obtained from each participant. The Interviewers on site were in charge of recruiting eligible pregnant women into the study and get the consent form signed. Generally, the data collection in the quantitative study took nine working days.

The semi-structured tool (i.e. interview guide/protocol) was prepared and used to collect the qualitative data from those key informants in the Hospital and the Health Office. The entire semi-structured interviews were conducted with key informants selected from the Regional Health Bureau, and from the Referral Hospital.

The FGD with the mothers' support group members was conducted and facilitated in a space arranged by the Medical Director in the Hospital. The researcher facilitated the focus group discussions using the FGD schedule or checklist. Here, there was no identifying information was collected regarding the participants.

The semi-structured interviews were conducted in a private setting at the Hospital as well as in their private homes and were blinded to all identifiers. Thus, the interviews were totally anonymous. On average, the interviews lasted from 20 to 25 minutes to complete, and all responses were written in the format prepared for this purpose. In these interviews, those people who worked in the Programme were the selected sampled to be interviewed.

Moreover, relevant documents and registers were identified and reviewed as both secondary sources of information and to draw stratified samples from the lists (sampling frame). In this case, the data collection took four days to finalize the interviews with administrators and service providers and FGD with MSG. On the whole, in order to ensure the data collection; the researcher allocated adequate time, selected appropriate and convenient place, briefed the informants and discussants about the purpose of the study and then they signed consent to proceed to the actual data collection.

### **3.7 Data Analysis**

In order to analyze the quantitative data, the researcher employed descriptive statistical technique such as frequencies and percentages in frequency distribution format. The qualitative data were analyzed using thematic analysis technique for the data generated from interviews and FGDs, and content analysis technique for the data collected using documentary analysis method.

# **Chapter Four**

## **Data Analysis, Interpretation and Discussion**

### **4.1. Introduction**

This chapter dwells on the socio-demographic characteristics of the respondents, availability of ANC and PMTCT services, quality of the services, quality improvement on the counseling service, the new PMTCT National Plan, Follow-up implementation of new PMTCT Accelerated National Plan, required resources, stakeholders' roles in ensuring quality PMTCT services, counseling service at Gambella Referral Hospital, clients' awareness about existing services and willingness to utilize ANC and PMTCT, their attitude towards the services, external factors influencing the utilization, clients' satisfaction on ANC and PMTCT services, and obstacles affecting the implementation of the quality services.

### **4.2 Profile of Respondents**

In this study, Regional level administrator/experts, Hospital Director, and MNCH Department focal persons were interviewed by using interview guide/protocol. Six support staffs/mother support group members participated in the focus group discussions held inside Hospital compound. In addition, the profile of the respondents (i.e. women who are HIV positive, who approached the Hospital either for PMTCT services, and pregnant or delivered within the past six months) were presented in Table 4.1.

A total of 150 PMTCT service user women participated in the study. The service users are young adults, living in wedlock context and have achieved elementary educational status. About thirty-seven (55, 36.7%) percent of the service users were in the age category of 29-33 years. The majority, 145 (96.7%) of them were found to be living in a wedlock context. A total of 70 (46.7%) of the respondents already achieved elementary educational status. These socio-demographic profiles of the respondents are thus contributory to the successful utilization of the ANC and PMTCT services and implementation of the services.

**Table 4.1 Socio demography of the respondents**

<b>Variable</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Age</b>		
19-23	44	29.3
24-28	31	20.7
29-33	55	36.7
34-45	20	13.3
<b>Total</b>	<b>150</b>	<b>100.0</b>
<b>Education</b>		
Illiterate	29	19.3
Elementary level	70	46.7
High school level	44	29.3
College level	7	4.7
<b>Total</b>	<b>150</b>	<b>100.0</b>
<b>Marital Status</b>		
Single	1	.7
Married	145	96.7
Divorced	4	2.7
<b>Total</b>	<b>150</b>	<b>100.0</b>

### **4.3 Availability of ANC and PMTCT Services**

Gambela Hospital is the only Referral Hospital available in the Region and even there are no private or NGO hospitals in the area. However, there are a number of health centers throughout the Region, including in the Regional town of Gambella. This Hospital has several departments though the focus of this study is mainly on the MNCH (Maternal and Newborn Child Health) Department. According to the views of the Medical Director, “Physically, the department has two wider rooms for the Midwife Nurses and for the Medical Doctor who is recently assigned to the Department. The MNCH Department provides services, including family planning, pregnancy test, and ANC follow-up, PMTCT services and counseling on issues related to these services listed.” Therefore,

there are family planning, pregnancy test, ANC follow-up, PMTCT services and counseling services on these issues. These available services are more or less consistent with required inputs in the Programme.

#### **4.4 Quality of the Services**

Some changes are made to improve quality of the ANC and PMTCT services. For the service providers at the Hospital level, there were some efforts to improve the quality of the services, as they stated: “Among these changes, assigning Medical Doctor for the Department of MNCH, providing services, including during lunch time, reducing ANC follow-up from 9 to 4 times with random visit at any time in case of concerns/pain, providing mother support groups for counseling and follow-up for adherence, and start providing AZT on the 14<sup>th</sup> week of pregnancy instead of 28<sup>th</sup> weeks.”

These changes have resulted in feeling of more safety and comfort because of having a chance to visit a doctor than nurses. Reducing 9 times ANC follow-up to 4 times which reduced the burden and the pregnant mothers were happy about it. The Regional Health Bureau together with the Ministry of Health also expanded PMTCT sites from 11 to 23. This has reduced hassles during traveling to the Hospital mainly for positive pregnant mothers from rural places.

The MoH has launched a new PMTCT Accelerated Plan and this Programme is being implemented throughout the country since 2012. Accordingly, Gambella hospital was providing the service according to the Plan. This Plan brought change in the provision of AZT mainly to start it in early pregnancy period (in the 14<sup>th</sup> Week than in 28<sup>th</sup> weeks). Although there are some efforts made to improve the provision of the ANC and the PMTCT services at Gambella Referral Hospital, it is generally performed in line with the already set standards.

#### **4.5 Quality Improvement on the Counseling Service**

The counseling service in the Department of MNCH used to be given by nurses who give the ANC, FP and PMTCT services just before or during service provision. However, the new PMTCT Accelerated National Plan brought a chance to train mother support groups

who were prior beneficiary of PMTCT service. One of the key informants from the Group informed that the mother support group has six members who were trained by Jehpigo an NGO that had been working on the Programme with the Regional Government from the beginning. These mother support groups were given counseling room inside the Hospital compound and they were mentioned to give intensive counseling for pregnant mothers mainly those who are HIV positive.

In addition to the Hospital-based counseling, the mother support groups counseled those mothers on PMTCT service by moving from door to door. Among the group members, the majority of the key informants said, “there are three mothers assigned for follow-up of adherence to the treatment. The registers used to have the follow-up and to obtain information about the status of mothers on the service and based on this data, mother support groups do the follow up and also the counseling according to individual client’s status.”

In regard to raising awareness of pregnant mothers or women on other services, there is health education session three times a week on MNCH department, twice on OPD and individual counseling for pregnant mothers who might need to go through HCT, ANC or PMTCT services. Usually the nurses in the department provide counseling with appropriate depth, however, if the client remains resistant to utilize the existing services the medical doctor who is assigned to the department will take over to give persuading counseling service and the refusal is rare in the past one year. However, pregnant mothers who already know their HIV status refuse to use HCT service which requires follow up counseling sessions to change their mind against their prior decision, which helps to link them with PMTCT services.

The mother support group is given initial training which includes general HIV prevention methods, basic counseling techniques and system of follow for adherence. Even though Jhpigo withdrew from direct intervention in the region, still it pays salary for mother support groups 700 birr per month, and allocates monthly communication cost to follow up beneficiary mothers by making phone calls as well. However the hospital doesn’t give direct call to clients in any case.

