ADHERENCE TO OPTION B+ AND ASSOCIATED FACTORS AMONG PREGNANT WOMEN ON PMTCT SERVICES AT PUBLIC HEALTH FACILITIES OF EAST SHAWA ZONE, OROMIA, ETHIOPIA

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A THESIS TO BE SUBMITTED TO THE SCHOOL OF PUBLIC HEALTH, COLLEGE OF HEALTH SCIENCES, ADDIS ABABA UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR MASTER'S DEGREE IN PUBLIC HEALTH

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ACRONYM

AIDS	Acquired Immune Deficiency Syndrome
AOR	Adjusted odds ratio
ANC	Antenatal Care
ART	Anti Retro Viral Treatment
COR	Crude odd ratio
FMOH	Federal Ministry of Health
HIV	Human Immunodeficiency Virus
MTCT	Mother to Child Transmission
PLWHA	People Living With HIV AIDS
PMTCT	Prevention of Mother to Child Transmission
REC	Research Ethics Committee
UNAIDS	United Nation Joint HIV/AIDS Prevention Program
WHO	World Health Organization

ABSTRUCT

Background: Anti-retroviral therapy has made a significant reduction in morbidity and mortality related to HIV/AIDS. However, it cannot be fully realized without addressing barriers related to retention in care and medication adherence. The roll out of simplified Option B+ was launched in Ethiopia in 2013 with the aim of eliminating new HIV infection in children in 2015 and to keep the mother alive.

Objective: To assess levels of option B+ adherence and associated factors among pregnant women on PMTCT follow-up at public health facilities of the East Shawa zone, Ethiopia

Methods and materials: The study was conducted in public hospitals and health centers in East Shawa zone from January to June 2017. A descriptive cross-sectional study design was implemented to select 304 pregnant women using a systematic random sampling method. Data were collected using a structured and pre-tested questionnaire; the collected data were cleaned and entered into SPSS Version 21 for analysis. Multivariate logistic regression was used to determine association between independent and dependent variables.

Result: Two hundred ninety-three pregnant women who were on option B+ participated in the study. The mean ages and standard deviation of the participants were 29.2 ± 4.6. The overall ART adherence of pregnant women on ART medications was 82.6%. The study showed that participants educational status, AOR 4.54(95% CI; 1.72-11.95), participants status disclosure 2.61(95% CI; 1.01-6.71), social and financial support to the participants AOR 2.76(95% CI; 1.17-6.51), counseling on the benefit AOR 2.9(95% CI; 1.27-6.63), were all positively and significantly associated with adherence to option B+ treatment while experience of drug side effect AOR 0.24(95% CI; 0.1-0.6), and fear of stigma and discrimination AOR 15.79(95% CI; 4.64-53.67), were negatively associated with adherence to option B+ treatment.

Conclusion and recommendation: While education, counseling on health benefit of treatment for the fetus and the mothers, social and financial support favors adherence, Fear of stigma and discrimination and drug side effects effect negatively affect adherences to option B+ among pregnant women attending PMTCT in public health facilities. The investigator recommends collaborative work among patients, healthcare professionals, and public to enhance ART adherences

Key word: HIV, ART, Option B+, Adherence, pregnant women, Ethiopia

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1. INTRODUCTION

1.1. Background

Anti-retroviral therapy has made a significant reduction in morbidity and mortality related with HIV/AIDS. Notwithstanding, it cannot be fully realized without addressing barriers related to retention in care and medication adherence (1).

Despite effective prevention strategy and increment of world health organization, government and non-governmental organization concern on prevention of mother to child transmission of HIV infection, HIV transmission remains a global problem. In 2013 there were 35 million people living with HIV, and 3.2 million of them were children under 15 years of age. From 3.2 million HIV positive children, 240, 000 of them newly infected with HIV in 2013 only. Sub-Saharan Africa shared more than two third, 24.7 million; of the world HIV positive people and 58% of them were women (2). In 2013, about370, 000 women aged 15+ lived with HIV/AIDS in Ethiopia(3).

In 2014 an estimated 1.5 million women living with HIV gave birth, about 1.2 million of these women live in the 21 sub-Saharan African countries, Ethiopia was one of them. The estimated number of children newly infected with HIV globally in 2014 were 220, 000, this number was less than half the number who acquired HIV in 2000. This dramatic change was due to rapid expansion of PMTCT service (4). In 2015, 77% of pregnant women received effective ART medication to PMTCT (5).

The world health organization guide line on ART recommended three options to prevent mother to child transmission of HIV infection; option A, option B, and option B+. According to option A pregnant women starts ART prophylaxis as early as 14 weeks of gestation and as soon as possible thereafter during pregnancy and labor, and the infant continuing to take prophylaxis throughout breast feeding. Under option B, the women start ARV during pregnancy and continuing to take it throughout breast feeding. On the other hand the third approach, option B+, recommend use of lifelong ARV drugs for all pregnant women regardless of their CD4

count(6)(7). Since 2010, new infection of HIV was declined by 50% due to applications of these protocols (4).

Option B+ was first conceived and implemented in Malawi in 2011 (8). In 2013, Ethiopian government launched implementation of option B+ with aims to eliminate new HIV infection to children in 2015 and to keeps the mother alive(9).

In 2006 (2013/2014) Ethiopian fiscal year, the numbers of estimated HIV positive pregnant women were 32807 and around 19885 of them were on the ART. From this number, 9,696 women newly received ART. The number is increasing since start of Option B+ implementation(10).

1.2. Statement of the problem

Non-adherence to HAART is associated with an increased tendency to vertical transmission of HIV, progression of mothers HIV to AIDS, raised number of orphaned children, economic impact and potential development of drug resistance virus (11)(12)(13)(14). So retention in care is determinant factor to bring desired effect(15).

Even though great investment and increased accesses to PMTCT service by global health to make null HIV infection to children in 2015, the challenge remains global concern. In 2015, around 150, 000children were newly infected by HIV from entire world. About 56, 000 of them were in Eastern and southern Africa (5).

All of the patient receiving ART will die by year 2020 if they stopped the drug (14). This is due to complications and the progression of HIV to AIDS than should be when ART is used properly(11). So, ART adherence is important in prolonging life expectancy of patient.

Though providing lifelong ART to pregnant women as the most effective option to prevent HIV transmission and resistance, achieving optimal adherence remained universal challenge to PMTCT (12). Similarly, option B+ brings substantial changes in the approach to PMTCT. It benefit both of, the mother and the child (15).

There are many factors that affect adherence to ART drugs during pregnancy. Some of the factors negatively affect adherence and the others enhances women‘s adherence to ART drug.

Forgetfulness, educational level, side effect of the drug, undisclosed HIV status and fear of being stigmatized were among factors negatively affecting ART adherence (16-22).

Since option B+ doesn‘t consider CD4 status, more women who feel healthy initiating lifelong ART. This affects their adherence(16). Another anticipated fear related to option B+ was that; it recommends initiation of lifelong ART without considering gestational age, as early as they start ART which increases the probability of non-adherence due to long time exposure to treatment (17).

1.3. Rational of the Study

Data on ART adherence during pregnancy is limited in Ethiopia. Only few published study that address level of adherence to option B+ and factors affecting it are available. From the studies, the one conducted in Tigray regional state assessed level of adherence to Option B+ program and its predictors, but limited to the region‘s status. Another study in Amhara regional state, north east, of Ethiopia assessed factors associated with loss to follow-up among women in Option B+ PMTCT program. However, it did not assess the level of adherence. The other study was conducted in Addis Ababa to assess status of medication adherence and infant follow up in PMTCT program, but failed to assess factors affecting adherence.

Though several studies assessed ART adherence levels and factors affecting adherence in different regions of Ethiopia, none of them studied antiretroviral adherence issues in HIV-positive pregnant women in Oromia regional state. So this study is aimed to assess the level of ART adherence and factors affecting it among pregnant women in option B+ PMTCT program in East Shawa zone of Oromia regional state, Ethiopia.

1.4. Significance of the study

Women, including women living with HIV, should have a right to have the number of children they want. To reduce the risk of vertical transmission of HIV and to improve the health of women, enhancing access to HIV treatments as well as adherence to therapy are needed (2).

It is essential to monitor ART adherence, investigate specific barriers for non-adherence, facilitators of adherence during pregnancy to ensure long term efficacy of the program in order to enhance maternal health and prevent mother to child transmission of HIV(18).

So, the finding of this study will be helpful in different setting. It may serve as reference for the policy makers to evaluate their policy. It helps health care providers to identify the focus areas of counseling in the context of PMTCT service. It may also use as a baseline data for researchers in the area of public health and other related discipline to enhance ART adherence, to maintain maternal health and to prevent vertical transmission of HIV.

2. LITERATURE REVIEW

2.1. Level of Adherence to ART Drugs among Pregnant women

The level of adherence to ART drugs varies from place to place based on different factors among HIV positive pregnant Women. A systemic review and meta-analysis in low income, middle income and high-income countries showed that proportion of women with adequate adherence levels was higher during the ante partum (75.7%) than during postpartum (53.0%). It also showed that the pooled adherence of patients with good adherence rate was significantly higher in low income and middle-income countries (76.1%) than in high-income countries (62.0%) (18).

A cross sectional study in Ukraine among HIV positive women found that 65% of pregnant women missed at least a single dose of the pills using self-report adherence assessment(19). Another a prospective cohort study conducted in the Chongwe district of Zambia among pregnant mother and lactating post-partum mother the level of adherence to ART drug during pregnancy was 82.5 %using self-report method (20). A more recent qualitative study conducted in Malawi on barriers and facilitators to option B+ ART adherence showed that 40% of study participant stopped ART (16). A Retrospective cohort of Option B+ women at Bwaila Hospital of Malawi between September 2011 and September 2013 found that, of the women enrolled on treatment, 9.3% of women collected ART at initiation and never returned (Tweya et al. 2014).

