

Addis Ababa University
School of Graduate study

***Reasons for Default from Prevention of
Mother to Child Transmissions (PMTCT)
of HIV Program in Addis Ababa***

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Addis Ababa University in partial fulfillment of the
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Table of contents

| No | Contents | Page |
|------|--|-------|
| | Acknowledgment | I |
| | List of Content | li |
| | List of acronyms | lii |
| | Abstract | iv |
| 1 | Introduction | 1-5 |
| 2 | Literature review | 6-10 |
| 3 | Objective | 11 |
| 4 | Methods | 11-21 |
| 4.1 | Study Area | 11 |
| 4.2 | Study design | 12 |
| 4.3 | Study population | 13-14 |
| 4.4 | Sample size | 15 |
| 4.5 | Sampling technique | 16-17 |
| 4.6 | Data Collection | 17-18 |
| 4.7 | Data analysis | 18-21 |
| 5 | Strength and Limitation of study | 21-22 |
| 6 | Ethical Consideration | 22-23 |
| 7 | Result | 23-42 |
| 8 | Discussion | 43-48 |
| 9 | Conclusion | 49-50 |
| 10 | Recommendation | 51-53 |
| 11 | Reference | 54-58 |
| 12 | Annexes | 59-61 |
| 12.1 | in depth interview guide for HIV positive women lost form follow up | 59 |
| 12.2 | Focus Group Discussion guide | 60-61 |

List of acronyms

AIDS – Acquired immune deficiency syndrome

ANC – Antenatal care

ARV – Antiretroviral prophylaxis

AACGHB – Addis Ababa City Government health bureau

AAU-DCH – Addis Ababa University Department of community health

ART – Antiretroviral Treatment

FGD – Focus Group Discussion

HIV – Human immune Deficiency virus

HAPCO-HIV/AIDS preventions control office

M2M- Mother to Mother

MTCT – Mother to child transmission

NVP – Nevirapin

OI – Opportunistic Infection

PMTCT – Prevention of Mother to child Transmission

PI – Principal Investigator

PLWHA – People living with HIV/AIDS

R.C – Research Coordination

R.T – Research Team

VCT- Voluntarily counseling and testing

Abstract

Back Ground: As of February 2004 Prevention of Mother to child transmission of HIV program was started as “hareg” project at five health facilities in Addis Ababa which later expanded to 33 sites. Since its starts, yearly regional health bureau report showed that the region didn`t achieved the national Prevention of Mother to child transmission of HIV program target in relation to counseling and test acceptance. More ever less than half of HIV positive mothers and their infant have taken full course of Nevirapin while the other half default from Prevention of Mother to child transmission of HIV program and they didn`t take Nevirapin.

Objective: the main objective of the study is to identify reasons of HIV positive women for defaulting from PMTCT program and not taking ARV prophylaxis in Addis Ababa after they receive their post test HIV result.

Methods: Prevention of Mother to child transmission of HIV program uptake analysis was done among ANC attendants for Prevention of Mother to child transmission of HIV –Voluntary counseling and testing uptake and on the uptake for Nevirapin for all Prevention of Mother to child transmission of HIV mothers and their newborns during two years of Prevention of Mother to child transmission of HIV program implementation at “Hareg” pilot sites by reviewing national registration, recording and reporting formats. Qualitative study through in depth interview with HIV positive mothers who lost from PMTCT program and focus group discussion with health professional working at PMTCT clinic and mother to mother support group were conducted to investigate the women`s reasons for not accepting ARV prophylaxis in PMTCT program in Addis Ababa at “Hareg” PMTCT pilot sites. Collected data were

translated, transcribed, prepared in Microsoft word document which is changed to plain text. The document imported to Open code soft ware, and coding, listing of frequencies, and data reduction were done. The data then summarized. Interpretations of data, drawing of conclusion were performed.

Result:- Total of 95378 new antenatal care attendants were registered during this two-year period, of whom 44095 (46%) enrolled for VCT at the PMTCT program and 28635 (65 %) tested for HIV. Three thousands four hundreds and eighteen (3418) (11.9%)mothers tested HIV positive and were therefore enrolled in the PMTCT program. However, only 1913 (56%) HIV positive pregnant mothers received the Nevirapine during delivery. Moreover: only 1965(57%) newborns received Nevirapine within 72 hours after birth showing close to half of mother`s lost to follow up and didn`t receive Nevirapin. Quality of health care during PMTCT counseling, follow up, and delivery, stigma and discrimination were identified as the main reasons for loose from PMTCT follow up and not took ARV prophylaxis during delivery. Additional reasons mentioned includes personal factors associated with the clients including religion related factors, distance from facilities, changing of place and disclosure.

Conclusion and recommendation Strengthening monitoring and Evaluation of PMTCT programs, mothers to mothers support group, community mobilization, quality assurance program in PMTCT, nutritional support and involvement of families in PMTCT program would have paramount benefit in increasing ARV prophylaxis uptake.

Key words: PMTCT, ARV prophylaxis, Mother to mother , Nevirapin.

1. Introduction

1.2 Pediatric HIV in Ethiopia

Ethiopia is one of a few sub-Saharan countries severely hit by HIV pandemic. There are 1.3 Million PLWHA and 143586 children living with HIV with average HIV prevalence of 7.9% among pregnant mother who participated in PMTCT program. In 2006 there were estimated 105,675 HIV positive pregnancies and 30338 HIV positive births. 134586 children were estimated to live with HIV in the country. (1). Addis Ababa has 2973000 total population and 11.7% of HIV prevalence among adults. There were 7995 HIV positive pregnancies and 1920 HIV positive births in 2006. ANC coverage of the city is 58.8% while HIV prevalence among pregnant mothers attending ANC is 9%. There are 13707 children living with HIV (2) the country has highest burden of HIV infection in children.

1.2. HIV transmission in children

Children less than 15 years of age may acquire HIV through mother to child transmission (MTCT) of HIV: transfusion of HIV infected blood and blood products, sexual contact and injection through contaminated sharp materials (3). Mother to child transmission of HIV is the transmission of HIV from infected pregnant women to her offspring. MTCT of HIV accounts for more than 90% of HIV transmission in

Children MTCT of HIV occurs during Pregnancy, labor and deliveries

and breast feeding. (4) Without any interventions 20-45% of children born from HIV positive mothers acquire HIV. High fertility rate and HIV prevalence among reproductive age group, universal breast feeding and low access for prevention of mother to child transmission program accounts for high numbers of children living with HIV (5).

1.2 PMTCT

The risk of MTCT can be reduced to under 2% by interventions that include antiretroviral (ARV) prophylaxis given to women during pregnancy and labor and to the infant in the first weeks of live, obstetrical interventions including elective caesarean delivery (prior to the onset of labour and rupture of membranes), and complete avoidance of breastfeeding (6,7,). With these interventions, new HIV infections in children are becoming increasingly rare in many parts of the world, particularly in high-income countries. In many resource-constrained settings, elective caesarean delivery is seldom feasible (5) and it is often neither acceptable nor safe for mothers to refrain from breastfeeding. In these settings, the efforts to prevent HIV infection in infants initially focused on reducing MTCT around the time of labor and delivery, which accounts for one to two thirds

of overall transmission, depending on whether the mother breastfeeds. Antiretroviral drugs decrease maternal viral load and therefore mother to child transmission of HIV. Short and affordable antiretroviral regimens using either zidovudine or nevirapine (NVP) or dual therapy (zidovudine and

lamivudine) can prevent at least half of cases of mother-to-child transmission (MTCT) of HIV occurring up to delivery (8).

1.4 PMTCT in Addis Ababa

The Government of Ethiopia has set PMTCT as one of its main public health priorities. PMTCT programs in the country were started initially at different regions supported by UNICEF. Later “Nigat” projects were implemented at different sites and regions as research projects. In 2003 the Ministry of Health launched PMTCT “HAREG” project. PMTCT programs were started as HAREG projects in 2004 in Addis Ababa at 4 health centers and one hospital. Addis Ketema health center was the first to implement a PMTCT program in Addis Ababa and in the country. The PMTCT service is increasingly available in Addis Ababa and currently 33 health facilities have PMTCT services. (2,4)

1.5 PMTCT services

In Hareg PMTCT pilot sites core PMTCT activities includes HCT for pregnant mothers and their husband, ARV prophylaxis for HIV infected pregnant mothers, comprehensive MCH service and infant feeding counseling. Single dose Nevirapin is used as ARV prophylaxis in these sites. The PMTCT program uses antenatal care as an entry point. Trained nurses provide PMTCT group education as initial steps which are followed by individual ANC check up during which the client will be informed about PMTCT and then referred to VCT for PMTCT. VCT in

PMTCT is individual counseling during which volunteer client will be tested and receive their HIV test result on the same day. For women whose result is HIV positive there will be a monthly follow up in accordance with ANC appointment at PMTCT clinic. At 32 weeks of gestation the women will be given 200 mg, 1 tab of Nevirapin to take it when labor begins. In the subsequent PMTCT follow up visit, the counselor will advise the client on, institutional deliveries, infant feeding options, family planning, Nevirapin counseling and positive living. They will be given regular appointment until delivery. During delivery the mother will take Nevirapin tablets if she already didn't

took and the infant will be given single syrup of Nevirapin within 72 hours of delivery (4).