Drugs are given to be taken at home, babies weight measured, and syrup given, but there is no mechanism to follow up if drug is taken seriously each time despite the serious counseling at the facility, and adherence follow up by mothers' support group.

#### **4.6 The New PMTCT National Plan**

According to review of secondary data, Ethiopia has recorded some modest progress in the Prevention of Mother to Child Transmission (PMTCT). However, in a country where nine out of 10 of the mothers deliver at home, linking up pregnant women to antenatal care services, testing for HIV, averting transmission, and following up HIV exposed infants remain a huge challenge.

HIV prevalence among pregnant women (all ages) is estimated at 2.4%<sup>1</sup>. Approximately, 38 4012 pregnant women are living with HIV (PWLHIV) and 15, 924 (41.5 %) 3 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. In addition, 82, 130 children between 0 to 14 years require ART. Between 2009 and 2011, Ethiopia has seen a 31% decline in the number of new pediatric HIV infections – from 18,900 to 13,008.

Following the implementation of the Accelerated PMTCT plan the PMTCT services became available in 2044 sites as of December 2012. This was made possible as one component of the accelerated plan was site expansion. Understanding the challenges in reaching pregnant women with PMTCT services, Ethiopia started scaling up the Health Development Army initiatives whereby communities are empowered to identify priority issues and come up with possible solutions. According to the last six month performance of the routine HMIS, 40.8% attended 1st ANC visit while 19.5% got counseled and tested. From the HIV positive eligible mothers 11.7% got full prophylaxis which clearly shows the missed opportunities even when the woman comes into contact with the Health Facility. When tested positive, many women drop out of PMTCT programmes, out of fear of discrimination and rejection by their male partners and families, (Media & External Relations Section UNICEF Ethiopia (UNICEF, 2013).



#### **4.7 Follow-up Implementation of New PMTCT Accelerated National Plan**

When the Programme was launched at a national level, there was training in Adama town in 2012. Just after the training has been completed, Gambela region health bureau with the collaboration of partners in the region including WHO, UNECEF, UNFPA, Jhpigo, and PFSA, together formed a task force to work closely on the new accelerated PMTCT national plan. Besides regional PMTCT focal persons were assigned from the regional health bureau. Head of MCH department and Medical director of Gambela hospital oriented about the new PMTCT accelerated national plan and how to implement it at facility level.

However, the following problems were identified to have functional cooperation among partners and also in providing supportive supervision. Primarily the task force failed to perform as a unified force because of reluctance to attend periodic meetings, planning and acting together. Therefore, the regional health bureau entirely focused on working by using the regional PMTCT focal person to assist the hospital and other facilities. Despite this effort the regional MNCH program director says, there is lack of commitment from staff members to follow up and assist Gambela hospital and other health centers in the region, , though security and fuel cost is constraint to visit distant sites regularly.

In regards to Gambela hospital management, the director who has been working on the program left, and the new one is appointed six months ago without any orientation on the new PMTCT national plan, though the program has been implemented without his knowledge.

However, the Nurse at the MNCH Department stated that, ” there is a regular follow-up and visit from the newly assigned Medical Director who provides quick response to problems and challenges faced on the part of the Department.” Thus, it can be deduced that there is close follow-up of the implementation of the Accelerated Plan.

#### **4.8 Required Resources**

As to the required resources for effective implementation of the Accelerated Plan of PMTCT, human resource, drugs, equipment and other medical supplies to

MNCH Department. In regards to supplies, there were contradicting views among Gambella Hospital staff and Regional Health Bureau. According to the Medical Director in the Hospital and MNCH workers, “there is delay in supplying drugs, laboratory reagents, and equipments. The hospital has 2 million birr annual capital for drugs on which drug and therapeutic committee decides based on the needs submitted from each department.” Accordingly, they continued, “the MNCH department will have share of supplies. In addition to this the regional health bureau is expected to deliver supplies through PFSA.” However, the Medical Director expressed, “the Hospital has poorly equipped laboratory, reagent are not supplied on time, drugs that are nearly about to be expired will be delivered, and will be out of use shortly in the hospital stock. In addition to this, there is very slow response to request of drugs and kits.”

In order to give practical examples, UNI/GOLD stock out for four months, HIV test kits and laboratory reagent for CD4 counts were not provided for a month, and the MNCH department don't have FP items like IUCD and Norplant for the past 3 months. However, private facilities are providing these FP items by charging high. And the Medical Director suspects that, “the government supply to the hospital might have gone to private clinics in some form of corruption which needs further exploration.”

PFSA is said to be computerized and well equipped government agency, though it has shortage of transportation to supply drugs and kits. As the MoH or the regional health bureau don't supply medical equipment that are very important for the hospital, therefore NGOs like UNFPA, UNICEF, Jhpigo provided assistance to fill the gap, even though it is way behind the needs.

Concerning human resource related issues, Staff turnover and relocation are the major problems that hindered the provision of quality service in the hospital as well as in the MNCH Department. The problem is worse when trained staff members shortly leave the institution. For example, 2 staff trained in provision of PMTCT service left the MNCH department recently. Medical Directors are expected to serve at least two year until they are given a chance to go for specialization, however they even leave before the time expected. Some staff members join the NGO sector and other move to different towns.

The reason for lack of HR stability is mainly caused due to the very high temperature in the region which ranges up to 44C°, the government pays desert allowance and adjustment is made in working hours in relation to high temperature of day times. The influx of staff members to NGOs is because of low government salary at the facility, and in search of other benefits that doesn't exist while they are working in the hospital. When the medical director takes position six months ago , he has not been given appropriate orientation about the hospital, how it functions, about new programs that are going on like the new PMTCT accelerated plan etc, which creates gap in understanding and smooth functionality.

Despite the fact that the above mentioned challenges are serious obstacles, Gambela hospital is attempting to strengthen its MNCH department by assigning medical doctor for the first time, and by using external support staff like mother support group to work on peer counseling, follow up and adherence, even though there is huge gap in the area of professional counseling service.

With the involvement of Jhpigo, the regional health bureau was able to train about 100 health professionals on PMTCT service delivery at regional level, among this Gambela hospital got its 17 professionals trained on PMTCT; 6 from MNCH, 3 people working on ART, 8 from OBS Ward. Nurses trained in the ward cover vacant space in shift periodically, when the Nurses working in the MNCH department are absent.

From the clients' interview, 89% of the mothers in the study mentioned that they are satisfied with the skills and composition of staff s in the MNCH Department at the hospital. And the approaches, respect and treatment of the service providers were satisfactory at various levels.

#### **4.8 Stakeholders' Role in Ensuring Quality of PMTCT Services**

The stakeholders in the PMTCT Programme include the Ministry of Health, the Regional Health Bureau and NGOs. The Government of Ethiopia adopted and implemented progressive policies for integrating the prevention of mother-to-child transmission of HIV within maternal and child health services. Through the Health

Extension Programme in Ethiopia managed to create easy platform to reach out to pregnant women and provide services.

The Federal Ministry of Health launched Ethiopia's accelerated PMTCT plan in December 2011. The plan has three objectives: reaching 90 per cent of pregnant women with access to antenatal care services; ensuring universal access by pregnant women to a skilled attendant during delivery; and providing ARVs to at least 80 per cent of HIV-positive pregnant women. Currently Ethiopia started the preparation to roll out the implementation of Option B+. (Media and external relation section (UNICEF, 2013).

The Ministry with the support of UNICEF organized orientation meeting and training at Adama town with Regional Health bureaux. This training created common consensuses about how the new accelerated PMTCT Plan should be implemented.

