

FACTORS AFFECTING UTILISATION OF "PMTCT" SERVICES IN
EAST WALLAGA ZONE OF OROMIA REGIONAL STATE, Ethiopia

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KIT (Royal Tropical Institute)
Development Policy and practice/
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FACTORS AFFECTING UTILISATION OF "PMTCT" SERVICES IN EAST
WALLAGA ZONE OF OROMIA REGIONAL STATE, Ethiopia

A thesis submitted in partial fulfilment of the requirement for the degree
of
Master in Public Health

By Basha Namomsa Aga
Oromia / Ethiopia

Declaration:

Where other people's work has been used (either from a printed source,
Internet or any other source) this has been carefully acknowledged and
referenced in accordance with departmental requirements.

The thesis Factors affecting Utilisation of "Pregnant Mother to Child
Transmission of HIV" services in east Wallaga Zone of Oromia regional
state, Ethiopia is my own work.

Signature _____

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List of Acronyms/Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
ART	Antiretroviral Therapy
BCC	Behavioural Change Communication
BF	Breast Feeding
CBRHA	Community Based Reproductive Health Agent
CPR	Contraceptive Prevalence Rate
DHO	District Health Office
EWZHO	East Wallaga Zone Health Office
FHEWs	Female Health Extension Workers
FHI	Family Health International
FHAPCO	Federal HIV/AIDS Prevention and Control Office
FMOH	Federal Ministry of Health
FP	Family Planning
HC	Health Centre
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HP	Health Post
IEC	Information, Education, communication
MCH	Maternal and Child Health
MTCT	Mother to Child Transmission of HIV
NACS	National AIDS Council Secretariat
NTHO	Naqamte Town Health Office
NGO's	Non Governmental Organizations
OHAPCO	Oromiya HIV/AIDS Prevention and Control Office
OI	Opportunistic Infection
OSSA	Organization for Social Service for AIDS
ORHB	Oromia Regional Health Bureau
PEPFAR	The President's Emergency Plan for AIDS Relief
PIHCT	Provider Initiative HIV Counselling and Test
PMTCT	Prevention of Mother to Child Transmission of HIV
PLHIV	People Living with HIV
PAC	Post Abortion Care
PNC	Post Natal Care
RH	Reproductive Health
STI/D	Sexually Transmitted Infection/Diseases
TFR	Total Fertility Rate
UNAIDS	United Nations Programme on AIDS
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VCT	Voluntary Counselling and Testing for HIV infection
W H O	World Health Organization
ZHO	Zone Health Office

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“Lord I love you and I need you, come into my heart and bless me, my family, my home, and my friends, in Jesus name.” Amen
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DEDICATION

Dedicated to my lovely wife

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And to our four kids

METI, OBSE, GALANE and TALILE Basha

Who got along with my absence for one year and

Provided me with the encouragement and

Support I need.

ABSTRACT

Mother to Child Transmission (MTCT) is by far the largest source of HIV infection in children under the age of 15. The main components of the prevention of MTCT (PMTCT) intervention package have included community awareness, HIV voluntary counselling and testing (VCT), prevention of HIV positive women becoming pregnant, use of antiretroviral drugs (mono/dual prophylaxis or HAART), and either replacement or exclusive breast feeding.

In Ethiopia, many of these strategies have been implemented since 2003 as part of the national HIV/AIDS prevention strategy. However, no review of the PMTCT has been conducted in East Wallaga Zone of the Oromia Regional National State. Therefore, the objective of this thesis is to identify factors affecting utilisation of PMTCT services in East Wallaga. The study employed a literature review, data analysis from east Wallaga rural and Naqamte town health offices and information from my personal experience.

To assess factors affecting PMTCT utilization, the Poverty Reduction Strategy Paper (PRSP) model was used. Major factors affecting utilization included inaccessibility (Geographical or financial), absence of human and material resources and socio-economic and cultural barriers associated with stigma and discrimination. Results strongly reinforce the need for the proper utilization of resources and integration of PMTCT services to general health services and utilisation of peripheral health institution with adequately trained health workers for these activities. The results generated could serve as a basis for improvement of PMTCT programs in East Wallaga zone and Oromia region.

1 INTRODUCTION:-

According 2005/2006 EDHS report, Ethiopia is the 2nd largest populated country in Africa, with estimated population of 75 million. The age and sex structure is pyramidal, similar to other developing countries, with 44% under the age of 15. Eighty four percent of the population live in rural areas. Nationally 50.4% of pregnant mothers received ANC from health professionals at least once; those attending delivery at health institution were 5% and only 6% of babies were delivered by a health professional. About 15.5% also received PNC with in the critical 1st two days after delivery and CPR is 35.8%. Total fertility rate is 5.4 and life expectancy at birth for female and male is 55.4 and 53.4 years respectively (EDHS, 2005/6).

The National HIV prevalence estimated rate was 3.5%; 3% and 4% are among males and females respectively. From a total 52428 pregnant women tested for HIV 8% (4172) were positive; 2208 women and 1,341 HIV positive babies received NVP (FMOH, 2005/6). Ethiopia designed programs to prevent the spread of HIV and AIDS, to care for those with AIDS and to reduce the adverse socio-economic consequences of the epidemic. To achieve this goal multi-sectoral response to the HIV/AIDS epidemic and participation was encouraged by government sectors, NGOs, private sectors, mass organizations, religious groups and communities. The largest source of HIV infection in children under the age of 15 is Mother to child transmission (MTCT). HIV can be transmitted during pregnancy, labour, delivery, or after child's birth during breast feeding (UNAIDS, 2008). Adoption of the National policy on HIV/AIDS was an important step forward and deals on prevention of mother and child from acquiring HIV infection (OHAPCO, 2006). So, from the general strategies designed to address the epidemic included plans to PMTCT intervention at health institutions and upgrade capabilities to provide VCT, screening and counselling.

In Oromia National Regional State, the prevalence rate of HIV/AIDS was estimated to be 2.4% (8.4% urban and 1.42% rural). The epidemic predominantly affecting young peoples 15 – 24 years of age (AIDS in Ethiopia, 2006). The prevalence was higher among young women and adolescent girls and in rural areas; this group of population often have less information and access to services (ORHB, 2003). The number of people living with HIV (PLHIV) in Oromia was 318,382 among which about 20% are in need of ART; but, only 3% of the totals were getting ART. Pregnant women who live with HIV was 29,302 (2.2% of total pregnancies) and each year 8,547 children born with HIV. Out of 46,331 ANC attendants about 34% were pre-test counselled, 21% tested for HIV, 682 pregnant women (PW) found positive, 249 PW and 158 HIV positive

babies received NVP and 532 women received counselling on infant feeding. AIDS orphaned was about 156,742 children of which 34% were dual orphans and AIDS related death was 29,445 in the same year (ORHB, 2007).

Among a number of factors fuelling the spread of HIV/AIDS in the region were poverty, low education, stigma and discrimination of those living with HIV, migration, presence of sex workers, difference between gender and harmful traditional practices were included (ORHB, 2004). However, the efficiency and factors affecting PMTCT in Oromia National Regional States in general, and in East Wollega zone in particular was not documented. Therefore, the objective of this thesis was to evaluate the performance and factors affecting PMTCT utilization in East Wollega Zone.

1.1 Back ground information

ETHIOPIA:-

According to Federal Ministry of Health, (2006) the projected population is estimated at 75 million which makes Ethiopia the second most populous country in Africa next to Nigeria where 16.2 and 83.8% live in urban and rural areas respectively. Similar to many developing countries, education has marked influence on the spread of diseases, the acceptability of health practices and utilization of modern health services. Not only the literacy but also health service provision has historically been poor in Ethiopia.

To improve health service provision, the Ethiopian government has focused on principles of decentralization and democratization throughout the restructuring of the health system. The zonal health office has also been a link between the regional health bureau and district health office which is responsible for managing, implementing and coordinating the operation of the primary health care services that includes prevention, promotion and basic curative services (FMOH, 2005).

Organization of the health care delivery system is four tiers through out Ethiopia. Primary Health Care Unit (PHCU) with one health centre and 5 satellite health post is the base and designed to serve 25,000 people. The second tier is the district hospital responsible for 250,000 people. The third zone hospital is responsible for 1,000,000 people and the fourth at the top of the tier is a specialized hospital responsible for 5,000,000 people. Potential health service coverage in 2007 was 76.9% and showing increments with variation among regions which has been dependent on topography and demographic characteristics (FMOH, 2007). In Ethiopia geographical barriers, socio-economic factors and distance from health institutions remain major obstacles for health services utilization.

OROMIA:-

Oromia National Regional State is one of the largest Federal states in Ethiopia both in terms of area coverage and population. Administratively, Oromia region is divided into 17 Zones, 5 special administrative towns, 5 Administrative cities, 282 districts (246 rural and 36 urban) and 339 towns. The districts are further divided into 6500 rural villages and 546 urban localities. Decision making power has been decentralized to the districts and they are responsible for all development activities in their respective areas (ORHB, 2008). Health management system of Oromia region is organized into three levels which includes regional health bureau, zone and district health offices. District health offices are responsible for managing and co-ordinating the operation of primary health care services at district level. Potential health service coverage of the region was about 73%. The region is facing an acute shortage of health personnel. Human resource to population ratio indicates that one physician serves more than 115,000 people, one nurse serve 7943 people which is very low compared to WHO standard of 1:10,000 for physician and 1:5000 for nurses (ORHB 2006) (Table 1).

Reasons that contribute to the human resource problem include attrition to private institutions, migration out side the country, imbalance between new health institution construction and human resource training in the country (FMOH 2005). Like other parts of Ethiopia the region has extremely poor health status, preventable infectious diseases and nutritional deficiencies. Inadequate access to safe potable water and sanitation facilities are the underlying causes for infectious diseases. Sixty to seventy percent of the health problem is related to this. Respiratory tract infection and parasites are the major causes for out patient visits at health institutions (ORHB 2007). With prevalence estimated at 2.4 % HIV/AIDS related problems is a huge burden for the health institutions in Oromia Region.

EAST WALLAGA:-

East Wallaga Zone is one of the 17 Administrative Zones of Oromia National Regional State and is located in western Ethiopia. It has an area of 14,255 square kilometres with estimated population of 1,259,359 (one million two hundred fifty nine thousand, three hundred and fifty nine). Eighty five percent of the population is living in rural areas. The economy of the zone is based on subsistence farming and livestock rearing. Trade complements income of the community. Main crops of the zone are maize, wheat, barley, taff, peas and chick peas. Coffee, chat and fruits are also the source of income for the rural population of this zone. East Wallaga is divided into 17 districts, which are directly accountable to the zone and 1 city administration (Naqamte).

The 17 districts further divided into 287 rural and 22 urban villages which again further divided to 14,487 community development groups (EWZHO, 2007/2008).

Zone health offices are a branch of regional health bureau to bridge the districts with the region. In current East Wallega, there are two Zone health offices; one to co-ordinate rural part of the zone and the other to co-ordinate health activities of Naqamte town. There is one hospital, 14 health centres, six pharmacies, 48 clinics, and 124 health posts owned by government, while there are one health centre, five clinics, four health posts, three pharmacies and 54 rural drug vender are privately owned. Potential health service coverage of the Zone is 74.2%.

In this zone relatively well equipped health institutions (Hospital and Health centres) are all found in urban/semi urban areas. Only health stations/posts which are not well equipped with essential inputs (drugs, medical equipments) and staffed with one or two health personnel or female health extension workers are assigned to serve more than 5,000 populations. Concerning humanpower similar to the region health professional crisis is still a problem in this Zone and people in charge of district health offices are either under qualified or junior with little experience to carry out the health management activities (EWZHO, 2008) (Table 1).

Table 1:- Ethiopia, Oromiya and East wallaga zone health institutions and human power to population ratio and required health institution in future to fill the current gap.