1.6 PMTCT uptake in Addis Ababa

During the first year of the PMTCT program in Addis Ababa region, based on the PMTCT program standard, HIV testing was offered to 1875 women attending antenatal clinic of which 1014 (54 %) accepted the test. During this period 98 (9.6%) were HIV positive and receive their result. 32 (32%) of mother actually give birth at health centers with full course of Nevirapin. In the year 2005, 23,405 pregnant mother counseled and 15304 (65.5%) accepted the test of which 1505 (9.8%)

were HIV positive. 854 (56.7%) mother gave birth in the health center (2). The cumulative estimates shows that only half of the pregnant women eventually took Nevirapin prophylaxis and most where lost from

follow up and did not deliver at health facilities for many reasons.

Despite these most of HIV positive mothers didn't received ARV prophylaxis and lost from PMTCT follow up program after they received HIV result and gave birth at home. Different studies have tried to assess factors affecting PMTCT test acceptance but so far no studies have tried to why HIV positive mothers didn't take ARV

prophylaxis in the country. ARV prophylaxis uptake is used as one of PMTCT national indicators to assess PMTCT program achievement. Hence the objective of the study is to investigate women`s reasons for lost from PMTCT follow up program and not accepting ARV prophylaxis.

Rational for the study

HIV infection in children can be prevented to large extent through effective PMTCT program including offering of ARV prophylaxis, comprehensive MCH program and Infant feeding counseling. Despite it less than half of the mothers were participated in the PMTCT program and take ARV prophylaxis. Knowing the reasons why HIV positive mothers didn't took ARV in the PMTCT program and implementing the recommendation will help the city in preventing HIV infection in children.

2 Literature Review

2.1 Overview of Mother to Child transmission of HIV.

Mother to child transmission (MTCT) of HIV is the most significant source of HIV infection in children below the age of 15 years and it accounts for more than 95% of childhood infections in SSA. (3,9). HIV can be transmitted from an infected mother to child during pregnancy, labor and delivery or through breast-feeding. Reported transmission rates ranges from 13% to 32% industrialized countries and 25% to 48% in developing countries. The risk of infection is now thought to be 5-10% during pregnancy, 10-20% during labor and delivery, and 5-20% during breast-feeding (9) Ethiopia has adopted the WHO/UNICEF 4-pronged PMTCT strategy as a key entry point to HIV care for women, men and families. These includes primary prevention of HIV infection, prevention of unintended pregnancies among women infected with HIV, prevention of HIV transmission from women infected with HIV to their infants and treatment, care and support of women infected with HIV, to their infants and their families(4). The risk of MTCT can be reduced to under 2% by interventions that include antiretroviral (ARV) prophylaxis given to women during pregnancy and labor and to the infant in the first weeks of life, obstetrical interventions including elective caesarean delivery (prior to the onset of labor and rupture of membranes), and complete avoidance of breastfeeding. In low resource countries settings, the efforts to prevent HIV infection in infants initially focused on

reducing MTCT around the time of labor and delivery, which accounts for one to two thirds of overall transmission, depending on whether the mother breastfeeds. (4,5) antiretroviral drugs reduce the risk of MTCT of HIV by decreasing viral replication in the mother and through prophylaxis of the infant during and after exposure to the virus. Short course antiretroviral regimens for the prevention of mother to child transmission of HIV are cost effective (10), easy to administer, and safe. Different ARV drugs has been used as ARV prophylaxis in PMTCT . In Ethiopia, 200mg stat Nevirapin is used as ARV prophylaxis for PMTCT programs .

2.2 *Factors affecting acceptance of VCT in PMTCT.*

Many studies have been done and identified factors affecting acceptability of VCT in PMTCT> these factors includes maternal mothers educational levels, being one day HIV rapid test and women`s perception that the husband would approve of her being tested (11,12) perceived high personal susceptibility to HIV/AIDS, barriers related to confidentiality and partner involvement, self efficacy regarding alternative feeding methods and religion were all shown to be associated with willingness to accept VCT in PMTCT (13). Studies in cote d 'voire pointed out that non-participation to

VCT were more marginal, Socio cultural and economically related (14). A study in Cameroon identified availability of and numbers of trained counselors

has direct effect on HIV counseling and test acceptance (15).

2.3 Prevalence of HIV positive infection among pregnant women.

HIV positive proportion in pregnant women varies from country to countries reaching up to 44%. Several data from antenatal care clinics in urban area in 2002 showed that HIV prevalence of over 50%. In Swaziland the average HIV prevalence among pregnant women was 39% in 2002. In Botswana antenatal prevalence has reached to 37%. In other several countries of Africa over 10% of women attending antenatal care clinic in urban areas were reported to be HIV positive (16). In analysis of PMTCT records in kagera regional hospital, Tanzania, HIV proportion was 7.4%(17), while, in Thylo South of mali it was 20.6% and in South Africa PMTCT national pilot site the proportion of HIV positive mothers were 30%. (18).

2.4 Acceptance of antiretroviral prophylaxis in PMTCT

Despite having different ARV prophylaxis, WHO advocate the use of Nevirapin for its feasibility and cost. But despite availability of the PMTCT program, Nevirapin up take is a high challenge for the program. In most of PMTCT program in Africa, Nevirapin up take is less than 60%. In South Africa national pilot PMTCT program only 55% of HIV positive women were dispensed with ARV (18), while in Tanzania,

Kagera, regional hospital only 36% of mother actually received ARV prophylaxis. (17) studies in Malawi showed that 45% of mother and 34% of babies received Nevirapin making cumulative loss to follow up 55% by the 36 weeks of antenatal follow up and 68% by delivery. In Thyolo districts of South Malawi, 44.6% mother received Nevirapin at 36 weeks of antenatal follow up and 68% by delivery and only 34.2% new born received Nevirapine within 72 hours after birth (19). The report of United Nations pilot PMTCT sites in Africa, Asia and Latin America showed that 9 of 11 pilot PMTCT UNICEF sites only 40% to 60% of women get ARV prophylaxis and in most countries one quarter or fewer of all HIV positive pregnant women ultimately gets short course of antiretroviral (16). In Abidja, cote d

ivoire, with 12% of HIV prevalence in ANC, and 72% accepting VCT, only 35% of HIV positive mothers eventually started to take ARV (20).

2.5 women`s reasons for not accepting ARV prophylaxis

Several studies identified different factors and reasons for the low ARV up take both at follow up and during delivery. Distance from hospitals and too centralized hospital based PMTCT program were shown as reason for progressive loss to follow up. Different studies pointed out that not reached gestational age when ARV is initiated and coming back after, partner opposition, concern taking drugs during pregnancy, give birth at another facility or home delivery, having reach the health

facility when in active and late stage of labor and too late for intra partum ARV doses were the reason for not taking ARV (16). The study in cote d ivoire also show that difficulties experienced by the women during their contact with staff working on the PMTCT program and negative views that they have about the program contributed to their non-participation in the ARV prophylaxis. The study also added that personal reasons including changing place

and being ashamed of themselves to realize that they are HIV positive is cited as a reason. (20) In Tanzania studies women reported that fear of disclosure; domestic violence and divorce are some of the reasons for non attendance in ARV prophylaxis (17) Albrecht, in his study found that non adherence to Nevirapin is associated with home delivery & no high school education but disclosure of HIV status and couple counseling was only associated with adherence among home births. (21) One study had found that uptake of ARV intervention is independent of material immune status (22). Certain socio demographic factor in a society may also have effect on acceptance of ARV prophylaxis by HIV positive pregnant mothers. Institutional factors including long waiting time, confidentiality & accessibility also shown to affect ARV prophylaxis uptake and addressing those institutional factors has increased Nevirapin uptake from 51% to 70%. (23).

3 *General Objective*

To identify HIV positive pregnant women`s reasons for not completing PMTCT follow up visit institutional delivery before starting short course Nevirapin in Addis Ababa.

Specific Objective

- 1) To identify HIV positive women`s reasons for exit from PMTCT program after voluntary counseling and testing before they accept ARV prophylaxis at 32 weeks of Gestational age PMTCT follow up and delivery at health facilities.
- 2) To measure the PMTCT program uptake.