The Region health bureau Gambella representatives attended the orientation and training on the new PMTCT accelerated plan organized by the MoH at Adama town and the bureau organized regional level stakeholders meeting and tried to set up regional PMTCT task force by including organizations like; UNICEF, PFSA, WHO, UNFPA, Jhpigo and the regional health bureau itself as a leader to the task force. However, according to the regional expert interviewed, the task force remained to be inactive and dysfunctional because of lack of commitment from the task force member organizations. The regional health bureau assigned PMTCT focal person who is actively supporting Gambela hospital and other PMTCT sites in addition to expanding new PMTCT sites.

The Regional PMTCT focal person and the expert on health promotion and disease prevention listed the following effort made by the regional health bureau in assisting the program, as well as Gambela hospital; facilitating drugs and supplies, and addressing logistics problems, training opportunity was arranged to 100 health workers in 23 PMTCT service providing health facilities, with the help of Jhpigo, providing monthly supportive supervision, regional level PMTCT task force an community level social mobilization group has been established though both group remained dysfunctional.

There are a number of NGOs involved in supporting Gambela hospital to improve its services mainly the MNCH department. Among this Jhpigo is the main actor in supporting the new accelerated PMTCT national plan in the region, as well as in supporting the program in the hospital. WHO, UNFPA, and UNICEF have been involved in provision of supplies of medical equipments and refrigerators. Particularly UNICEF extended its support in providing transport to rural pregnant mothers to reach the hospital for ANC, VCT, and PMTCT services which reduced the hassle, and discouragement that keeps mothers refrain from utilizing the service.

Jhpigo provided training for about 100 health workers on PMTCT service provision, and 17 staffs from Gambela hospital, in addition to the training given to health extension workers and mother support groups who were prior users of PMTCT service. It is paying 700 birr salary for each mother who is a member of mothers support group, in addition to supplies of sanitary materials and mobile cards/air time to follow up mothers for adherence. The organization used to fund community conversation among pregnant mothers by covering costs of coffee ceremony, though this fund has been cut recently.

The above-stated NGOs/UN agencies are members of the regional task force for PMTCT service acceleration and improvement. Due to lack of commitment and poor effort to mobilize the stakeholders, the task force remained dysfunctional.

#### **4.10 Counseling Service in Gambella Hospital**

There is counseling and health education in Gambela hospital, and the health education takes place three times a week on MNCH for mothers and twice a month on OPD. The contents of the health education is supported by posters and translated in to local language which is Nuer, Agnwa, for clients who can't speak Amharic. The counseling service is not provided by professional counselors; however nurses, medical doctors, as mother support group give counseling to mothers on ANC, for HTC, and to convince about the relevance of PMTCT service as well as the adherence to the treatment. When mothers approach the MNCH department, the nurses began describing the services and begin providing counseling to create demand for the service and adherence to it. If for instance a pregnant mother refuses HIV testing by the intensive counseling given by the

nurse in the department, the medical doctor will take over and put much effort to change the mother's attitude against HCT. However, both the health workers don't have specialization in counseling though they had some courses in University and colleges.

In addition to the health workers, the mothers' support group has been given training by Jhpigo on basic knowledge of counseling techniques, and methods of HIV prevention, the importance of adherence to treatment and how to help mothers to this end and other relevant topics.

The group has been given counseling room in the compound of Gambela hospital, and pregnant mothers who need special support will be given a kind of confidential peer counseling which is supported by technical training. Moreover, the support group moves door to door to follow up positive pregnant mothers mainly to work on adherence to treatment. With the support of Jhpigo the adherence group could also give phone calls to mothers on PMTCT service to remind and check on their status. Mothers in ANC are counseled thoroughly about the importance of follow up which increased their awareness. The problem with rural mothers around the border is they are constantly on the move between Ethiopia and Sudan/South Sudan and it became difficult to follow up for mothers' support group since they are not reachable even by phone. This is a challenge to ensure the health of the mother and the baby.

From the perspective of clients who gone through ANC, HITC, PMTCT and delivery services, the counseling service has been rated based on various components of the service. The following table shows percentage for each component according to satisfaction level of clients.

According to the presentation on Table 4.2, Gambella Hospital MNCH Department had less appropriate Counseling Room which affected the comfort of clients that might affect the confidentiality as well, though there was no violation of confidentiality reported because of health professionals' malpractice.

Table 4.2 shows that there were mixed level of satisfaction on different aspects of counseling service provided to the pregnant women clients. About sixty-seven percent of

them expressed that they were unsatisfied on the present setting of the Counseling Room, were satisfied with the practice of confidentiality on the part of the health care providers and the counselors, About fifty-seven percent of the participants in the study expressed their satisfaction with the treatment and respect of the counselors (from nurses, mothers' support group and the medical doctor), and about 73.0% of them also stated that the amount of time allocated and the sessions given were highly satisfactory. The contents of the counseling manual were found to be relevant to PMTCT service as 82.0% of the pregnant women stated, and 72.7% of the respondents felt that they were being heard and relieved from their respective problem(s). Therefore, the respondents mostly expressed that they were satisfied with the components of the ANC and PMTCT services at Gambella Referral Hospital in Western Ethiopia.

**Table 4.2 Satisfaction level of clients on counseling services**

Component of services	Highly Satisfied	Satisfied	Moderately Satisfied	Unsatisfied	Highly Unsatisfied
Setting of Counseling room	0.0	11.3	21.3	<b>67.3</b>	0.0
Confidentiality	27.3	<b>61.3</b>	11.0	0.0	0.0
Treatment and respect of the counselor	23.3	<b>57.3</b>	19.3	0.0	0.0
Amount of time and sessions given	<b>72.7</b>	27.3	0.0	0.0	0.0
Relevance of contents of the counseling	<b>82.0</b>	18.0	0.0	0.0	0.0
Feeling of being heard and relieved	<b>72.7</b>	27.3	0.0	0.0	0.0

#### **4.11 Clients' Awareness about Existing Services and Willingness to Utilize Them:**

According to the new Accelerated PMTCT National Plan launched by the MoH, demand creation is one of the major components of the Programme. To realize this, as stated by the key informants in Gambella,

*The Regional Health Bureau established community mobilization group at local level, and trained health extension workers. However, the community mobilization group failed to function because of poor follow up from the regional bureau, and unlike health extension workers in rural Gambela, those 10 HEWs in Gambela town are not linked with the hospital or with mothers' support group to work in a coordinated awareness raising effort and demand creation for ANC, HTC and PMTCT services. The regional PMTCT focal person said that, the bureau also uses community campaign to raise awareness about the services, and currently they are planning to use the regional TV and radio as a medium to increase awareness and rate of utilization of the services.*

Despite the above-mentioned gaps, service providers in Gambella Hospital stated that, “almost every pregnant mother believes that HIV testing is important and there is no refusal. Besides, there are a number of factors that improved awareness, demand for services, and willingness to utilize them.” The service providers argue that these factors are: “health education which is supported by posters and translation to local language; improving the quality of services and clients' satisfaction that lead to clients' mouth advertisement; assigning of medical doctor for the MNCH Department; the effort of mothers' support group (their counseling, door to door follow up and encouragement); and lesser waiting time to access the service.”

Because of the above mentioned factors, currently every pregnant mother look for VCT service, ANC follow up increased, institutional delivery and utilization of PMTCT service increased gradually. Currently 5-10 more mothers visit the hospital for PMTCT every month.

In regards to clients' interviews, sources of information about the services in the MNCH department were health extension workers, nurses during hospital based health education, mothers' support groups, and friends. Out of the 150 clients interviewed, 50.7% of them got the information from HEWs, 18% of the clients informed during health education, 22% of them had mothers' support groups as source of information and the rest 9.3% of them were informed about the services from media.

According to clients' interview, none of the informants ever knew a pregnant mother who rejected PMTCT service. Among the 150 mothers who first visited the hospital for ANC



and later joined PMTCT service, 90% of them had support from their husbands, 10% of them were opposed by their husbands when they decide to go for ANC.