A. HEALTH INSTITUTIONS

Types of Health institutions	National standard	Ethiopia (75,067,000)		Oromia (26,553,000)		East Wallaga zone (1,259,359) Current available & future required			
		Exist	Ratio	Exist	Ratio	Exist	Ratio	required	
Hospitals	1:250,000	138	1:543,940	29	1:915,61	1	1:1,259,359	4	
H/ centres	1:25,000	635	1:118,260	188	1:141,29	14	1:89,954	38	
H/ stations	1:5000	1206	1:62,245	896	1:29,635	48	1:26,237	-	
H/ posts	1:5000	5995	1:12,522	1070	1:24,816	124	1:10,156	77	
B. Human resources						Total East Wallaga (1,259,359)		Rural East Wallaga (1,174,519)	
						No	Ratio	No	Ratio
Physician	1: 10,000	2115	1: 35,493	183	1:145,098	11	1:114,487	0	0
He./ Officers	1: 10,000	715	1: 104,989	132	1:201,159	20	1:62,968	14	1:83,922
Nurses	1: 5,000	17845	1: 4,207	3343	1:7,943	376	1:3,350	209	1:5621
He./ assistants	1: 5,000	4800	1: 15,639	1540	1:17,242	65	1:19,375	35	1:34,000
Para medical	1: 2,500	5431	1: 13,822	1149	1:23,110	100	1:12,594	50	1:23,490
He/Ext. Wrks	1: 2,500	8901	1: 8,434	2035	1:13,048	479	1:2,629	478	1:2457

Source: - FMOH, 2005/06; NTHO and EWZHO, 2008 annual report

N.B:-

1. According to EWZHO 2008 report ratio of man power to population in the rural districts also includes: -

1. Laboratory technician 1: 61,837
2. Pharmacy technician 1: 9784

2. This table is constructed from various sources as follows:-

- A. National and regional indicators from FMOH, 2005/06 report
- B. East Wallaga Health institutions and human resources from EWZHO, 2007/8 report
- C. Naqamte town health institutions and human resources from NTHO,2007/2008 report.

2 Problem Statement

According to (UNAIDS, 2003), it would have been possible to avert all infant HIV infections by reaching majority of pregnant women through prevention of mother to child transmission (MTCT) services. Long course of anti retroviral therapy (ART) and replacement feeding (not breast feeding) reduces the risk of infection to below two percent. This was proved in developed nations since 1999 after application of the option mentioned and positive out come was observed. Evidences suggest that simple and cheap courses of treatment can reduce mother to child transmission (MTCT) by 1/2 and the recommended therapy is two doses of Nevezapine (NVP) that means one for the mother in labour and one for her off spring just after birth (UNAIDS, 2003).

The world leaders committed to reduce the number of infants infected with HIV by twenty and fifty percent by the year 2005 and 2010 respectively. According to the commitment eighty percent of pregnant women accessing antenatal care should have enough information on all HIV prevention services available to them (UNGASS declaration; 2001). Although commitments were made, the number of HIV positive pregnant mothers who accessed preventive drugs, worldwide, could not exceed fifteen percent. Furthermore infection of new born did not decrease as expected (UNAIDS/WHO/UNICEF, 2008). The reason for low PMTCT utilization had been due to absence of services at different level or because of the fact that pregnant women who were in need of it did not access PMTCT services that were available in their catchment's areas (UNFPA, 2006).

HIV continues to transmit from mother to child during pregnancy, labour, delivery and breast feeding. Globally, there were around twelve million women of (15 - 49 years) who were HIV-positive. In sub-Saharan countries even where PMTCT services are available, for different reasons, pregnant women do not use it fully. The barriers to PMTCT uptake were a cascade effect that could be explained as; pregnant women use of services from initial contact through counselling, testing, returning to collect results, receiving treatment for herself and receiving infant treatment with counselling leads to low uptake of PMTCT services that are available (CHG, 2004). By far the largest portion of HIV in children in developing country is caused by MTCT. It is highly contributing to the HIV infection of about five hundred thousand children below fifteen years age. Without intervention, the risk of infection of babies born to an HIV mother is estimated to be 20 to 45 percent (De Cock K.M et al; 2000).

In East Wallaga ANC coverage is 52%; skilled attended delivery was 18.4% and 6.6% was attended by traditional birth attendants. PNC services were 15.6% and family planning utilization was 47%. In the Zone, 45.8% of pregnant women and 30% non pregnant child bearing

age women received two and above tetanus toxin vaccine (EWZHO, 2007/8). HIV prevalence among ANC attendants in this zone were 10.4% in 2005(OHAPCO, 2004/5). Out of 52891 expected pregnant women 5,501 are probably carriers of HIV virus. The 2007/2008 East Wallaga Zone health office reported that out of 4240 (8.02% of the target) women who attended ANC for the first time 111(2.6%) women tested positive and only 52 women and 57 neonates received nevirapane. Although PMTCT service is being implemented in few governmental health institutions, the proportion of mothers utilizing the service is still very low. The main reasons for low coverage of PMTCT in East Wallaga could be service related and socio cultural factors; the attached annex 4 shows the complexity of the problem.

2.1 Significance of the study

My justification for assessing factors affecting utilization of PMTCT services in health institutions under East Wallaga Zone is as follows: Oromia Health Bureau initiated to start the program because it is the global strategy to combat the HIV/ AIDS. HIV prevalence in Oromia region of Ethiopia is 2.4% among the adult population. The number of pregnant mothers who live with HIV virus was 29,302 making about 2.2% of total pregnancies and each year 8,547 children born with the virus in the region. Out of 46,331 ANC attendants 15,499 were pre-test counselled, 9440 pregnant women (PW) tested for HIV, 682 PW found positive, 249 (36.5%) received NVP, 158 HIV babies received NVP and 532 women received counselling on infant feeding (ORHB, 2006/7).

East Wallaga is part of Oromia region and the 2005/2006 ANC surveillance report show that HIV prevalence among pregnant women in this zone was 10.4%. However the PMTCT service has not expanded in many places and the available services are not also used by pregnant women. In my twenty years work experience as a public health officer I had an opportunity to work at different positions and currently I am working as Zonal HIV/AIDS co-ordinator where I could notice how the PMTCT service is suffering. Similar to the region numbers of infants born with HIV infection each year as a result of (MTCT) are high but utilization is low because of different factors resembling global situations.

In addition no program evaluation was done. Therefore this assessment focuses on service provision and quality to input, process and out put. It also explores HMIS, IEC/BCC; application of the guideline and client knowledge, practice and opinion as well as provider perception assessment to wards the PMTCT program. It identifies why the service utilization is poor by the eligible groups.

Co-coordinators and service providers should be given an emphasis on improvement of utilization of the service by target groups. The assessment results also enable us to develop best strategy in the community. It increases service consumption by exploring the purpose and its finding. It assess utilization of comprehensive HIV prevention components with PMTCT based on the performance standard come up with service improvement by all stake holders involved in this program.

There has not been a published study to date that investigates these issues within the East Wallaga Zone of Oromia. This investigation was deemed essential based on previous work conducted at the District level in relation to health service provision of PMTCT services. Therefore reviewing literature will provide insight into, the factors influencing utilization of PMTCT services and ultimately lead to some potential solutions for the Oromia regional health system.

2.2 Beneficiaries of this study are

Oromia regional health bureau, east Wallaga zone and its 17 district health offices, Naqamte town health office, child bearing age women of the Zone and Oromia, decision makers at different levels, politicians, Members of parliament elected from the people, NGOs working in HIV/AIDS and development areas, health planners and PMTCT program coordinators and health providers will be beneficiaries of the results of this study.

2.3 General Objective:-

To identify/explore factors affecting utilisation and effective coverage of PMTCT and analyse the existing health system and service delivery strategies to come up with practical recommendation for improving PMTCT services in East Wallaga zone of Oromia regional state, Ethiopia.

2.4 Specific Objectives

1. Describe the PMTCT process and assess the service.
2. Identify factors affecting PMTCT service utilization (Socio-cultural/religious factors).
3. Identify service related factors that influence PMTCT utilization in the study zone.
4. Assess what has been done in area of PMTCT improvement and analyse the existing service delivery strategies and identify the gaps.
5. Assess interlink age between PMTCT, VCT and ART services.

6. Formulate recommendations for action at zonal and regional level to increase pregnant women's and their partner access to PMTCT service based on the findings of the review.

2.5 Questions to be answered in PMTCT utilization

In general the purpose of this thesis is to study how utilization of PMTCT services can be improved in Oromia Region, particularly East Wallaga Zone and I would like to answer the following questions in my thesis:-

1. Are the PMTCT services in East wallaga Zone reaching the community in need?
2. What factors affect utilization of PMTCT services in East Wallaga Zone?
3. What health and related factors affect utilization of PMTCT?
4. What factors affect client satisfaction and use of PMTCT services in study zone?
5. How does presence of resources contribute to utilization of PMTCT services?
6. Are there possibilities to improve PMTCT services utilization in East Wallaga Zone?

2.6 Expected outcomes/Results

1. Recommendation that may be expected to improve utilization at health institutions currently implementing PMTCT services and awareness creation to technical supervisors at all level of East Wallaga zone.
2. Development of a better strategy for improving utilisation of the PMTCT services and call for managers/decision makers of different levels to respond to gaps found during review of PMTCT utilization and to involve private sectors in PMTCT services provision.

2.7 Methodology

I used data from Naqamte town and east Wallaga zone health offices to analyse the factors for low utilization of PMTCT services in the Zone. Poverty reduction and strategic paper (PRSP) model of World Bank 2001 was applied to assess; accessibility, availability of human and material resources, organizational quality and consumer responsiveness, social accountability, relevance of services and utilization of health intervention, timing and continuity, technical quality as well as services coverage which is influenced by household factors and other sectors and determining outcomes of the poor in the study zone. Furthermore, systematic

literature review and my personal experience is the base of this study and my main focus is to identify factors affecting utilization of PMTCT services in East Wallaga zone of Oromia regional state. Special attention was given to literatures from Ethiopia and other east African countries.

Search strategy

I reviewed both published and unpublished data from all sources (country to district), PMTCT guidelines, program evaluation and reports are included. Scientific publication, literature and articles from Ethiopia and different countries with emphasis on sub-Saharan is reviewed. I searched major search engines including Pub med to obtain peer review articles and Google for grey literature. In addition information was sought from UNAIDS, WHO, and UNICEF publications and reports. From KIT library I used books and previous thesis of graduate students with emphasis on Ethiopian students of the former years, articles and journals. Furthermore, I used telephone and E-mail communication with concerned bodies to get relevant information, especially Naqamte town and East Wallaga zone health offices to get data on their annual health report and any material useful for this thesis. I have also used my personal experience and data I brought with me.

Key words:- Utilization, Access, human resource, health system, health policy, with HIV/AIDS, Ethiopia, Oromia, East Wallaga, VCT, PMTCT, ART, prevention, support, Institutional arrangement, BCC, ANC, PNC, Delivery, Family Planning,

2.8 Limitations of the study

1. Data generated from records and review might be incomplete and not necessarily reflect the real situation at east wallaga Zone and its districts.
2. Poor health management information system (HMIS) especially of districts and zone affect the quality and reliability of data.
3. I could not get data from periphery/Health institutes hence the review may not give comprehensive picture of the overall situation of the study zone. Hence; this thesis will encourage detailed and specific review on site; about the factors that affect PMTCT utilization and effective coverage in east Wallaga zone.

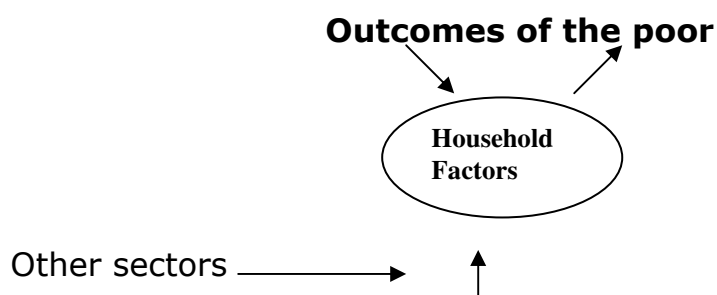
3 Literature review

PMTCT intervention is done in different health institutions in east Wallaga Zone of Oromia regional state. Although services are given the health seeking behaviours of PMTCT clients depends on decision made by them based on household factors, physical accessibility and availability of PMTCT services with confidentiality and privacy. If a critical input that includes health institutions, PMTCT service providers and materials are absent utilization, accessibility and availability which are closely related remain invalid (Birtuwwan and Jackson 1997).

To explore PMTCT intervention in East Wallaga zone, PRSP model was applied to address factors affecting the health seeking behaviour of the poor and assess the access and utilization effects. This model explains eight steps of coverage for interventions addressing the needs of the poor. It looks whether essential health services actually reach and benefit the poor. The PRSP model is also based on the fact that addresses issues affecting the health seeking behaviour of people. It assesses the key risks, interventions and outcomes. It further outlines provision of health service and assess its performance in terms of their impacts on health related behaviour and fundamental outcomes in a given community (Claeson et al 2001).