4 Methods

4.1 Study area.

The study was conducted in Addis Ababa at five health facilities. Addis Ababa, capital city has about 3million population and administratively the city is divided in to 10 subcity and 99 kebeles. (1,2) There are 5 hospitals and24 health centers. ANC coverage of the city reached 58.8% while attended delivery estimated to be 28% for the year 2005/06 with 9% of HIV prevalence(1). PMTCT was started in February 2004 as “Hareg” PMTCT pilot project at five health facilities and is currently available at 33 health facilities. “Hareg” pilot PMTCT site includes Addis Ketema Health center, Bole health centre, Teklehaimanot health center,

Lideta Health center, and Zewditu Memorial Hospital. All these health facilities were included in the study. VCT for PMTCT, comprehensive MCH care, ARV prophylaxis and infant feeding counseling were the core activities for PMTCT programs in these sites. Nevirapin was used as ARV prophylaxis in all of the five health facilities. (2) Pregnant mothers started their PMTCT care through participating in group education which is followed by ANC care. Then they will be directed to VCT_PMTCT clinic where they will be counseled and tested. During delivery they will be offered Nevirapin. Counseling and testing enrollment as well as Nevirapin uptake will be registered at ANC, PMTCT and labor and delivery clinic. Those mothers who lost and didn't take ARV prophylaxis continue to attend others service including ANC, EPI, world food program nutritional support and mother to mother support group. They were identified by the counselors and M2M mentors and enrolled for in depth interview. The health professionals working at PMTCT, ANC clinic and M2M support group were selected for focus group discussion; mothers to mothers peer support group were available in two of five health facilities.

4.2 Study design

The study utilizes a qualitative methods using in depth interview and focus group discussion. And record review and analysis was done on the PMTCT uptake among antenatal care attendants for

PMTCT-VCT and on the uptake for Nevirapine for all PMTCT mothers and their newborns, registered during the first two-year program implementation period.

4.3 Study population

In depth interview

Key informant for in depth interview were HIV positive mothers who participated in PMTCT program and had received HIV positive result but lost from follow up and didn't take Nevirapin but continued to follow other health facilities services including EPI, ANC, under five clinic, delivery service and M2M support group before and after delivery. The study subjects are purposive sample of HIV positive mothers who were identified during study periods from five "Hareg" PMTCT sites. PMTCT counselors and M2M support group were participated in identification of these mothers. None of these mothers took Nevirapin at 32 weeks follow up or during delivery at health institution.

For Focus Discussion Group

Three focus group discussions were done, two among purposively selected health professionals working in PMTCT service and one among mother to mothers support group members. Nurses who are working at ANC clinic, counselors working at PMTCT, Midwifery's

working at labor and delivery and nurses coordinating M2M support group participated for focus group discussion among health professionals at two health centers. Two PMTCT counselors were included in the focus group discussion from two other health facilities. A range of six to eight

discussants were participated in each focus group discussion session. The second focus group discussions with M2M support group member were done at Addis Ketema and Lideta health center. These M2M support group member are HIV positive women who were participated in PMTCT program. They are peer support group that aims to provide psychological and educational support for other HIV positive women`s.

Analysis of PMTCT uptake

ANC-PMTCT, PMTCT-Nevirapin registration and monthly reporting registration books of ministry of health were reviewed for analysis of PMTCT program uptake in all five Hareg PMTCT pilot sites and Addis Ababa Health bureau report. The first two years PMTCT performance of the five health center was reviewed against the national PMTCT target based on ministry of health indicators. Measurements was done using PMTCT national performance indicators which includes, Numbers of new attending ANC clients,

Numbers of mothers who counseled for HIV, numbers of mothers who tested for HIV, numbers of mothers who took full course of Nevirapin at labor and delivery, numbers of infants who took Nevirapin within 72 hours of delivery.

4.4 Sample Size

For in depth interview

. The sample size was decided in the field where saturation and redundancy of information's has set the limit to the numbers of interviewers.

Focus group Discussions

Three focus group discussions were done where redundancy of information in assisting the in depth interview finding has limited the numbers.

4.5 Sampling

Some of HIV positive mothers who lost from PMTCT program and didn't take Nevirapin have continued to attend Health facility service follow up care including ANC, EPI under five clinic M2M

support group and WFP nutritional support service before and after giving birth. Purposive recruitment of these mothers was possible. To identify these mothers and to perform purposive sampling the research coordinator oriented the staffs working at ANC, EPI, under five clinics M2M and WFP nutritional support ware house about the research and recruitments criteria. The research coordinator further explained about the confidentiality and how to link the mothers with him. Those staffs who work at ANC, PMTCT and M2M were able to identify these mothers easily and approach them and confirm that if they actually lost from the program by looking their ANC cards and asking them about their

participation in the PMTCT program and ARV uptake. The staffs at M2M and WFP support group explain to all mothers about the study inclusion criteria for research and to report to M2M coordinator if the mothers has been lost and didn't took Nevirapin. Furthermore the mothers participated in M2M support group and WFP nutritional supports were discussed each other about their experience of PMTCT program and their health status. Thus the women of interest for study will disclose about her Nevirapin and lost from PMTCT follow up further peer group and thus we were able to locate those mothers lost from the program and didn't took the

Nevirapin. The staffs once identified the study others the explained about the research propose and the principal investigators working with research wants to know their reason for lost from follow up and didn't took Nevirapin. They also explained that the researcher wants them to interview concerning their view about the Nevirapin uptake. Once mothers discuss about the research and agreed to participate in the research the staffs and M2M member linked them with principal investigator at private rooms in respective health facilities and left the room. The principal investigators explained about purpose of research and asked their willingness to participate in the research. Furthermore it was explained that participating in the research is purely voluntarily and all information will be kept confidential. Written consent was given or read and interviews were started after the women verbally agreed. For focus

group discussion with health professionals two health centers selected which were able to recruit subject mothers and mother to mothers support group available. But one PMTCT counselors from all five sites were invited for the discussion to represent their respective sites experience. Among M2M support group members the M2M coordinators has selected the group of 6 mothers with long experience in participating in the M2M support groups.

4.6 Data Collection

Focus group discussion and in depth interviews were used for data collection for qualitative study using pre tested interview guide. The guides were developed in English and translated into Amharic. In depth interviews and focus group discussions were conducted to obtain information about HIV positive women`s reasons for lost form follow up and not accepting ARV prophylaxis. Furthermore the in depth interview identify mothers knowledge about transmission of HIV in children and its prevention ways. The principal investigators who has been working as PMTCT counselor and familiar with the program has conducted the in depth interview. The interviews were in Amharic and have taken 45 minute in average. Even though the interviews and discussions were follows the guide discussion were tried to incorporate all issues in PMTCT programs and participants were encouraged to discuss more. Interviews were done in the health facilities at separate room.

The entire interviews were done in working days in the morning. Focus group discussion whit the staffs and M2M were done in the afternoon. The principal investigator who worked as PMTCT counselors conducted the focus group discussion. The interview and

discussion were recorded and field notes were taken. Preliminary data analyses were done after data collection and helped to identify and remove saturated questions.

Data collection for record Review

PMTCT Up take data were collected from Addis Ababa health bureau family health department, Addis ketema health center, teklehamianot health center, lideta health center, Bole health center and zewditu hospital. The data were collected based on the national PMTCT performance indicators (see analysis of PMTCT up take page 13) The data collected manually from Ministry of health registration available at ANC-PMTCT, PMTCT- Delivery and monthly reporting form. The data from Addis Ababa regional health bureau were inclusive of three year report of 2005,2006 and 2007 while the report from all five study health facilities include the first two years performance of PMTCT.

4.7 Data Analysis

Qualitative

Data collected through field notes were enriched using the tape recorded information. Preliminary analysis was done manually after each interview so that the outcomes of the interviews were outlined. Possible thematic areas were identified as the participants answers are

questions. Thus the recorded data were transcribed into Amharic through which the interviews were conducted. The observational finding during interview and focus group discussion were incorporated during transcription. After complete transcription translations of data into English were done. Data Immersion which includes listing reading and rereading of each note of translated documents were done while the principal investigator becomes familiar in remembering the main research question. These have continued until all collected data included and the principal investigators were able to identify important themes and note important points and questions not addressed well. At this point rough categorizations of research questions and possible answers that belong together were able to be identified and coded on the paper. This categorization and coding were listed on the paper. The translated and compiled data prepared as electronic copy file on Microsoft word document. Then editing of the document where done which includes checking for spelling, avoiding unnecessary format and organizing text in terms of paragraphs. The Microsoft word documents were changed to plain text documents. These plain text documents were imported to open code soft ware and each Plain text document. These plain text documents were imported to open code soft ware and each document were labeled (name given). Once the data where imported coding of the data were executed using the

initials draft code available on printed document. During coding on soft ware listing of frequencies using codes, looking for single for combine document and updating of codes done. Thus the numbers of codes were reduced in to groups. Following these data reduction through visual approach for each thematic file were done. The following steps were taken o perform date reduction, reread discussion and texts, looking for narrative observation, main points according to the broad research questions it pertains to decide which code were important, clustering them into categories. Similar codes belonging to the same thematic area brought together for categories. At these points main research thematic areas and respective codes were identified and all data of in depth interview and focus group discussion were coded and available. Then the principal researcher summarized them. Summarization was done by opening separate complication sheets which consist of heading column with research thematic area. Separate sheets were prepared for in depth interview and focus group discussion. Those topics covered in both in depth interview and focus group discussion summarized systematically and followed the same sequence of topics. Through using open soft ware code search frequency of specific codes and location of codes in the plain text document identified. For individual research thematic area available answer, key words and sentences summarized by going

back to original data. Interpretation of data, drawing and verifying conclusion and recommendations were done starting from data entry process. The write up done based on the interpreted data.