Another descriptive cross sectional study conducted in Nigeria showed that 80.6% of the interviewed pregnant women reported achieving adherence level of greater or equal to 95% using 3 day recall method (22). A retrospective cohort study done in Western Kenya on pregnant women from January 2006 to February 2009 found that 89% of study participant 89% reported taking all of their medication at every visit (17).A cohort study conducted in Kyela District Hospital of Tanzania on pregnant women showed that 50.0% of study participant reached at least 95% adherence and 34.8% of them achieved full adherence until delivery, which was measured by women‘s medication possession ratio (23).

According to study conducted in Tigray regional state of Ethiopia the level of adherence to option B+ drug among pregnant women was 87.1% using four adherence measurement questions taken from South Africa experience (24). Another prospective cohort study done in Ethiopia among HIV positive mother attending 15 health facilities in Addis Ababa revealed that 61% of the mother initiated lifelong ART drug were fully adhered to prescribed medication using a one-week recall period (25).

2.2. Factors impeding adherence to ART among Pregnant women

As systemic review in Asian developing countries showed, the critical factors that affect ART adherence were patient factors, drug related factors, socio-economic factors and health system factors (26).

2.2.1. Patient factors

According to descriptive cross-sectional study conducted in Nigeria among HIV positive pregnant women who attended PMTCT clinic forgetfulness (57.6%) was one of the main reasons given by the non-adherent respondents for missing or skipping their drugs(22).Similarly, study in Tigray regional state of Ethiopia found that main reason for non-adherence was forgetting to take the medications (92.3%)(24). Forgetfulness was the main reason for non-adherence according to study in Nigeria (27). Even though the percentage is minimal (7.54%), study conducted in Tanzania also suggests that forgetfulness as the reason for non-adherence. According to this study in61.6% of the non-adherent participant the reasons for drug collection failure were unknown (23).

A recent study conducted in Malawi found that a couple of women stopped ART because they had forgotten or lost their pills. Other woman lost her ART and did not According to study in Nigeria 16.2% of non-adherent women miss the pills because of feeling healthy (27).

On the other hand the knowledge level of HIV positive women on ART and PMTCT influence poor adherence to ART drug. According to this report defaulting rate was significantly higher among HIV positive women with inadequate knowledge on PMTCT and ART as compared to those with adequate knowledge (29% versus 0%) (29).Study in Ukraine also suggests that adherence to ART drug was low among those women who have low level of knowledge about effectiveness of ART drug to PMTCT of HIV (19).In contrast study in Lilongwe urban health

center of Malawi suggest that ART non adherence could not be caused by inadequate knowledge level of the clients. However it suggests as educational level has positive impact on ART adherence and matters more for women‘s health on ART(28). Study in Western Kenya suggests as low level of education negatively affect adherence (17).

The most common reasons for missing pills during pregnancy were being away from home (8%), forgetting (5%) and feeling sick or ill (5%). On the other hand smoking has positive association with poor adherence during pregnancy and in the year after delivery (19).

2.2.2. Drug related factors

A qualitative Study conducted in Malawi revealed that 50% of the respondents who stopped ART drugs were due to side effect of medication (16). Study in Tigray regional state of Ethiopia also identified fear of side effect (38.5%) of the drug as reason for non-adherence (24).Study in Nigeria also suggests as the drug side effect impede adherence (27).Contrary study conducted in Ukraine found that ART side effect was not associated with poor adherence (19).

2.2.3. Socio demographic factors

The age of women at ART initiation was another determinant factor according to study conducted in North east of Ethiopia. Woman who were 18 to 24 years at ART initiation were more likely to be less adherent than older woman (29).
A qualitative study in Tanzania suggests that poverty, overwhelming demand of daily life and stigma of being HIV infected were the reasons of poor adherence (30). Study in Zambia also showed that 33.3% of non-adherence was due to internalized stigma(20). Study in Nigeria also showed that 63.6% of non-adherent women mentioned their reasons for poor adherence were fear of being identified as HIV positive

Women who undisclosed their HIV status to partner during pregnancy were reported missed dose than those disclosed their status to partner (42% VS 32%) (19). A qualitative study in Kenya also found that, non-disclosure to partner was the main reason for poor adherence (31). Disclosure of the HIV-status to the partner, a relative or a friend was positively associated with adherence rates during pregnancy(23). Study in Addis Ababa, the capital of Ethiopia, also found

that the women who disclosed their HIV status to their partner were found to be more likely participating in PMTCT service (32).

Even though the percentage is statistically insignificant there was some indication of poor adherence among unmarried women when compared with married once according to cross sectional study conducted in Ukraine (19).Study in Nnamdi Azikiwe University Teaching Hospital of Nigeria found that there was no significant association between marital status and adherence to ART (27). Similarly, study in Tanzania shows as there is no association between marital status and ART adherence (33).

According to study in Nigeria, the women who were full time house wife were more likely to be non-adherent (27).

Distance of the health care facility from the home of individual also affects adherence according to study in Azikiwe University Teaching Hospital of Nigeria (15%) (27).

2.2.4. System of Care

Earlier gestational age at the time of ART initiation and care at district hospital negatively affect adherence according to cohort study conducted in Western Kenya (17). Similarly study in Ethiopia revealed that poor adherence was observed among women attended primary health facilities than hospitals (29).Inaccessibility of services, the relationship with service providers and inadequate counseling (limited instruction provided) impede ART adherence.

2.3. Factors enhancing adherence to ART drug

A systemic review in Asian developing countries identified eleven factors that enhance adherence; social support from partners, children and friends, self-efficacy and willingness to live longer, improved overall health, financial assistance, being in higher income groups, obligation to live for family, good relationship with care providers, status disclosure and worries regarding a fear of drug resistance (26).As study in Tanzania showed HIV-status disclosure to the partner, a relative or a friend was the factor that significantly influences levels of adherence in pregnant mother (23). According to study in Nigeria marital status, disclosure of HIV status, good knowledge of HIV, and ART and having a treatment supporter were found to be significantly associated with good adherence (22).

A descriptive cross sectional study conducted in Nigeria revealed that,51.8% of women that had adherence level greater 95% mentioned desire to protect unborn child as their reasons of adherence and the desire to remain healthy and alive was the other motivator for adhering to the ARV drugs (21.2%) (22).Similarly, qualitative study conducted in rural and urban of Malawi found that the desire to prevent transmission and improve health was the most influential facilitator for ART adherence (16).

2.4. Conceptual framework of the study

The Conceptual framework of the study is developed after reviewing previous similar studies to conceptualize the whole research process and guide tool development and analysis.

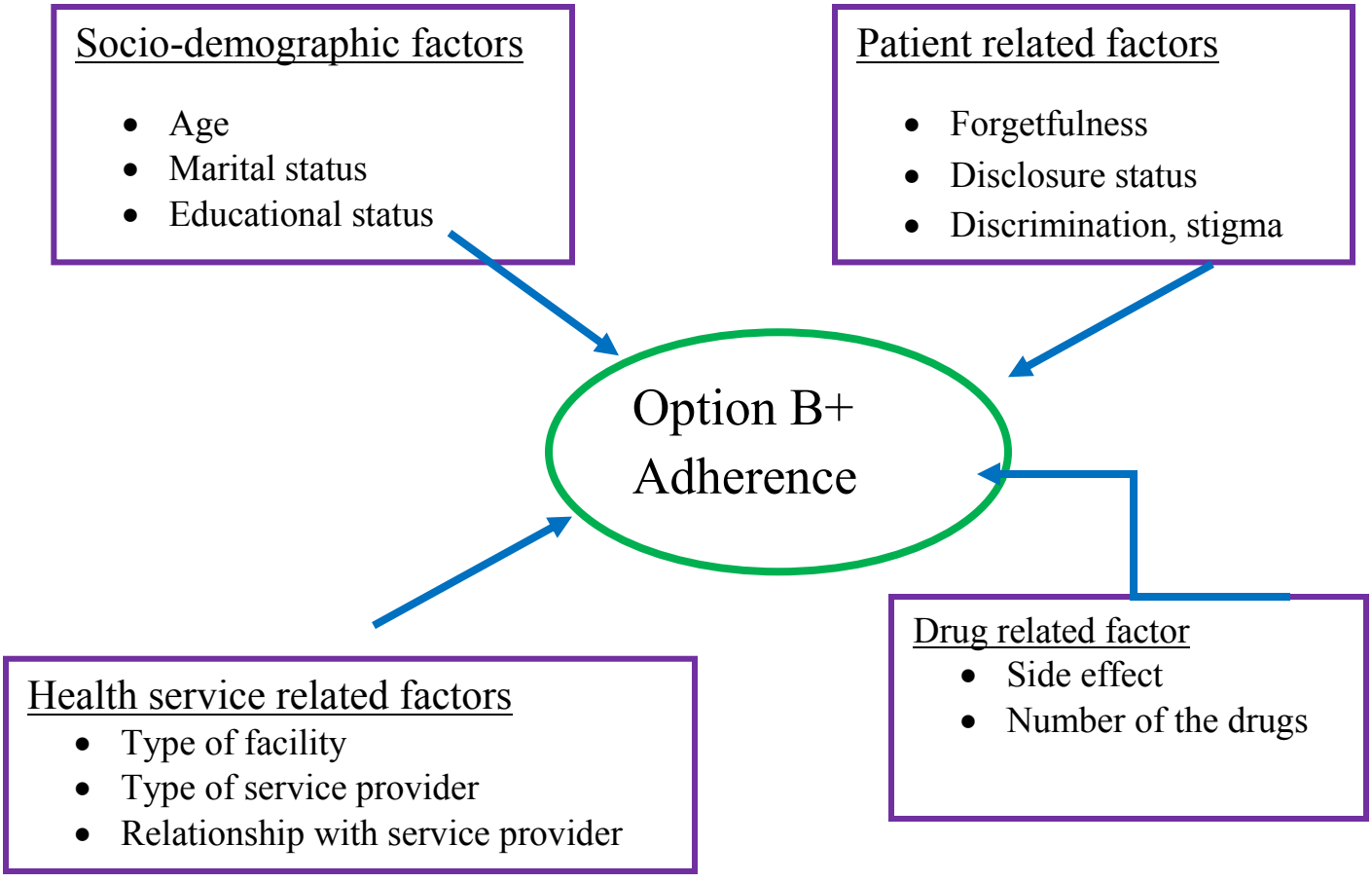

Figure 1: The Conceptual framework of the study developed by the investigator after literature review

3. OBJECTIVE

3.1. General objective

The objective of this study was to assess level of adherence to option B+ treatment and associated factors among pregnant women on PMTCT follow-up at public health facilities of the East Shawa zone, Oromia regional state in Ethiopia.