According to this PRSP model the 1st stage deals with Accessibility, Availability of Human and Material resources, organizational quality and consumer responsiveness with social accountability is "potential" coverage while 2nd stages about Relevance of production and utilization of health intervention, timing and continuity with Technical quality is "actual" coverage. In this model one step builds on the other one and it has a sequential ladder to reach a high degree of performance and if the system fails in one point the progress of the next step also fails.

Poverty reduction strategic paper (PRSP) model



***** Health services coverage *****

8. Technical quality
7. Timing and continuity
6. Utilization/relevance of services
5. Social accountability
4. Organisational quality & consumer responsiveness
3. Availability of Material Resources
2. Availability of Human Resources
1. Physical Accessibility including affordability

Source world bank 2001

3.1 Physical accessibility including affordability:-

This is the 1st issue of the health sector to ensure accessibility of essential services and health interventions including community driven health activities. Service supply in relation to the population served and the number of health institutions offering a particular intervention or package of intervention per 1,000 populations are among the things taken into considerations. It is an important determinant factor for its utilization and indicates relationship between health institutions location and client’s residence. It refers to the physical distances which has a strong link with transport and climate. During rainy season because of slippery roads vehicles can not go out of all weather roads. Flood and rivers worsen the problem.

Distance is a major obstacle for access to health institutions and worse when combined with scarcity of resources and infrastructure like; absence of all weather roads, price for cost of transport and essential medication and time taken to reach health institution. These are mainly affecting utilization of health services (Thaddeus, et al 1994). Long distance to service limits people’s access to traditional VCT systems (Joseph K B. Matavu et al; 2007). In-fact this approach has a limitation that it does not account service distribution with respect to the poor. Inaccessibility related to financial problem is also another barrier that prevents almost all pregnant women from PMTCT utilization. They also live in distant areas

from health institutions and do not have access to transport (WHO; 2005) (see table 2).

Improvements of infrastructure are required to avail PMTCT services. There are evidences that feasibility of the program was possible in the poorest part of the world (UNICEF; 2003). A lot of countries especially Brazil and Thailand have succeeded in providing wide access since 1999 for PMTCT services to pregnant women who attend clinics (Matida L.H et al ; 2005). Development of infrastructure is important and its improvement is mandatory since it has significant benefits for the improvement of other related health care areas. Mobilization of resources for prevention of (MTCT) services; helps as a changing agent for improvement of other HIV prevention programmes (Scotland G.S et al; 2003).

3.2 Availability of human resources:-

In any service human resource is the most critical one, particularly in PMTCT trained/well skilled personnel is very important. Staff shortages and motivational issues can also be very significant, especially when it comes to counselling, which takes a long time to do well. In most cases PMTCT services are initiated in health institutions that are under staffed because of lack of human resources, attrition of trained providers to private health institutions or migrate outside their country for economic and other reasons. Attrition is also caused by AIDS related death and created work load for staff who are already de-motivated due to different reasons that includes under payment and insufficient supplies. These problems can be minimized by recruiting new health workers, providing training that includes universal precautions and Post-exposure prophylaxis (PEP) to help prevent health workers becoming infected with HIV, frequent support and motivation to improve existing staff efficiency, psychological and social support and ensuring resource availability (UNICEF, 2003).

In HIV/AIDS prevention activities including PMTCT service we need to consider supportive staff. But what is happening in reality now is, concerning human resources for health; AIDS donors focus on training existing health workers rather than hiring or training new ones. In countries like Mozambique, Uganda and Zambia who are like most sub-Saharan African countries suffering from the unavailability and inequitable distribution of qualified health workers was observed. The shortages affected all cadres of clinical workers that include Medical doctors, nurses, health managers and administrative workers with the most serious shortages in rural areas (CGD; 2008). In reality more technical staffs are needed to help manage a health program that includes staff for monitoring and evaluation and for procurement and financial

management. Hence for sustainability of the PMTCT program and further expansion we need to address holistic human resource problem by harmonizing donor's fund.

3.3 Availability of material resources and other essential inputs:-

Continuous availability of essential material inputs especially in the peripheries/rural areas has to be ensured to provide PMTCT services. Despite the presence of health institutions and physical accessibility if the materials may be lacking or frequently unavailable it is an indication of problem. It is widely believed that integration of PMTCT services into available health system ensures achievement of wide coverage through provision of the service in ANC and delivery health units. But, because of different reasons including poor material resources; many developing countries could not achieve this goal and the progress is still slow. Instead of starting new ones (PMTCT services) health institutions are struggling to maintain conventional services (UN, 2001).

Besides this availability of communication means at health institutions to communicate with the next higher referral unit and provide feed back for lower health institutions is very important. These include Vehicles for health institutions and public transport, Radio, Telephone, products of modern technologies like computer and internet accesses and comprehensive intervention activities for PMTCT services. Shortage of HIV test kits, preventive drugs means (NVP) and other supplies can limit the efficiency of PMTCT programmes. It is therefore important to have reliable supply chains that are integrated into the systems. In general shortage of material resources, supplementary drugs, budget and inadequate funding can be considered as the existing bottle neck preventing PMTCT services.

When we are talking about communication means we need to consider improvement of health management information system (HMIS). To improve HMIS include coordinating government and donor's information needs and its flow through national HMIS and other available strong systems to reduce fragmentation of health information, duplication and burdensome reporting and which all together help us improve data quality (CGD, 2008). HMIS can be made much more fast and functional by the use of rapid communication means as much as possible by use of PC and the internet. Feed back on monthly report or lack of information can be solved immediate.

3.4 Organizational quality and consumer responsiveness:-

This is more of perception of service consumers whether it encourages utilization of appropriate and relevant interventions. Poor quality of care is always prominent reason not to use available PMTCT services. Among factors affecting "user friendliness" are explained organizational quality and consumer responsiveness of health care is judged by utilizes and the approach of service providers and clients interaction. It includes staff attitude that could be result of poor training and rude behaviour, hours of operation that could be inconvenient, privacy, sufficient space and conducive waiting area, gender combination, well organized service delivery point and providers response are mandatory for satisfaction of service consumers (Claeson et al 2001). Absence of skilled professional and improper utilization of time for post test counselling was identified as the main reasons why the women did not receive test results (M. Sarker et al; 2007)

Decision to have PMTCT services are often made by level of comfort or discomfort with service received that includes personnel behaviour, procedures in health institutions and service efficiency which is more of subjective and depend on the feeling of pregnant women. Quality services in PMTCT requires service providers have adequate clinical skills that includes counselling to provision of NVP and are responsive to needs of pregnant women. It should be accompanied by sufficient supplies and well established bi-lateral referral systems (health post to health centres then to hospital and the opposite also) and organizational quality also values PMTCT client perception on convenience of opening hour and waiting time.

This entire thing forces us to question ourselves whether it is possible to provide quality PMTCT services. Accordingly there is a sign that shows, it is possible; and among countries in southern Africa Botswana could succeed in providing high quality PMTCT services in all of its public health institutions that serves more than ninety five percent of pregnant women and the indication is that less than four percent of babies born from HIV positive mothers were infected (Office of the U.S. Global AIDS Coordinator; 2006). Some suggested other countries should follow examples of Botswana to ensure organizational quality and consumer responsiveness.

3.5 Social accountability:-

Different evidences suggest that health providers working in government health institutions are not responsive to the poor. The reason is they are not directly accountable to the community. Health services are responsive

for the poor if and only if the consumers can exert influence or have voice to either bless or blame over providers. The concept of social accountability combines participatory monitoring with empowering the communities to know their right and obligation and make use of it. Their involvement in health activity planning, implementing what they can do, evaluation of the program they have participated in; which all together can be summarised as (PIE) and financial contribution helps to improve PMTCT service provision. If the health providers are accountable for their communities it will have positive impact for PMTCT utilization. Importance of accountability line for the delivery of basic services is very significant and measured by presence of health committee, level of participation and difference made by their input or participation. Participation could be information sharing, consultation, collaboration and shared decision making which can at all level change situation (World Bank 2004 WDR).

3.6 Relevance of production and utilization of health interventions:

Health services can be physically accessible but socio-cultural acceptability, economic, house hold and other factors, price and perceived quality can prevent pregnant women from use of it. Household factors can include family income, education. Tradition, norms, values, community institutions and environment can be included under others as explained in PRSP model. Magnitude of a problem solved by types of service provided and their relevance to population requirement affects PMTCT utilization by pregnant women. Although it is not mentioned in the PRSP model used for this thesis with availability of service important question to be answered are affordability and its relevancy in solving the health problem of the community. To say PMTCT service is available all important packages of HIV/AIDS prevention shall/must be included.

There are a lot of reasons for not to use PMTCT services. It included denial of HIV infection by client, rejection by spouses, fear of stigma and discrimination, fear of not breastfeeding, fear of congenital anomalies, interruption of checkups, home and premature delivery. All these are strongly contributing for under utilization of existing services by pregnant women (CHG, July 2004). Absence of discussion about issues related to reproductive health, pregnancy and delivery are reflection of cultural obstacles in some African countries (Clemmons L Mali1999).

In the former days education of child girl was influenced by different factors like preference of the community for sex of the child and poverty with tradition that worsen restriction of women from financial access. These problems contribute to women not access to information and power imbalance both at house hold and community level (FMOH, 2004). Majority of the women are at home doing domestic tasks and more likely

not to have access to information on preventive health care like (VCT, PMTCT and ART) and its location. Pregnant Women may think health institutions are giving curative services only for sick people. Health providers should encourage and support the community since PMTCT service needs awareness raising and to inculcate its benefit to the community. It is preferable if supported by audiovisual materials, working with community, opinion/ religious leaders and if possible establishing advisory boards helps in promoting collective ownership and help to raise acceptance of PMTCT services (ICRW, 2002; UNICEF, 2003).

Strengthening VCT service, care and support at community level helps alleviation of problems related to stigma and discrimination. Other factors affecting PMTCT service utilization in communities may be values, cultural gaps and norms. Especially in rural communities, pregnancy is not seen as something requiring special care and they do not consider pregnancy related problems. Although pain and suffering is present until it interrupts their daily activities pregnant women do not seek help and their relatives also do not encourage them to seek help; instead they feel having many children as wealth. They only visit health institutions once during pregnancy and about seventy percent of them give birth without assistance of trained health provider and this minimize the opportunity that they could have PMTCT services. It also affects follow up and other services that need to be provided. There fore we need to re-arrange time of service provision (WHO, 2006).

In developing countries women who are poor have many responsibilities and work day and night. It included caring for children, cooking food, collecting water and grinding crops. Only thirty percent of the pregnant women in this planet attend ANC services (WHO; 2005). There are suggestions that encourage HIV positive women shall deliver at health institutes and all covered by PMTCT services including those who deliver at home should be provided with Nevirapine pill prior to delivery (Stringer; 2005). It is possible to improve utilization of self administered drug by working with people who attend home deliveries that could be trained traditional birth attendant or health extension workers who can also help to provide other services such as HIV education, testing and counselling, and advice on infant feeding (Bulterys M. et al ; 2002).

Including Ethiopia, in many developing countries low status of women at house hold level is also major problem on making decision for PMTCT (FMOH 2007). It is a reflection of unequal power relation and in many communities; it is men who make decisions about their wives. Especially in reproductive health issues that includes child bearing and use of birth control methods. Despite accessibility of PMTCT services pregnant women with low status can not utilize because of different constraints. An imbalance of knowledge and lack of adequate and reliable health information on services available combined with government poor ability

to regulate and enforce regulation protect women's right associated with problem of governance is also complicating the situation.

Stigma and discrimination is a common phenomenon related to HIV in different communities and usually has a consequence of marginalization and loss of social security. Therefore pregnant women either refuse to have VCT or remain at home instead of taking HIV test result. They are worried about the feeling of their spouse since after giving birth also they economically depend on them to provide their off spring with basic requirements (food, shelter and clothing). Usually pregnant women is in between two evils since both telling and not telling either to get test or to tell the result has enormous consequences; hence she balance and take her own decision which could be right or wrong (Bassett M.T; 2002). About seventy percent of pregnant women who after VCT; their HIV result revealed positive; did not tell their spouse; since they afraid bad consequences of it from their family especially their husband. Although they have HIV men complain women as if they brought it to them (USAID; 2003; Martin-Hertz S.P. et al; 2006).