All the clients interviewed were tested for HIV, and they all confirmed their consent during the pre-test counseling. This shows that the provider initiative HIV testing is not leaning to inducing pregnant mothers without their consents. They had regular ANC follow up, and serious follow up on the PMTCT service.

**Table 4.3 Level of service utilization**

S. No.	Type of Services	Number of People interviewed	Number of Service users	Percentage
1	ANC	150	150	<b>100.0</b>
2	HTC	150	150	<b>100.0</b>
3	PMTCT	150	150	<b>100.0</b>

#### **4.12 Attitude towards the services**

According to service providers and mothers’ support groups at the Hospital, “mothers’ awareness increased due to the health education, the leaflets distributed from the hospital, the intervention of mothers’ support group and health extension workers.” Therefore, together with the quality improvement of the services the awareness helped to raise the number of service user at the MNCH department mainly for HTC, ANC and delivery and PMTCT services. The PMTCT new accelerated plan has a component for demand creation, which also increased awareness and demand for the services listed above. Besides the promotion and improvement of the service, community members were able to see the result of PMTCT service when they see healthy babies are born from positive mothers.

Few asymptomatic positive mothers who already know their status shown resistance for HIV testing though they came to the hospital for ANC service, however intensive counseling about the benefits of HTC as well as PMTCT and serious follow up convinced them to accept the service. Mothers’ support group had important contribution by sharing their experiences and by offering peer counseling service.

According to service providers at the Department, when they stated, “others refuse the HTC because husbands blame the wives for contracting the virus due to their infidelity, even though men are most likely the reason for her being infected.” The problem goes beyond family matter, and the neighborhood blames them as well, which degrades social values and position of the women. The remains of this problem still exist as challenge which is external factor affecting service utilization in the Hospital.

According to MSG and the professionals at the Hospital, positive women were blamed for their interest of having a baby; however this attitude has been changed due to the PMTCT service which increased the chance of having healthy baby. However, rural mothers come late even after the 28<sup>th</sup> weeks of the pregnancy which creates a problem to provide PMTC service based on the national guideline. Despite the fact that the attitude towards the services improved, mothers residing to the Sudanese border default ANC and/or PMTCT service by swapping their residence between Ethiopia and South Sudan.

#### **4.13 External Factors Influencing Service Utilization**

According to the officials at the RHB, “culturally, home delivery is common without appropriate antenatal care and Gambela region like most of the other parts of the peripheral regions has been accustomed to this cultural practice.” Therefore, mothers themselves used to have lesser interest for ANC and institutional delivery until the wide range of rural health extension program has been launched. However, this study focused on the 150 mothers who are already service users in Gambela hospital and still focuses on their attitude stories related to their background. Accordingly, 10% of the respondents have been opposed by their husbands when they show interest to access ANC service, and these clients said that, it is difficult to decide to use ANC and PMTCT services by themselves, if husbands refused. However, the majority of partners were in favor of and supportive.

According to the service providers’ interviews, distance coupled with poor transport facilities and dual citizenship between South Sudan and Ethiopia which caused instability were some of external factors that affected service utilization of pregnant mothers.

Service providers listed down different forms of attitude of the community mainly towards PMTCT service, and the following are some of them:

- Women who contract HIV are blamed than men;
- HIV positive mothers are blamed when they decide to have a baby;
- Though it is gradually changing, community members are less aware about PMTCT services;
- Those who are aware about the availability of the service, have limited trust on the result, though there is practical evidence from service users which is gradually changing others' attitude; and
- Few people are circulating rumor that says, the ART will affect the mothers' health even though it helps the fetus.

The above-mentioned perception and attitude on the part of the study participants have discouraging impact. However, there is an improvement in the level of service utilization.

#### **4.14 Clients' Satisfaction on PMTCT Services**

As the table shows below, 54.7% of the clients has started taking prophylaxis on their 14<sup>th</sup> week of pregnancy and the rest have taken in their 28<sup>th</sup> week. This has happened because of two different reasons; the hospital started the new accelerated PMTCT plan and changed its drug provision based on the new guideline provided by the ministry of health six months ago, and after a while since the drug/ARV supply was not adequate, the hospital has returned back to its former practice to give it in the 28<sup>th</sup> week of pregnancy.

Because of the flexible working time including lunch time and the assignment additional staff/medical doctor the waiting time to access services reduced. Therefore 83.3% of the clients said that they never had the experience of long waiting when they approached the MNCH department at different times. , however small proportion of clients which is 16.7% said they waited long to access services. When the clients evaluate the nature of the counseling service during PMTCT service, 96% of them found it intensive and helpful. Mothers' support group members also provide counseling and follow up which will be discussed in another section.

In regards to clients' treatment and confidentiality, 96% of the study participants receiving PMTCT service found it satisfactory; however the rest of them stated their dissatisfaction mainly in regards to respectful approach and treatment. 60.7% % of the clients found the general PMTCT services in the hospital as it is highly satisfactory, 21.3% of them found it satisfactory and the rest of them said that it is moderately satisfactory.

**Table 4.4 PMTCT services in the Hospital and clients satisfaction on the services**

S. No.	Variables	Comparative Result A		Comparative Result B	
1	Start time of prophylaxis	At the 14 <sup>th</sup> Week		At the 28 <sup>th</sup> Week	
		54.7%		45.3%	
2	On time delivery of ARVs	On time		Delayed	
		100.0%		0.0%	
3	Waiting time to access the service	Short/no waiting		Long waiting	
		83.3%		16.7%	
4	Nature of counseling received	Intensive and helpful		Shallow and less helpful	
		94.0%		6.0%	
5	Level of good treatment and confidentiality	Satisfactory treatment and respect		Awful treatment and lack of showing respect	
		96.0%		4.0%	
7	General Satisfaction level on the PMTCT service	Highly Satisfied	Satisfied	Moderately satisfied	Unsatisfied
		60.7%	29.3%	10.0%	0.0%

#### **4.15 Obstacles Affecting Quality Improvement of services at the Hospital**

There are various obstacles which may affect the quality improvement of those services at the Referral Hospital of Gambella. These obstacles were found to be situated at department, institution, Regional Health Bureau, Ministry of Health, and on the part of the NGOs in the 4 Region.

### **Department Level**

The MNCH department in Gambela hospital has shortages of supplies like Prophylaxis, laboratory reagents, equipments, and register formats for PMTCT service separately. In addition to this the hospital in general or the department in particular has no blood bank due to lack of supplies of refrigerators. The rooms where the nurses provide counseling to mothers, is less convenient for clients and it creates conditions to affect confidentiality. The department couldn't provide STI diagnosis and treatment for the past ten months because of failure of the laboratory equipment. Even though long term family planning is being promoted nationally, the department unable to provide it since there is no supply of Norplant and IUCD for the past four months.

One the nurses who were trained on PMTCT left the Hospital and the department has gap in regards to human resource trained on techniques of service provision for positive pregnant mothers. Shortage of the drugs forced the department to decline the new national PMTCT accelerated plan, since the supply and the plan didn't go along.

### **Institutional Level**

Regarding resources, the hospital has poorly equipped laboratory, it had lack of laboratory technicians, and limited annual budget for drugs purchase which was only 2 million birr. Laboratory reagents for CD4 counts, HIV test kits, and long term family planning alternatives were not supplied on time. Drugs that were near to expiry dates were supplied and they shortly expired in the Hospital store. The Hospital had shortage of transportation to collect drugs from PFSA. Besides, on job trainings were not given to the right professionals who were engaged in particular related service, though there was gap in provision of skill upgrading and refresher trainings. There was high turnover of staff, including Medical Directors. Moreover, the newly assigned Medical Directors had no chance to take over pended tasks from the previous Medical Directors and even there was no appropriate orientation to the new administrators or directors from the Regional Health Bureau. All these obstacles have made the work more difficult for them.