PMTCT Uptake

The data collected from Addis Ababa health bureau and all five sites where calculated to know about PMTCT program uptake. The indicators used were PMTCT counseling and test acceptance, HIV percentage among pregnant mother and Nevirapin uptake among HIV positive mothers and their infants. National PMTCT indicators and percentage calculation where used.

5. Strength and Limitation of Study Strength

- The study design was appropriate to explore the reason of women`s for lost from PMTCT program and not taking ARV prophylaxis.
- The study directly involved those HIV positive mothers who lost form the PMTCT program for in depth interview and HIV positive peer support (M2M group members) and Health professional working in PMTCT clinic involved in the Focus group discussion to supplement

the findings. This enable to explore the PMTCT related problems from all perspective.

- As the principal investigator has been working in these pilot sites and on PMTCT program the in depth interview and focus group discussion flows appropriately. The confidentiality issues were addressed strictly .
- Since there is no similar study conducted in the area (country) , it can contribute a lot for improving PMTCT program uptake and thus avert many pediatric HIV infections.
- The study addresses the main challenges the PMTCT program has faced.

Limitation

- Inability to assess reasons for lost from PMTCT program for those mothers who were lost to follow up from the beginning and didn't come again to health facilities.

6. Ethical Consideration

Ethical clearance to conduct the study obtained for Addis Ababa University, medical faculty department of public health and permission to conduct the study in Addis Ababa "Hargo" Pilot sites were secured from Addis Ababa regional health bureau. Support letters were written for respective health center from Addis Ababa

health bureau. Study subjects have been indentified by PMTCT counselors working at respective health centers and the study subjects were asked for their willingness before they were communicated with the investigator. Once they agree to participate in the research verbal consent were obtained after clear explanation about the purpose of the study and confidentially. Only those who were willing to participate have been included in the study.

Confidentiality of the information assured by omitting names of study subject and maximum effort made to maintain privacy of the respondent during the interview. The question has been focusing on

availability of PMTCT program and the reasons for lost form PMTCT follow program and not taking ARV prophylaxis.

7. Result

7.1 Characteristics of the study area and participants

A total of 17 interviews have been done between May 2006 and April 2007 in Addis Ababa. The interviews were done with purposively selected HIV positive women`s who have been participating in PMTCT program but lost from the program before they took Nevirapin. The Study participants have been recruited from 4 health centers and one hospital . The age of respondent`s range from 18

years to 35 years. The respondents were composed of literate and illiterate individuals from different professionals and social roles. All of the interviews were conducted in Amharic. Observations on emotional reaction and facial expression were noted as part of interviews. All of the study subjects were married. A total of three focused group discussions were made. Two of the focus group discussions were made with health professional working in PMTCT service at five health centers including ANC nurses, M2M coordinator from two health center, PMTCT counselors from all five study health facilities. All of the health professionals were nurses and has been practicing the PMTCT service for more than six months. M2M support group participant where from Addis Ketema health center and has been participated in the support group for more than one year.

7.2 PMTCT Program Up Take

PMTCT service in Addis Ababa was started as Nigat project, a research based PMTCT program in selected health facilities. As health bureau program the PMTCT service was started on February 2004 as “ Hareg” PMTCT pilot project in five health facilities after the launching of PMTCT service in 2003 at national level. These 5 pilot sites includes Addis Ketema health center, Lideta health

center, Tekle haimanot health center , Bole health center and Zewdit memorial hospital which were selected on the basis of HIV prevalence, ANC coverage and previous “Negat” PMTCT project experience. Since then the PMTCT service has been expanding gradually to reach 33 sites in 2007. Within the last three years a total of 95378 new pregnant mothers attended ANC and 44095(46%) pregnant mothers were counseled for HIV and 28635(65%) were tested for HIV .Three thousands four hundreds and eighteen (11.9%) mothers among tested where HIV positive. One thousand nine hundred and thirty one (56%) mothers has taken Nevirapin during labor and delivery while 1965 (57%) infants received Nevirapin syrup within 72 hours of delivery. According to Addis Ababa health bureau, family health department report and analysis of last three years PMTCT performance showed that counseling acceptance ranges between 43% and 56% while HCT acceptance falls in the ranges of 63% and 67%. Nevirapin uptake among HIV positive mothers ranges between 67% and 51%. The first three quarter report of 2005 PMTCT

performance showed that there were 37912 new ANC attended mothers among which 1655 (43%) mothers were counseled and 11062(67%) tested for HIV. Among those mothers who tested for

HIV, 1008(9.1%) of them were tested HIV positive. In the same period 378 (67%) HIV positive mothers received Nevirapin while 478(47 %) infants got Nevirapin. In 2006, 57466 mothers attended ANC (new) while 27544 (47 %) of them counseled and 17573(63 %) tested for HIV. HIV prevalence among these mothers was 9.8 %. One thousand two hundred and thirty five (51 %) HIV positive mothers took Nevirapin while 1487 (61 %) infants took Nevirapin. The 2007 PMTCT report of the region also showed that HIV counseling acceptance were 56 % while HIV test acceptance reached 66 % .HIV prevalence in 2007 report were 8.4 % and 54 % of HIV positive mothers has took Nevirapin while 39 % infant got Nevirapin. Among the five “Hareg” PMTCT Pilot health facilities the HIV counseling rate ranges between 43 % in Zewditu and 98 % in Addis Ketema health center while test acceptance ranges between 68 % in Zewditu and to 100 % in Bole health center. HIV prevalence among ANC attending mothers were between 7 % and 10.3 %. The ranges for Nevirapin intake among mothers falls between 10 % in Tekle haimanot health center to and 220 % in zweditu while for infants falls between 8% in teklehaimanot and 300% in Zweditu%. The percentage of Nevirapin uptake in Zewditu is beyond 100 % among mothers and infants. These were explained as the HIV positive mothers

referred from health center to hospital for delivery, as a result zewditu hospital receives HIV positive mothers from other health centers. On the PMTCT registration book it was difficult to identify which mothers came and give birth at all health facilities.

7.3 Knowledge on Mode of HIV transmission in children

There are several potential modes of HIV transmission in children including mothers to child transmission of HIV, cutting with infected sharp materials, transfusion of blood and blood products and sexual contacts. MTCT of HIV accounts for majority of HIV transmission in children. The respondent has mentioned that cutting with infected sharp materials and MTCT of HIV were the two ways of HIV transmission in children. They further explained that HIV transmission from mother to child occurs during pregnancy, labor and delivery and breast feeding.

“I think children are infected with HIV due to carelessness of parents. The child may use sharp materials unknowingly that has been used by other HIV positive person. Because children at this age may not differentiate bad objects” one young mother responded to explain the possible way of HIV transmission through cutting with infected sharp materials.

In different expression and situation all mothers has mentioned cutting with infected sharp materials as one way of HIV

transmission in children. All respondent has difficulties to mention the term MTCT of

HIV as one possible way of HIV transmission in children rather they mentioned breast feeding, mixed feeding, during pregnancy and delivery that HIV can transmit to children. It shows that there are difficulties in understanding the term MTCT of HIV despite they mentioned all timing of HIV transmission through MTCT of HIV. Except one mother all has mentioned breast feeding as one way of HIV transmission in children.

“The child will acquire HIV if we breast feed our children. The virus is there in our breast milk especially if we practiced mixed feeding” one of the respondents has stated. Some of mother has emphasized mixed feeding has more risk of HIV transmission than exclusive breast feeding. Most respondent has expressed that HIV can be transmitted during pregnancy. The transmission can occur at any time during pregnancy but more transmission will occur as the pregnancy approach term. One HIV positive mother has expressed the transmission of HIV during pregnancy as follows

“HIV is transmitted to children during pregnancy and if she is seriously ill. There is the probability of HIV transmission if the mother didn't took anti HIV drugs”.