3.7 Timing and continuity:-

It is a combination of adequacy and access to care for PMTCT clients, good information flow and uptake between procedures from counselling to provision of NVP, and good care during examination at ANC and delivery with coordination's. Continuity depends on the quality of counselling, organizational arrangement of health institutions, availability of PMTCT trained personnel, information provided by service providers and knowledge of the individual on the PMTCT services they provides. Core element of good quality of PMTCT services is the presence of mechanisms to encourage clients to continuously have ANC and VCT check up and use of available PMTCT services. Therefore, continuity of PMTCT means pregnant women can have access to services and supplies that enables them to continue use of it and measured by Mothers and babies fix to their treatment after initiation. Whereby, timing is measured by Proportion of women received PMTCT services on right time that usually includes 3rd trimester & delivery when we can provide Neverapine (NVP).

3.8 Technical quality:-

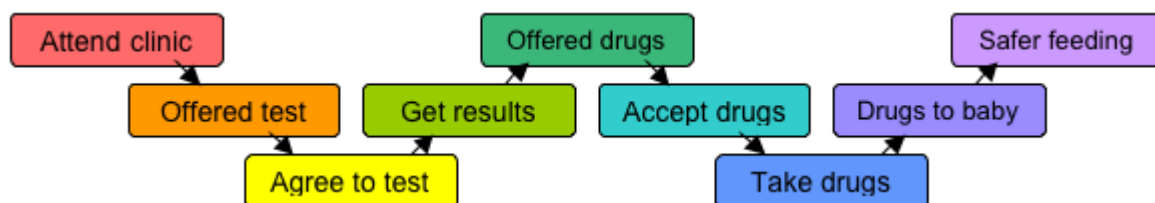
In PMTCT technical quality needs special attention that this service requires to perform in accordance of requirement, implement the standard management guidelines and treatment protocols. PMTCT service providers shall get holistic training on PMTCT services including follow up care should be available at health institutions through

established linkages to other health services to increase pregnant women's demand to utilize all available health services. Ongoing provision of training and support tools for PMTCT counselling and test is very important (Omotayo O. Bolu et al 2007)

Adequacy of all critical inputs for HIV/AIDS intervention and particularly for PMTCT program shall be maintained. However health institutions in developing countries, especially in rural areas, are staffed with less skilled personnel and competence that could not encourage service consumers (Claeson et al 2001); The recruitment of lay counsellors who can provide good quality counselling services with training of few weeks to months is believed to decrease workloads of health professionals and it should be assisted with frequent and continuous supervision (Bassett M.T. et al, 2002).

3.9 Effective coverage:-

The most important coverage measure is effective coverage and it is the percentage of population in need of intervention and has received it (Tanahashi, 1978). It is a cumulative effect of all eight steps in this PRSP model and the whole process of efficiency of PMTCT services is illustrated as explained below from ANC attendance to safer feeding for infant.



Source:-AVERT

Different literatures further explain that improving efficiency means looking at the issues which includes physical accessibility, health institution resources, testing methods for HIV, fear and distrust experienced by pregnant women, fear of disclosure and discrimination, provided drug effectiveness, treatment for mothers and feasibility of replacement feeding.

Table 2:- Summary of assessment indicators for “PRSP” problem analysis of East Wallaga PMTCT utilization.

<p>Accessibility</p>	<ul style="list-style-type: none"> • Distribution of health institutions by district, ratio to population and gap • Health institutions providing PMTCT services and gap • Road and accessible by public transport and time taken to reach health institution. • Inaccessibility due to river or other obstacle or seasonality • Women economic dependency , family income, price • Distance, natural or geographical barriers
<p>Availability of human resources</p>	<ul style="list-style-type: none"> • Ratio of health workers to population • Qualified Staff shortage • Skilled human power in health institutions and their geographical distribution. • Inadequate training of staff and counsellors • Lack or inappropriate use of trained staff (market failure) • Poor deployment practices, • Difficult areas of human resources management, • Absence of financial incentives for health staff to work in poor remote areas
<p>Availability of material or other essential resources</p>	<ul style="list-style-type: none"> • Basic transport and communication means that includes products of modern technology (PC, Internet, car, Motor and pedal cycle) • Essential consumables resources for the intervention may be lacking or frequently unavailable (Syringes, gloves etc) • Inadequate pharmaceutical and supply logistics and management (Neverapine, test kits etc). • Inadequate funding for inputs
<p>Organizational quality</p>	<ul style="list-style-type: none"> • Attitude of health staff, • Hours of operation/opening and waiting time for counselling and its quality • Space, cleanliness and comfort of the waiting area, • Gender of the service provider, • Efficiency of referral system, • Perception of quality by consumers, • Health provider knowledge for service. • (Situation analysis methodologies)
<p>Social accountability</p>	<ul style="list-style-type: none"> • Accountability of health providers to the communities, • Presence of committees and do they meet regularly • Participation of communities, local government, FBOs, NGOs • Level of participation in decision, dominated by elite • Information sharing, consultation, collaboration, shared decision making.

<p>Relevance of production and Utilization of health intervention</p>	<ul style="list-style-type: none"> • Number/percentage of pregnant Women who received at least one ANC service, • Deliveries assisted by trained health worker, PNC, FP (NPW 15 -49 years) • Pregnant mothers and babies who get Neverapine, • Knowledge/education, awareness • Fear of stigma and discrimination • Cultural gaps on the interpretation of health, • Religion (beliefs in faith healing) • Power imbalance between men and women/who makes decision • Repercussion of husband knowing HIV status of women. • Male involvement in PMTCT services
<p>Timing and Continuity</p>	<ul style="list-style-type: none"> • Percentage of women who received VCT, PMTCT and ART on time • Percentage of pregnant women who complete all steps of pre and post test counselling. • Percentage of women and new born who drop out
<p>Technical quality</p>	<ul style="list-style-type: none"> • Adequacy of critical inputs, • Existence of appropriate guidelines and treatment protocols. • Availability of follow up, monitoring and feedback. • Effective provider training and supervision, • Provider workload
<p>Effective coverage/ efficiency</p>	<ul style="list-style-type: none"> • Result of all precedent steps

4 RESULTS/FINDINGS:-

Findings of factors affecting PMTCT service utilization in East Wallaga zone is based on what is reviewed in the literature and data from two zone health offices (east Wallaga zone rural and Naqamte town). Data analysed included availability and distribution of health institutions and human resources, essential PMTCT materials and utilisation of PMTCT services. Conceptual frame work of PRSP model described in chapter III was used for analysis; to identify factors affecting PMTCT services utilization. Based on assessment attention is given to PMTCT services utilization by pregnant women who used ANC, institutional delivery, PNC, family planning, VCT, PMTCT and ART activities including new born babies who take nevirapine (NVP) by the year 2007/2008 and the findings are sequentially explained as follows.

4.1 Physical accessibility, including affordability

In this zone although potential health service coverage is 74.2% as detailed in Table 3 and 7, the distribution is uneven. Almost all private and NGO health institutions are in major town (Naqamte). Among existing public health institutions the hospital and health centres are found in urban/semi-urban areas. More than 85% of the people are rural settlers and only health stations/posts exist and that are neither well equipped nor organized. Five districts (Ebantu, Haro-limu, Leqa- dullacha, Wama hagalo and Wayu-tuqa) do not have health centre at all, thus, static VCT service within their districts is non existent and also there is no hope to start the service very soon. Ratio of health institutions to population are below the national standard and the gap between existing and required health institutions is big except for health posts which almost 2/3 achieved. The existence of health posts/stations in many remote distant areas and commitment of government to construct additional "Type B" health centre to cover the rural villages is encouraging. Still 4 hospitals, 37 health centres and 77 health posts are required in addition to the currently available in the zone (Tables 1 & 3).

There are 1 hospital, 14 health centres, 6 pharmacies, 48 health stations, and 124 health posts owned by government. There are also 1 health centre, 5 health stations and 4 health posts under NGOs/non profit making private organization. In addition to these, 46 private for profit clinics of all types, 54 Rural Drug Vendors and 6 pharmacies are found in urban areas of the zone. The total hospital beds available in the zone are 120 with beds to population ratio of 1:10,495(EWZHO, 2007/8). Naqamte town alone has 46 NGO and private health institutions which include 1 dental clinic, 16 small clinics, 3 pharmacies, 5 rural drug vendor and other 6 whole sale pharmacies (NTHO 2007/8).

Table 3:-Distribution of currently available and additionally required health institutions in East Wallaga zone by districts 2008.

No	Districts	Population	Distance to Zonal Hospital in KM	Currently available health centre (HC), Health station (HS) and Health post (HP) to population ratio.						Additional Required Health institutions	
				No	HC ratio	No	HS ratio	No	HP ratio	HC	HP
1	Bonaya Boshe	55,199	82	1	1:55,199	1	1:55,199	4	1:13,799	1	6
2	Digga	66,720	16	1	1:66,700	4	1:16,675	12	1:5,560	2	-
3	Ebantu	35,501	135	-	-	4	1:8,875	6	1:5,917	1	-
4	Gida Ayana	115,194	110	2	1:57,597	2	1:57,597	7	1:16,456	3	14
5	Gudaya Bila	52,899	105	1	1:52,899	2	1:52,899	5	1:10,580	1	4
6	Guto Gida	96,090	37	1	1:96,090	2	1:32,030	13	1:7,392	3	4
7	Gobu sayo	42,353	70	1	1:42,353	1	1:42,353	5	1:8,471	1	3
8	Haro Limu	57,510	170	-	-	4	1:14,378	5	1:11,502	2	3
9	Jima Arjo	96,098	48	1	1:96,098	1	1:96,098	8	1:12,012	3	10
10	Kiramu	51,943	140	1	1:56,489	1	1:56,489	5	1:11,298	1	5
11	Leqa Dulacha	80,246	27	-	-	2	1:40,123	7	1:11,464	3	7
12	Limmu	66,226	135	1	1:66,226	3	1:22,075	6	1:11,038	2	3
13	Nunu Qumba	66,825	70	1	1:66,825	2	1:33,413	9	1:7,425	2	3
14	Sasiga	81,631	18	1	1:81,631	6	1:13,605	13	1:6,279	2	-
15	Sibu Sire	99,184	60	1	1:99,184	3	1:33,061	9	1:11,020	3	8
16	Wama Hagalo	43,226	96	-	-	3	1:14,409	7	1:6,175	2	-
17	Wayu Tuqa	66,074	16	-	-	3	1:22,025	3	1:22,025	3	7
18	East wallaga	1,174,919	-	13	1:90,378	43	1:27,324	124	1:9,475	36	77
19	Naqam Town	84,440	-	1	1:84,440	5	1:16,888	-	-	2	-
20	Grand Total	1,259,359	-	14	1:89,954	48	1:23,123	124	1:11,463	37	77

Source: East Wallaga and Naqamte town health office 2007/8 annual report.

According to national standard PHCU is responsible for 25,000 populations and consists of one health centre and five satellite health posts each of them responsible for 5,000 populations (Table 1). The currently available 48 health stations will either up graded to "Type B" health centre or degraded to health posts. Some districts have car at health centre but; most of the time it gives service at district administration office. Public transport for the rural areas is not common and communications systems deteriorate as one move from urban to rural areas.

Actual access is difficult due to natural barriers like rivers during rainy season and soon after it stops, absence of infrastructure like all weather roads and public transportation, lack of time especially during harvesting season and cost that poor pregnant women can not afford are some of the problems. Distance of districts from zonal capital ranges from 16 km Diga and Wayu tuqa the closest districts to 170 km Haro limu the distant one (Table 3). District towns have all weather roads that connect to the zone health office and hospital despite it is still problem for some districts during rainy season since it is slippery. Few roads are connected from villages to district towns and makes access of rural community difficult. Usually people walk on foot or use animals back for transportation for about 15 to 20 kilometres or 4 to 5 hours and even more.

About 50% of the vehicles in the zone are not properly functioning, because of prolonged service and lack of maintenance associated with shortage of budget. Except in five districts which do not have a health centre; other health centres have either their own telephone services or use it from telephone centres found in their districts. Almost all health stations/posts in the zone do not have telephone services and also no radio at health institution. This makes information exchange difficult even in time of emergency. In very few health stations/posts, there are motor and pedal cycles but majority of them do not have. Health workers in these health institutions usually have transportation problem.