## **Regional Health Bureau Level**

This Bureau has overall responsibility regarding the implementation of the New Accelerated PMTCT National Plan in Gambella Region, including assisting and supervising the only Regional Hospital. To this end, the Bureau established Regional PMTCT Task Force by mobilizing stakeholders acting in Gambella. As organizers, UNICEF; WHO; Jhpigo; PFSA; and Health Bureau were the members of the established task force. Even though these huge actors were asset for the Program, the group could not go forward to bring any change. This has happened because of two things; lack of strength from the organizer bureau and lack of commitment from staffs of the stakeholder agencies. Besides, the task force didn't include facilities like Gambella Hospital and the health centers which may have been active actors since they are facing practical challenges in the service provision.

Social mobilization group was established through health extension workers to increase awareness and create demand towards PMTCT. However, the groups failed to function throughout the Region because of loose follow-up and encouragement.

The Regional PMTCT focal person strived to assist and to monitor the Programme by moving to the Hospital and to other facilities in the Region. However, lacks of separate reporting formats for PMTCT in particular and poor commitment from support staff were mentioned to be challenges at the Regional level. Transport and fuel budget was another problem listed which tackled the supportive supervision and monitoring activities.

## **MoH Level**

The Ministry of Health launched the New Accelerated PMTCT National Plan and given orientation and training to regional bureaus with the help of UNICEF. However, the Ministry had inadequate supplies to the regions and, ultimately, to the facilities when it changed the service provision in more accelerated manner. For example, Gambella Hospital began providing prophylaxis in 14<sup>th</sup> week of pregnancy instead of giving in the 28<sup>th</sup>. But it had to return back to the older timing because of drastic shortage of the drug

after six months of practicing the New Plan of the MoH. The Regional expert said, ” the New Accelerated PMTCT Plan is ambitious because the supply is given less emphasis.”

The Ministry provided pocket guide to service providers which was entirely focusing on clinical aspects. However, technical approaches, counseling guidelines, service quality improvement techniques and clients care were not included in the major goals of the accelerated plan, as well as in the service provider manual.

At facility level and Regional Bureau level, the Report on PMTCT service was included in ANC follow-up list which did not give complete data on the case. However, the MoH developed the format that could not reach the facilities because the Region did not receive. The follow-up and monitoring were also affected partly because of this.

### **NGOs in the Region**

At national level, UNICEF and WHO were actively involving in initiating and supporting the New Accelerated PMTCT Plan. However, Jhpigo was active actor solely involved in every aspects of the implementation of the Plan and in supporting Gambella Hospital. Jhpigo provided technical training for about 100 staff and for mothers’ support groups who were still working in Gambella Hospital. This NGO paid salary for mothers’ support groups, funding community conversation to raise awareness, providing sanitary materials, and covering communication cost or mobile phone for the support group members to make the follow-up for adherence easier. Except, medical equipment supplies UNICEF and WHO, UNFP had limited role in assisting the Hospital, as well as the Programme at Regional level.

The other challenge identified was poor communication, and joint planning among NGOs and Regional Health Bureau which caused information gap that also limited commitment of organizations to the Programme. Even the Medical Doctor at Gambella Hospital was not aware about the beginning of the implementation of the New PMTCT Plan until AZT shortage alerted him. However, Jhpigo trained the Nurses to give it at the 14<sup>th</sup> week according to the New National Plan. When Jhpigo recently started withdrawing its

assistance from the Hospital, the institution failed to fill the gap because of lack of discussion on the sustainability of the service and follow up.

In general, the Hospital had huge compound with various departments having their own separate rooms though some of them even have basement buildings located apart. In regards to the MNCH Department, the building was shared with the drug store and laboratory. When the researcher held discussion about the MNCH Department in particular, it had two spacious rooms, and the inside room was allocated for the medical doctor. Clients had waiting space and chairs at the door; the first room where the clients should approach first was used by two nurses sitting side by side dealing with clients' case at the same time. The nurses admitted two clients at the same time with in the same room which reduced comfort of the clients to open up and talk about their private cases. Besides, one of the nurse was talking loudly to clients like 'are you here for pregnancy test?', 'Do you want to use family planning?' etc. from which I could observe feeling of shame and fear of clients. Even though there is waiting place for OPD and chairs at the veranda of each department, the MNCH department didn't require clients to wait long, the two nurses and the medical doctor tried to address issues of clients as fast as possible and they even work during lunch time. The observation revealed that translators were assisting clients who speak language of different clans of Gambela. The department has various posters posted on the wall mainly about alternative family planning options (long term vs. short term options), about ANC services supported with pictures, as well as about PMTCT service.

The room for mothers' support group was well organized who had their own office for counseling, meeting and to keep records. The researcher also had eye witness in that members of the support group were taking responsibility of counseling and taking care of a given positive pregnant mother. The counseling was done in a confidential room than where then nurses were using. During the researcher's stay in the data collection period, delivery of HIV positive mothers was given special attention since two of them gave birth in the Hospital during the field work period.



The Ministry of Health focused on expansion of PMTCT services to reach more illegible mothers to save new infection among children and launched a program called ‘New Accelerated PMTCT Program’ which includes components like rapid site expansion in order to start offering the services in many more health centers and hospitals throughout the country. Demand creation among illegible pregnant mothers and their partners is also another component that MoH is working on to achieve its goals.

However, besides site expansion and demand creation, it seems that there is limited effort to ensure the quality of PMTCT services in the sites expanded to offer the service. There were limited studies so far that focused on the assessment of quality of PMTCT services in Gambella Region in particular.

In summary, the quality of ANC and PMTCT services provided at the Referral hospital in Gambella are satisfactory. However, there are some more issues at different levels which may required due attention on the part of each stakeholder.

## **Chapter Five**

### **Summary, Conclusion and Suggestion**

#### **5.1. Summary of Major Findings**

Based on the specified objectives, this study has come up with facts as Gambela hospital has MNCH department within which pregnancy test, ANC follow up, HIV test, family planning and PMTCT services are available. In regards to quality of the above listed services, the data shows that pregnancy testing and ANC follow up are provided with good quality and the institution is making some changes to improve these services recently. For example, medical doctor is assigned for the department, ANC follow up periods are reduced to four times in the entire pregnancy period for the convenience of mothers, and translators are used to make the communication simpler which is also true for other services in the hospital. When we come to HIV testing the hospital achieved success in convincing almost all pregnant mothers to accept the service as vital to their and the babies health. The provider initiative HIV testing service has never been coercive according to the mothers interviewed.

However, the Hospital faced stock out of HIV test kits at different times, besides the counseling process that is made by the nurses in MNCH department lacks confidential spacing and the approach itself has been a bit inconvenient for few of the mothers interviewed which is also proved during observation. When we come to the PMTCT service in the hospital; the medical director is less aware about the newly introduced accelerated PMTCT plan, the regional health bureau or PFSA couldn't provide adequate supplies of drugs/AZT and facilities to the program, which has forced the department to revert back to the old system of PMTCT service against the national plan and WHO suggestion. The hospital has poor laboratory facility and shortage of reagents to work on the CD4 counts at least for four months in the year.

However, according to service providers, every positive pregnant mother accessing the hospital for ANC service have accepted HIV testing and PMTCT services even though some of them face strong resistance from husbands and other challenges from

neighbourhood. Mothers' support group has been back bone of the department in helping with the counseling, the follow up and encouragement. According to clients' response, they have short waiting to access PMTCT service, they receive intensive and helpful counseling with appropriate series of sessions, and there is satisfactory respect and approach with minor need for correction among nurses and strict confidentiality. In general all mothers interviewed found the PMTCT service level satisfactory and 80% of them said it is at the level of their highest satisfaction.

