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Knowledge on MTCT of HIV and Information Source Preferences among HIV Positive Women in Addis Ababa, Ethiopia

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Signature page

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This is to certify that the thesis prepared by Mulatu Ayele entitled: Knowledge on MTCT of HIV and Information Source Preferences among HIV Positive Women in Addis Ababa, Ethiopia and submitted in partial fulfillment of the Degree of Master of Health Informatics complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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List of acronyms and abbreviations

AIDS	Acquired Immuno Deficiency Syndrome
ANC	Ante Natal Care
ART	Anti Retro Viral Therapy
BSS	Behavioral Surveillance Survey
CI	Confidence interval
CDC	Communicable Disease Control
CHW's	Community Health Workers
EPI Info	Epidemiological information
FHI	Family Health International
FP	Family Planning
HIV	Human Immune Deficiency Virus
HC's	Health Centers
MNCH	Maternal Neonatal and Child Health
MTCT	Mother to Child Transmission
OR	Odds Ratio
PLWH	People Living With HIV
PMTCT	Prevention of Mother to Child Transmission of HIV
STI's	Sexual Transmitted Infections
SNNPR	Southern Nations Nationalities Peoples Region
SPSS	Statistical packages for social sciences
UNAIDS	United Nations Program on HIV/AIDS
WHO	World Health Organization

Abstract

Background: Data from the 2016 Ethiopian Demographic and Health Survey (EDHS) (10) found that the national general knowledge of the prevention of MTCT remains low. Lack of knowledge about MTCT as well as HIV positive status may contribute to increased transmission of MTCT of HIV and lead to unsuccessful PMTCT intervention. Correct knowledge on HIV transmission and prevention is important for avoiding infection. On the other hand, information sources mostly consulted might influence their level of awareness. However, never has a study been conducted to assess the knowledge on MTCT of HIV and understanding the preferred sources of MTCT of HIV information among HIV positive women. It became important to assess the knowledge of mother-to-child transmission and the preferred information sources targeting HIV positive women attending ART and antenatal clinic at health center level in Addis Ababa, Ethiopia. The information obtained shall influence the counseling and education of HIV positive women and also provides information about the various sources of MTCT of HIV information offered and preferred by HIV positive women.

Objective: The objective of this study was to assess the knowledge on MTCT of HIV among HIV positive women in Addis Ababa, Ethiopia.

Methodology: Facility based cross-sectional study was carried out to achieve the research objectives in Addis Ababa from January to June 2017. Sample size was determined using the formula for a single population proportion by assuming 50% of the targeted population estimated to have MTCT of HIV knowledge. A total of 404 consenting HIV-positive women attending ART and ANC clinic were participated using the systematic sampling technique. Ten trained data collectors and 1 supervisor participated in the data collection. Data were collected using structured interviewer administered questionnaire. Manually edited data were entered in to computer using Epi Info V 7; further cleaned and exported in to SPSS V 20; then cleaned again and analyzed as needed. Frequency, percentages, and binary logistic regression analysis with 95% CI, were done to describe and assess associations among variables of interest.

Results: Out of the 404 HIV positive women interviewed, 98.8% responded that they know MTCT of HIV and 43.1% of HIV positive women were found to have good knowledge on the

timing of MTCT of HIV. The preferred sources of MTCT of HIV information were Health Professional's / Health Institution's with 71.5%, followed by HIV positive peer educators with 13.1%. The most selected barriers were ''hard to understand'' at 28.5% and majority (96.6%) of respondents agreed or strongly agreed that they were learning new MTCT of HIV information helps to keep them healthy.

Conclusions: Knowledge about MTCT in the study area was low. Health workers and HIV positive peer educators followed by TV were the preferred sources of information among study participants.

Recommendations: Health workers and HIV+ peer educators need to be given continuous medical education. During adherence, more attention and emphasis needs to be given on providing accurate and up-to-date knowledge on MTCT of HIV related issues and complemented by using appropriate channels of information.

1. Introduction

1.1. Background to the study

Mother-to-Child transmission (MTCT) of HIV is the transmission of HIV from an infected mother to her baby during pregnancy, labour and childbirth and breastfeeding (1). Globally, in 2015, there were 36.7 million people living with HIV (2). Of these, 1.8 million were children under 15 years of age and about 17.8 million women living with HIV (15 and older), consisting 51% of all adults living with HIV (2). Globally, only 3 in every 10 adolescent girls and young women aged 15 – 24 years have comprehensive and accurate knowledge about HIV (3). Mother-to-child transmission (MTCT) of HIV infection remains a major public health problem and constitutes the most important cause of HIV infection in children less than 15 years old in the globe (4). Globally, 77 percent of pregnant women have been accessing antiretroviral medicines to prevent mother-tochild transmission of HIV (2).

Sub-Saharan Africa, the hardest hit region, is home to nearly 70.0% of people living with HIV but only about 13% of the world population (5). In Sub-Sahara Africa, women comprised 56% new infections among adults (15 and older) and the proportion was higher among young women aged 15 – 24, who made 66% of new infections among young people (2).

Ethiopia is one of the sub-Saharan African countries affected by the HIV-1 pandemic (6). According to the 2014 HIV Related Estimates and Projections for Ethiopia, in 2016 there were an estimated 740,251 people living with HIV, 128,233 children (0 - 14 years) living with HIV including 1,984 new HIV infection among childrens (0 – 14 years) (7). The national adjusted HIV prevalence declined from 2.3% in 2012 to 2.0% in 2014 (8).