The respondents have said that HIV can be transmitted during labor and delivery. Some of the respondent has added that HIV can transmit to child if the mother didn't take anti HIV drugs during labor and delivery. But none of the respondent has mentioned sexual contact and

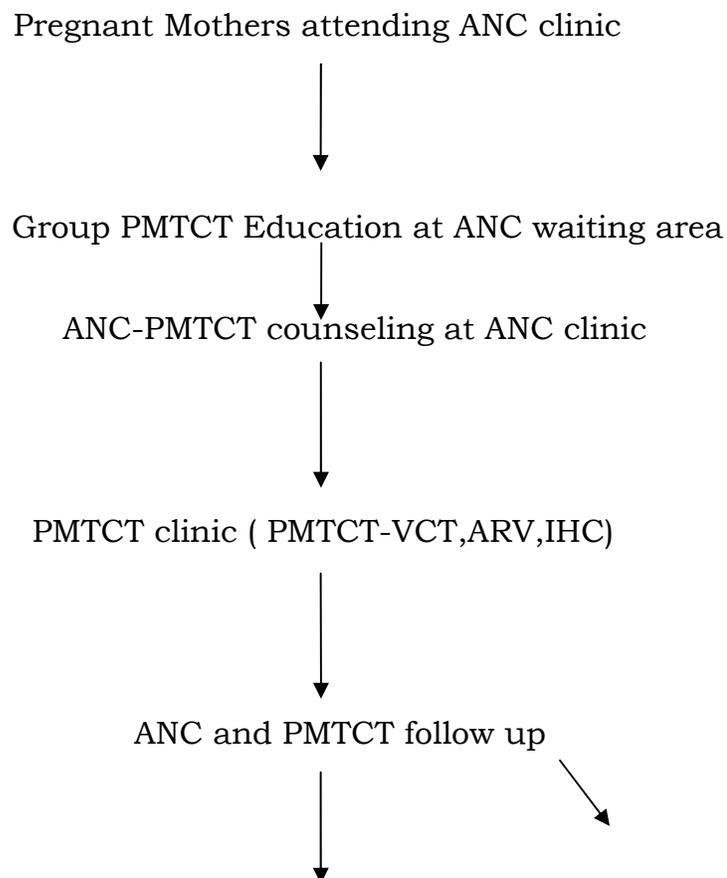
transfusion of infected blood and blood product as modes of HIV in children. Direct blood contact through using tooth brush which was used by parents was mentioned as possible ways of HIV transmission in children.

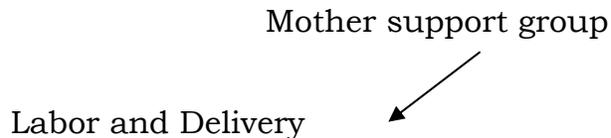
7.4 Available PMTCT service packages and client flow analysis.

Focus group discussant of two health center has expressed that all minimal PMTCT service packages of MoH were available at their respective health centers. These services includes HIV counseling and testing for pregnant mothers and their partners, group education on MTCT and PMTCT ,ARV prophylaxis ,Counseling on institutional delivery, infant feeding counseling and partner disclosure .The PMTCT service is given at different contact points and client stops which includes group education, ANC-PMTCT room, PMTCT HCT room and labor and delivery. In two of Hareg PMTCT sites, mother to mother support group program has been

implemented. HIV positive mothers participated in in-depth interview has mentioned that ARV prophylaxis ,exclusive replacement feeding and PMTCT counseling were the service they were offered to prevent mother to child transmission of HIV among children. They also added exclusive breast feeding for six months, avoiding contacts with sharp materials, ARV treatment, HIV counseling and testing, PMTCT health educations, partner disclosure and infant feeding counseling will help to reduce mother to child transmission of HIV.

Schematic Presentation of client flow analysis of PMTCT program





7.4.1 Group PMTCT education

In the First visit the mother will attend group PMTCT education which is given for all new ANC attending pregnant mothers. During this time the mother will educate on PMTCT of HIV and PMTCT services. This education will be facilitated by PMTCT counselor at respective health facilities. Once the mothers attend the group PMTCT education they will be directed to ANC for ANC check up and ANC PMTCT care.

7.4.2 ANC PMTCT service

ANC nurse will inform the mother about MTCT and availability of PMTCT during ANC Check up. The ANC counselor will try to clear misconception about PMTCT. The ANC nurse will check client ANC cards regularly in subsequent follow up whether the mother has participated on PMTCT and got appropriate PMTCT care. If the nurses identify those mothers who were not counseled or not on PMTCT follow up service the nurse will link the mother with MPTCT

counselor. But so far except one health center none of them performed these ANC –PMTCT services. They expressed that lack of training, poor confidential room and workload were some of the reasons not to do ANC-PMTCT counseling by ANC nurses. Once the mothers have finished the ANC –PMTCT service care they will be directed to PMTCT counselor. All pregnant mothers who attend ANC will be referred to PMTCT clinic and enrolled into PMTCT clinic.

7.4.3 PMTCT clinic.

At PMTCT clinic the ANC mothers attending ANC clinic will be counseled and tested for HIV. The counseling approach is Opt In in some health centers while it is opt out in others health center. Ministry of health currently recommends Opt out strategy for HIV counseling and testing services in order to increase HIV test acceptance rate.

Those health centers who have continued to follow Opt out in HCT expressed that so far counseling and testing acceptance at their respective site is nearly 100. The further said that the group education before individuals counseling significantly helped them to increase counseling and test acceptance during PMTCT . During PMTCT HCT the PMTCT counselors also counsel the mother about

ARV prophylaxis, infant feeding counseling, HIV positive leaving and the need of hospital delivery in order to reduce HIV transmission. The mother will also be appointed to follow the PMTCT follow up service based on ANC schedule unless if the mother's post test emotional status is unstable during which time they will be appointed to come after a week. But so far mothers were not counseled on PMTCT shared confidentiality that their result will be known by midwifery at delivery ward and it will be coded at their ANC card were no other person will identify it. The counselor has mentioned that it is difficult to give all the PMTCT counseling packages during the first visit. It is difficult for the mothers to understand all ARV prophylaxis and follow up counseling during the first visit.

7.4.4 PMTCT follow up service

Once they appointed to come for follow up PMTCT Counseling care and service they will be counseled on infant feeding option, partner counseling and disclosure, ANC follow up, ARV prophylaxis and

treatment, linkage to ART care for staging and counseled on the need of health facility delivery. But the counselor were not able to know which HIV positive mother actually came for follow up or lost from follow up. The counselor mentioned that there is no

registration to record and follow HIV positive mothers making difficult even to know what counseling and agreement reached with which mothers. Nevertheless the counselors have mentioned that due to work load it is difficult to give adequate follow up counseling for HIV positive mothers. They will be given Nevirapin as PMTCT ARV prophylaxis. Nevirapian is the standard ARV prophylaxis used in all Hareg PMTCT pilot sites. One tablet of 200 mg Nevirapin is given to HIV positive mothers at 32 weeks of Gestational age to be taken to home in order to take it when active labor started. Nevirapin Syrup will be given to infant with in 72 hours of delivery. The PMTCT counselor will further explain about active labor signs and availability of delivery care. They emphasize about the need of health facility delivery for better maternal and health care and to receive nevirapin Syrup for the infant. But most of the mothers participated in depth interview responded that the were not counseled and got ARV prophylaxis

7.4.5. Labor and delivery PMTCT service

At labor and delivery ward the midwifery will give all PMTCT minimal service packages. This service includes assessment and counseling on

nevirapin, confidentiality of PMTCT care, infant feeding counseling and comprehensive maternal and child care MCH. The midwifery will enquire the mother whether they took Nevirapin at their home and will issue another Nevirapin if mothers didn't take it at their home. They will conduct labor and delivery based on the national PMTCT protocol. Once the mother gave birth the infant will be given Nevirapin syrup before the mother discharged home. But some of the mothers didn't take Nevirapin despite they attend delivery care at health facilities .