3.2. Specific Objectives

- To estimate level of adherence to option B+ treatment among pregnant women on PMTCT follow-up at public health facilities of East Shawa zone
- To determine factors associated with adherence to option B+ treatment among pregnant women on PMTCT follow-up at public health facilities of East Shawa zone

4. METHODS AND MATERIALS

4.1. Study area and study period

This study was conducted in public health facilities (hospitals and health centers) of East Shawa zone, one of the twenty- zones in Oromia regional state. The zone has four public hospitals (Adama Referral Hospital, Bishoftu General Hospital, Welenchit district hospital and Batu district Hospital) and seventy health centers. All of the public hospitals and sixty-one of the health centers in this zone provide PMTCT services. The study was conducted in all the four public hospitals and eighteen health centers. The study was conducted from January to March 2017.

4.2. Study Design

A health facility based cross-sectional study design was implemented to assess the level of adherence to option B+ treatment and associated factors among pregnant women on PMTCT follow up at selected public health facilities of East Shawa zone.

4.3. Population

The source population was all pregnant women on PMTCT follow up at public health facilities of East Shawa Zone.

The study population was pregnant women on PMTCT follow up at the selected public health facilities of East Shawa zone.

4.4. Inclusion and exclusion criteria

Inclusion criteria-pregnant women who were on PMTCT follow up for at least one month at the selected public health facilities of East Shawa zone will be included.

Exclusion criteria- pregnant women who were on PMTCT follow up but who was critically ill and those who can‘t communicate during data collection period was excluded.

4.5. Sample size determination and sampling procedure

Sample size determination

Sample size (n) was determined based on a single population proportion formula with the following assumptions. For the first specific objective, based on the study conducted at public hospitals of Tigray regional state, the levels of option B+ ART adherence was 87.1% (24).The level of confidence (α) is taken to be 0.05 (Z (1-α/2) = 1.96); the margin of error was taken as 0.05.

Accordingly; the calculated sample size using the following formula was:

$$n = \frac{[Z(1-\frac{\alpha}{2})]^2 x P(1-P)}{d^2}$$

Where; n = Minimum sample size for a statistically significant survey

Z = Normal deviant at the portion of 95% confidence interval two tailed test= 1.96

P =Level of adherence to option B+ ART drug regimen of pregnant women =87.1% (17).

q= 1-p, d = margin of error taken as 5%= 0.05

Accordingly, n= 173

In addition, with consideration of 10% non-response rate, the estimated total sample size was 190.

For the second objective based on the above formula the calculated sample size was presented as the following;

Variable	Proportion	Margin of error	Calculated sample size with 10% consideration of non-response
Disclosure status	Proportion of 77.2 % is considered (24)	0.05.	304
Forgetting to take the pills	Proportion of 92.3 % is considered (24)	0.05.	120

Since it is difficult to include all populations in the study area (six hundred fifty-four) the maximum sample size (304) was taken for the study.

Sampling Procedure

Public Health care facilities in East Shawa zone, which provides ART services, were classified as public hospitals and health centers. All the public hospitals in zone were included in the study. Since the zone has sixty-one public health centers that provide option B+ PMTCT services, it was economically difficult to include all of them. As a result, each health center was considered as the same by the administration and quality of service they provided. Finally, 30% of the health centers were randomly selected by simple random sampling technique to get an adequate sample for the study.

A specific sample size was allocated to each health facility using proportion-to-size allocation. To select 304 pregnant women, the first women in each public health facilities were randomly selected by simple random sampling technique (lottery method). Then, the remaining women were selected by systematic random sampling after calculating Kth value for each selected public health facility.

4.6. Variables

Dependent variables

Level of option B+ ART adherence

Independent variable

Age of the women
Marital status of the women
Economic status of the women
Educational status
Types of health care facility
Time needed to reach health care facility from the women‘s home
Health system factors; focus area of counseling
Side effect of the drug
Disclosure status

Types of pregnancy

Forgetting to take pills

Gestational age at ART initiation

Social support from family and significant others

Stigma and discrimination

4.7. Data collection and instrument

To collect data from pregnant women; the interviewer administered questionnaire was used.

There was one data collector for each selected health facilities. The qualification of data collectors was a Bachelor of Science in Nursing. They were recruited based upon their competence and data collection experience. In addition, they were not working at the selected public health facilities in which the study was conducted. Moreover, one supervisor for each hospital and one supervisor for every three health facilities were recruited. They provided with training on the data collection method by principal investigator before data collection go-ahead. The training included orientation on questionnaires, interview techniques and discussions on how to conduct in depth interview.

4.8. Measurement

There is no standard tool to measure the level of adherence. But this study applied adherence measurement questions adapted from South Africa experiences, which was designed to measure adherence in the resource constrained setting to collect data for outcome variable(34). Another study conducted in Tigray regional state, Ethiopia, has also used the same tool to measure level of adherence in the study area (24).

4.9. Data quality assurance

The quality of data was assured through careful design, translation and retranslation, and pre-testing of the questionnaire, proper training of the interviewers and supervisors, close supervision of the data collecting procedures, proper categorization and coding of the data. The principal investigators and the supervisors checked the accuracy and reliability of the data collection process. They gave clarifications when ambiguity occurred during data collection. Discussions were held among the principal investigators, supervisor, and data collectors, as necessary. Based

on the feedback from the supervisors and data collectors, immediate corrective measures were taken.

4.10. Data entry, processing and analysis

Data was checked for completeness, inconsistencies, cleaned, coded. The collected data was entered into EpiData 3.1 (EpiData Association, Odense, Denmark) and then exported to SPSS version 21.0(IBM Corp., Armonk, NY, USA) for statistical analysis.

Descriptive statistics were used to summarize the data. Bivariate logistic regression was used to find association of each independent variable with the dependent variable. Variable with P-value of < 0.25 were considered for multivariate logistic regression to control the effect of the confounders. Then, the significance level was set at $P<0.05$.

4.11. Ethical consideration

Ethical clearance was secured from Research Ethics Committee (REC) of the School of Public Health as mandated by Addis Ababa University. Letter of permission was obtained from Oromia Regional Health Bureau, zonal health and district officials.

Informed consent was obtained from all pregnant women prior to proceeding data collection from them. This was done after clear description of the objectives of the study and of its procedures. Then, each respondent was asked to check whether information provided on the purpose of the study has been adequately understood or not. Confidentiality of the information obtained from each participant was maintained.

4.12. Dissemination of findings

The result of the study will be disseminated at the end of the governmental and non-governmental organizations to provide information about levels of option B+ ART drugs adherence and factors affecting ART adherence among pregnant women following ART service in public hospitals of East Shawa Zone of Oromia regional state. Especially to the Oromia health bureau and East Shawa zone health department, selected hospitals in the zone and other concerned bodies through report. In addition, it will be submitted to Addis Ababa University

health science library. Further efforts will be made to publish the findings on national or international journal.

4.13. Operational definitions

Adherent; a woman was considered as adherent if she responded ‗No' to all (four) question prepared to assess the adherence level. These questions are ;(1) Do you sometimes find it difficult to remember to take your medication? (2) When you feel better, do you sometimes take a break from your medication? (3) Many patients have trouble in taking their ARV doses as prescribed; did you miss any ARV doses in the last 3 days? (4) Sometimes if you feel worse when you take the medicine, do you stop taking it?(17, 34)

Not adherent; A woman was considered as not adherent if she responded ‗Yes' to at least one of the above questions(17, 34).

5. RESULT

5.1. Socio demographic Characteristics of Respondents

A total of 304 respondents were planned to be interviewed. However, about 293 pregnant women on option B+ ART drug at public health facilities in East Shawa Zone were interviewed regarding their ART drugs adherence. The overall response rate was 96.4%.

Concerning the age category of respondents 95 (32.4%) of them belong to the age group of 30-34 while 85 (29%) of them belong to the age group 25-29. The mean age ±SD of the participants were 29.2 ± 4.6. Two hundred and twenty-five (76.8%) of the respondents were urban resident. Majority of the study participants were Ethiopian orthodox Christianity followers which accounted for 202(68.9%) of the respondents followed by protestant 55(18.8%). Concerning the educational status one hundred and fifty-three (52.2%) of the respondents have primary education while 83(28.3%) of them can‘t read and write.

Two hundred and forty-nine (85%) participants were married, and 27(9.2%) of the respondents divorced while widowed constituted 10(3.6%) of the respondents. Regarding their occupation, more than half 161(54.9%) of the respondents were house wives. Three fourths of the respondents 223(76.1%) were living with their husbands/partners while 25(8.5%) of them live alone at the time of the study.

5.2. Anti-Retroviral Treatment (ART) adherence level and health care system related characteristics of respondents

Majority of the respondents 184(62.8%) were attending their ART follow up at health centers. Two hundred and twenty-six (77.1%) of the study participants spent less than an hour walking on foot to reach health care facilities for their follow up. Regarding time of their HIV status diagnosis, majority of the study participants 180(61.4%) knew their HIV status before being pregnant. More than half of the respondents, 158(53.9), started their ART drugs during second trimester (13-28 weeks) of their current pregnancy.

Concerning pregnancy type, 213(72.7%) of the participants had intended pregnancy. With regard to disclosure status, 249(83.3%) of the respondents disclosed their HIV status to their husbands/partners and/or family and/or friends and/or other significant persons.