Institutional facility; the Hospital has been provided with medical equipments from huge international agencies like UNICEF, UNFPA and WHO in the past years. However, its laboratory is inadequate, some equipments damaged which either need repair or replacement. The hospital doesn't have blood bank because it doesn't have appropriate refrigerator to store blood. The supplies of kits and drug are not done on time and even the delays became obstacle to activities like CD4 counts, diagnosis of STI, and HIV testing. Long term family planning alternatives like IUCD and Norplant have not been supplied for months. As stated above AZT shortage was serious problem that affected the service delivery.

The Ministry of Health has launched New PMTCT Accelerated Plan without adequate supplies of drugs, equipments, kits and other relevant supplies. There was no separate facility level register for PMTCT service; monitoring tools are not supplied to the region as well as for the facilities including Gambela hospital. There had not been midterm evaluation by the ministry of health to review the progress of the accelerated plan and to assess gaps. The Regional Health Bureau ran in short of budget, commitment and failed to provide closer supportive supervision and supplies to the hospital to assist the effort to improve services.

Since the launching of the New PMTCT service in 2012, the Regional Bureau PMTCT focal person had limited focus on the Hospital and lack of commitment among staff members of the Bureau mentioned as cause for this. NGOs like UNICEF and WHO have failed to involve actively in the task force established at regional level. Despite its initiative and support at national level, UNICEF confined its support to providing

medical equipment to the hospital and facilitating transport service to rural PMTCT user mothers however, it has limited role in supporting the regional health bureau. Jhpigo takes the lion share of the partners in its direct involvement to improve the ANC and PMTCT services, by devoting itself in to the program in Gambela hospital and throughout the region. Jhpigo trained health workers and mother support groups, facilitated community discussions to raise awareness about the services and to change community attitudes. Besides this NGO has been paying salary to former users of PMTCT and currently trained mothers' support group members and it covers communication cost for adherence follow up. Jhpigo's effort in Gambela hospital helped the institution to improve its services and ultimately increased service utilization and clients' satisfaction.

Counseling; the hospital doesn't have professional counselor and its counseling services are given by health workers and support staffs/mothers' support group members. According to the data from clients and the observation, the counseling rooms in the MNCH department is not appropriate except the room used by the medical doctor and the office of mothers' support group. The clients were asked to rate the counseling service based on the counseling room setting, confidentiality, treatment and respect of the counselor, the amount of time given during a session, the relevance of the contents of the counseling, and by the feeling of being heard and relieved due to the counseling service given to clients. Accordingly, except the room setting which is rated almost as unsatisfactory, the rest of the criteria were found to be at the level of clients' satisfaction.

Clients' awareness about existing maternal and child health services increased due to the health education at OPD and the MNCH department which is assisted by posters and with the translation of messages in to local languages. Mothers' support groups have also contributed a lot in raising awareness of their counterparts. According to the regional health bureau, health extension workers also have significant role in educating and convincing mothers to access ANC and PMTCT as well as family planning services. As stated above, the service providers at Gambela hospital mentioned that all mothers at ANC follow up had HIV testing without any coercive measure against their will, and all

positive pregnant mothers were using PMTCT services in the hospital. None of the clients interviewed know a single positive pregnant mother who refused PMTCT service. With minor suggestions for improvement clients found out that the services in MNCH department are very important and are currently being given with their level of satisfaction. Some of the external factors that affected the service utilization are resistance of male partners/husbands, misconception of community to blame women for their contracting HIV as well as for their interest to conceive a baby. Even though there is slight change in the community attitude due to the results of PMTCT service, still it is a challenge that affects the courage of positive mothers to seek the service.

## **5.2. Conclusion**

Ethiopia is one of the sub-Saharan African Global Plan priority countries, struggling to meet the 2015 target in reducing new infections, and enabling 90% of positive mothers to access PMTCT services to prevent infection among new born babies. The Ministry of Health launched the New PMTCT Accelerated Plan and the targets for 2015 (HSDP IV) from the MOH, are listed below:

- Provide ANC services to 90 % of pregnant women;
- Ensure all women are attended at delivery (62% by skilled attendant and 38% by HEWs);
- Provide ARV prophylaxis to more than 80% of HIV positive pregnant women; and
- Reduce national incidence of HIV infection by 50%.

Site expansion and demand creation were also components of the National Health Service Development Plan IV. However, appropriate supplies of drugs, equipments, kits, and other inputs needed for the program has given less emphasis in Gambela region which affected the work of the only hospital existed in the region. Mechanisms to follow up PMTCT service progress and commitment to do the monitoring seems at its infant stage. Therefore, there is no established system to check on quality of services.

The demand creation effort has been successful in Gambela hospital since more mothers are coming to get ANC and PMTCT services every month. The institution is striving to improve its services in the MNCH department despite the challenges mentioned earlier.

There are no professional counselors in the hospital, and appropriate counseling room is not allocated, which affected the quality of the counseling service though most of the clients have found it satisfactory based on the parameters listed in the finding above. Family planning services are taken as key elements to reduce new infection among infants; however Gambela hospital has limitation in availing long term family planning options due to shortage of supplies, which affects its effort in PMTCT service delivery.

Community awareness has increased and mothers have better understanding about the importance of antenatal care and PMTC services. The Hospital has made tremendous effort to bring this change by the support of Jhpigo which has funded community conversations and trained and supported mothers' support groups. The hospital based health education sessions were also important to increase awareness about availability of services and importance of the services in particular. High turnover of staffs affected the quality of services, since well oriented staff members who took on job trainings leave the institution shortly. CD4 counts, HIV testing, STI diagnosis and FP options are vital for the MNCH department to perform its activities properly, however challenges were faced in this regards do to delayed supplies. The absence of blood bank could make some complicated delivery and surgery risky in the MNCH department as well as to other departments in the hospital in general.

### **5.3. Suggestion**

**Based on the major findings and the conclusions drawn from them the researcher suggests the following social work interventions:**

- For the improvement of quality of services in health institution like Gambella Hospital, coordinated effort should be in place from all stakeholders including the MoH, regional health bureau, NGOs, and other departments as well. In addition to starting from the Medical Director, every staff member should work in coordination to bring holistic change regarding to service quality.
- Nationally launched plans like the new accelerated national plans should be backed with adequate supplies and flow up from the ministry office as well as from the Regional Bureau.

- Periodic monitoring and assessment will help to see gaps and improve quality of services that will ultimately leads to achieve goals at institutional level with a cumulative effect of success at national level.
- Gambella Hospital should heir trained professional counselor or send health workers from the MNCH department for basic skills of professional counseling, and counseling sessions should be conducted in a confidential room settings.
- The strong health education sessions should be kept up and mothers' support groups should be incorporated in to the MNCH department to avoid their dispersal when the Jhpigo's salary is suspended since the project is in the process of termination.
- Involvement of partners/husbands in the awareness raising programs of the Hospital will help to reduce the problem of resistance and pressure on positive pregnant mothers, who are interested to utilize existing services.
- There should be smooth bridging techniques between the hospital and PFSA to avoid prolonged delay of supplies.
- In order to improve the provisions of comprehensive ANC and PMTCT services at different levels in Gambella Region, there should be well-organized empirical social work studies using mixed research method design at macro-, meso- and micro-levels.