Like any other places in Oromia in East Wallaga zone also all MCH services, HIV prevention and treatment activities including ART drugs and other problems with public health importance like tuberculosis and malaria treatment are free of payment in public health institutions both for consultation and materials. Although in PMTCT to decrease risk of infection caesarean section is recommended for those mother who select this option it is difficult to get satisfactory service. According to information I got from Naqamte hospital; those who are referred for caesarean section are expected to pay about 200 Ethiopian birr (\$20) and 75 birr (\$7.50) for abortion, when they are not certified for poverty identification

from their districts. Opportunity cost is high to get poverty certificate and sometimes those who are authorized to give this certificate are also not available in their office also there might be element of corruption. Even after that essential drugs are lacking in the health institutions. Because of that the client is forced to buy from private pharmacies or rural drug vendors with high price of about three to five folds (EWZHO, 2008). Poor pregnant women prefer not to buy their medication and they either go to local healers or prayer areas to search for another option/opportunity. All the points mentioned above under physical accessibility are indicators to shift PMTCT service to lower health institutions since they are close to the community, easy to avail in shorter time than health centres that need huge budget and long time to make it accessible for majority of the zonal population.

4.2 Availability of human resources:-

In this zone there are 1051 technical health staffs of which 11 are physician (7 GP and 4 specialists), 20 health officers, 4 pharmacist, 13 pharmacy technician, 376 different categories of nurses, 34 laboratory technician, 2 x-ray technician, 19 sanitarians, 65 health assistants, 28 lay man/woman counsellors and 479 health extension workers serving in public health institutions. One physician and health officer serve more than 114,000 and 84,000 people respectively (Table 1). There are also 65 technical staffs working in private and NGO health institutions which includes 7 physicians, 1 health officer, 5 pharmacist, 10 pharmacy technician, 9 lab technician, 3 x-ray technician 6 nurses and 32 health assistants. These health workers are directly involved in prevention and control of HIV/AIDS programme which includes (VCT, PIHCT, PMTCT and ART). The work of 479 trained Health Extension Workers in the zone whose primary task is to promote prevention of communicable disease including HIV and AIDS at house hold level is not well exploited since the link between these workers and curative service is weak.

Similar to health institutions health professionals in the zone are unevenly distributed in districts. Majority of them are working in Naqamte town (Table 4). Especially health workers of relatively better skill are not fairly distributed to the rural areas. Distribution is based on presence of hospital or health centre. Only health assistant/ junior nurses and health extension workers are assigned to the health station/posts. Relatively except Naqamte town almost all districts do not have adequate health workers both in number and combination.

Especially critical staffs like laboratory and pharmacy technicians and health officers are lacking either to initiate or continue VCT, PIHCT, PMTCT and ART services. As a result currently PMTCT is only operational in six districts and in the capital (hospital); ART service is only operational in three districts plus capital. This could be because of lack of interest from health workers to serve in remote rural areas and high turn over or it can also be because of poor management to fairly distribute the scarce resources available wisely.

Currently implementation of incentive packages for health workers which includes top up payment for physicians and others with BSc degree and above; different payment scale for those who are serving in rural and remote area and up-grading programmes have been functional so as to retain health workers and attract others. Hundred percent refreshers training of health professionals and counsellors on PMTCT, VCT and other activities; and both long and short term training are on going despite its adequacy is questionable. But the trainings are slow and infrequent since it is donor geared. Deployments of two lay counsellors are also done for each health centres providing VCT services (EWZHO, 2007/2008). But, in general the ratio of high calibre health professional to population is low; especially physician, health officers, pharmacists and laboratory technicians are very low (Table 1 and 4).

Among the reasons for not able to expand VCT, PMTCT and ART are absence of laboratory technicians and pharmacist but this could have been solved by substitution of resources. With short time in-service training and orientation nurses could cover the work of health officers, pharmacists and laboratory technicians. By the same token instead of training lay counsellors it would have been a good solution if some of the health extension workers could work on counselling. Unless these problems are not fairly treated it creates a huge instability in the rural community and districts who are feeling they are not equally utilizing resources.

Table 4: - Distribution of health professionals and lay counsellors by in East Wallaga zone, by districts 2007/8.

No	District	Lay counc.	Health office.	All pharmacis	All Nurses	All labs	Health assistance	HEWS
1	BonayaBoshe	2	1	2	9	-	1	20
2	Digga	2	1	-	13	-	4	30
3	Ebantu	-	-	-	7	1	-	24
4	Gida Ayana	2	1	-	22	2	11	25
5	Gudaya Bila	2	1	-	6	1	3	17
6	Guto Gida	2	-	-	13	-	9	36
7	Gobu sayo	2	-	-	11	-	1	36
8	Haro Limu	-	-	-	9	-	-	20
9	Jima Arjo	2	1	1	17	3	2	36
10	Kiramu	2	-	-	14	-	1	16
11	Leqa Dulacha	-	-	-	15	1	1	33
12	Limmu	2	1	-	10	-	4	27
13	Nunu Qumba	2	1	1	13	1	3	35
14	Sasiga	2	1	1	16	-	4	39
15	Sibu Sire	2	1	2	23	2	3	38
16	Wama Hagalo	-	-	-	12	-	3	22
17	Wayu Tuqa	-	-	-	8	-	4	21
18	East wallaga	-	16	13	259	20	51	478
19	Naqam Town	4	4	4	117	14	14	1
20	Grand Total	28	20	17	376	34	65	479

Source: - East Wallaga and Naqamte town health offices 2007/8.

4.3 Availability of material resources & other essential inputs

Including Ethiopia in most part of Africa, inadequate storage, poor control of inventory, and short shelf life of PMTCT products affect supply management systems and contributed to inefficient services (USAID, Government of Ethiopia, 2004).

In east Wallaga currently the budget is allocated from the block grants for sectors at district level. Health sector gets it both for medical and non medical equipments relatively based on plan done by health centre and district health offices. District health and finance office are responsible for purchasing. For hospital both planning and budget allocation is the responsibility of Oromia health bureau and the procurement is done by hospital pharmacist. Despite the allocation of budget is both population and facility based

usually it differs from district to district and the district health office and health institutions always complain shortage. This makes pregnant women not to utilize PMTCT services since they do not get materials and essential drugs and tired of buying prescribed drugs and critical inputs for ANC, delivery, PNC and PMTCT materials like gloves and so others from private pharmacies.

Donated drugs and medical equipments for PMTCT services are through Oromia health bureau and it is distributed to zones occasionally. Theoretically it is said that zone health office distributes to each district according to their problems and needs; but, in reality they do not consult with district or health institution staffs. Therefore in East Wallaga zone, health institutions were missing most of the medical supplies due to shortage of budget and long bureaucratic chain. Timely procurement of drugs and medical equipments and its distribution to health institutions is another problem for health workers at district health offices.

The pharmacy section in the zone is basically focused on essential drug supply management which includes provision and utilization of drugs and medical supplies from donation and ensure its availability. Drug, kits, supply for PMTCT program depends on donation from UN organization such as UNICEF, WHO and Global fund and PEPFAR. In east Wallaga zone theoretically it is all free. But there are always indirect cost and illegal fees.

According to information I got from East Wallaga zone health office, there was a serious shortage of drugs and medical supplies in most government health institutions. In such cases the possibility of using PMTCT materials for other purpose and un- expected shortage can happen although currently there is no problem of PMTCT materials. The other important thing that worries us is uncertainty about if the donors cease for any un- predictable reason it will be a serious challenge. It was identified that the budget allocated for drugs and medical supplies for the whole activities of health institutions covers not more than 40% of the annual requirements (EWZHO, 2008).

Although detailed data for east Wallaga is not available the Ethiopian government health expenditure per capita is low. Similarly what I know from my experience and information I currently got is that the total health expenditure is less in East Wallaga. It revealed an average estimated budget for hospital 1,000,000 Eth. Birr (\$100,000), health centre 40,000 Eth. Birr (\$4000), health posts 3000 Eth. Birr (\$300) (EWZHO, 2008). For collection of PMTCT, VCT and ART drugs and materials they use from this budget. I also witness that during my assignment as

health service team leader in east Wallaga Zone the annual budget allocated for health ranges from 20,000 Ethiopian birr which is about (\$2000) to 150,000 Ethiopian birr (\$15,000) at district level. Usually budget allocation depends on commitment of district health office management and good will of district administrator for health sector. This is an indication of absence of transparency and accountability and should not be allowed to continue like that. Clients are forced to buy prescribed drugs from pharmacies, which are at least three to five times more costly compared to government health institutions (EWZHO, 2008).

4.4 Organizational quality and consumer responsiveness:-

A lot of pregnant women who were found to be positive resisted participating in follow up visit because of the problems they used to experience with health providers. They do not trust staff and medicine, are not comfortable with counselling, do not believe the result of test and have fear of aggressive staffs (Painter T.M. et al; 2004). Attitude of health providers and the opening hours of health institutions affect PMTCT utilization. In east Wallaga like any other place in Oromia the opening hours is from 8.30 Am to 5.30 Pm, with one hour at lunch; and thirty minutes for both morning and after noon (coffee and tea) break in between and five working days in a week (Monday to Friday).

Additionally health centres and hospital have duty including Sunday and Saturday to serve 24 hours emergency. Usually patient arrives early in the morning and health workers, especially; physicians' and health officers start to consult lately after some hours of opening hours. After consultation clients should have to wait for laboratory results, for long time. In the absence of health officers and physicians, clients are forced to be seen by other health workers. Both in hospital and health centres the situation is the same. In rural part of the zone majority of health workers who are in health stations/posts do not respect working hours and some times they are called by someone around from their residence.

Although gender of health provider is among the requirements of organizational quality in East Wallaga women's do not prefer for gender of health worker and they like to be seen both by female and male health workers but, they usually gather information for who is the best. Because of the quota system; 3 female for 1 male during the entrance for training of nursing school; and totally female in midwifery training; currently female health workers are highly available in the zone. At health posts they are all female

health extension workers but their problem is they have neither good skill nor delivery equipments. Except for those who are in remote areas majority of the staffs are usually punctual for their work and there is strict regulation and follow up from health offices.

Some health workers are not providing good service in health institution. They are practicing their private clinics at home and in some areas they are also busy because of their engagement in farm or trade activities depending on their localities. Patients also complain about privacy during service provision. Lack of space forced them to share consultation rooms which could prevent pregnant women to discuss their problem with providers (EWZHO, 2008). There is only one hospital which provides referral services, for districts within the zone and out side. The referral from rural areas is usually interrupted because of different barriers discussed in physical accessibility. Feed back between higher health institutions and the lower (Health post to health centre then to hospital and the feed back) is not well established.

Supportive environment and cleanliness are also important for appropriate PMTCT services. In east Wallaga majority of the existing health institutions are almost poor and require major repair or substitution with new ones. Both the newly built health centres and old ones lack water and electricity supply. In the old health centres/stations and current health posts the rooms are insufficient for ANC, delivery, PMTCT services and counselling therefore it is not easy to ensure privacy and confidentiality of the pregnant women. Only few health institutions has electricity supply. Absence of furniture's like bench and chairs to seat on also makes the working environment inconvenient for both health providers and pregnant women.

I also witness that, long waiting time, lack of privacy for women during (antenatal check up, delivery, family planning, VCT pre and post test counselling's) services due to limited or insufficient rooms at primary health care units, unfair attitude of some staffs are among major problems that compromised PMTCT utilization. MCH activities are integrated to increase the utilization of the services on daily base. Components as ANC, delivery, PNC, family planning, sexually transmitted diseases, health education are provided at all levels. But what is lacking is to include VCT and PMTCT service the same way and needs urgent and practical response. If we are devoted to do so it is achievable like the example of different countries that made practical access (Thailand, Botswana, etc).

4.5 Social accountability:-

In none of the health institutions of east Wallaga zone there were health committees that involve representative of local users. Administratively hospital was accountable to regional health bureau (ORHB) and health centres were accountable to district health offices. But, currently regulation to establish hospital management board and health centre committee was approved by the regional council as of May 2007 and advocacy was made by ORHB and ESHE at regional level and consecutive meetings and workshop was given at zone level in August 2007 in which I also participated as a co-ordinator in my zone; but yet nothing is known about the effect it has on PMTCT.

Community participation at different level of administration has improved in planning and implementation of health packages included in health extension works such as environmental sanitation, construction of health posts, HIV / AIDS prevention and control activities and out reach for VCT. Health committee at different level of health institutions that consists of Opinion leaders is established, but yet it does not involve NGO's and FBO's that could have strong voice on PMTCT services utilization. Another encouraging thing is the existence of strong community administration system (community development groups /gare-misoma) that is very close to the community and actively participate in health extension works that includes HIV/AIDS prevention and control and reduction of stigma and discrimination.