Majority of the respondents 204(69.6%) received financial and social support from partner, family, relatives, governmental or non-governmental organizations meanwhile 173(59%) of the respondents participated in HIV positive mother to mother discussion about ART adherence. Sixty-five (22.2%) of the participant developed ART side effect during the current pregnancy

Two hundred and fifty-two (82.6%) of the respondents achieved good to antiretroviral medication adherence level**.**

Table 1.Socio demographic characteristics of pregnant women on option B+ ART drugs at East Shawa Zone, Oromia, Ethiopia January to March 2017

Variables	*Categories*	*Frequency*	*Percentage*
Age	<25	62	21.2
	25-29	85	29
	30-34	95	32.4
	≥35	51	17.4
Residence	Urban	225	76.8
	Rural	68	23.2
Religion	Muslim	32	10.9
	Christian Orthodox	202	68.9
	Protestant	55	18.8
	Others[1]	4	1.4
Marital status	Married	242	82.6
	Divorced	27	9.2
	Widowed	17	5.8
	Others[2]	7	2.4
Educational status	Can‘t read and write	83	28.3
	Primary (1-8)	153	52.2
	Secondary and above	57	19.5
Occupational status	Own work	70	23.9
	House Wife	161	54.9
	Private employee	43	14.7
	Government employee	9	3.1
	Others[3]	9	3.1
Monthly income	<650	58	19.8
	650-1400	134	45.7
	>1400	101	34.5
Person they live with	Partner	223	76.1
	Extended family	45	15.4
	Alone	25	8.5

[1]Waqefata, Adventist and Catholic
[2]Cohabitant, separated
[3] Farmers, Commercial Sex Workers

Table 2. HIV, ART and health care system related characteristics of pregnant women on option B+ ART drugs at East Shawa Zone, Oromia, Ethiopia January to March, 2017

Variables	***Categories***	***Frequency***	***Percentage***
Types of Health Care Facilities	Health Center	184	62.8
	Hospital	109	37.2
Time needed by patient to reach health care facilities	<1 Hour	226	77.1
	≥1 Hours	67	22.9
Gestational age at the time of ART initiation	≤12 Weeks	105	35.8
	13-28 Weeks	158	53.9
	≥28 Weeks	30	10.2
Time of Diagnosis for their HIV Status	Before being pregnant	180	61.4
	After being pregnant	113	38.6
Pregnancy Type	Intended	213	72.7
	Unintended	80	27.3
HIV Disclosure Status	Disclosed	249	83.3
	Not Disclosed	49	16.7
Frequency of Counselling on ART adherence by Healthcare provider	Always	198	67.6
	Sometimes	73	24.9
	At initiation of treatment only	22	7.5
Developed ART drug side effect in current pregnancy	Yes	65	22.2
	NO	228	77.8
Any social and financial support	Yes	204	69.6
	No	89	30.4
Participated in HIV positive mother to mother discussion about ART adherence	YES	173	59
	NO	120	41
Relationship with health care provider	Good	264	90.1
	Poor	29	9.9
Reported fear of stigma and discrimination during current pregnancy	Yes	51	17.4
	No	242	82.6
Level of ART Adherence	Good	242	82.6
	Poor	51	17.4

5.3. Predictors of option B+ ART adherences using bivariate and multivariate logistic regression

Initially, all independent variables were analyzed with dependent variable. Then, a variable with p-value less than 0.25 were included to multivariate logistic regression analysis to control the effect of other covariates. Accordingly, about thirteen variables were entered to multivariate logistic regression analysis. At the end, a statistically significant association of adherence was seen with six variables using step wise backward logistic regression until the model is fit.

Educational status was significantly associated with adherence status. Women who had educational status of primary school level were 4.5 more likely to have good adherence than those who were unable to read and write, [AOR 4.54 (95% CI; 1.72-11.95)].

The analysis also leveled that Antiretroviral drug adherence was strongly associated with drug side effect. Accordingly, women who developed drug side effect during current pregnancy were 76% less likely to have good adherence than their counterparts, [AOR 0.24(95% CI; 0.1-0.6)].

Respondents who were counseled on health benefit of treatment for mother and fetus were nearly three times more likely to be adherent than those who were not counseled, [AOR 2.9(95% CI; 1.27-6.63)]. Moreover, ART adherence has strong association with fear of stigma and discrimination. Those who didn‘t report fear of stigma and discrimination were about sixteen times more likely to have good adherence than those who reported fear of stigma and discrimination in current pregnancy, [AOR 15.79(95% CI; 4.64-53.67)].

The study also showed that respondents who received social and financial support from partner, family, friends, relatives, government or non-governmental organizations were 2.76 times more likely to have good adherence than those who didn‘t receive support, [AOR 2.76(95%CI; 1.17-6.51)]. Furthermore, respondents who had poor relationship with health care providers were 78% less likely to be good adherent than those who reported to have good relationship, [AOR 0.22 (95% CI; 0.08-0.62)].

Table 3 Bivirate and multivariate analysis result for factors associated with ART drug adherence among option B+ pregnant women in public health facilities of East Shawa Zone, Ethiopia, 2017

Note: * represents P<0.05, **P≤0.01, **P≤0.001

Variables	*Categories*	*Adherence Status*		*COR 95% CI*	*AOR95% CI*
		Good	Poor		
Marital Status	Married	204	38	1.84(0.89-3.77)	2.3(0.41-12.96)
	Unmarried	38	13	1	1
Educational Status	Can't read and write	56	27	1	1
	Primary (1-8)	138	15	4.43(2.19-8.26))	4.54(1.72-11.95) **
	Secondary and above	48	9	2.57(1.10-6.00)	2.79(0.87-8.92)
Economic Status	<650	45	13	1	1
	650-1400	118	16	2.13(0.94-4.78)	1.7(0.58-4.95)
	>1400	79	22	1.04(0.48-2.26)	1.1(0.38-3.17)
Person they live with	Partner	191	32	4.69(1.96-11.24)	6.1(1.22-30.4) *
	Extended family	37	8	3.63(1.21-10.90)	4.98(0.81-30.68) *
	Alone	14	11	1	1
Type of health care facility	Hospital	96	13	1.92(0.97-3.79)	1.21(0.50-2.95)
	Health Center	146	38	1	1
Place of residence	Urban	190	35	1.67 (0.86-3.25)	2.17(0.59-8.00)
	Rural	52	16	1	1
Time needed to reach health facility	<1 hour	191	35	1.71(0.88-3.33)	1.14(0.31-4.26)
	≥ 1 hours	51	16	1	1
HIV status disclosure	Disclosed	211	37	2.57(1.25-5.30)	2.61(1.01-6.71)*
	Not Disclosed	31	14	1	
Fear of stigma and discrimination	Yes	38	13	0.1 (0.04, 0.26)	0.06 (0.02, 0.22)
	No	234	8	1	
Relationship with health care provider	Good	224	40	1	1
	Poor	18	11	0.29(0.13-0.66)	0.22 (0.08-0.62) **
Social and financial support from others	Yes	188	23	4.24(2.26-7.95)	2.76(1.17-6.51) *
	No	54	28	1	1
Any side effect during current pregnancy	Yes	48	17	0.49(0.25-0.96)	0.24(0.1-0.6) *
	No	194	34	1	1
Counselled on health benefit of treatment for mother and foetus	Yes	173	24	2.82(1.52-5.23)	2.9(1.27-6.63) *
	No	69	27	1	1

6. Discussion

The previous section presented result of the study. This section discussed results of present finding with others literature. It mainly focused on prevalence of ART adherence in the study setting and determinant of ART drug adherence.

In this study, good adherence was achieved by 242 respondents, which accounts 82.2% of the study participant. This level of adherence is similar to the study conducted in Chongwe district of Zambia (82.5%) and Kisumu, Kenya (82%)(20)(35).

Adherence level of this study is higher than the level reported by two study conducted in Nigeria, they were; 78.3% according to the conducted in Nnewi while study in Lagos reported adherence level of 80.6%(27)(22). Our study determined adherence level for option B+ drug regimen (TDF/3TC/EFV), which is more simplified and taken in the form of one pill per day. This might be in the reason for better adherence level in our setting. On the other hand the overall adherence level of this study is less than the result reported by the study conducted in Tigray regional state of Ethiopia (87.1%), South Wollo Zone of Amhara regional state of Ethiopia (87.9%), the study in Western Kenya (89%), the study conducted in Bwaila Hospital, Malawi (91%)(24)(36)(17)(21). The study conducted in Tigray regional state of Ethiopia used similar tool with our study to assess level of adherence. However, the discrepancy might be due to; the study conducted in Tigray regional state used data from public hospitals only, but our study used hospitals and health centers. There are evidences that women on a follow up at primary health care facilities such as health centers are less adherent to ART medications than those on a follow up at hospitals (29), probably because of better counseling services in the hospitals.

In this study, educational status was strongly associated with ART adherence. Respondents who had educational status of primary school level were 4.5 times more likely to have good adherence than those who were unable to read and write, [AOR 4.54(95% CI; 1.72-11.95)]. The finding is similar to studies done by Kristen in Tanzania, Boateng in Ghana and Ayuo in Western Kenya (23)(17)(37). Similarly, the finding of this study is in line with study conducted in Nigeria. Accordingly, low educational level of the respondents were associated with increased likelihood of non-adherence to their drugs (27).This might be due to the fact that better educated people have access to information and are more likely to make better informed decisions.

Many studies show the relationship between ART adherence and type of health care facilities. The study conducted in Zambia reported that women had a follow up at referral health facilities were more likely to be poor adherent than those who were on follow up at rural health centers (20). In contrary, study conducted in Addis Ababa, Ethiopia, showed that women on follow up at primary health care facilities are less likely to continue their follow up compared to those who were on follow up -at hospitals (29). However, in this study type of health care facilities has no statistically significant association with ART drug adherence both in bivariate and multivariate analysis, [COR 1.92(95%CI; 0.97-3.79) VS AOR 1.21(95% CI; 0.50-2.95)]. The type of health facility may not matter if the quality of service delivery explained by quality counseling services, availability of drugs, reduced waiting time and better client handling exists in any facility, it is likely that people can adhere with other non-health facility based factors remaining constant.

Financial supports from partner, family, friends, governmental and non-governmental organization were associated with medication adherence. Those who received feeding and clothing supports were about three times more likely to have good adherence than those who didn‘t have support [AOR 2.76(1.17-6.51)]. This study finding is in line with the result reported by the study conducted in Nigeria, having treatment supporter enhances ART drug adherence (22). This might be due to the usual benefit of financial supports for moral encouragement and health care assistance through transportation and reminders (1)

In the present study person they live with had a statistically significant association with adherence status in multivariate analysis. Women who lived with partner were six times more likely to be adherent than those who lived alone, [AOR 6.1(95% CI; 1.22-30.4)]. This finding is in agreement with the study done in Ukraine where. poor adherence during pregnancy was more commonly reported among women not living with a partner (19).