7.5 Timing of Lost from PMTCT follow up care

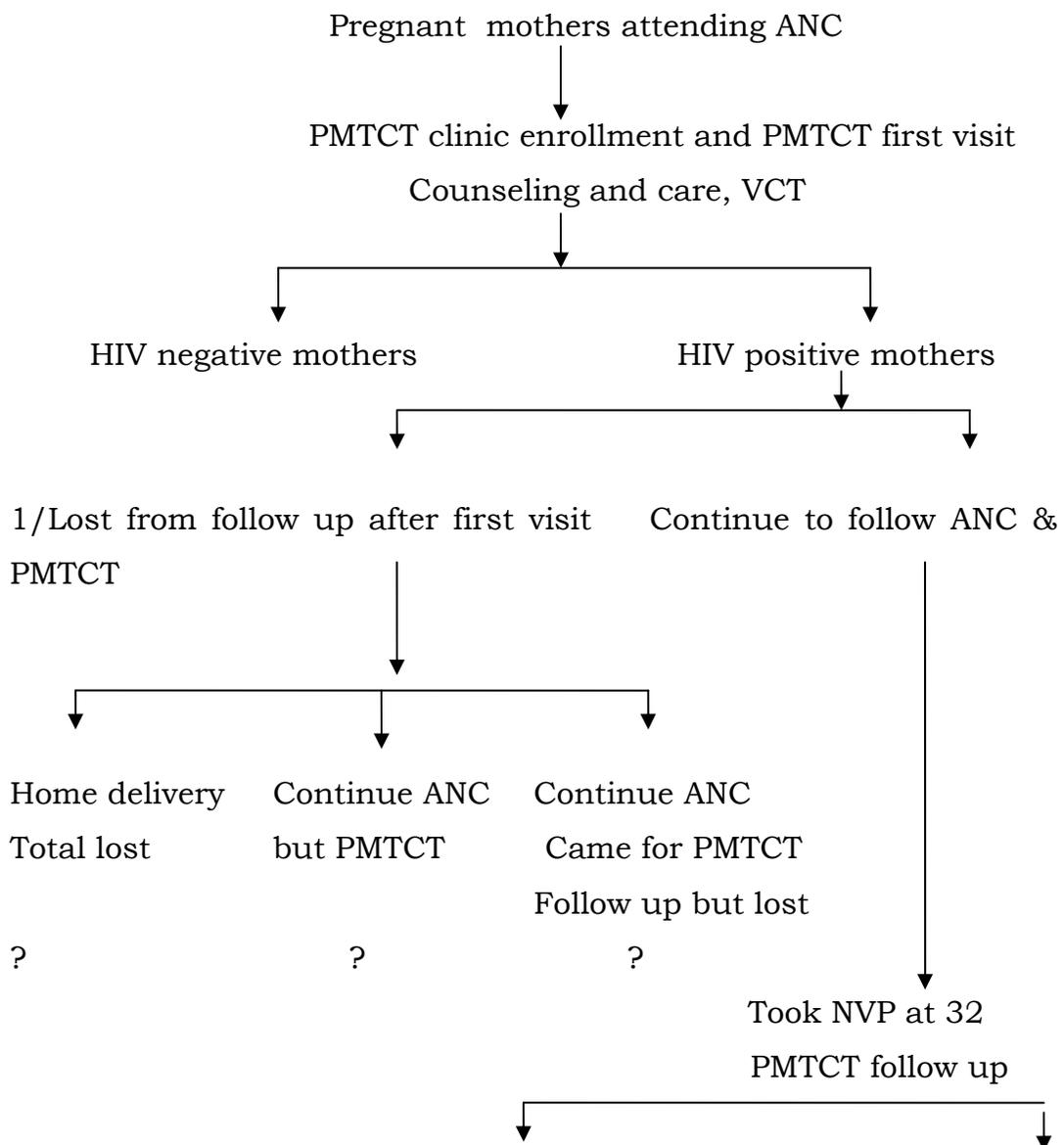
HIV positive mothers once identified as HIV positive they will be appointed to follow PMTCT follow up counseling and care by PMTCT counselor. The appointment schedule is arranged with ANC follow up schedule. The mothers will be told to do follow up at the first PMTCT visit. Most of the mothers were counseled to have PMTCT follow up by the counselor. Despite they were told to come for follow up most have stopped to come back for PMTCT follow up. Some of the respondent lost from the follow up and gave birth at home. The other mothers lost from PMTCT follow up program but gave birth at health facilities after they continued their ANC follow up . Another group of mothers lost from PMTCT follow up program but gave birth at health facilities after they continued their ANC follow up for

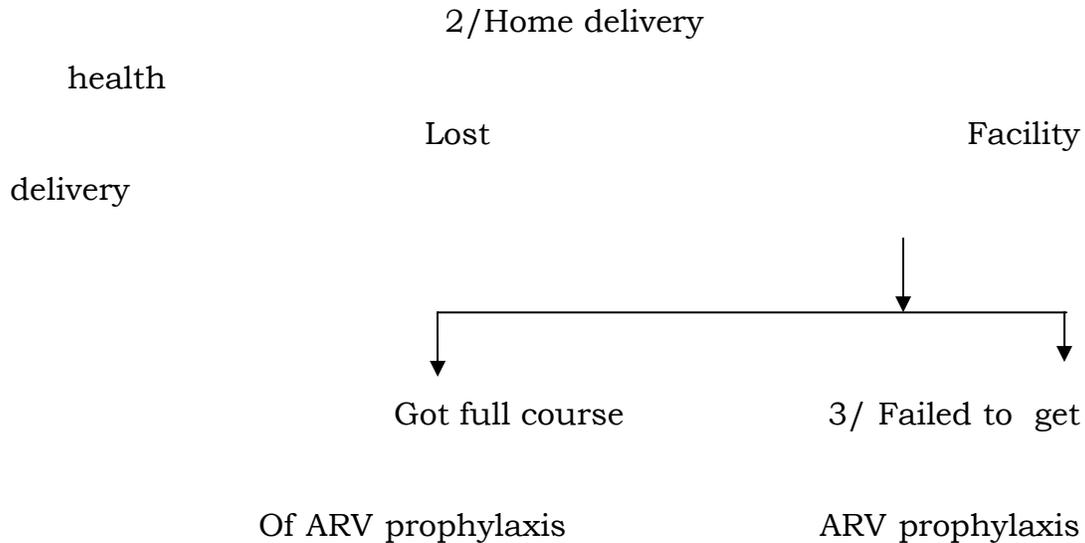
certain months but return to the program as they approach term.
HIV positive mother lost from PMTCT

program before they took Nevirapin at different time in the PMTCT cascade. These includes

1. Immediately after they receive their HIV result. Most of the mother lost from the PMTCT program during these times. Once they lost from the PMTCT program most of the mothers among these continue to attend the ANC follow up only. These mothers will give birth at home or health facilities. But those who gave birth at health facilities didn't disclose their result to midwifery at delivery ward.
2. After they received Nevirapin at 32 weeks of gestational age follow up. Despite, they followed PMTCT and ANC follow up these mother were lost from the PMTCT subsequent follow up program. Even though these mothers were small in number because of different reason they lost from the program and where not able to get them.
3. The last group of mother includes those mothers who followed PMTCT and attend delivery but they were not able to take Nevirapin. These mother were even not considered as lost from PMTCT program but they didn't take Nevirapin.

Schematic Presentation of Timing of mothers lost from PMTCT programs





7.6 Reasons for lost from PMTCT program and didn't took ARV prophylaxis

7.6.1 Quality of PMTCT Service

PMTCT quality of care is related with giving accurate and understandable information related to PMTCT, keeping privacy and confidentiality during delivering PMTCT service, treating the mothers with respect and consideration. The quality of care also includes ensuring continuity of PMTCT care and getting the service with out much delay. Complete PMTCT information and counseling about PMTCT service is important for effectiveness of the program.

- lack of knowledge on PMTCT service , PMTCT follow up and ARV prophylaxis

Mothers were expected to get counseling on MTCT, PMTCT and PMTCT core activities and interventions during PMTCT counseling

starting from first PMTCT visits. This core activity includes ARV prophylaxis, need of health institution delivery and confidentiality of the HIV result. But most mothers who were interviewed responded that they were not told about ARV prophylaxis that they should take during their PMTCT visits and most of them came to know about Nevirapin after they gave birth and participated into mother to mothers support group. Mother may lose from PMTCT program as they were not counseled and informed well about PMTCT and ARV prophylaxis during first counseling visit. Lack of knowledge about PMTCT is one of the reasons

for lost from follow up and not to take ARV prophylaxis. One mother expressed her reasons for lost from follow up as follows.

“The Counselor has only mentioned about the need of follow up she didn't mention about PMTCT and I gave birth at home”. She added that “we didn't discuss about PMTCT and had I know about it earlier I will not face such difficult time and I will take the drug” and furthermore she didn't didn't say anything about it and I didn't know.

HIV positive mothers were not counseled during HCT about ARV prophylaxis including when to take it. This was expressed by most participants.

Another mothers added that “we didn` t discussed. Had I know the preventions methods I would have saved the life of my child. I had a great desire to have my child free of HIV. If I know about it earlier I will not face such difficult time”.

One HIV positive mother said that as she was not told to have PMTCT follow up she continued to follow her ANC care but PMTCT follow up. She expressed that as there was no body who told about the PMTCT services and its follow up she contained to follow her ANC care but PMTCT follow up. She expressed that “as there were no body who told about the PMTCT services and its follow up I stopped to continue my PMTCT follow up care”.

“The counselor told me noting except that I am HIV positive. I taught the counselor may be mistaken. I became anxious and confused. The

counselor didn` t help and reassure me. I went home. The counselor didn` t tell me about Nevirapin, noting about PMTCT ways and about syrup. I went back to health center and they appointed me to come after 15 days for delivery as I approaching term. One mother replied.

-long waiting time

Most client continue to attend ANC clinic follow up and has visited the PMTCT clinic but they have to stay longer time to get the

counselor as the counselor are doing HCT for new pregnant mothers. Long waiting time during follow up counseling let them to be identified as HIV positive by the people and increases stress for HIV positive mothers. “Most HIV mothers came for PMTCT follow up but we were usually busy and there were many new pregnant women waiting for HCT and even sometimes the PMTCT room were closed thus they will return back home and will not come again” one of focus group discussant responded. Had she got the counselor with out much delay she will not lost from PMTCT follow up.

7.6.2 Stigma and discrimination

Stigma and associated discrimination from their families and relative is implicated as main reasons for lost from the PMTCT follow up service. Mothers said that they will be identified as HIV positive if they continue to follow PMTCT care at PMTCT clinic as many mothers see them. For fear of facing stigma and discrimination the mother didn't disclose their

result to their husband and other facility staffs. The mother takes all care not to be identified as HIV positive by their husband, families and relative who are coming to health facilities and as a

result they stop to come to facilities for follow up and gave birth home.

“I fear that when I came to counselor someone may know about it and may ask me why I have followed up the counselor or in that clinic. May be people identify from my ANC card also. I have a great fear being known as HIV positive if I go there”. Once of the respondent replied during in depth interview.