Therefore these days relatively like any other civil servants health workers are also accountable to their respective community, especially those who are at health centre are more or less accountable to the community which is good opportunity for HIV/AIDS prevention works including PMTCT. The important thing we need to do is to use this opportunity for PMTCT service expansion.

4.6 Relevance and utilization of health intervention

In East Wallaga zone, ANC, Delivery and PNC utilization is calculated from the same denominator of target groups and Family Planning is calculated from 100% of women of child bearing age (Table 5). Despite the importance of VCT and Provision of ART to fight MTCT of HIV and ANC is improved when compared to previous years, in majority of the developing countries PMTCT service utilization is still very low (UNAID, 2006). Low level of women's

education and their low status has strong relation that made them not to use PMTCT service properly. The other problems are presence of spiritual healers and preference for traditional herbs affected decision to seek PMTCT services. About seventy five percent of the people think that health institutions are for seriously sick people for curative services only and they do not consider or value preventive services like PMTCT. High workload especially in rural areas and uneducated women to meet the family needs is a common thing. It is possible to say that beliefs, norms, values, lack of knowledge, unawareness of preventive health care services, and the power imbalance between men and women, limitation of women to make decision on household resources are all cumulative of problems that affect PMTCT service utilization in the zone. Fear of stigma and discrimination is another big issue which has strong link with house hold and community factors.

Table 5:-Maternal health services in Ethiopia, Oromia and East wallaga zone (EWZHO) and Naqamte Town Health (NTHO) Offices 2007/2008.

Place and year	ANC (Number %)	Delivery %	PNC%	CPR %	TT2 + PW %	TT2 + NPW (15-49 yers)
Ethiopia (2006)	1,407,574 (50.4%)	421,183 (15.1%)	433,887 (15.5%)	5,420,461 (35.8%)	1,448,142 (51.8%)	3,266,245 (21.6%)
Oromia (2006)	379,823 (38.3%)	105,163 (10.6%)	89897 (9.1%)	1,168,518 (22.5%)	433,232 (43.7%)	832,262 (16.4%)
EWZHO rural(2008)	23044 (47%)	7414 (15%)	6438 (13%)	88931 (39.63%)	25,160 (43%)	74,853 (28%)
Naqamte town(2008)	4504 (127%)	2314 (37.2%)	1826 (47.2%)	24,658 (150%)	846 (53%)	2537 (45.4%)
Total (EWZ,2008)	27542 (52%)	9728 (18.4%)	8264 (15.6%)	113,589 (47%)	26,006	77,390

Sources: -FMOH 2005/2006; EWZHO and NTHO, 2007/2008 annual report

Table 6:-maternal health services utilization by Districts in EWZHO 2008.

NO	Districts	ANC (4.2%) (Expected vs. ach.)			Delivery		PNC		Fam. planning (19.6%) (expected vs. achieved)		
		Expect	Ach.	%	Ach	%	Ach.	%	Expect	A	%
1	Bon. Boshe	2318	1351	58	383	17	339	14.6	10543	5531	52.5
2	Digga	2802	896	32	353	13	323	11.5	12744	4733	37.2
3	Ebantu	1491	407	27	263	18	205	13.7	6781	2394	35.3
4	G/ Ayana	4838	1764	36	442	9	416	8.6	22002	21588	98.1
5	G/ Bila	2222	1772	80	461	21	450	20.3	10104	2765	27.4
6	Guto Gida	4036	1190	29	754	19	445	11	18353	8601	46.9
7	Gobu Sayo	1779	1000	56	231	13	181	10.2	8089	4999	61.8
8	Haro Limu	2415	1025	42	315	13	445	18.4	10984	2205	20.1
9	Jimma Arjo	4036	1963	49	556	14	99	2.45	18353	4070	22.2
10	Kiramu	2182	840	38	572	26	479	22	9921	1829	18.4
11	L/ Dullacha	3370	1216	36	252	7.5	131	3.89	15327	3155	20.6
12	Limmu	2781	1295	47	474	17	291	10.5	12649	3129	24.7
13	N/Qumba	2891	1459	50	348	12	455	15.7	13146	2310	17.6
14	Sasiga	3429	2012	59	702	20	344	10	15591	7857	50.4
15	Sibu Sire	4166	2639	63	821	20	793	19	18944	8497	44.9
16	W/ Hagalo	1815	850	47	200	11	203	11.2	8256	1997	24.2
17	Wayu Tuqa	2775	1365	49	287	10	839	30.2	12620	3271	25.9
Total 17 dist.		49345	23044	47	7414	15	6438	13	224407	88931	39.6
18	NTHO	3546	4504	127	2314	65.3	1826	51.5	16550	24658	150
Grand total		52891	27548	52	9728	18.4	8264	15.6	240957	113589	47

Source: East Wallaga and Naqamte town health office 2007/8 annual report.

In East Wallaga zone 17 districts and Naqamte town in almost all activities less than half of the target groups are consuming services. All the above activities are areas of high priority for prevention of Mother to child transmission of HIV.

(Tables 5 and 6) clearly indicates that Naqamte town has much better performance than the other districts which are performing with less number of health workers. The coverage for all services mentioned above is still far below expectation. Delivery and postnatal care services are very low. From 52,891 expected deliveries only 9728 (18.4%) pregnant women gave births by skilled birth attendance. From the total 240,957 women of child bearing age in the zone 113,589 (47%) have ever used the family planning methods. Although data for the previous years were not indicated above; this 47% of achievement of the year is relatively high compare to the previous years from what I know when working in the zone health office. The reason for relatively better performance in the zone could be the participation of Community based Reproductive Health agents (CBRH) selected from the community and by the community for family planning services, the

involvement and support of Non-Government organization (NGO) in districts and Female health extension workers at health posts.

In East Wallaga zone recently VCT, PMTCT and ART services are provided at hospital and some health centres regularly. VCT service is also given as an out reach programme in some occasions like for example this year because of Ethiopian millennium it is given as campaign in urban and settlement areas and has shown dramatic change in service consumption as indicated in (Table 8) below. HIV positive persons and pregnant mothers found to be positive are referred to hospital or health centre for other investigations. When decision is made to start ART or Neverapine they are told by trained staff.

Table 7:-Comparison of VCT /PIHCT/ PMTCT and total HIV counselling and test (HCT) in districts providing the service in East Wallaga zone and Naqamte town

N O	District	VCT (Number and %)		PIHCT (Number and %)		PMTCT (Number & %)		Total HCT (Number and %)	
		plan	Achieve	plan	Achieve	plan	Achie	plan	Achieve
1	N/kumb	3624	4789(132)	3189	175(5.5)	-	38	6813	5002(73)
2	J/Arjo	3625	8613(238)	3189	296(9.)	3234	134(4)	10048	9043(90)
3	G/Ayan	7248	3070(42)	6318	190(3)	6468	189(3)	20034	3449(17)
4	Sasiga	3625	5104(141)	3189	318(10)	-	-	6814	5422(80)
5	G/Gida	3624	8298(229)	3189	-	-	-	6813	8298(122)
6	Limu	3624	1486(41)	3189	85(2.8)	-	35	6813	1606(23.6)
7	G/ Bila	3624	7943(219)	3189	14(0.4)	-	-	6813	7957(117)
8	Sib sire	3625	5679(157)	3184	442(14)	-	24	6814	6145(90)
9	B/Boshe	3624	3377(93)	3189	623(20)	-	75	6813	4075(60)
10	Diga	1024	548(53.5)	1001	-	-	-	2025	548(27.1)
11	Gobsay	1024	719(70.2)	1000	20(2)	-	-	2024	739(36.5)
12	Kiramu	1024	762(74.4)	1000	59(6)	-	-	2024	821(40.6)
**	Total	39315	50388(128)	34831	2222(6)	9702	495(5)	83848	53105(63)
13	N/ town	15418	15363(100)	25234	21254(84)	3546	3542 (100)	15853	40159(253)
**	TEWZ	54733	65751(120)	60671	23476(39)	1324 8	4,037 (31)	99701	93264(94)

Source: - EWZHO and NTHO 2007/2008 annual report.

Table 7:- indicates, as we go far from the centre HIV/AIDS prevention programmes are less utilized and especially PMTCT service provision is suffering a lot. Also it is a warning sign that despite the presence of health institution the service is not provided in package. So it insists us to start the PMTCT program in all health centres as soon as possible and mobilize resource urgently.

Table 8:-HIV/AIDS work plan and achievement of 2007/2008 EWZHO 12 district plans and achievement in comparison with Naqamte town.

Activities	East wallaga 12 districts plan & Achievements					Naqamte town plan and achievements				
	Test/performance			Positive for HIV		Test/performance			Post.for HIV	
	Plan	Achieve	%	Ach.	%	Plan	Ach.	%	Ach	%
VCT	39315	50388	128.2	425	0.84	12000	15363	128.	1024	6.7
PIHCT	34831	2222	6.38	182	8.2	25234	21254	84.2	962	4.5
PMTCT	9702	1406	14.49	42	2.99	3,546	3542	99.8	97	2.7
Total HCT	83848	53105	63.33	64	0.12	15853	40159	253.	203	5.2
Pre-ART	539	102	18.92	-	-	-	1328	-	-	-
ART	259	53	20.46	-	-	-	2579	-	-	-

Source: - East Wallaga and Naqamte Town Health Offices (NTHO) annual report.

Table 8 clearly indicates that among people who come for HIV test; HIV positive is higher in town as 5.2% among total HCT and 6.67% in VCT service; whereby it is 0.12% in total HCT and 0.84% in VCT service consumers of rural sites. In case of PIHCT and PMTCT it is much higher in rural site than in urban. How ever it is not easy to reach on conclusion based on this finding of health institution and campaign based; it can lead us think resource re-allocation and further extend the program to the rural community to ensure access. It also generates the idea that if physical accessibility is ensured people have the tendency to know their HIV status.

Table 9:-Age and sex distribution for VCT/PIHCT consumers in Naqamte town.

A. VCT SERVICE

Age Yrs	Pre-T/counsel.		Number Tested for HIV			Po.T/counsel.		HIV Positive		
	M	F	M	F	Total	M	F	M	F	Tot
0 - 4	86	70	86	69	155	86	69	9	8	17
5 - 14	400	396	396	391	787	396	391	31	28	59
15- 19	1583	2592	1583	2592	4175	1583	2592	10	44	54
20- 24	2581	2069	2579	2045	4624	2579	2045	46	136	182
25- 49	3040	2242	3040	2224	5264	3040	2224	264	408	672
50+	218	141	218	140	358	218	140	20	20	40
Total	7908	7510	7902	7461	15363	7902	7461	380	644	1024

B. Provider Initiated HIV Counselling and Test (PIHCT)

0 - 4	1780	1472	1635	1310	2945	1635	1310	32	24	56
5- 14	1619	1467	1298	1337	2635	1298	1337	24	28	52
15-19	1405	1476	1174	1275	2449	1174	1275	12	42	54
20-24	1970	2226	1364	1963	3327	1364	1963	39	84	123
25-49	4461	5096	3923	4524	8447	3923	4524	300	304	604
50+	1280	982	859	592	1451	859	592	26	27	53
Total	12515	12719	10253	11001	21254	10253	11001	433	529	962

Source: - NTHO 2007/2008 annual report

Table of age and sex distribution above for VCT and PIHCT are direct indicators of how much females are more affected by HIV/AIDS. Looking at the sex and age it is almost half fold greater than male for child bearing age (15 – 49 years). But, it has a limitation that considering less than 15 years age for VCT has legal and ethical problems. Despite the limitations it clearly indicates that in east Wallaga the risk of having infants born with HIV is very high unless very urgent measure in provision of PMTCT service is taken. It also proves that females are more affected with the virus than men.

N.B:-As observed from Naqamte town report currently 1328 people enrolled for chronic HIV, 1799 people have ever started ART of which 780 are currently on ART and 2579 people are on ART and altogether 3907 people are on pre-ART and ART.