Many studies indicated that HIV status disclosure to partner, family, friend, and significant others had a statistically significant association with ART adherence (27)(22)(19)(31)(23). Consistent with other studies, disclosure status was significantly associated with ART adherence in the present study. Those who disclosed their HIV status to others were 2.6 times more likely than those who didn‘t to have good adherence [AOR 2.61(95% CI; 1.01-6.71)].

Studies have also revealed that establishing good Communication with health care providers enabled patients to have better counseling and information about the importance of adhering to their ART medications (38)(39)(28). Similarly, in our study respondents who reported to have poor personal relationship with health care providers were 78% less likely to be good adherent than their counterparts, [AOR 0.22 (95% CI; 0.08-0.62)].

Adherence to option B+ was strongly associated with drug side effect. The respondents who self-reported experience of drug side effect in current pregnancy were 76% less likely to have good adherence than those who didn't develop drug side effect, [AOR 0.24(95% CI; 0.1-0.6)]. Previous study in Ukraine also reported similar finding on the association of drug side effects and ART adherence (19).

Another important factor affecting adherence to option B+ in the present study is fear of stigma and discrimination. Those who reported fear of stigma and discrimination were more than 90% less likely to have good adherence than those who didn't report, [AOR 0.06 (0.02, 0.22)].. Our finding is consistent with previous studies conducted in India, Tanzania and Nigeria(40)(30)(22).

Proper counseling on health benefit of ART treatment for mother and fetus is one way of ensuring adherence to the planned treatment. In the present study counseling on maternal and fetal health benefit of ART treatment was significantly associated with medication adherence. Our study showed that women who were counseled on health benefit of treatment for mothers and fetuses were about 3 times more likely to be a good adherent than those who were not, [AOR 2.9(95% CI; 1.27-6.63)].

Limitation of the study

The major limitation of this study was considered as method by which adherence was evaluated, based on self-report, thus the adherence estimate might be affected by some recall bias and social desirability bias which might tend to overestimate adherence level.

7. Conclusion and Recommendation

7.1. Conclusion

This study identified overall ART adherence level in study area as well as determinant of ART adherence. The overall adherence in the study area was poor. Identified determinant ART adherence includes; Majority of the respondents was adherent to the option B+ treatment regimen. While education, disclosure of once HIV status to partners or significant others, counseling on health benefit of treatment to mothers and fetus, social and financial support to HIV positive pregnant women ensures adherence to Option B+ treatment, fear of sigma and discrimination and experience of drug side effects are obstacles to adherence.

7.2. Recommendation

Based on the result and delimitation of this study the investigator forward the following recommendation for health care professionals, governmental and non-governmental organizations, policy makers and researcher who interested to conduct further study to address determinant of option B+ ART drugs adherences.

To health care professionals providing ART services departments;

Since health care provider relationship with patient affect patients ART adherence, health care provider should form good relationship with their patients. For instance, poor relationship negatively affects ART adherence in this study. So, health care professional should greet, respect, and form interactive communication with their patient in order to enhance their ART drug adherences.

Secondly, health care provider should provide appropriate counseling and incorporate the finding of this study to their counseling. For example, counseling on health benefit of ART treatment for mother and fetus should be incorporated their counseling services.

To family, community, governmental and non-governmental organization providing support for HIV positive women;

Though many work done to minimize the fear of stigma and discrimination, it continues to affect the patient psychology and adherence in this study. So, the government should continue campaign against stigma and discrimination to improve ART adherence in pregnant women.

To policy makers; the police makers can use the finding of this study for their evidence based decision if in need.

To researcher interested in further studies;

This study estimated ART based on patient self-report, that has a potential to overestimate adherence level. So, in order to see the level of adherence in advance you can use other strongest method of adherence measurement for further study.

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ANNEXS

ANNEX 1- Participant Information Sheet and informed Voluntary Consent Form

Dear respondent my name is _____. I am working as data collector for the study being conducted in this facility by Mihretu Tarekegn, who is studying for his Master degree at Addis Ababa University, College of Health Science, and School of Public Health.

I am interviewing pregnant mothers about adherence to option B+ ART drugs in order to generate information necessary for the policy makers to provide feedback for their policy, and for health care providers to identify focus areas of counseling they provide to the patient. To attain this objective, your cooperation to be honest and genuine participant by responding to the question prepared is very important and highly appreciated.

I will proceed to the interview after you understand the following points

Objective – The objective of this study will be to assess levels of option B+ drugs adherence and associated factors among pregnant women on ART follow-up at public hospitals of East Shawa zone

Benefit: The study may have no direct benefit for the participants. But the information generated from the study help the government administrator‘s to enforce the implementation of the regulation about ART drugs adherence, policy makers and health care professional for designing appropriate intervention and recommendations for the hospitals based about the reasons of adherence and non-adherence to ART drugs based on the identified factors. Moreover it will help the researcher to write up his thesis for partial fulfillment of master‘s degree in public health.

Harm: The participants do not have any harm by participating to the study or for not participating to the study, except taking few minute from your time. There wouldn‘t be any direct payment for participating in this study.

Procedures and duration: Participants are interviewed once and the interview may take from 30-40 minutes. So I kindly request you to spare me this time for the interview.

Alternatives to participation: You do not have to take part in this research if you do not wish to do so, and refusing to participate will not affect you and your family. If you have question that is unclear you have a right to ask for clarification. If you have also a question that you don‘t want to answer you can skip it. You may stop participating in the research at any time.

Confidentiality: Your answers are completely confidential. Your name will never be used in connection with any information you tell us. The questionnaire will be coded to exclude showing names. All information given by you will be kept confidential.

Informed consent: I have read this form or it has been read to me in the language that I understand. I understand all conditions stated above. Therefore, I am willing to participate in this study.

If there is any questions or enquires any time about the study or the procedures, please contact:

Name of Principal investigator: Mihretu Tarekegn

Address: Tell +251911523741

E-mail:ukubamm@gmail.com

Name of interviewer _____

Signature _____

Result of interview:

1. Completed 3. Refused 4. Partially completed

Checked by:

Supervisor Name----------signature----------Date---------

If no, skip.

ANNEX-2 QUESTIONNAIRE (English Version)

Addis Ababa University

College of Health Science

School of public health

Date of interview	**Date**		**Month**		**Year**			
					2	0	1	6
Institution's Name								
Types of health care facility								
Code number								
Interviewer's	Name			Signature				
Supervisor's	Name			Signature				

Part one: Socio demographic characteristics of pregnant mothers.

Number	Question	Choice/answer sheet	Skipping
101	How old are you?	----------	
102	Where do you living?	1. Urban	

		2. Rural	
103	What is your marital status?	1. Married 2. Divorced 3. Widowed 4. Others.....	
104	Did you have any child?	1. Yes 2. No	if _no‘ skip to Q.7
105	If _yes‘ for question number **104**are they free of HIV infection?	1. Yes 2. No	If _yes‘ skip to Q.7
106	If _no‘ for question number **105**how many of your kids are HIV positive?	_____	
107	What is your religious belief?	1. Muslim 2. Orthodox Christian 3. Protestant 4. Others----------	
108	What is your educational status?	1. Can‘t read and write 2. Can read and write 3. Primary(1-8) 4. Secondary and preparatory(9-12) 5.College and above	

109	What is your current occupational status?	1. Own work 2. House wife 3. Private employment 4. Government employee 5. Other----------	
110	What is your monthly income on average?	----------	
111	With whom are you currently living?	1. With husband/friend 2. With extended family(including parent) 3. With kids 4. Alone 5. Others----------	

Part two: Knowledge about HIV/AIDS, MTCT and PMTCT among pregnant mothers on option B+.

S. NO	Question	Possible choice	Skipping
201	A pregnant woman can transmit the virus to her unborn child	1.Yes 2.No	
202	Can a person get HIV through using already used injection needle	1.Yes 2.No	
203	Transfusion of unscreened blood can	1.Yes	

	transmit HIV infection.	2.No	
204	HIV can be transmitted through unprotected sex.	1.Yes 2.No	
205	One can get HIV by sharing a meal with an HIV infected person.	1.Yes 2.No	
206	A person can get HIV by shaking hands with infected person	1.Yes 2.No	
207	Can a healthy looking person be HIV positive	1.Yes 2.No	
208	A person can get HIV by talking to an infected person	1.Yes 2.No	
209	HIV can be transmitted by mosquito bite	1.Yes 2.No	
210	Which one of the following is the most common time to transmit HIV from mother to child? More than one answer is possible	1. During pregnancy 2. During delivery 3. During breast feeding 4.HIV is not transmitted from mother to child	
211	How to prevent MTCT of HIV?	1. By taking ART properly 2. Taking ART drugs only when become ill 3. Giving ART for the child	

		properly 4. Follow proper child feeding	
212	PMTCT drugs used by mother can decrease transmission to/from partner.	1. Yes 2. No 3. Don‘t know	

Part Three: Health care provider and health service characteristics of patients

Number	Question	Answer/choice	Skipping
301	The health care providers are trustable?	1. Agree 2. Disagree	
302	How you describe your relationship with health care provider	1. They are sociable 2. They are ignorant 3. Others (specify)	
303	When the health care providers provide you counseling?	1. At screening 2. At initiation of treatment only 3. Sometimes 4. Always 5. Never	
304	What issue have he/she discussed with during counseling?(more than one	1. HIV 2. MTCT 3. PMTCT	

	answer is possible)	4. Drug adherence 5. Drug side effect 6. Advantage of the treatment for mother and fetus 7. Other_____	
305	How did you start ART treatment?	1. With informed decision 2. Influence from heath care provider 3. Influence from other person 4. Without knowing anything 5. Other----------	
306	How much hours it takes for you to reach the health facility?	----------	
307	Is the health service provision site conducive for you?	1. Yes 2. No	
308	Is the health provision site confidential for you?	1. Yes 2. No	
309	Have participated in mother to mother discussion inside the health facility	1. Yes 2. No	
310	Did you get any social and financial support?	1. Yes 2. No	If Yes skip to next part