The highest regional adjusted HIV prevalence during the 2014 round was observed in Addis Ababa (5.5%) followed by Gambella (5.2%) (8). The HIV epidemic in Ethiopia is becoming more concentrated in urban areas and along major transport corridors (9). According to EDHS 2016 (10), 48 percent of women and 53 percent of men know that HIV can be transmitted by breastfeeding and that the risk of mother-to-child transmission can be reduced by taking special drugs.

Information awareness programmes for HIV/AIDS make use of different kinds of media to reach out to their target. These include print media – books, posters, pamphlets, handbills; broadcast media – various programmes on radio and TV stations; family – which includes parents, other parent-figures and siblings; friends and peers; colleagues and healthcare professionals (11).

When confronted with potentially life-threatening illness such as cancer, HIV, and AIDS, information may provide needed knowledge about the disease, treatment and self care management (12). PLWHA have reported using active and passive information seeking as well as information avoidance strategies to cope with and manage the uncertainty surrounding their health (13). A study conducted by Hogan and Palmer (14) revealed that HIV+ community use many information sources but have a strong preference for doctors, followed by HIV+ counselors, and magazines. 43% of respondents selected doctors as their most preferred information source, and 70% selected doctors as one of their top three preferred sources (13).

Information providers must disseminate information to patients that will encourage them to set realistic goals for healthy lifestyle changes. Having the right information at the right time will help them to meet their immediate health need (15). Sufficient information normally enhances knowledge development (16). Insufficient knowledge of information may create problems resulting in abject poverty, ignorance, disease, hunger, and illiteracy (16).

1.2. Statement of the problem

While almost all Ethiopians have heard of HIV, comprehensive knowledge remains low on average, particularly among women (18%) compared to men (31%) (6). Data from the 2016 Ethiopian Demographic and Health Survey (EDHS) (10) found that the national general knowledge of the prevention of MTCT remains low. Correct knowledge on HIV transmission and prevention is important for avoiding infection. It is particularly crucial for HIV-positive people to have an accurate understanding of how HIV is transmitted and prevented in order to avoid or reduce risk of transmitting the infection to their sexual partners. HIV-positive women who are pregnant or lactating are at risk of transmitting HIV to their offspring. Evidently, maternal knowledge about prevention of HIV from mother to child and reducing the risk of transmission using antiretroviral drugs are critical in reducing mother-to-child transmission (PMTCT) of HIV. Lack of knowledge about MTCT as well as HIV positive status may contribute to increased transmission of MTCT of HIV and lead to unsuccessful PMTCT intervention. However, information sources mostly consulted might influence their level of awareness. During aherance advice, it is expected to have the right information at the right time that helps them to meet their immediate health need. People living with HIV need quality information resources to build a solid base of knowledge about MTCT of HIV.

Reviewed literatures revealed that there are considerable research studies had conducted to assess the knowledge of MTCT of HIV among pregnant women. Also a considerable research has been done on how PLWH manage information such as Information needs and information-seeking behaviors of HIV-positive men and women, Information preferences and practices among people living with HIV/AIDS, Information in the HIV1 community and others. However, never has a study been conducted to assess the knowledge on MTCT of HIV and understanding the preferred sources of MTCT of HIV information among HIV positive women. By considering these, it became pertinent to assess the knowledge of mother-to-child transmission and the preferred information sources targeting HIV positive women attending ART and antenatal clinic at health center level in Addis Ababa, Ethiopia from January to June 2017.

Thus, the study was seeking answers to the following study questions:

- What are the knowledge of HIV positive women on MTCT of HIV in the study area?

- What are the preferred sources of MTCT of HIV information to HIV positive women in the study area?
- What are the information seeking behaviors of HIV positive women in the study area?
- What are the barriers to utilize MTCT of HIV information among HIV positive women in the study area?

1.3. Rationale of the study

Focusing on few information sources that account for much of the information awareness among target audiences will reduce cost. Relevant organizations and institutions can invest selectively on the information sources that have greater potentials to inform audiences (HIV positive women) and result to a more focused action on the control of MTCT of HIV. The purpose of this paper is to throw light on knowledge on MTCT of HIV as well as preferred information sources in the context of MTCT of HIV.

Since study participants are HIV positive and had repeated follow up on ART and ANC services, the results of this study hopefully help healthcare providers to recognize HIV positive women's knowledge on MTCT and shall influence the counseling and education of HIV positive women, which will in turn decrease mother-to-child transmission of HIV. It also provides information about the various sources of MTCT of HIV information utilized and preferred by HIV positive women receiving ANC/PMTCT/ and ART service at Health Center level in Addis Ababa, Ethiopia.

1.4. Scope of the research

This study was primarly focused on the assessment of knowledge on MTCT of HIV. Also the topics covered in this study was MTCT of HIV information source use, information source preferences, encouraging and supporting information sources, information seeking behavior, characterizing information sources and barriers to utilize information sources. It covered HIV positive pregnant and non pregnant women attending ANC /PMTCT/ and ART clinics in the selected health centers, who are between 15-49 years of age in Addis Ababa, Ethiopia from January to June, 2017.