Table 10:-PMTCT in 2008 east Wallaga three rural districts and Naqamte town (Compare rural vs. urban)

No	Activities	Rural 3 districts		Naqamte town	
		New	Total	New	Total
1	ANC clients	665	665	3575	3575
2	ANC clients pre-test counselled	385	385	3591	3591
3	Pregnant women (PW) tested for HIV	324	324	3542	3542
4	PW who received their result and post test counselling	323	323	3542	3542
5	HIV positive pregnant women	14	14	97	97
6	HIV negative pregnant women	310	310	3445	3445
7	Pregnant women who received NVP	6	6	46	46
8	Babies received Neverapine (NVP)	3	3	54	54
9	HIV positive PW who received counselling on infant feeding	14	14	96	96

Source: - EWZHO and NTHO 2007/2008 annual report

A. Analysis of Effectiveness of PMTCT in East Wallaga

Expected Pregnancy 52 891 with 3.5% HIV prevalence	Expected HIV outcome 1851
No treatment 20-45% transmission	20%*1851=370babies 45%*1851= 833babies
If all treated with NVP 9-26% transmission	9%*1851=167babies 26%*1851=481 babies
Maximum to be saved	370-167= 203 babies 833-481=352 babies
Actual situation in East Wallaga zone	
untreated HIV positive women are 1799 (20-45% transmission)	20% *1799=360 babies 45%*1799=810 babies
Treated HIV positive women are 52 (9-26%)	9%*52=5 babies 26%*52=14 babies
Total Babies with HIV	365 to 824 babies
Saved in reality in east Wallaga	370-365=5babies to 833-824=9babies
Effectiveness	Babies saved/max. gain 5 to 9 /203 to 352 babies 2.5% to 2.6%

B. Analysis of PMTCT Utilization among service consumers

% HIV positive mothers and infants who took NVP 52*/111=46.85% EFFECTIVE COVERAGE
% HIV positive mothers who took Nevirapane 52/111=46.85% COVERAGE
HIV positive mothers are 111/4240=2.6%
% pregnant women received post test counselling result=3865/52891= 7.3% UTILIZATION
% pregnant women tested for HIV= 3866=3866/52891= 7.31% UTILIZATION
% pregnant women Pre-test counselled 3976=3976/52891= 7.52% UTILIZATION
%Pregnant women offered PMTCT services 4240= 4240/52891= 8% ACCESS
Expected pregnancies in East Wallaga 52891

* 57 infants were given NVP may be due to twins but for the sake of the exercise I have decided to take 52.

The PMTCT service is not fully functional at all levels and out of 12 districts listed in (Table 7) it is available only in six districts and Naqamte town, which means half of the health centres are not providing the service which is good indicator for Low primary health service coverage in this Zone.

If we were able to provide NVP to all pregnant mothers we could have prevent a lot of babies, but now we could only identified 111 (2.6%) pregnant women and only provide NVP for 52 pregnant women and 57 babies which mean about 5 – 9 babies of them could be prevented from acquiring HIV infection which is about 2.5% to 2.6% protection only; where we could have reach 203 to 252 children. Here comes the morale and ethical issue where these much number of babies is infected with HIV while they have no contribution in transmitting HIV. There for aggressive measure should be taken to change the situation. This finding can exactly show us there are problem of access, utilization and coverage. Hundred percent coverage need to reach the majority of the population in rural areas by designing appropriate and tangible program.

4.7 Timing and Continuity:-

According to the findings from UNICEF from more than 500,000 women who attend ANC in different countries only seventy one percent of them were willing to have counselling. From those who were willing about 70% of them were tested for HIV. Out of HIV positive pregnant women forty nine percent received preventive drugs and they have concluded that less than one out of four were able to take the drug that is needed (UNICEF, 2003). Other studies also proved that in places of high scarce resources high drop out rate is common (Stringer J s et al; 2005).

In East Wallaga from total antenatal visitors about 2% only received FP counselling, about 3%(3) of HIV positive pregnant mother referred for care and support to the next higher institution, 10%(10) partners of HIV positive pregnant mother was received VCT and testing. In the same year that is 9728(18%) out of expected pregnancy in the Zone of the total deliveries attended at health institutions. 8264 (15.6%) have got postnatal care. Based on health institution FP report, about 113,589(47%) users out of the eligible age group (23.3% of total population) offered the service. The PMTCT utilization is very low in those pregnant mothers who attend the ANC (EWZHO.2007/2008)

4.8 Technical quality:-

In East Wallaga zone out of fourteen health centres only nine have health officers, six have Pharmacy technician and five have laboratory technicians. Although all of them have nurses and other paramedical health workers still there is high work load. The peripheral health institutions have health workers with limited skills and training of one to one and half years. Health posts are staffed with female health extension workers. In all health institutions providing PMTCT services there are guidelines and treatment protocols including NVP and other important materials for this purpose. Due to work load on supervisors from zone health office regular follow up, monitoring and feed back were not frequent and timely.

Zone level training on HIV/AIDS and other relevant topic has been given based on the level of profession to update health workers. The aim of the training was to sensitize health workers to improve quality of services but, they failed to implement as intended. There is good beginning that a lot of health workers are getting in-service training that includes all HIV prevention components and upgrading programs. (Health assistants and junior nurses to senior nurses; senior health workers of different categories to BSc level and BSc holders to MSc and MPH and other specialities). The existing human resources lack training and slow to involve all health workers, particularly on PMTCT services. There is also weak supervision and follow up for PMTCT program implementation at all level. Absence of frequent refresher training affect quality of services and it seems can be improved soon since the 1st batch of health officers in accelerated programme graduates and health assistants to nurse up grading also complete this year.

5 Discussion, Conclusion and Recommendations

According to East Wallaga Zone health office annual report the average number of person in the family is 4.8 people per household and fertility rate is 5.4 children per women (UNAIDS/WHO, 2008). Reason for preference to have many children in this zone is they think few out of many children have a chance to survive and children are seen as labour force and family asset. Tradition and social norms also encourage frequent birth that in turn can increase the chance of having women's affected with HIV virus and give birth to high number of new born with the virus. Income of family is dependent on agricultural products grown at the back of their

garden and livestock products. Decision on PMTCT service and financial expenditure is made by men who are usually family heads.

Currently people who are living within 5Kms of radius or less than one and half hour walking distance to the nearest health institution are considered as population with access to health services and it seems logically sound. But despite the presence of health posts in some community's necessary service is not provided there. Still for services like VCT, PMTCT and ART they have to go far; even if they decide to have it. Health posts are nearly sufficient and also easy to avail them with participation of the community and local leaders. Not only health posts the number of health extension workers and nurses is in good situation to reach the communities in peripheries. PMTCT service is free of charge but absence of health institutions and skilled staffs affected its utilization. It is a common sense that human and material resources helps to provide PMTCT services available for the women and newborn baby which is yet a challenge in this zone.

Frequent absence of critical health personnel, long queue and unfair attitude of some staff negatively affected satisfaction of clients. All what have been mentioned above increases the opportunity cost of women and thereby affect the future desire in utilization of PMTCT services. But what is surprising here is the donor's requirement to initiate VCT, PMTCT and ART is skilled staff especially (Medical doctors, health officers, Pharmacists and laboratory technicians). It is not also easy to avail this professionals very soon and donors money also usually not used for training of such calibre. There for it is very wise measure to substitute these resources with what we have at hand. With short time in service training; nurses can substitute health officers, Pharmacists and laboratory technicians in providing PMTCT services and health extension workers can also provide Nevirapine (NVP) for both pregnant women and new born because they are the one who are very close to the community and also provide ante natal care. Training of lower calibre health worker is cost effective and we can produce much within short period.

The actual utilization of preventive care in East Wallaga is very low. Utilization of ANC, delivery, postnatal care and PMTCT are highly linked as indicated in findings (Table 5 to 10) and all need especial attention to be improved. But currently these services coverage between districts varies depending on the number of health institutions and health workers they have. The same thing is true for VCT and ART utilisation of the zone where it is provided.

Pregnant women are usually concerned about the secrecy of their diagnosis and worried if found to be positive. They have a fear

about murmur and gossips follow the problem. Since most of them are economically dependent on their spouse they fear the repercussion of husband knowing their HIV status; therefore involvement and targeting both couples in PMTCT service can solve this problem (Karamagi C.A.S et al; 2006).

In service training on HIV/AIDS activities is usually given with the fund support from UNICEF, WHO, PEPFAR Global fund and other NGO'S at different levels based on guidelines. High turn over of trained and skilled health workers in government health institutions is a challenge. I can witness that Nurses and laboratory technicians who attend HIV/AIDS training provided by Family health International (FHI) usually does not go back to their health institution. They either change their work place in public sector or go to NGO/private health institution.

Community participation at health institution plays an important role in PMTCT service delivery and utilization. Although level of community participation varies from one place to another there are health committees at community level especially where there are health posts and health extension workers. However; health committees are present; in some villages of rural and urban they are not fully utilised to the level that they can prevent stigma and discrimination. The committee at health centre and health posts level consists of political elites or appointees, health providers and community representatives. It helps in HIV/AIDS prevention activities since in the regulation of Oromia regional state a number of diseases with public health importance are free of charge. If the clients are asked for illegal payments they can complain. At community level they manage community's involvement through fund raising for health posts construction, environmental sanitation, HIV infection prevention through awareness; AIDS impact mitigation and control works including stigma and discrimination, VCT out reach activities and also they deal with complaint from clients at different levels.

In general the findings of this thesis is more or less similar with different research's conducted in sub-Saharan Africa and findings of EDHS-2005, that indicated factors affecting utilization of PMTCT are associated with Socio-cultural and health system and health service that includes women education, getting permission to go for PMTCT, concern that there may not be health provider with tradition and religion dominating the right of the women (EDHS 2005) are the main issues that influence PMTCT utilization.

5.1 Conclusion

This review looked at why PMTCT situation is so important in east Wallaga, and what might be done to improve matters. Hence; it is timely to identify the problems and forwarding necessary recommendations. PMTCT service utilization and effective coverage in East Wallaga zone is very low (less than 2.5% - 2.6 %).

Factors responsible for low utilization of PMTCT services included geographical and financial inaccessibility, low access to information, health system and health service provision. Different studies also supported that pregnant women's decision to seek PMTCT service is affected by their partner who is linked to decision making power of pregnant women, norms in the community, house hold income and holistic knowledge of pregnant women. Distance from health institutions that provide PMTCT service, long travel time to reach there and weak or almost non existent transportation which includes higher cost and in-consistence of the availability of public transportation. Poor infrastructure that includes absence of all weather road and health institutions that ensure privacy are also important barriers. Fear of stigma and discrimination, economic House hold issues and quality of health services were also important. Education, area of residence (rural) and distance all affect PMTCT utilization within the zone.

In East Wallaga although potential health coverage is 74.2% health institutions are un-evenly distributed which is difficult to access for pregnant women and rural community that accounts more than 85% due to poor infrastructure, natural barriers and the like. The ratio of health institutions and health professional to population is by far lower than "WHO" standard. Similar to health institution health professionals' distribution is also un-even among districts. Usually the assignment of health workers follows the presence of higher health institutions that includes in Ethiopian context; health centre and hospital. Limitation associated with budget is also significant and shortage of budget allocated for health sector/institutions from district administration need to be corrected and shall be according to sectors that have high contribution on poverty reduction.

PMTCT services are not functional in all health centres; due to lack of critical staff for this service and high turn over. Even though, PMTCT services are available in health institution the proportions of consumer of this service is very low. Poor referral system and feed back between health institutions and absence of strong HMIS, health centre cars are either not available or misused. Motor and

pedal cycles could replace car for communication purposes with in the district.

Poor organizational quality is also contributing factor in the zone that includes long waiting time, attitude of some staffs which could affected satisfaction of pregnant women or their relatives and reduces utilization of PMTCT services by pregnant women. Therefore; Low PMTCT utilization and its effective coverage can be averted or improved by critically addressing factors affecting the utilization independently or in combinations and implementing proper strategy that includes task shifting to enable us properly utilize scarce resources available and substitution of resources.

5.2 Recommendations

1. Introduce PMTCT service at "Type B" health centre and health posts to provide with minimum requirement/standard that nurses and health extension workers can perform. Increase coverage of ANC service and institutional delivery including PNC.
2. Avail PMTCT services in all health centres currently available by using low calibre health workers and it should go hand in hand with VCT services. Integrate to other MCH services and the current recruitment of lay-counsellors should be promoted.
3. Improve physical accessibility to health institution by strengthening infrastructure; the already started building new health institutions (Type B health centre and hospital) and renovation of existing one has to be very rapid and timely.
4. Training of all health workers (formal and in-service) on VCT/ PMTCT services including health workers in private and NGO's. Training and use of health extension workers on PMTCT services should be included.
5. Resource allocation by district council for health institutions with focus on regular supply of essential drugs, medical equipments and test kits.
6. Provide all health centres and health post with motor and pedal cycles (very important and critical).
7. Empower pregnant women, their partners and families to create awareness and understand benefits of PMTCT services and male participation in PMTCT program.