311	If yes, where did you get the support?	1. Partner 2. Family 3. Government 4. NGO‘s 5. Others	
312	What type of support you got from them?	1. Financial 2. Social 3. Counselling 4. Others	

Part four: HIV and ART history of pregnant mothers

Number	Question	Choice/answer	Skipping
401	When did you know your HIV status?	1. Before I become pregnant 2. While I am a pregnant	
402	Did you perceive your current pregnancy is intended?	1. Yes 2. No	
403	Have you ever been disclose your HIV status to others?	1. Yes 2. No	If No, skip to 406
404	To whom you disclose your HIV status?	1. Disclosed only for partner 2. Disclosed only for family	

		3. Others (specify)	
405	Does your partner supportyouafter disclosure?	1. Yes 2. No	
406	Do you sometimes find it difficult to remember to take your medication?	1.Yes 2. NO	
407	When you feel better, do you sometimes take a break from your medication?	1. Yes 2. No	
408	Many patients have troubles in taking their ARV doses as prescribed; did you miss any ARV doses in the last 3 days?	1. Yes 2. No	
409	Sometimes if you feel worse when you take the medicine, do you stop taking it?	1. Yes 2. No	
410	Have you ever missed ART drug in the last one month period?	1. Yes 2. No	If ~~–~~No" go to Q. 508
411	What was the mother's gestational age at the time of the ART initiation **?(Card review)**		
412	Did you ever develop any ART associated side effect? **(Card Review)**	1. Yes 2. No	

Part five: Reasons for Adherence and non-adherence

Number	Question	Answer/choice	Skipping

501	Did you perceive yourself as adherent to ART drugs?	1. Yes 2. NO	If No skip to 503
502	What are the reasons for your adherence?	1. Educational status 2. Social support from family and significant others 3. Disclosing to the husband 4. Intentional pregnancy 5. Desire to prevent HIV transmission to unborn baby 6. Others (specify)	
502	What was the reason for missing the drugs?	1. Forgetting to take pill 2. Improved health status 3. Stigma and discrimination 4. Distance of health care facility for coming on appointment 5. Others (specify)	

THANK YOU FOR YOUR TIME AND VALUABLE INFORMATION

ANNEX-3 QUESTIONNAIRE (Afan Oromo version)

Unka Fedha Qabaachu Hirmaatota Mirkanessuuf Qopha'e (Afaan Oromoo)

Akkam jirtu? Ani maqaan koo _____ kanan jedhamu qorannoo moora kana keessatti wa'ee ~~–q~~oricha HIV/AIDS akka ogeessi fayyaa ajajetti fudhachuu fi fudhachuu dhabuu irraatti, akkasumas haloota akka ajajamtanitti fudhattan isin godhani fi akka hin fudhanne isin godhan irratti" Obbo Mihretuu Tarekeeny'n geggefamuuf odeffannootokko tokko isinirraa funaanuufan hojjedha. Obbo Mihretuun degrii lammaffaa (Maastireeti) moora yuuniversiti finfinnetti hordofaaKan jiru yoo ta'u qoranno kanaa immo adda durummaan kan geggessa jiru dha.

Kaayyoo; Kaayyoon qoraannoo kana; qoricha akka ajajamtanitti fudhachuu keessan, waantota akka isin qoricha/dawwa isiinif kennamee akka ajajmtanitti fudhattan isin godhani fi haalota akka isin seeran hin fudhanne isin taasisan adda baafachuu ta'a.

Fayidaa; Fayidaan qorannoo kanas; rakkoole qoranno kana irra argaman akkasumas haalota akka isin qoricha kana sirnaan fudhattan isin taasisan hunda ilaaludhaan qaamota dhimmi kun ilaalatuuf dhiyessudha; kunis gorsa isiinif kennamus ta'e , qoricha fudhattan kana irratti isin jajjabessuf ga'ee gudda qaba

Tumsa; Kayyoo qorannoo kana galmaan ga‘uuf fedhaa fi tumsi keessan baay‘ee ol‘aana fi kan deggeramu/jajamu dha!

Akkata qorannichi itti geggefamuu fi yeroo inni fudhatu; odeffannoon isin irra fudhatamu bifa gafi fi deebin kan geggefamudha. Tilmaaman daqiqaa 30 hanga 40 kan barbaadudha.

Icciti; odeffannoon isin nuuf keennitan martuu iccitin eegamadha.Sagaleen keessan kaayyoo qoranno kanaan alatti waanta kamif iyyu itti hin fayyadamamu. Maqaa fi waanti eenyummaa gafatama ibsu kamiyyuu unka gafilee qabatee jiru irraatii hin katabamu

Midha; Qoranno kana irratti waan hirmaatanif yokiin waan hirmachuu dhiistanif rakkoon isinirra ga‘u tokko iyyuu hin jiru.

Wali galtee; Ani unka kana afaan ani danda‘un dubbise yookin afaan ani danda‘uun naaf dubbifamee kaayyoo qoranno kaanas sirritti hubadhe irratti hirmaachuuf fedha qabachu koo mirkaneessera.

Yoo gaffi fi waanta isini hin galle qabaattan bilbila fi xalayya electroniksii armaan gaditiin dura ta‘a qoronno kana quunamuu dandeessu;

Lakk bilbilaa: +251911523741

Toora xalayyaa electroniksii: ukubamm@gmail.com

Maqaa gafataa_____Malattoo_____

Firii gaaffi fi deebii geggefamee

1. Gutumatti xumurameera
2. Eeyyama hin arganne
3. Gutummaatti hin xumuramne/gar tokkeen xumurameera

Maqaa guutu Mirkanessaa_____Mallattoo_____

Unka qabiyyee gaaffiwwan qorannoo kanaf qopha'ani (Afaan Oromoon)

Guyyaa Gafi fi deebiin itti geggefame	**Guyyaa**		**Ji'a**		**Bara**			
					2	**0**	**1**	**6**
Maqaa dhabbatichaa								
Gosa dhabbata fayyichaa								
Koodi kennameef								
Gaafata	**Maqaa**			**Mallatto**				
Mirkanessa ol'aana	**Maqaa**			**Mallatto**				

Kutaa 1 ffaaGaffiwwan HarirooHawwasumma Dubartoota ulfaa ibsan

Lakkofsa	Gaffiwwan	Fillannowwan deebi ta'uu danda'an	Gara gaaffi ajajameetti darbi
101	Umuriin kee meeqa?	_____	

102	Bakki Jireenyaa kee eessa?	1. Magaala 2. Baadiyyaa	
103	Wa‘een ga‘eela keeti maal fakkata?	1. Heerumeen abba warraa koo waliin jiraadha 2. Heerumeen wal hiikne 3. Heerumeera, garuu na jalaa du‘e 4. Kan biraa----------	
104	Da‘ima ni qabdaa?	1. Eyyee 2. Hin qabu	Yoo deebiin gaaffi kana ~~-~~hin qabu” ta‘e gara gaafii lakkofsa <107> itti darbi
105	Yoo deebiin gaaffi lakkofsa **104** eeyye ta‘e , da‘imanni kee kun HIV irraa walabaa?	1. Eeyyee 2. Walaba miti	Yoo deebiin gaaffi kana ~~-~~Eeyyee” ta‘e gara gaafii lakkofsa <107> itti darbi
106	Yoo deebiin gaaffi lakkofsa **105** walaba		

	mitii ta‘e, ijoolle kee keessa nama meeqatu HIV‘n tuqame?	_____	
107	Amantiin kee maali?	1. Muusiliima 2. Kiristiyaana (ortoodoksii) 3. Protestaantii 4. Kan biraa_____	
108	Sadarkaan barnoota kee hamamii?	1. Dubbisu fi barreessu hin danda‘u 2. Dubbisuu fi barreessu niin danda‘a 3. Sadarkaa 1ffaa xumure (1-8) 4. Sadarkaa 2ffaa fi qopha‘ina(9-12) 5. Collejji fi isaa ooli	
109	Hojiin kee yeroo ammaatti maali?	1. Hojii dhuunfaa ofii 2. Hadha manaa 3. Waajjira dhuunfatti qacarameen hojjadha 4. Hojii mootummaa 5. Kanbiraa_____ _____	
110	Galiin kee ji‘a giddu galeessan hammami	_____	
111	Yeroo ammaa kanatti eenyu waliin jiratta	1. Abba warra /hiriyyaa waliin 2. Maati waliin (abbaa, hadhaa fi kkf) 3. Ijoollee koo waliin 4. Qofaa koo 5. Kan biraa_____ _____	

Kutaa 2ffaa; beekumsa wa‘e HIV/AIDS, akkata HIV/AIDS hadha ilmootti dadarbuu fi akkata ittisa daddarbinsa dhukkubicha hadha irra ilmotti godhamuu irratti hadhooli ulfaa tajajila Option B+ irra jirani ilaalattu