2. Literature review

2.1. HIV/AIDS and MTCT of HIV

HIV/AIDS was first identified among homosexuals in the United States in 1981, although cases of HIV infection have been found in blood samples from the Central African country of Democratic Republic of Congo (DRC) since 1959 (18). World wide, 2.1 million people and 150,000 children become newly infected with HIV in 2015, down from 290,000 (250,000 – 350,000) in 2010 (2). Mother-to-child transmission (MTCT) of HIV infection remains a major public health problem and constitutes the most important cause of HIV infection in children less than 15 years old in the globe (4).

MTCT of HIV is the most significant route of transmission of HIV worldwide, among individuals below 15 years of age; nearly 90% of the newly infected children with HIV are due to MTCT (4). In the absence of any intervention, the risk of MTCT ranges from 20% to 45%: 5-10% during pregnancy, 10-20% during labour and delivery and 5-20% through breastfeeding (19). This risk can be decreased to 2% and 5% in non-breastfeeding and breastfeeding women respectively with antiretrovirals (ARVs) (19). Without such intervention, it is estimated that about a third of HIV-infected children would die before the first year of life, and a half would die before two years (20).

Sub-Saharan Africa, the hardest hit region, is home to nearly 70.0% of people living with HIV but only about 13% of the world population (5). In 2015, there were 19 million [17.7 million–20.5 million] people living with HIV in eastern and southern Africa. In 2015, there were an estimated 960,000 new HIV infections in eastern and southern Africa. There were 56,000 new HIV infections among children in eastern and southern Africa in 2015 (2).

The first serum positive for HIV-1 antibodies was found in 1984 and the first two hospitalized AIDS cases were diagnosed in 1986 (6), its HIV epidemic has evolved in a generalized epidemic, and AIDS is now the leading cause of morbidity and mortality among adults in Ethiopia (6). According to the 2014 HIV Related Estimates and Projections for Ethiopia, the HIV prevalence was estimated to be 1.1% and an estimated 729,517 people live with HIV/AIDS in Ethiopia (8).

Higher prevalence in Addis Ababa and large towns may be associated with labour migration to large urban areas and large scale construction projects as well as a growing service industry (9). Moreover DHS 2011 analysis showed HIV prevalence is four times greater among populations that reside within 5km from a main asphalt road compared to those further away (9).

Modes of HIV transmission: Sexual relations (anal, vaginal, oral) with an infected person, transfusion with infected blood or blood products, the use of needles, syringes, and cutting or perforating objects contaminated by HIV-infected blood and MTCT (1). A study conducted in Assosa town and SNNP revealed that 57.5% and 11.5% of pregnant women had full knowledge about MTCT of HIV respectively (21 & 22).

A study from Northwest Cameroon revealed that 100% of pregnant women were aware of the existence of HIV and 79.3% of participants were aware of the possibility of MTCT of HIV (23). A study from Nigeria revealed that 99.3% of the participants agreed that PMTCT of HIV can be achieved through use of ARV (24). In a study conducted in Hossana, 88.7% of the respondents knew mother to child transmission of HIV (25). A study conducted in Sebeta showed that 74.6% of mothers knew that mother with HIV can pass the virus to her baby and 40.1% of them knew it can be prevented by ARV drug (26). A study from Mekele revealed that 95.9% of pregnant women knew during child birth, 93.6% knew during pregnancy and 91.5% knew during breast feeding (27).

In a study sample of 7,392 Ethiopian women, their HIV status and MTCT knowledge were distributed as 39.8% were HIV-negative with low knowledge, 58.9% were HIV-negative with high knowledge, 0.3% were HIV-positive with low knowledge and 1.0% were HIV-positive with high knowledge (28). In a study conducted in Nigeria revealed that 91% of the respondents were aware that HIV infection could coexist with pregnancy, while a significantly lower proportion (61%) of respondents were aware of mother-to-child transmission of HIV (29). Regarding the PMTCT most of the respondents had knowledge about identifying HIV infection during pregnancy is the way to reduce the chance of HIV transmission from infected mother to her baby (30). HIV-positive women who are not currently married (including never-married and formerly married women) are more knowledgeable about AIDS than currently married women (31). A study revealed in Nigeria 3.5%, 33.6%, and 32.8% during pregnancy, labor & delivery and breast

feeding respectively (32). A study conducted in Gondar, 58.4% of the respondents knew MTCT of HIV prevented by ART drug (33).

2.2. Available HIV Information Sources

Amsale et al. (34) defined various parameters for assessing actual sources used, such as perceived credibility of the source, perceived appropriateness of the message, perceived accessibility of the source, perceived timeliness of the information, perceived applicability of the message and preferred source. Information could be obtained through various sources like interpersonal means, mass media, print formats and non-print formats (35 & 36). A study conducted by Hogan and Palmer (14) respondents preferred getting information from people including health professionals, family, and friends and considered people the most trustworthy, useful, understandable, and available information sources.

Huber and Cruz (37) find that AIDS newsletters, magazines, and personal physicians are the three most popular sources of information for PLWH, followed by information from friends, pamphlets, and brochures. Informal institutions such as Herbalists (20.3%), Local herbal hawkers (29.7%) and Spiritual homes (33.8%) were reported to serve as information sources of HIV/AIDS to few salonists (38). The Internet was not rated highly overall but was preferred by those with more education or living in metropolitan areas (41).