7.6.3 Emotional reaction after HIV post test counseling

Unexpected HIV positive result and the reaction after post test HIV counseling has contributed for lost from PMTCT follow up. The counseling support and approach during post test counseling will modify clients test result acceptance. HIV positive mothers responded that immediately after they heard the result they had stopped follow up counseling.

“I was preoccupied on the news of being HIV positive and thinking about living with the virus and how did I get it during post test counseling

7.6.4 Religious Factor

Religion has also mentioned as one of contributing factors for mothers to lose from PMTCT program. Client believes that HIV infection is from God and wants to accept the disease and gave birth at home. The

mother mentioned that “the virus is from Allah and as it is from him I decided to give birth at home and to accept all things”.

In addition some mothers prefer to go to the holy water after they heard HIV result. In one of focus group discussion among M2M support group and health professional working at PMTCT they mentioned that there are mothers totally want to go to holy water and discontinue visiting and following their PMTCT cares.

7.6.5. Fear and Disclosure

Male were still has taken the majority of house hold decision and were breadwinner of the family in Ethiopia. Thus they can influence PMTCT follow up and ARV prophylaxis uptake directly. Mother fears their husband thinking they may divorce or accuse them for being HIV positive. For this reasons they will not disclose their HIV result to their husband. Even they do the husband may not accept them. As the result they stopped to follow PMTCT clinic and to take ARV tablet for fear that their husband or relative may know and take actions. Some mother respond that they fear that they will be identified easily as HIV positive as the Nevirapin tablet may be identified by their husband or relative while they are keeping it at their home and or if they took ARV prophylaxis during labor and delivery and for that reasons they are not willing to take the drugs home and swallow it. One of the respondents has stopped the

PMTCT follow up care for three months but returned to the program after she discuss with her husband.

“Even myself do not return for ANC follow up after I knew my HIV status .I didn` t go to health center for about three months. This is may be due to fear that my husband may blame me. But I discussed with my husband who reassured me”.

7.6.6 Disbelief of HIV result

Pregnant mothers will be counseled and tested for HIV at PMTCT clinic and receive post test counseling there. Some mothers who attend the post test counseling session didn` t expect to have HIV positive result and hesitate about the test. Misunderstanding on HIV and other HIV test results also contribute for not accepting the result. In one health center previously once the mothers identified as HIV positive they will be refereed to hospital for CD4 determination. There at the hospitals one mother was told that her CD4 was normal but she returned back to health center and insult the nurses working at PMTCT clinic for giving false HIV result understanding that the normal CD4 count result is the same with HIV negative result. They were tried to explain for her about the meaning of normal CD4 and HIV positive but she refused and never returned back to health center

Another staffs mentioned her experience as follows

“There were young pregnant mother who came for ANC and then to PMTCT clinic. While I was counseling her she had no risk factors for HIV but her HIV laboratory result turned HIV positive. It was difficult for me to tell her and at the end when I told about the HIV result

during post test counseling she was not able to believe the result and asked the counselor to bring her husband for the next day. On the next day her husband was tested and he was negative (discordant). Then after she went back home and some months later she return and told me that she has proved that she is HIV negative and then after she didn` t return back”.

7.6.7 PMTCT delivery care and ARV prophylaxis acceptance at delivery ward

Some HIV positive mothers come for PMTCT follow up program and took nevirapin at 32 weeks of gestational age follow up and gave birth at health facilities. But due to different reasons they failed to take ARV prophylaxis. Lack of knowledge, poor interaction with staffs and poor PMTCT delivery care, and not disclosing to the midwifery were the main reasons for not taking ARV prophylaxis. As HIV positive mother didn` t disclose their HIV result to their husband

or relative and they were accompanied by them during labor the mothers fear the midwifery may disclose their result to them. The mothers also fear that the midwifery may tell their result to their husband directly or may give their ANC card from which the husband or relatives who accompany her will know the result.

“I afraid that the counselor may say to my husband and to his mothers who accompany me. I was in great labor pain and anxious that the midwifery will tell my result to my husband. I was praying not to happen these things”.

8. Discussion

PMTCT program Uptake

PMTCT program in Addis Ababa started as Hareg pilot sites in 2004. PMTCT program uptake varies in health facilities with in Addis Ababa. Nearly 48% of ANC attending mothers were counseled for PMTCT (43%-56% regional and 43%-98% study site). Cumulative HIV test acceptance were 65% for the region 63%-67% regional and 68%-100% study sites and average HIV prevalence is 9.1% Nevirapin was taken by 57% of HIV positive mothers and 49% infants. (51%-67% regional and 10%-220% study sites for mothers) this finding shows that half of pregnant mothers attending ANC counseled and tested while nearly half of HIV positive mothers have taken ARV prophylaxis. There were varying result from five PMTCT

study hareg sites on HCT acceptance and Nevirapin uptake. Zewidtiu hospital has low HCT testing rate but has reported more than two time Nevirapin uptake. This may result as many client may give birth at Zewdituy despite they got their HIV counseling and testing at another site. These create a gap for analyzing the PMTCT performance of each health facilities including the hospital itself using the current registration. The hospital was not able to report and specifically identify those HIV positive mothers who were tested and gave birth at their respective health facilities.

Similar finding were reported from different PMTCT pilot sites in Africa. In nine of eleven UNICEF pilot PMTCT sites only 40-60 % of women

who tested positive for HIV at PMTCT sites get ARV prophylaxis. The study further stated that in most African countries one quarter or fewer of all HIV positive pregnant women receiving full course of ARV prophylaxis. (25).

One study in zambia`s capital city found that single dose nevirapine was successfully administrated to only 30% of HIV positive pregnant women who attended public sector clinics. This low rate was partly due to many women not being tested, but it was also found that around one third of women not being tested, but it was also found

that around one third of women who were issued a dose of Nevirapine never swallowed it. (25)

knowledge`s on Mother to child transmission of HIV.

There are several potential modes of transmission of HIV to children, including MTCT, sexual transmission among adolescents, sexual abuse of children, transfusion of infected blood or blood products, unsterile injection procedures, and scarification. Mother to child transmission of HIV is the most significant source of HIV in children. without intervention 30-40% of HIV infected pregnant woman will transmit the virus to their newborn during pregnancy, delivery or through breast feeding Despite low contribution for transmission of HIV in children using infected sharp material were well know as major mode of HIV transmission among HIV positive mothers participated in the in depth interview showing that community mobilization to increase awareness

is vital for increasing PMTCT program uptake. Some of the mothers have mentioned all the three ways of mother to child HIV transmission through mixed breast feeding. Studies showed that mixed feeding has higher HIV transmission than exclusive breast feeding similar studies done in Nigeria on knowledge of MTCT of HIV among pregnant mothers has found that majority of respondent (90

%) were aware that HIV can coexist with pregnancy but only 68% were aware of MTCT of HIV transplacental route, vaginal delivery and breast feeding were identified as routes of HIV transmission from mother to child by 65%, 38% and 52% respectively. (26) This shows that the level of knowledge about mother of child transmission of HIV in children is inadequate. Thus there is a need for adequate health education and counseling about MTCT in ANC clinic in order to increase Nevirapin uptake.

Availability of PMTCT service

HIV infection in children is preventable disease. HIV testing as part of routine antenatal care, combinations of antiretroviral (ARV) drug regimens elective caesarean section, and complete avoidance of breast feeding has resulted into mother -to-child transmission (MTCT) rates of less than 2% . In Ethiopia PMTCT program has been implemented. The country utilize Nevirapin single dose regimen as antiretroviral prophylaxis. Full course of antiretroviral treatment for those mothers who were eligible for ART or dual ARV therapy using Zidovudin and Nevirapin were much more effective ARV prophylaxis in PMTCT (5) ARV

prophylaxis is the most significantly mentioned and know methods of HIV preventions in children. most respondent didn't mention

others PMTCT core service despite they were available. Inadequate counseling were the main reasons for low awareness about other PMTCT service. The PMTCT counselors were specifically gave emphasis to ARV prophylaxis part of PMTCT service.

Timing of Lost from PMTCT follow up care

HIV positive mothers may lost from follow up and didn't get ARV prophylaxis at three occasions. The first and the most frequent time when the mothers lost from follow up were after they received their HIV result and before they took Nevirpin at 32 weeks of gestational age. Despite they lost from follow up at PMTCT clinic they actually come to health facilities for getting other service including ANC and EPI. This shows that the mothers were interested to participate in PMTCT program and were able to trace them back.