T. lakkofsa	Gaffiwwan	Fillannowwan deebi ta‘uu danda‘an	Gara gaaffi ajajameetti darbi
201	Dubartiin ulfaa da‘ima gadamessa keessa jirutti HIV daddabarsuu ni dandessi	1. Eeyye 2. Hin darba	
202	HIV‘n marfee/lilmoo namni dhukkubicha qabu fayyadameen darbuu ni danda‘a	1. Eeyye 2. Hin darbu	
203	Dhiiga sirritti hin qoratmne nama kennun HIV nama namatti dabrsuu ni danda‘a	1. Eeyye 2. Hin dabarsu	
204	HIV‘n wal qunamtii saala ofeggannoo hin qabneen ni daddarba	1. Eeyye 2. Hin darbu	
205	HIV‘n nyaata nama dhukkubicha qabu waliin nyaachuun nama namatti ni daddarba	1. Eeyye 2. Hin darbu	
206	HIV‘n harka wal cabbaxuun/tuquun ni daddarba	1. Eeyye 2. Hin darbu	
207	Namni qaaman fayyaa fakkatu HIV qabachu ni danda‘aa?	1. Eeyye 2. Hin danda‘u	
208	HIV‘n nama virasicha qabu	1. Eeyye	

	waliin dubbachun namatti darba jette ni yaadda?	2. Hin darbu 3. Anoo hin beeku	
209	HIV‘n booke busaan nama namatti ni daddarba	1. Eeyye 2. Hin darbuu 3. Anoo hin beeku	
210	HIV‘n yeroo kam hadha ilmootti irra caalmatti daddarba jette yaadda?	1. Yeroo ulfaa 2. Yeroo da‘umsaa 3. Yeroo harma hoosisan 4. HIV‘n hadha ilmootti hin daddarbu	
211	HIV‘n hadha ilmootti akka hin daddabare akkamitti ittisuun danda‘ama?	1. Qoricha /dawwaa HIV/AIDS‘f kennamu akka ajajamanitti fudhachuun 2. Qoricha/daawwaa HIV/AIDS‘f kennamu yeroo dhukubsatan qofa seeran fudhachuun	
212	Qorichi yeroo ulfaa hadholiif kennamu carraa HIV‘n hadha ilmootti darbu ni xiqqeessa jette ni yaadda?	1. Eeyye 2. Hin xiqqessu 3. Ano hin beeku	

Kutaa 3ffaa; tajaajila gargarsaa fayaa keenamu jiruu fi haala ogessota fayaa tajaajila kennan

T. lakk ofsa	Gaffiwwan	Fillannowwan deebi ta‘uu danda‘an	Gara gaaffi ajajam

			eetti darbi
301	Ogessotii fayaa tajaajiila kenan irratti amanamoo dha?	1. Eeyye 2. Amanamoo miti	
302	Hariroo siif ogeesota fayyaa giddu jiru akkamitti ibsita	1. Hariroo hawasumma gaari qabna/ yaad nama siritti dhagefatani namaaf qquqamu 2. Nama hin dhaggefatan/ nama tufatu 3. Kan bira----------	
303	Ogessotni fayyaa yeroo kam gorsa siif kennu?	1. Yeroon jalqaba qoratame 2. Yeroon qoricha eegale qofa 3. Yero tokko tokko 4. Yeroo hundaa 5. Tasa iyyu nah in kenine	
304	Yeroo gorsa siif kennan waan akkami irratti xiyyefatani si gorsu? (deebi tokko ol filachuun ni danda'ama)	1. Waa`e dhukubaa –HIV" 2. Waa`edaddarbiinsa dhukuba —HIV" haadha irraa gara iilmotti 3. Haala daddarbiinsa dhukuba —HIV" haadha irraa gara ilmooti ittin ittisan 4. Akkata qoorichifarra HIV sirriti fudhatumu qabu 5. Waa`e midhaa qorichi farra HIV qaqqabsisu dandaa`u 6. Fayida qorichaa farra HIV fudhachu 7. Kan biraa ibsii_____	
305	Qoricha farra HIV kana fudhachu akkamitti	1. Gorsan argadhe irraa ka'en ofin murtesse 2. Dhibbaa ogesota fayyaa irra kan ka'en jalqabe 3. Dhibbaa nama bira ira kan ka'en jalqabe	

	eegalte?	4. Osso waan tokkolle hin beekinin jalqabe 5. Kan biraa ibsi_____ _____ _____ _	
306	Mana keeti kaate gara mana yaala dhufuuf yeroo hagami sitti fudhata?	_____	
307	Iddon ati amma yaala fayyaa itti fudhacha jirtu siif mijataadha?	1. Eeyye 2. Mijata miti	
308	Iddoon ati amma tajaajilla fayyaa itti fudhacha jirtu icciti kee siif eega?	1. Eeyyee 2. Hi eegu	
309	Hadholii dhukkuba kana waliin jiraatanii waliin moora mana yaala keessatti mari‘attani beektuu?	1. Eeyye 2. Mari‘anne hin beeknu	
310	Gargarsa argatte beektaa?	1. Eeyyee 2. Hin beeku	Yoo — **eeyye**” ta‘e

			gara gaaffi itti aanutti darbi
311	Yoo –~~e~~eyye" ta'e eenyu irra argatte	1. Abba warraa 2. Maati koo irraa 3. Motumma 4. Qaama miti mootumma irra 5. _____ _____ __	
312	Gagaarsa akkami argatte beekta ?	1. Gargaarsa maalaqa 2. Hawasumma 3. Gorsa 4. Kan biraa_____ _____ _	

Kutaa 4ffaa; seena hadholii ulfaa wa'ee HIV fi qoricha farra HIV irratti ilaalchise

T. lakkofsa	Gaffiwwan	Fillannowwan deebi ta'uu danda'an	Gara gaaffi ajajameetti darbi
401	HIV'n dhiiga kee keessa jiraachuu yoom barte?	1. Utuun hin ulfa'in 2. Ergan ulfa'e booda	
402	Ulfi ko amma karoora irratti kan hunda'e jette	1. Eeyye 2. Miti	

	yaadda?		
403	Akka HIV waliin jirattu nama biratti himtee beekta?	1. Eeyye 2. Hime hin beeku	Yoo **~~–~~hime hin beeku"** ta'e gara gaaffi 406 itti darbi
404	Eenyutti himte beekta?	1. Abba mana koo qofa 2. Maati koo qofa 3. Nama biraa(adda baasi)---------- ----------	
405	Abban warra kee erga itti himtee degersa siif godhaa?	1. Eeyye 2. Hin godhu	
406	Yeroo tokko tokko qoricha fudhachu ni dagatta?	1. Eeyye 2. Hin dagadhu	
407	Yeroo fayyumman sirritti sitti dhaga'amu qoricha farra HIV fudhachu dhiste boqonna ni fudhatta?	1. Eeyye 2. Addan hin kutu	
408	Namooti baay'een qoricha isaani akka ajajamefitti hin fudhatani, ati guyyota sadan darban keessatti qoricha farra HIV utuu hin fudhatiin dagateetta?	1. Eeyye 2. Hin daganne	
409	Yeroo tokko tokko utuu qoricha farra HIV	1. Eeyye 2. Addan hin kutu	

	fudhattu yoo dhukkubbin sitti cime qoricha farra HIV fudhachu addan ni kutta?		
410	Ji‘a darbe keessa qoricha farra HIV utuu hin liqimsiin haftee beektaa?	1. Eeyye 2. Hafee hin beeku	
411	Yeroo isheen qoricha farra HIV fudhachuu eegalte ulfi ishee ji‘a meeqa ture?caardi irraa ilaali	_____	
412	Qorichi ati fudhattu kun midha sirraan geesisee beeka? Cardi irraa ilaali	1. Eeyye 2. Gesisee hin beeku	

Kutaa 5ffaa; sababoota qoricha akka ajajamanitti fudhatani fi fudhachu dhabanif

T. lakk ofsa	Gaffiwwan	Fillannowwan deebi ta‘uu danda‘an	Gara gaaffi ajajameetti darbi
501	Qoricha farra HIV naaf kenname akka ajajametti fudhachaan jira jette ni yaadda?	1. Eeyye 2. Miti	
502	Akka ajajamtetti akka fudhattu maaltu si godhe?	1. Sadarka barumsaa koo 2. Gargarsa hawwasumma ani maati fi nama biraa irra argadhe 3. Abba wardha kootti akkan HIV waliin jiraadhu	

		himuu koo 4. Ulfa‘uun koo fedhakoo irratti waan hunda‘eef 5. Mucaa hin dhalatiin jirtutti virasii kana dabarsuu waanan hin barbaannef 6. Kan biraa_____ _____ _____ _____ _____ _____ _____ _____ _____ _____	
503	Sababootni qoricha kana akka ajajamtanitti hin fudhnne isin godhan maal fa‘i?	1. Hirdhanfachuu 2. Fayyumman waan natti dhaga‘ameef 3. Loogi fi qoqqodda hawasummaa 4. Manni yaala mana koo irra waan fagaatuuf 5. Kan biraa_____ _____ _____ _____ _____ _____ _____ _____	

Yeroo keessan fudhattani yaada keessan waan nuu laattaniif galatni koo guddaa dha!

ANNEX-4 QUESTIONNAIRE (Amharic Version)

ቅጥያ-4፡-መጠይቅ (የአማርኛውትርጉም)

አዲስአበባዩኒቨርሲቲ

ጤናሳይንስኮሌጅ

ስኩልኦፍፐብሊክሄልዝ

ቃለመጠይቁየተደረገበትቀን	**ቀን**		**ወር**		**ዓ. ም.**			
					2	0	1	6
የተቋሙስም								
የጤናተቋሙዓይነት								
ሚስጢርቁጥር								
ቃለመጠይቁንያካሄደውሰው	ስም			ፊርማ				
የተቆጣጣሪው	ስም			ፊርማ				

ክፍልአንድ: የእርጉዝእናቶችማህበራዊሁኔታዎች

ቁጥር	ጥያቄ	ምርጫመልስ/	ይዘለል
101	ዕድሜ;	----------	
102	የመኖሪያአድራሻ?	3. ከተማ 4. ገጠር	
103	የጋብቻሁኔታ?	5. ያገባ 6. የፈታ 7. ባለቤቱ/ቷየሞተባት 8. ሌላ.....	
104	ልጅአለዎት?	3. አዎ 4. የለም	―አይደለም” ከሆነወደጥያ ቄቁጥር 7 ይለፉ
105	ለጥያቄቁጥር 104 መልሰ ̲አዎ‘ ከሆነከኤችአይቪነጻናቸው?	3. አዎ 4. የለም	―አይደለም” ከሆነወደጥያ ቄቁጥር 7 ይለፉ
106	ለጥያቄቁጥር 105 መልሰ ̲አይደለም‘ ከሆነስንትልጆችዎከኤችአይቪጋርይኖራሉ?	_____	
107	የሚከተሉትእምነት?	5. እስልምና 6. ኦርቶዶክስ	