## References

- Abajobir, Amanuel & Agegaechu, b. Zeleke. (2013). *Knowledge, Attitude, Practice and Factors Associated with Prevention of Mother-to-Child Transmission of HIV/AIDS among Pregnant Mothers Attending Antenatal Clinic in Hawassa Referral Hospital, South Ethiopia*. Hawassa: South printing press.
- Adebola, Adedimeji, Nareen Abboud, Behailu Merdekios & Miriam Shiferaw. (2012). A Qualitative Study of Barriers to Effectiveness of Interventions to Prevent Mother-to-Child Transmission of HIV in Arba Minch, Ethiopia).
- Anteneh, Asefa and Getnet, Mitike. (2014). Prevention of mother –to-child transmission (PMTCT) of HIV services in Adama town, Ethiopia: Clients satisfaction and challenges experienced by service providers. (unpublished research report), Department of Public Health, College of health Sciences, Addis Ababa University.
- Bryce, J., et al. (2010). The accelerated child survival and development programme in west Africa: a retrospective evaluation. *Lancet*, 375:572–82.
- Carlo W. et al. (2010). Newborn-care training and peri-natal mortality in developing countries. *N. Engl. J. Med.*, 362:614–23.
- CSA. (2008). *The 2007 population and housing census: Country level*. Addis Ababa: Central Statistical Agency.
- CSA. (2012). *Ethiopia: Demographic and health survey 2011*. Addis Ababa: Central Statistical Agency.
- CSA & MoH. (2014). *Ethiopia; Mini demographic and health survey 2014*. Addis Ababa: CSA.
- FMoH. (2014b). *Country progress report on the HIV response, 2014*. Addis Ababa: Bole Printing Press.
- FMoH. (2014b). *Health and health related indicators 2006 EC (2013/14)*. Addis Ababa: Policy Planning Directorate, Federal Ministry of Health.
- Garrib, A. et al. (2006). Rates and causes of child mortality in an area of high HIV prevalence in rural South Africa. *Trop. Med Int. Health*, 11:1841–8.
- Goncho Moges. (2008). Factors influencing utilization of PMTCT in Addis Ababa, Ethiopia. (unpublished research report).
- Gottfried, H. (2013). WHO consolidated guideline for the use of ARVs for treating and preventing HIV infection). Geneva: WHO.



- Hussein, Mohammed et al. (2005). Assessment of effective coverage of HIV prevention of pregnant mother-to-child transmission services in Jimma Zone (South West Ethiopia). (Unpublished research report). Addis Ababa, Department of Public Health, college of Health Sciences, Addis Ababa University.
- KIT (Royal Tropical Institute). (2009). Factors influencing utilization of PMTCT services in Addis Ababa – Ethiopia. (an internal course material), Amsterdam, Development Policy and Practice, Vrije Universteit.
- Lincetto, O. et al. (2008). *Opportunities for Africa's new born: WHO standard ANC guide*. Geneva: World Health Organization.
- Mate, K. S. et al. (2013). A quality improvement model for the rapid scale-up of a programme to prevent mother-to-child HIV transmission in South Africa. *International Journal for quality in Health Care*, 25(4), 373-380.
- Mirkuz, Alemnesh H. (2010). Promising outcomes of a national programme for the prevention of mother-to-child HIV transmission in Addis Ababa: a retrospective study). (unpublished research report), Department of Public Health, College of Health Sciences, Addis Ababa University.
- MoH. (2007). *National reproductive health strategy (2006-2015)*. Addis Ababa: Ministry of Health.
- MoH.(2008). *Compact between the Government of the Federal Democratic Republic of Ethiopia and the Development Partners on scaling up for reaching the health MDGs through the health sector development programme in the framework of the International Health Partnership*. Addis Ababa: FMoH.
- MoH. (2009). *Financing reform aim to improve quality of health services*. Addis Ababa: Federal Ministry of Health.
- MoH. (2010). Health sector development program IV (2010/11 – 2014/15). Addis Ababa: CSA.
- MoH. (2012). *Ethiopian demographic and health survey 2011*. Addis Ababa: CSA.
- MoH. (2013). Update on Ethiopian health policy. (unpublished health update), Addis Ababa, Ministry of Health.
- Mohammed Ahmed. (2013). Adult male circumcision to reduce HIV prevalence in Gambella Region. (unpublished MPH thesis), Addis Ababa, Department of Public Health, College of Health Sciences, Addis Ababa University.

- Mbirimtengerenji, D. (2007). *'Is HIV/AIDS Epidemic Outcome of Poverty in Sub-Saharan Africa?'* Johannesburg: UNAIDS.
- Mwaniki, M. K. et al. (2014). Improving service uptake and quality of care of integrated maternal health services: the Kenya district improvement collaborative. *BMC Health Services Research*, 14(416), 3-9.
- Negussie Dayessa & Misganaw Fantahun. (2009). Assessment of quality of Antenatal Care in Addis Ababa Health Centers. *Ethiopian Journal of Public Health*.
- Nigatu Tilahun & Woldegebriel Yosef. (2011). *Analysis of the Prevention of Mother-to-Child Transmission (PMTCT) Service utilization in Ethiopia: (2006-2010)*. Addis Ababa: Office of U.S. Global AIDS Coordination- Ethiopia.
- Nurhuseien, Andu. (2011). *Building partnership for improving quality of PMTCT services in 31 hospitals in Ethiopia*. Addis Ababa:
- Stringer, E. et al. (2010). Coverage of nevirapine-based services to prevent mother-to-child HIV transmission in 4 African countries. *JAMA*, 304, 293–302.
- UNICEF. (2013). *How does HIV and AIDS affect girls and women?* Geneva: UNICEF.
- Villadsen, S. F. et al. (2014). Antenatal care strengthening in Jimma, Ethiopia: A mixed-method needs assessment. *International Journal of Environmental and Public Health*, 945164, 1-10.
- UNAIDS. (2010). *The impact of Aids in Africa*. Geneva: UNAIDS.
- UNAIDS & UNICEF. (2011). *Worldwide HIV/AIDS statistics, 2009 & 2010*. Geneva: UNAIDS.
- USAID-Ethiopia. (2012). *HIV/AIDS in sub-Saharan Africa*. Addis Ababa: USAID.
- Wakgari Deressa et al. (2014). Utilization of PMTCT services and associated factors among pregnant women attending antenatal clinics in Addis Ababa, Ethiopia. (Unpublished research report), Addis Ababa, Department of Public Health, College of Health Sciences, Addis Ababa University.
- World Bank. (2008). *World development report 2007*. Geneva: World Health Organization.

## Appendices

### Appendix A: Interview Schedule for ANC and PMTCT clients

*This Study is being conducted by Mr. Shiferaw Neda Fujie, as partial fulfillment of MSW from IGNOU coordinated by St. Mary University, Addis Ababa. Semi structured-Questionnaire for client mothers experiencing ANC, and PMTCT services in Gambela hospital*

#### Respondent's Background Information

No	Age	Education	Marital Status
1	(19-23)	Illiterate	Single
2	(24-28)	Elementary level	Married
3	(29-33)	High school level	Divorced
4	(>34)	College level	Widowed

- 1- Where did you get the information about ANC service first?
  - A- Media
  - B- The hospital
  - C- Community health workers
  - D- Mothers' Support Group
- 2- Have you had home delivery with out ANC, before? 1, yes 2, No
- 3- Did your relatives and husband support the idea, when you decide to go for ANC/ service? 1, yes 2, No
- 4- If No, why did they oppose you? -----
- 5- Have you tested for HIV in the hospital? 1, yes 2, No
- 6- If it is yes, have you got counseling and given consent for the testing? 1, yes 2, No
- 7- How did you rate the counseling service during ANC, HIV testing, or PMTCT service?