Reasons for lost from PMTCT program and didn't took ARV prophylaxis

There are many factors and reasons mentioned for lost from the PMTCT program and not taking ARV prophylaxis. Quality of PMTCT service, stigma and discrimination from families and relatives and personal factors like religion and post test counseling reactions were the commonest reasons for lost from follow up and not taking Antiretroviral prophylaxis among HIV positive reasons. Quality of PMTCT counseling

includes the staffs approach to the client, giving full understandable PMTCT information, getting follow up care with out delay No wait time service and treating client with respect and dignity. These factors were the most important of all others mentioned above. HIV positive mother will face stigma and discrimination from their families and relative. Most of them didn` t disclose their HIV result to their husband and families as the fear of divorce and blaming from their husband and rejection and denial of social care from their families and relative. HIV infections being associated with high morality and stigma the mother have faced difficulties to cope with HIV result during post test counseling. As result they continue to think and worry about it alone and thus lost from the program. Similar finding were observed in different studies. in study on cote D I voire identified that difficulties experienced by women during their contacts with staffs working on PMTCT and negative view that they had about the program contributed for non participation in prophylaxis. The study added personal reasons including personalized reaction after post test counseling not able to deal with unexpected result, fear to disclose to their partners lack of knowledge about mother to child transmission of HIV and its preventions has also contributed for lost from PMTCT program. (20). In another study done by UNAIDS women who test HIV positive do

not return to clinics for follow up visits, or fail to take the drugs they have been given because they have had negative experiences interacting with

clinic staff , or because they have been poorly informed about HIV transmission and how it can be prevented. Also some women choose not to attend clinics because by doing so they might disclose their HIV positive status.

In the words of a woman from cote d` Ivoire “My husband might see me with the medicines, and he will want to know what they are for. That way he will find out about my HIV positive test result. Even the location of PMTCT clinic bother me, because everyone who comes to the clinic knows what goes on at the program as soon as a pregnant woman is seen coming here, it`s known right away that she is seropositive (19) A study done by UNAIDS found that fear of rejection, stigmatization , violence or abuse may prevent women from utilizing HIV voluntary counseling and testing services , disclosing their HIV status , accessing PMTCT programs and ARV uptakes, or engaging in alternative infant feeding practices. (27)

9. Conclusion

Based on the study the following conclusion were made

- PMTCT program performance

So far Addis Ababa PMTCT sites and Hareg pilot PMTCT has not achieved 80 % HIV positive mothers Nevirapin uptake targets set at national level.

There are difficulties to create specific site analysis of nevirapin uptake during deliveries as the mother may give birth at other site. There is no registration of Nevirapin delivered to mothers at 32 weeks of gestation age follow up at PMTCT clinic. In addition some sites double count and report Nevirapin taking by mothers as they took at 32 weeks of gestational age and during deliveries

- Mode of HIV transmission in children

cutting with HIV infected sharp materials and mother to child transmission of HIV during breast feeding, pregnancy and labor and delivery were known as modes of HIV transmission in children , But

women`s give high emphasis of cutting with sharp materials as significant way of transmission of HIV in children.

- PMTCT service

Antiretroviral prophylaxis was well known as ways of preventions of mother to child transmission of HIV in children.

Other PMTCT service core activities were not known and addressed well enough.

PMTCT services at ANC clinic were not implemented in most of health facilities

HIV positive mothers want to be seen with dignity, respect and not to wait longer time before they get the service

It is difficult to know which mothers have lost from follow up and what counseling services where given for which mothers. No PMTCT follow up registration books is available.

- Lost to follow up

Most of HIV positive mothers who were participated in PMTCT program were lost from follow up after their first exposure and post test counseling but most of them back to health facilities to visit other service including ANC and EPI.

- Antiretroviral Prophylaxis uptake

most mothers didn`t get nevirapin at 32 weeks of gestational Age PMTCT follow up.

- Reasons for lost from PMTCT program and not accepting ARV

Quality of PMTCT program, stigma and discrimination and personal factors were major reasons of HIV positive women for lost from the PMTCT program and not accepting antiretroviral prophylaxis

Improving PMTCT program compliance and ARV prophylaxis uptake

Improving quality of PMTCT services , Mother to mother support group and world food program nutritional support were the most important strategy for increasing program effectiveness.

10. Recommendation

PMTCT Program uptake

Continuous PMTCT performance analysis at regional and institutional levels should be strengthened. Staffs should be oriented on PMTCT target and indicators.

PMTCT campaign needs to be implemented to increase HIV counseling and test acceptance.

Monitoring and evaluation system of PMTCT service should be evaluated in order to avoid double counting of Nevirapin uptake , to start registration of Nevirapin uptake at 32 weeks of gestational Age,

MTCT and PMTCT awareness

Community mobilization

There should be community mobilization on PMTCT program to increase awareness on ways of HIV transmission in children and available preventive measures. It should be given emphasis that mother to child transmission of HIV is the most significant way of HIV transmission modes in children and HIV infection in children is preventable. All PMTCT core activities should be given emphasis

Reducing mothers lost from follow up and increasing ARV prophylaxis uptake

PMTCT quality assurances

There should be continuous improvement of quality of PMTCT program staffs approach to the client and giving full PMTCT counseling

Information should be given high emphasis. PMTCT quality assurance program should be in place including assigning PMTCT coordinator, establishing PMTCT team HIV team and quality assurance tools

Stigma and discrimination

Community awareness should be created to reduce stigma and discrimination. Couple counseling and HIV testing should be encouraged. Husband should be involved in the PMTCT program since the first visit of mother PMTCT clinic.

World food program nutritional support

World food program support should be expanded and integrated with PMTCT program support available in all Hareg PMTCT pilot sites. It is given to all HIV positive mothers who agree to take the support. The support includes wheat, palm oil and famix foods. The mother will get nutritional support coupon monthly from PMTCT clinic and expected to attend PMTCT follow up care. This support has significantly contributed for mother to compliance for PMTCT follow up based on the focus group discussion made with mother to mother support group and staffs working at PMTCT clinic.

In one health center more than 90% of M2M support group were participated in WFP support group.

Mother to mother (M2M) support group.

M2M support group is recommended to increase quality of PMTCT counseling care and stigma and thus reducing lost to follow up and

increase ARV prophylaxis uptake. Further assessment is needed to identify impact of M2m Support program in increasing PMTCT compliance and ARV prophylaxis.

Strengthening ANC – PMTCT care at ANC clinic.

In addition as most mothers who lost from follow up will continue their ANC check up the at ANC or EPI clinics will identify them and link the mothers with PMTCT counselor and M2M support group.

Delivery PMTCT care.

PMTCT care at delivery ward should be strengthened. Mother`s confidentiality should be respected. All health professionals should be trained on PMTCT. HIV positive mothers should be familiarizing with nurses at labor and delivery ward during ANC clinic.

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Annexes

In depth interview guide for HIV positive women

1. How did children less than 15 years old acquire HIV?
2. Can HIV transmitted from mother to infant child? If yes when and how?
3. How can MTCT of HIV be prevented? Probe more.
4. What health service activities are given in the health institution to reduce MTCT of HIV?
5. Have you heard about ARV used to prevent MTCT of HIV? If yes when did an HIV positive women should take.
6. You have been participated in PMTCT program: have you attend all the follow up program? Why did you didn't so.

7. Have you taken ARV/Nevirapin home during follow up before you give birth? If no why ?
8. Did you give birth at health institution?
- 9 .During your PMTCT service program in the health institution, how was your interactive with the healt staff: (probe)
10. Have you disclosed your result to your partner or relatives?
11. Why did you lost from this PMTCT program before you take Nevirapin?
12. In your view, why is that, many women`s are lost from the PMTCT program, after they received their HIV results what is their reasons?

Focus Group Discussion guideline

Good morning/afternoon, we thank you all for coming om time. I am Dr. Yonas Bekele. My colleague near to me iswe came from AAU-MF, MPH student.

After a brief introduction we will talk about different issues related to HIV AIDS. We will focus our discussion on PMTCT and we did it by asking you question about your all experiences on PMTCT your health institutions pertaining to women`s participations on PMTCT.

All answer you gave us has no right or wrong and all are relevant. I

will use tape record which will help me to transcribe the information`s later. We will conclude the sessions by asking for your recommendations on the way to improve PMTCT services. It may last 40 minutes. There are no anticipated risks or direct benefits. All information`s will be kept confidential. Your information will be assigned a code number and your name will not be mentioned.

Participation is purely voluntarily.

Did you agree to participate in the discussions?

YES

NO

Signatures of interviewer.....

Signatures of participants.....

Focus group discussion for counselors guide

1. Are most of the pregnant women receiving VCT or PMTCT? if no why?
2. Are most of the pregnant women partner also took VCT? If no why ?
3. Once tested for HIV – did most mothers come for follow up of PMTCT? If no why?
4. Those mother who lost from follow up did they continue to utilizes other service than VCT. For PMTCT? If yes why they come to these services while then lost from PMTCT.
5. How much percent did ARV prophylaxis reduce MTCT or HIV? What regimen is recommended her?
6. When should be ARV/Nevirapin should be given for the mother & infants.
7. Did most mothers take Nevirapin at 32 wks of appointments? If no why ?
8. Did most mothers give birth at your health institutions with nevirapin? If no why.
9. Did HIV positive women get most component or PMTCT service at regular time including IFC,
10. In A.A nearly only half of HIV positive pregnant mother took full course of nevirapin and the other half mothers lost from the

program. In your view, what are reasons of those HIV positive women being lost from follow up?