In a study conducted in Addis Ababa 98.1% of people on ART have obtained useful information from health professionals and moreover, the married were more likely to get useful and encouraging information from many sources, including health professionals, television, magazines and newspapers (39). Availability of information entails the provision and supply of information at the right quantity and time, accurate, credible and accessibility of information whatever medium and quantity will be meaningless if it does not meet the need of the audience in terms of economic, social, political, cultural, scientific and technological (40).

2.3. Information Seeking Behavior

In a study conducted among PLWHA reavealed that 72% said they actively search for HIV/AIDS related information, and 80% said they give advice or tell others where to get such

information (41). 71% agreed that it is easy to feel overwhelmed by information, and 31% agreed that not seeking information can be beneficial (41). Information scientists have provided analyses of the distinctive qualities of the information associated with the epidemic. Huber and Gillaspy (42) assert that the current knowledge of HIV/AIDS is a ‘‘diseased body of knowledge’’ full of the same complexities that characterize the epidemic.

Wilson (17) predicted that the channel through which information is presented and the perceived credibility of the source affect information seeking behaviour. Information Seeking Behavior is the purposive seeking for information as a consequence of a need to satisfy some goal (46). According to Wilson (17), personal factors such as socio-demographic characteristics might also affect information seeking behaviour. Information seeking can be explained by age, gender and education. These socio-demographic factors are important in explaining information needs and source use (17).

2.4. Use of HIV information

Information can be used for three major processes; for creating awareness, for acquiring knowledge and for decision making (43). Information particularly internalized information or knowledge - is thought of as something which is used or utilized in certain action (44). The use of information covers the user's behavior, connecting (to the information source), searching for information, information skills, utilizing information, information literacy, information needs, context, reactions and effects, as well as results of learning (45). The use of information is a phenomenon which appears everywhere in the contexts of everyday life - or, in fact of all life (44). Information is needed for a variety of purposes and its use depends on its availability, accessibility, purpose and various communication channels (17).

2.5. Barriers to use HIV information

Results from a nationwide survey among PLWH showed that information ‘‘hard to understand’’ at 40%, ‘‘not sure whether to trust’’ at 38% and “too much” at 35% were the top three selected barriers. The most frequently selected first choice related to applicability, with 15% listing ‘‘not enough information applies to me’’ as the biggest barrier (41). Mental health professionals throughout the first decade of the epidemic saw that many PLWH felt compelled to sort through

potentially overwhelming amounts of HIV information to keep up with and stay current on issues important to their health, while others tended to avoid reading or hearing about HIV/AIDS (46). Lack of access to information was identified by Sheba as a major problem which hinders effective utilization of information by women and most rural dwellers (47).

2.6. Related works

Information preferences and practices among people living with HIV/AIDS: a nationwide survey conducted by Timothy P. Hogan. The study was designed to reach many segments of the diverse HIV/AIDS community and broaden understanding of how information can better assist people living with HIV/AIDS. Data were collected through a self-administered mail survey distributed nationwide at clinics, drug treatment centers, and other AIDS service organizations. Participants were asked about their information needs, the information sources they used, the barriers to HIV information they encountered, the impact HIV information has had on their lives, and basic demographics. Survey packages consisting of questionnaires, postage paid reply envelopes, cover letters, and instructions for distributing the survey were sent to the 750 organizations.

The 662 respondents preferred getting information from people including health professionals, family, and friends and considered people the most trustworthy, useful, understandable, and available information sources. 43% selected doctors as their most preferred source, 72% said they actively search for HIV/AIDS related information, and 80% said they give advice or tell others where to get such information.

Based on the findings information seeking is an important activity for this sample of people living with HIV/AIDS. They rely on health professionals far more than print or media sources and receive encouragement and support from family and friends. Information and support provided through other highly accessible channels such as health professionals, friends, peers, and selected print media for different groups would likely have a greater chance of being trusted and used. This study contributed to understanding the information preferences and practices of PLWHA and represents many of the diverse groups now affected by the epidemic. Results from this and future research can facilitate the development of better information services and education-based health interventions for the diverse groups now affected by the AIDS epidemic.

Another study conducted by Timothy P. Hogan & Carole L, "Under Information in the HIV+ Community" covered the information needs of PLWHA, the information sources they consult, their knowledge about HIV/AIDS, the barriers to HIVIAIDS information they face, and the impact that such information has on their lives. There were 35 questions on the survey instrument including several open-ended items, the last one asking respondents to share their experiences or suggestions about HIV/AIDS information. Focus group participants included HIV positive men and women of various ethnic backgrounds and socioeconomic status, as well as former intravenous drug users. The survey was distributed by staff members at AIDS service organizations, drug treatment centers, and various medical clinics around the United States..

The analysis indicated that respondents use many information sources but have a strong preference for doctors, followed by HIV+ counselors, and magazines. 43% of respondents selected doctors as their most preferred information source, and 70% selected doctors as one of their top three preferred sources. Looking at the PLWHA community in terms of demographics can help us understand the types of HIV/AIDS information reaching particular groups. However, understanding the role of information in improving the health and well-being of PLWHA requires the analysis of a wide range of information and health factors.