		7. ፕሮቴስታንት 8. ሌላ----------	
108	የትምህርትደረጃዎ?	3. ማንበብናመጻፍአልችልም 4. ማንበብናመፃፍችላለው 3. የመጀመሪያደረጃት/ት (1-8) 4. ሁለተኛደረጃት/ት(9-12) 5. ኮሌጅናከዚያበላይ	
109	የስራሁኔታ?	6. የግል 7. የቤትእመቤት 8. የግልተቀጣሪ 9. የመንግስትሰራተኛ 10. ሌላ----------	
110	የወርገቢበአማካኝ?	----------	
111	በአሁኑሰዓትከማንጋርነውየሚኖሩት?	6. ከባለቤቴ/ጓደኛዬ 7. ከቤተዘመድጋር 8. ከልጆችጋር 9. ለብቻ 10. ሌላ----------	

ክፍልሁለት:በእርጉዝእናቶችመካከልስለኤችአይቪ/ኤድስ፤ከእናትወደልጅመተላለፍናከእናትወደልጅመተላለፍንመከላከልንበተመለከተኦብሸን B^+ ዕውቀትንየሚለኩጥያቄዎች።

ተ.ቁ	ጥያቄ	መልስ/ምርጫ	ይታለፍ/ይዘለል
201	በሽታውከእናትቄውወደፅንሱበእርግዝናወቅትመተላለፍይችላል? ;	1.አዎ 2.አይደለም	
202	አንድሰውሌላውየተጠቀመበትንመርፌቢጠቀምኤችአይቪሊይዘውይችላል?	1.አዎ 2.አይደለም	
203	ያልተመረመረንደምመለገስኤችአይቪበሽታንሊያስተላልፍይችላል?	1.አዎ 2.አይደለም	
204	ኤችአይቪልቅበሆነግብረስጋግንኙነትይተላለፋል?	1.አዎ 2.xአይደለም	
205	ኤችአይቪካለበትሰውጋርአብሮበመብላትወደጤነኛሰውይተላለፋል?	1.አዎ 2.አይደለም	
206	ኤችአይቪበመጨባበጥይተላለፋል?	1. አዎ 2.x አይደለም	
207	ጤነኛየሚመስልሰውኤችአይቪሊኖርበትይችላል	1. አዎ 2. አይደለም	

208	ኤችአይቪአብሮበማውራትሊይዝይችላል?	1.አዎ 2.አይደለም	
209	ኤችአይቪበወባትንኝበመነደፍመተላለፍይችላል?	1. አዎ 2. አይደለም	
210	ከሚከተሉትጊዜያትበየትኛውኤችአይቪከእናትወደልጅበዋናነትሊተላለፍይችላል? ከአንድበላይመልስይቻላል?	4. በእርግዝናወቅት 5. በወሊድወቅት 6. ጡትበማጥባትወቅት 4. ኤችአይቪከእናትወደልጅአይተላለፍም	
211	የኤችአይቪንከእናትወደልጅመተላለፍእንዴ ትመግታትይቻላል?	5. የፀረኤችአይቪመድሃኒትንበአግባቡበመውሰድ 6. የፀረኤችአይቪመድሃኒቶችንሲታመሙብቻበመውሰድ 7. የፀረኤችአይቪመድሃኒትንለህፃናትበአግባቡበመስጠት 8. ህፃናትንበአግባቡመመገብ	
212	በእናቶችየሚወሰዱከእናትወደልጅመተላለፊያንየሚከላከሉመድሃኒቶችከ/ወደጓደኛመተላለፍንይቀንሳል	4. አዎ 5. አይደለም 6. አላውቅም	

ክፍልሶስት: የጤናአገልግሎትሰጪናየጤናአገልግሎትባህሪያትበህመምተኛውላይ

ቁጥር	ጥያቄ	መልስ/ምርጫ	ይታለፍ
301	የጤናአገልግሎትሰጪዎችታማኝናቸው?	3. እስማማለው 4. አልስማማም	
302	ከጤናአገልግሎትሰጪዎችጋርያሎትንግግኙነትእንዴትይገልፁታል	4. ተግባቢዎችናቸው 5. ግድየለሽናቸው 6. ሌላ (ይገለፅ)	
303	የጤናአግግሎትሰጪዎችየምክርአገልሎትየሚሰጡትመቼነው?	6. በምርመራጊዜ 7. በህክመምናውአጀማመርወቅትብቻ 8. አልፎአልፎ 9. ሁሌም 10. በፍፁም	
304	በምክርአገልግሎቱጊዜምንምንጉዳዮችለይተመካክራችኋል?(ከአንድበላይመልስይቻላል)	8. ኤችአይቪ 9. ከእናትወደልጅመተላለፍን 10. ከእናትወደልጅመተላለፍንመከላከል 11. መድሃኒትንበአግባቡስለመውሰድ 12. ስለመድሃኒትየጎንዮሽጉዳት 13. ስለህክምናውጥቅም 14. ሌላ_____	

305	እንዴትነበርየፀረኤች.አይ.ቪህክምናየጀመርከ/ሽው	6. ተነግሮኝወስኜ 7. በጤናባለሙያግፊት 8. በሌሎችሰዎችግፊት 9. ምንምነገርሳላውቅ 10. ሌላ----------	
306	ጤናተቋሙለመድረስምንያክልሰዓትይወስድባሻል?	----------	
307	የጤናአገልግሎትመስጫቦታውላንቺተመችቶሻል?	3. አዎ 4. አይደለም	
308	የጤናአገልግሎትመስጫቦታውሚስጥርለመጠበቅተስማምቶሻል?	3. አዎ 4. አይደለም	
309	በጤናተቋሙውስጥበእናቶችመካከልበሚደረግውይይትላይተሳትፈሽታውቂያለሽ	3. አዎ 4. አይደለም	
310	ማንኛውንምማኅበራዊምሆነየገንዘብድጋፍአግኝተሽታውቂያለሽ?	3. አዎ 4. አይደለም	አዎከሆነወደሚቀጥለውክፍልእለፍ
311	አዎከሆነድጋፉንከየትነውየምታገኚው?	6. ከአጋር 7. ከቤተሰብ 8. ከመንግሥት	

		9. መንግስታዊካልሆነድርጅት 10. ሌሎች	
312	ምንዓይነትድጋፍነውከነሱየም ታገኚው?	5. የገንዘብ 6. ማኅበራዊ 7. የምክር 8. ሌሎች	

ክፍልአራት፡የእርጉዝእናቶችየኤች.አይ.ቪእናየፀረኤች.አይ.ቪመድኃኒትታሪክ

ቁጥር	ጥያቄ	ምርጫ/መልስ	ይዘለል
401	መቼነውስለኤች.አይ.ቪሁኔታሽያወቅሽው?	3. ከማርገዜቢፊት 4. ሳረግዝ	
402	ይህእርጋዝናሽታቅዶነውብለሽታስቢያለሽ?	3. አዎ 4. አይደለም	
403	ስለኤች.አይ.ቪሁኔታሽለሌሎችተናግረሽታውቂያ ለሽ?	3. አዎ 4. አይደለም	አይደለም ከሆነወደ 406 እለፍ

404	ስለኤች.አይ.ቪሁኔታሽለማነውየነገርሽው?	4. ለአጋሬብቻ 5. ለቤተሰቤብቻ 6. ለሌላ(ይብራራ)	
405	አጋርሽከነገርሽውበኋላይደግፍሻል?	3. አዎ 4. አይደለም	
406	መድኃኒትሽንለመውሰድአንዳንድጊዜየማስታወስችግርይገጥምሻል?	1.አዎ 2. አይደለም	
407	አንዳንድጊዜመልካምጤንነትሲሰማሽመድኃኒትሽንከመውሰድትታቀቢያለሽ?	3. አዎ 4. አይደለም	
408	ብዙህመምተኞችየታዘዘላቸውንየፀረኤች.አይ.ቪመድኃኒትበአግባቡየመውሰድችግርይገጥማቸዋል፤አንቺላለፉትሶስትቀናትየፀረኤች.አይ.ቪመድኃኒትሽንያልወሰድሽበትጊዜአለ?	3. አዎ 4. አይደለም	
409	አንዳንድጊዜመድኃኒትሽንስትወስጂየሚያምሽከሆነከመውሰድትታቀቢያለሽ?	3. አዎ 4. አይደለም	
410	የፀረኤች.አይ.ቪመድኃኒትሽንላለፈውአንድወርጊዜአቋርጠሽታውቂያለሽ?	3. አዎ 4. አይደለም	አይደለምከሆነወደ508እለፍ
411	የፀረኤች.አይ.ቪመድኃኒትስትጀምርየእናትየዋየእርግዝናጊዜምንያክልነበር		

	?(ካርድዋንይመልከቱ)		
412	ከፀረኤች.አይ.ቪመድኃኒቱጋርየተያያዘማንኛውንምየጎንዮሽጉዳትታይቶብሽያውቃል? (ካርድዋንይመልከቱ)	3. አዎ 4. አይደለም	

ክፍልአምስት:መድኃኒትንበትክክልለመውሰድእናላለመውሰድምክንያቶች

ቁጥር	ጥያቄ	መልስ/ምርጫ	ይዘለል
501	የፀረኤች.አይ.ቪመድኃኒትንበትክክልእወስዳለሁብለሽራስሽንአስበሽታውቂያለሽ?	3. ኣዎ 4. አይደለም	አይደለም ከሆነወደ 503 እለፍ
502	በትክክልለመውሰድሽምክንያቱምንድነው?	7. የትምህርትደረጃዬ 8. ማኅበራዊድጋፍከቤተሰብናከሌሎች 9. ለባለቤቴበመናገሬ 10. የታቀደእርግዝና 11. ኤች.አይ.ቪወደፅንሱእንዳይተላለፍያለኝፍላጎት 12. ሌሎች(ይብራራ)	

502	መድኃኒቱንበትክክልላለመውሰድምክንያቶቹ ምንድንነበሩ?	6. መድኃኒትመውሰድመርሳት 7. የጤንነቴሁኔታመሻሻል 8. ማግለልናመድሎ 9. በቀጠሮጊዜለመምጣትየጤናአገልግሎትመስጫተቋሙርቀት 10. ሌሎች(ይብራራ)	

ጊዜዎንሰውተውስለሰጡንጠቃሚመረጃውአመሰግናለሁ