8. Provide intensive Behavioural Change Communication (BCC) on PMTCT services and use of health institution for community, faith based organizations and NGO's including political elites.
9. Provide all health centres with internet access and personal computer services to strengthen HMIS and facilitate radio communication for health centres which can not use other means.
10. Provide un-interrupted and continuous supportive supervision; supported with check-list and skilled personnel and sustainable motivation to health workers in the peripheries.
11. Strengthen involvement of district administration and community development groups in HIV/AIDS interventions to support health institutions and create sense of ownership that increases PMTCT utilization.
12. Establish and strengthen bi-lateral referral, counter referral and feed back system between higher and lower health institutions.
13. Create enabling environment for Involvement of NGOs/private health institution in providing VCT and PMTCT services and urgent measures need to be taken to provide PMTCT services and its extension to the private health sectors.
14. Functional research's to asses' perception of community and service providers on PMTCT utilization and effective coverage through Focus Group Discussion (FGD) and self administered questionnaire.

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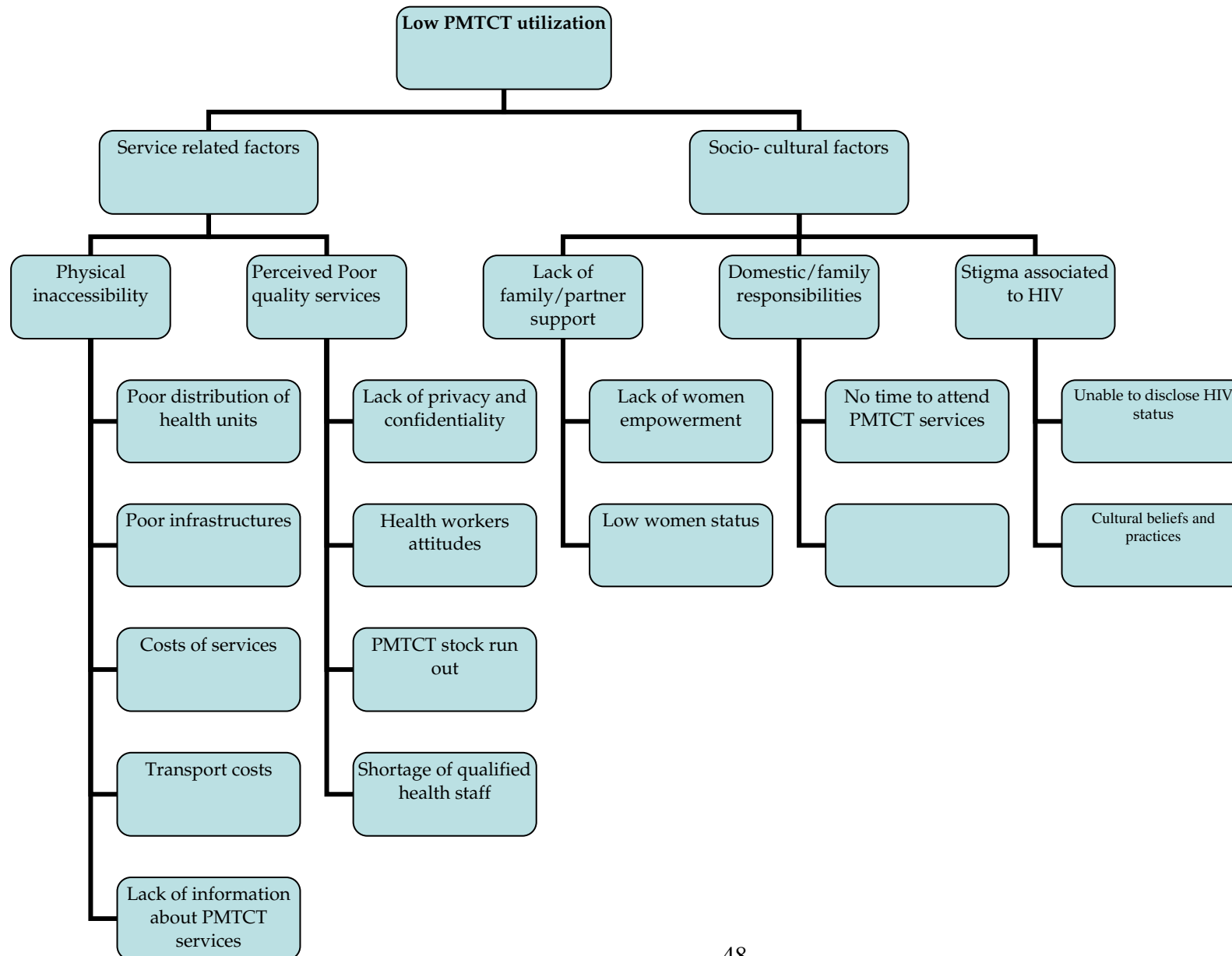
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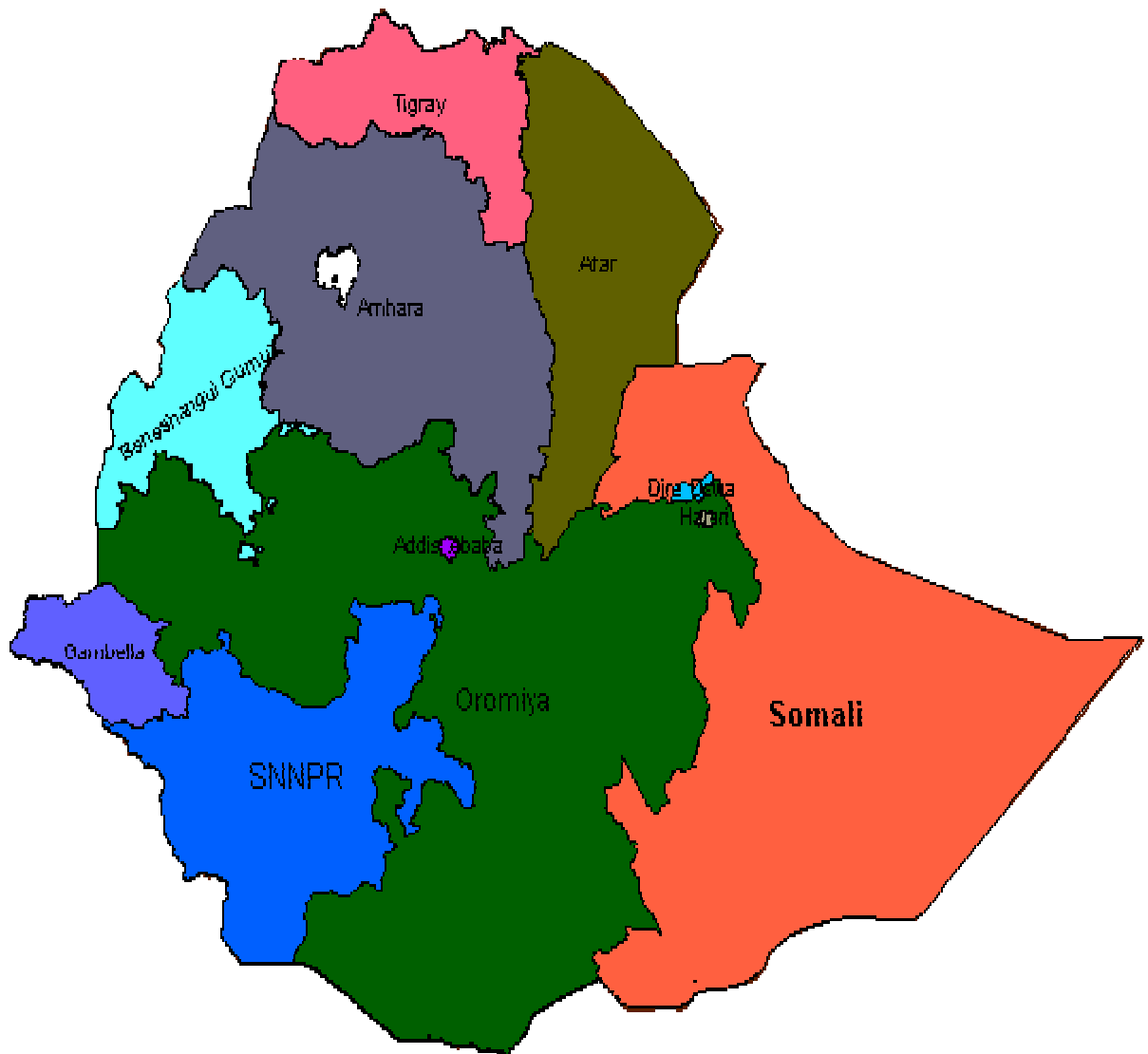
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Annex 1 Problem Tree



Annex 2:- Map of Ethiopia with its federal states



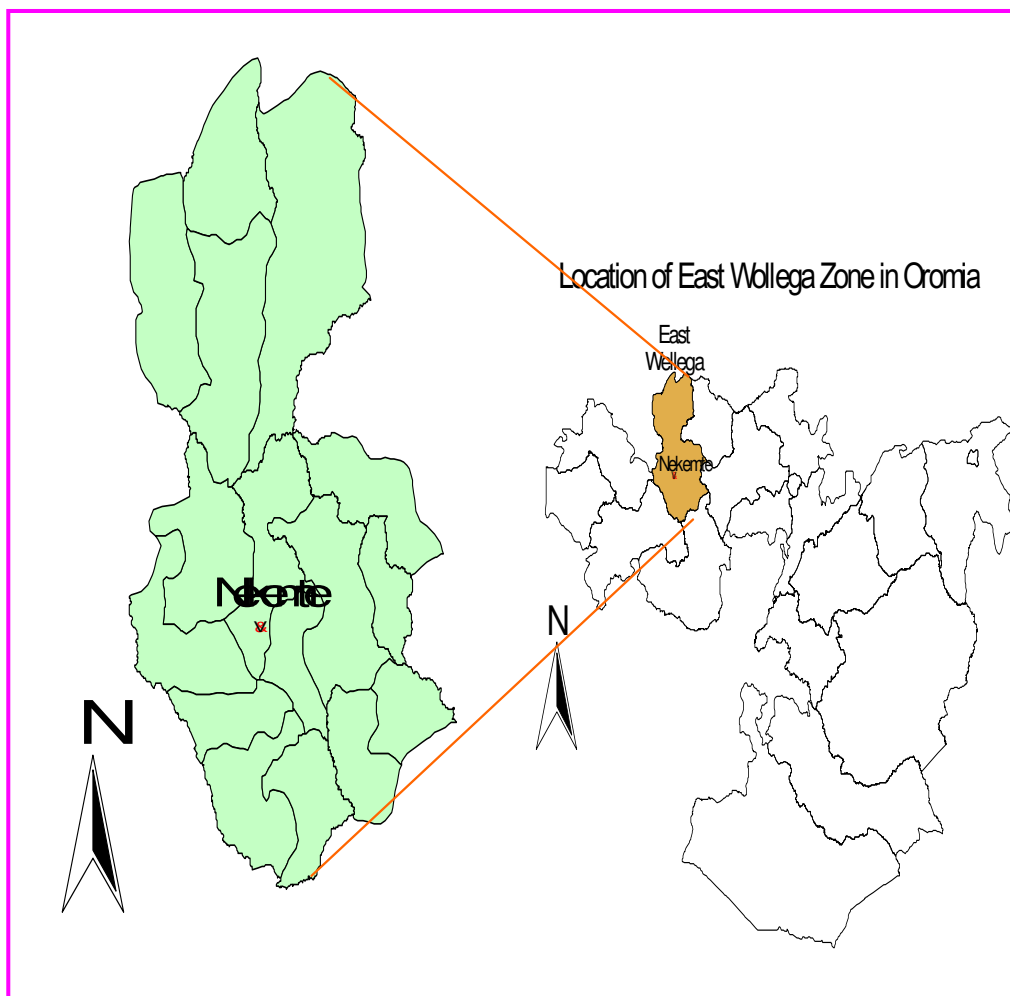
Source: - From 2007/2008 paper

Annex 3:- Map of Oromia with its zones



Source: - From 2007/2008 paper

Annex 4:- Location of East Wallaga Zone in Oromia



Source: From EWZHO 2007/2008