Knowledge on Mother to Child Transmission and Utilization of Services Designed to Prevent Mother to Child Transmission of HIV/AIDS among Pregnant Women in Hossana Town, Southern Ethiopia. The transmission of HIV from infected mothers to babies could occur during pregnancy, delivery and breastfeeding. For women to take advantage of measures to reduce transmission, they need to know about Mother to Child Transmission (MTCT) of HIV and their HIV status. The aim of the study was to assess the knowledge on MTCT and utilization of services designed for Prevention of Mother-To-Child Transmission (PMTCT) of HIV/AIDS among pregnant women. The sample size was determined by a single population proportion formula using the proportion of pregnant women who practiced services rendered for prevention of mother to child transmission of HIV/AIDS assumed to be 50%, a confidence level of 95%, and a 5% degree of precision. A non-response rate of 10% was also added. The Final sample size calculated was 422. Community based cross-sectional study was conducted at Hossana town from March 3 - 28, 2014 using pre-tested questionnaire and structured interviews. The collected data were analyzed using SPSS version 16. Descriptive statistics and logistic regression analysis

were done.

Out of the 417 pregnant women interviewed, 88.7% responded that they know MTCT of HIV. Of these 73.24% knew at least one period of transmission where as 19.73% of them knew the three periods (during pregnancy, labour and delivery and breast feeding). Findings of this study indicated that more than three fourth of pregnant women knew mother to child transmission of HIV/AIDS. Thus, health service planners, managers and providers should strengthen awareness creation activities on modes of HIV transmission in general and mother to child transmission in particular. Improving awareness of pregnant women about services available for PMTCT of HIV on mass Medias should be emphasized. Health care providers in maternal and child health service units should continue distributing information, communication and education materials.

A health institution based cross-sectional study was conducted in Mekelle zone from January to April 2007. The objective of the study was to assess knowledge, attitude and practice of the PMTCT of HIV among antenatal care mothers. A total of 461 pregnant mothers were interviewed from three health centers and one hospital. Proportional distribution of samples was carried out to attain the required sample size. Data were entered and processed into the computer using EPI info version 6 and SPSS version 10 statistical packages.

Based on the findings, 99.1% respondents had heard about HIV/AIDS of which, 92.7% mentioned the major routes of transmission and 94.8% knew that HIV could transmitted from an infected mother to her baby. Most of the respondents 93.9% knew that MTCT of HIV is preventable. Most mothers knew that HIV could be transmitted from Mother to her fetus and its preventive methods. Health education targeted on male partners, and community at large on PMTCT and VCT would have paramount importance using different sources. Intensive training and day-to-day supervision conducted for data collectors were the strength of the study. Limitation mentioned in this study was respondents may not reply openly to sensitive and private questions, the sample size was used with precision of 4% and institution based.

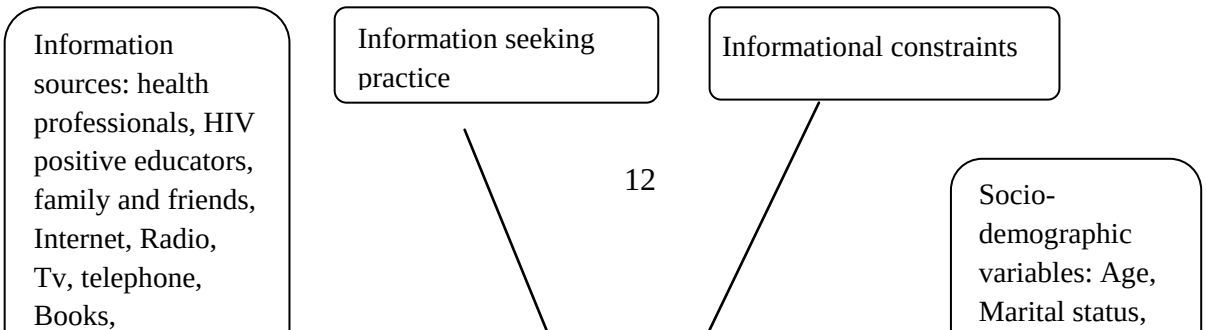
2.7. Conceptual framework

One of the most prominent models in information-seeking behaviour is that designed by Wilson (17). Wilson [17] considers information needs to be the foundation of information-seeking

behaviour. An information need is a recognition that your knowledge is inadequate to satisfy a certain goal that you have' (45). Information seeking helps to reduce or increase uncertainty, avoiding information can help PLWH maintain a desired level of uncertainty about aspects of their condition (17).

Information-seeking behaviour cannot solely be explained by needs but also by the level of perceived stress and, consequently, the coping strategies that patients use (17). Personal factors such as socio-demographic characteristics might also affect information-seeking behaviour. Information seeking can be explained by age, gender and education. These socio-demographic factors are important in explaining information needs and source use. The channel through which information is presented and the perceived credibility of the source affect information-seeking behaviour. Sufficient information normally enhances knowledge development (16).

This interdisciplinary model describes how people seek and make use of information, the channels they employ to gain access to information and the factors that inhibit or encourage information use. The model can be applied to assess knowledge on MTCT of HIV among HIV positive women and the overall process is shown briefly by the following diagram.



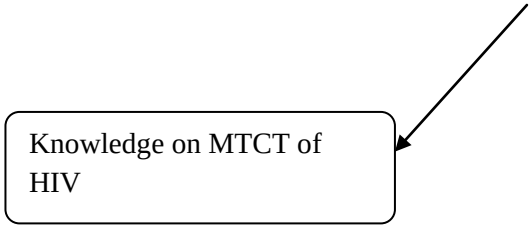


Figure 1: Knowledge on MTCT of HIV based on Wilson (11) Health information seeking behavior (HISB) theory.