Component of the service	Highly Satisfied	Satisfied	Moderately Satisfied	Unsatisfied	Highly unsatisfied
Counseling room setting					
Confidentiality					
Treatment and respect of the counselor					
Amount of time & sessions given					
Relevance of counseling contents/ points					
Feeling of being heard & relieved					

- 8- Do you know about the availability of PMTCT service in this Hospital? 1, yes 2, No
- 9- If yes, who told you?
- A- Community Health Worker
  - B- Professionals from the hospital, and printed message from the facility
  - C- Mother Support group members
  - D- A friend
  - E- Local Media
- 10- Do you know at least one pregnant mother who is against using PMTCT service? 1, Yes 2, No
- 11- What is the reaction of the community in regard to the culture, about PMTCT service?
- A- Support and cooperation
  - B- Discouraging from accessing ANC and PMTCT services
  - C- Blaming for getting pregnant while being HIV positive
  - D- Discrimination
- 12- Is it easy for the mother to decide to use ANC and PMTCT by her own, if a husband is against it?  
1, yes 2, No
- 13- Are you satisfied with staff composition and skills? 1, Yes 2, No
- 14- What was the support from mother support group to you?
- A- Counseling? 1, yes 2. No
  - B- Home visit? 1, Yes 2, No
  - C- Help in partners' involvement/support? 1, Yes 2, No
  - D- No help at all 1, Yes 2, No
- 15- Do you think that the hospital is offering quality ANC and PMTCT services? 1, Yes 2, No

**Only for mothers on PMTCT service**

When did you begin Prophylaxis/ART?	<b>A</b>		<b>B</b>		
	14 <sup>th</sup> Week of Pregnancy		28 <sup>th</sup> week of pregnancy		
Do you get ART/Prophylaxis on time	Yes		No		
Do you get service right away when you come here? or should you wait long?	Yes		No		
Have you had intensive counseling before the service	Yes		No		
Have you ever felt mistreated, or confidentially violated by service providers?	Yes		No		
Are you satisfied with the service in general	Highly Satisfied	Satisfied	Moderately satisfied	Unsatisfied	Highly unsatisfied

Please add anything you feel not discussed yet; -----

**THANK YOU FOR YOUR TIME AND PARTICIPATION ON THIS STUDY!**

## **Appendix B: Qualitative interview guide**

### **Qualitative interview guide:**

#### **Tool # 1: Interview with RHB Administrators:**

##### **Main Questions:**

- 1- Let us begin with the overview of how your office is working in regards to ANC and PMTCT services in the region.
- 2- Are there any new activities at regional level in regards to improving the services in the health facilities in the area? If yes, how?
- 3- If the answer for question # 2, what are the challenges to improve quality of these services.
- 4- In particular to Gambela hospital, what support does your office/department provide mainly to the MNCH department to help the service delivery system?
- 5- Do you involve other partners for more comprehensive support to the hospital? If yes, please list out the partners and their level of involvement as well as their working relation with the bureau?
- 6- Is there any structure that your office built to monitor, supervise and support the hospital in order to ensure quality service delivery system? Would you please explain it ?
- 7- Do you have regular evaluation of the service delivery at the hospital mainly ANC and PMTCT services? If yes how?
- 8- Are there efforts in increasing community awareness about the ANC/PMTCT services? If yes, how and if not, why not?
- 9- Does the RHB get appropriate support from MoH in order to extend assistance to Gambela hospital in regards to availing and improving these services? If yes, what are the supports? If not, why would you think there is limited support?
- 10- What kind of material supplies does your bureau provide to Gambela hospital in regards to ANC and PMTCT services? , is it timely supply? If not what are the challenges to do so?

- 11- Have you ever supplied guidelines for professionals at the hospital which could enable them offer standard services accordingly? If yes, have you prepared it or it is from the MoH?
- 12- If there is no guideline provided to health professionals at the MNCH department, what are the challenges in this regard?
- 13- Was there any training provided to health professionals at the hospital working in the MNCH department for better service in regards to HCT, ANC and PMTCT? If yes, how many trained? When? And who provided the training?

*Thank you very much for your time, willingness to participate and for your openness on each issue discussed here!*

## **Tool # 2: Interview with Gambela Hospital Administrator**

### **Main Questions:**

- 1- Would you please explain ANC and PMTCT services in the institution in general?
- 2- Is there any guideline for health professionals in regards to delivering the above mentioned services?
- 3- Was there any relevant training to update professionals' skills and improving the services in the past 12 months?
- 4- Do you have on time delivery of drugs and kits? If yes who provides the supply to the hospital?
- 5- If the answer for question #4 is no, why? And what are the challenges associated with supply gaps?
- 6- Does the hospital have some mechanism to increase community awareness in order to increase service utilization?

- 7- Do you think that service utilization increased? If yes, please give me example/clarification as evidence
- 8- Is there local structure put in place to strengthen facility based PMTCT services?
- 9- Is there any effort to improve the MNCH department and HCT, ANC and PMTCT services by the institution itself?
- 10- Are you aware of the new accelerated PMTCT program launched at MoH level?
- 11- If yes, is it being practiced in this hospital? If yes, what change did it bring on the service delivery and to the clients at large?
- 12- Are there NGOs as partners supporting the facility to improve its ANC/PMTCT services? If yes, please list them and describe their level of involvement
- 13- Could you please, tell me the working relationship of the hospital with RHB and the kind of support?
- 14- What do you think the strength of the hospital particularly the MNCH department in its service delivery related to HCT, ANC, FP, and PMTCT?
- 15- What are the mechanisms to ensure client satisfaction?
- 16- Do you have any working relation with community health workers like HEWs, health army or any other?
- 17- Do you have proper documentation and follow up clients according to the need? For example for adherence, and reminder for other important health appointments?
- 18- How do you follow up clients, and how do you reach them?
- 19- As medical director, what is your role in regards to improving services, ensuring clients satisfaction, monitoring and evaluating the department?
- 20- What are the major challenges faced both at institutional and department levels that impact the services?
- 21- If you have and additional points to make, please .....

***Thank you very much for your time, willingness to participate and for your openness on each issue discussed here!***

## **Appendix C: Focus Group Discussion guide:**

### **Tool # 4: FGD with Mothers' Support Group Members**

#### **Guiding Questions:**

- 1- Who recruited the support group members among mothers and how were you selected?  
And when did you start working with the hospital?
- 2- Have you had trainings after you recruited? If the answer is yes,
  - What was the training title?
  - Who organized it?
  - How helpful it was for the services you are rendering at the moment?
- 3- Are you providing voluntary service or formally employed? If you are hired, who pays the salary? If you are volunteers, would you please explain if you have any incentives?
- 4- What are the lists of services expected from each mother support group member?
- 5- How did the services of your group integrated/linked to the hospital mainly MNCH department?
- 6- Is there any coordination between your group and community health workers in Gambela town to work effectively on maternal health? If yes please explain the scope of work and the nature of joint work
- 7- What does the mothers' support group's work in the community and in the hospital compound look like?
- 8- What are the reactions of clients about the services given by the group?
- 9- Rather than the client women, do you engage husbands/partners in the problem solving process? If yes, how? If not, why not?
- 10- What supports do you have when you work to aware the community/mothers, and to follow up clients?
- 11- If you provide counseling to HIV positive mothers, have you had adequate prior training that can help you in the process?
- 12- What are the challenges challenge in the process of counseling and other services you are providing?



- 13- Since your assignment on the service in Gambela hospital, have you had any refresher training/in service training? If yes, explain about it (who provided it, when, and the title of the training).
- 14- How do you rate the quality of HCT, ANC, and PMTCT services in the hospital? Is there any suggestion that you can forward for improvement?
- 15- In your observation so far, do mothers are interested in the ANC and PMTCT services? Is there an increase in service utilization? If yes what do you think are the factors? If not, why not?
- 16- Do you keep any record of your clients for follow up and reporting? If so how do you do this and did you have any training and material support for this?
- 17- What are the strengths of mother support group in improving the quality of the services in the hospital?
- 18- What are the challenges that may affect the continuity of the service from the group in the future?
- 19- If you feel any point relevant is missing, please take this last opportunity to express it

***Thank you for your time and active participation***