3. Objective

3.1. General Objective

The main objective of this study is to assess the knowledge on MTCT of HIV among HIV positive women in Addis Ababa, Ethiopia.

3.2. Specific Objectives

The specific objectives are to:

- Assess the knowledge of MTCT of HIV among HIV positive women in the study area.
- Identify information source preference among HIV positive women in the study area.
- Investigate the information seeking behavior of HIV positive woman in the study area.
- Determine the barriers to utilize MTCT of HIV information among HIV positive women in the study area.

4. Methodology

4.1. Study Period and Area

The study is conducted from January to June 2017 in Addis Ababa City Administration to assess the knowledge and information source preferences regarding MTCT of HIV among HIV positive women attending ART and ANC at selected health centers. Addis Ababa were chosen because of high HIV prevalence (5.5%) (8).

Addis Ababa lies $9^0$1'48''N latitude and $38^0$44'24''E longitude. The city is located at the heart of the country, at an altitude ranging from 2100 meters at Akaki in the south to 3000 (9800 ft) meters at Entoto Hill in the North. Its time zone is categorized in East Africa Time (UTC+3). The city occupies a total area of 540 Sq.Km^2. Addis Ababa is a rapidly growing urban city both in terms of population and economy. One could also see the dynamism of the city in various aspects. Besides, it is the largest city in Ethiopia. According to 2007 census the city has close to three million inhabitants (3,273,000). The city has been experiencing a high population growth, compared to other cities in the country (48).

4.2. Study Design

- Facility based cross sectional study design that employed quantitative methods through interviewer administered structured questionnaire.

4.3. Source Population

- All HIV positive women who visited the selected health centers during the study period were considered as source of population for this study.

4.4. Study Participants

- HIV positive pregnant women who were attending ANC/PMTCT clinic and HIV positive women (15 – 49 years) who were getting ART service from the selected health centers during the data collection period were considered as study population for this study.

4.5. Sample Size Determination

The required sample size (N) for study was 423, using the formula of single population proportions (p) given by WHO (49). Therefore, by taking 50% population proportion (10), a 95% confidence interval and a margin of error of 5%, the sample size calculated to be 384. By adding a 10% non-respondents rate, a total of 423 respondents were used. The following formula is used for the sample size calculation.

$$n = \left(\frac{Z_{\alpha/2}}{D} \right)^2 p(1-p)$$

Where,

- N = the required sample size
- P = proportion in the targeted population estimated to have MTCT of HIV knowledge is 50%
- D = 5% margin of error tolerated
- Zα = 1.96 at 95% confidence level (alpha of 5%)

4.6. Sampling Frame/Sampling Procedures

The calculated minimum sample size of 384 was adjusted for non response and a total of 423 respondents were recruited into the study. There are 26 old/ high loaded health centers in Addis Abba City government Health Bureau HIV/AIDS Prevention and Control case team. The case load is ranged b/n 444 and 2462. The first stage was involved the selection of one old/ high case loaded health centers from 10 sub cities. A lottery method was used to select five health centers such as Addis Ketema, Arada, Teklehaymanot, Selam and Wereda 19 H.C's in stage two. Proportionate sampling method was used to allocate sample population among the five health centers based on the number of client flow. A sample of HIV positive women within the age group 15 – 49 years who attend ANC and ART clinics in the selected health centers was considered eligible for this study, and interviewed.

4.7. Inclusion and Exclusion Criteria

4.7.1. Inclusion Criteria

- Sexually active HIV positive women (15 to 49 years) who visited ART clinics to the selected health centers during the study period,
- HIV positive pregnant women who were on ANC/PMTCT follow up during the study period in the selected health centers and,
- HIV positive women who were consented to participate in the study.

4.7.2. Exclusion Criteria

- HIV positive woman who are very sick (physically or mentally) or had seriously ill, those who refused to participate in the study and
- Sexually active HIV positive woman below the age of 15 years and past the reproductive age of 49 was excluded from the study.

4.8. Data Collection Procedures

Interviewer administered structured interview questionnaire was used to collect data from the study participants. Originally the questionnaire were prepared in English language and translated to Amharic and the researchers made efforts to ensure uniformity in the questions asked to avoid interviewr error. Structured survey questionnaires were developed based on existing literature, published studies, and other materials with some modifications. The Amharic version was used for the actual data collection.

The questionnaire was structured in 4 sections. The first section was including 6 questions about the participant's socio-demographics characteristics. The second section was consisted of 6 questions addressed HIV/AIDS related knowledge and the third section was consisted of 8 questions about MTCT of HIV knowledge. The last section comprised of 6 questions concerning MTCT of HIV information source use, preferences, encouraging and supporting sources, information seeking behavior, characterizing information sources and barriers to utilize information sources.

Interview was carried out in the five study places (Addis Ketema, Arada, Teklehaymanot, Selam and Wereda 19 H.C’s). The data was collected through a face to face interview by trained data collectors (B.Sc Nurses and Midwifes, who were in charge at time of interview (10 trained nurses or midwives - 2 from each site). No personal identifying information was collected. On average interviews lasted from 15 to 20 minutes to complete, and all responses were written in Amharic. One day training was given for supervisor and data collectors about the objective of the study, maintaining privacy and confidentiality by the principal investigator. Moreover, one supervisor were available through out the data collection period and the principal investigator was monitored the entire process.

HIV positive pregnant and non pregnant women and those who were in the reproductive age group of 15 to 49 years were invited to participate in the survey questionnaire either up on arrival or upon exit.

4.9. Data Quality Assurance

All steps in data collection method were followed carefully and checked for consistency and completeness. The collected questionnaires were checked for its consistency and completeness by the supervisor and submitted the filled questionnaire to principal investigator. Missed or incomplete questionnaire was returned to data collectors for correction. Data cleaning was made manually by removing incorrectly filled or missed and conflicting ideas and responses to questions about relevant information.

4.10. Study Variables

4.10.1. Dependent Variables

- MTCT of HIV knowledge.

4.10.2. Independent Variables

- The socio demographic characteristics: Age, marital status, educational status, religion, ethnicity, and occupation.

4.11. Data Analysis Procedures

All responses to the survey questionnaires were coded against the original English version and entered using epi Info Version 7.0 software. The entered data were validated for consistency and inspected for outliers to identify any wrong values. Data cleaning was made manually by removing missing/conflicting ideas and responses to questions about relevant information.

The final data was imported into SPSS V. 20 for analysis. Relevant variables were further cleaned, re-categorized and recorded using SPSS Version 20. Then the edited data were analyzed and interpreted using the following parameters: Age reported as means and standard deviations,

while categorical variables were described through absolute (n) and relative (%) frequencies. Socio-demographic variables associated with knowledge on timing of MTCT of HIV were investigated by using binary logistic regressions. Significant association among study variables and interpretation of data was done using 95% confidence interval and a two sided p-value $\leq$ 0.05. Study findings of this study were presented using words or explanations, tables and bar graphs as necessary. The responses from health centers were combined during the analysis of the results, and no attempt was made to distinguish between the facilities.

Women's knowledge on timing of MTCT of HIV is the dependent variable of the study. Women was considered aware of the possibility of MTCT of HIV when they report HIV could be transmitted from an infected mother to her child. Women's knowledge on timing of MTCT of HIV was categorized in two groups as followed. Some (lack) knowledge on timing of MTCT of HIV: when a woman reported one or two possible periods of MTCT of HIV (pregnancy, labor/delivery, during breast feeding). Full (good) knowledge on timing of MTCT of HIV: when a woman reported all the three possible periods of MTCT of HIV.

4.12. Operational Definitions

- **Information seeking:** Is a means to reduce or increase uncertainty, avoiding information can help PLWH maintain a desired level of uncertainty about aspects of their condition.
- **Information need:** Is an individual or group's desire to locate and obtain information to satisfy a conscious or unconscious need**.**
- **Knowledge:** The fact or condition of being aware of HIV/AIDS and MTCT of HIV pandemic among HIV positive women.
- **Some (lack) knowledge on timing of MTCT of HIV:** when a woman reported one or two possible periods of MTCT of HIV (pregnancy, labor/delivery, during breast feeding).
- **Full (good) knowledge on timing of MTCT of HIV:** when a woman reported all the three possible periods of MTCT of HIV.

4.13. Ethical Consideration

Ethical clearance is needed for the following points: to be accountable/legal for the collected data, to assured respondents for the confidentiality of data, to be accountable for sensitive issues

related to security, reliability, etc, and any benefits from the study. Ethical clearance was obtained from Addis Ababa University Medical Faculty Review Committee before starting the actual work. Support letter was obtained from the concerned bodies of the Addis Ababa City Government Health Bureau and Sub city Health Offices. Support letter was submitted and clear explanation was given about the purpose, duration, and data collection methods of the study in each health center.

The study subjects were approached while waiting for their monthly check up. The data collector read (inform verbally) the consent for the interviewee before beginning the interview. Questionnaires were administered by the data collector in a private room. The data collector informed the clients about the purpose and significance of the study and then invites them to participate in the study. Also data collector informed participants about the possible advantages and inconveniences of participating in this study, such as the time to be spent and will be informed that they could withdraw at any time if they wish; they will participate in the study voluntarily. Information about the participants was kept confidential as only people involved in the study had access to it and participants' anonymity were ensured by allocation of a number for each participant instead of using their names or personal identifiers. The risk associated with participating in the study, such as emotional stress, was kept to a minimum.

4.14. Dissemination of Results

The final report of the study will be submitted to Addis Ababa University, School of Public Health and Information Science, Department of Health Informatics for partial fulfillment of masters of Science in health informatics. It will also be sent to Addis Ababa City Government Health Bureau, Sub city health offices and health centers. All attempts will be made for presenting the results of this study on conferences as well as to be published and easily accessed by users.

5. Results

Four hundred twenty three interviewer administered questionnaire were distributed across five governmental health centers in Addis Ababa, Ethiopia. Of those questionnaires, 404 HIV positive women responded to the questionnaire making the response rate of the study 95.5%.; 19 (4.5%) questionnaire were unusable because of incompleteness of responses.

5.1 Socio-demographic characteristics of the respondents

The findings showed that the age range of the respondents was between 17 and 49 years, with the mean age (±SD) of 32.2 (± 6.4) years. Majority 46.7% of the respondents were aged between 25 - 34 years and 39.6% were aged between 35 – 49 years. Majority (61.6%) of the respondents are unmarried, while (38.4%) are married. Majority (80.9%) of the study participants had elementary education and above. More than half of the respondents (62.4%) were Orthodox Christians. Regarding their ethnicity, (46.0%) of the study subjects was Amhara followed by Oromo

(27.7%). Nearly half of (26.0%) and (25.4%) of the respondents were government employee and house wife respectively (See table 1 for detail).

Table 1: Socio-demographic characteristic of HIV positive women in Addis Ababa, Ethiopia, 2017

Variable	Parameters	Frequency	Percentage
Age (years)	*15 – 24*	55	13.6
	25 – 34	189	46.7
	35 – 49	160	39.6
Marital status	Married	155	38.4
	Unmarried	249	61.6
Educational status	*Unable to read and write*	34	8.4
	Only able to read and write	43	10.6
	Attended elementary school (Grades 1 - 6)	61	15.1
	Attended high school (Grades 7 - 12)	182	45.0
	Attended University/College	84	20.8
Religion	*Orthodox*	*252*	*62.4*
	Muslim	*83*	*20.5*
	Other (Catholic, Protestant)	*69*	*17.1*
Ethnicity	*Amhara*	*186*	*46.0*
	Oromo	*112*	*27.7*
	Tigre	*62*	*15.3*
	Others (Gurage, hadya)	*44*	*10.9*
Occupation	*House wife*	101	25.0
	Government employee	105	26.0
	Commercial sex worker	15	3.7
	House maid	25	6.2

	Daily Laborer	35	8.6
	Other (marchant, students, farmer & private workers)	123	30.4

5.2. Awareness and HIV/AIDS related knowledge among the respondents.

Table 2 shows multiple responses in relation to the awareness, sources of information and knowledge of HIV/AIDS, indicated that all the respondents interviewed were aware of HIV/AIDS. The findings showed that, majority, 93.3% of the respondents identified sexual intercourse as a route of transmission of HIV. Sharing of contaminated sharp instruments and needles were identified as routes of transmission by 71.5% and 43.1% respectively.

The findings revealed that 68.1% of the participants were mentioned weight loss, and 54.2% skin rashes while boils (19.1%) was the least mentioned. The most known method of avoiding getting HIV infection was by use of condom 80.4%, followed by not sharing sharp objects 70.0%, abstaining from sex 58.7%, and being faithful to spouse 56.9%. Majority 99.2% of the respondents knew that HIV was not curable but palliative.

Table 2: Awareness and HIV/AIDS related Knowledge by HIV positive woman in Addis Ababa from January 2016 to April, 2017 (N=404).

Variables	**Parameters**	**Number**	**Percentage**
Heard of HIV/AIDS	Yes	404	100.0
	No	-	-
Route of HIV transmission	Un protected sexual intercourse	377 (93.3)	27 (6.7)
	Use of contaminated sharp instruments	289 (71.5)	115 (28.5)
	Use of contaminated needles	174 (43.1)	230 (56.9)
	Blood transfusion (infected)	143 (38.4)	261 (61.6)
	Labor and delivery	134 (33.2)	270 (66.8)
	Pregnancy	116 (28.7)	288 (81.3)

	Breast feeding	106 (26.2)	298 (73.8)
Sign and Symptoms of HIV	Weight loss	275 (68.1)	129 (31.9)
	Skin rash	219 (54.2)	185 (55.8)
	Cough (> 30 days)	195 (48.3)	209 (51.7)
	Diarrhea (> 30 days)	191 (47.3)	213 (52.7)
	Herpes zoster	188 (46.5)	216 (53.5)
	Fever	101 (25.0)	303 (75.0)
	Boils	77 (19.1)	327 (80.9)
	Others (Anorexia, dyspepsia, mouth ulcer, etc)	37 (9.2)	-
Methods of HIV prevention	Use of condoms	325 (80.4)	79 (19.6)
	Not sharing sharps	283 (70.0)	21 (30.0)
	Be faithful	230 (56.9)	74 (40.1)
	Abstinence	237 (58.7)	67 (41.3)
	I don't know	4 (0.8)	-

5.3. HIV positive women's awareness and knowledge on timing of MTCT of HIV

In this study, 98.8% of study participants were aware of the fact that HIV could be transmitted from an infected mother to her child. Regarding knowledge on timing of MTCT of HIV, among who were aware of MTCT of HIV (n= 399), the most known reported timing of MTCT of HIV was pregnancy (78.7%) followed by labor and delivery (66.8%), and breastfeeding (66.1%). There were women who were aware of MTCT of HIV, but did not mention any of the correct timing of MTCT of HIV (7.2%). In this study, the percentage of respondents who had some knowledge on timing of MTCT of HIV (who reported one or two possible periods of MTCT of HIV) was 56.9% and who have full knowledge on the timing of MTCT of HIV (who reported three possible periods of MTCT of HIV) was 43.1% (See table 3 for detail).

Table 3: Awareness and MTCT of HIV Knowledge by HIV positive woman in Addis Ababa, 2017 (N=404)

Variables	Yes	No
	Frequency (%)	Frequency (%)
Heard of MTCT of HIV (N=404)	399 (98.8)	5 (1.2)
Knowledge on timing of MTCT of HIV (N=399)		
During pregnancy	318 (78.7)	81 (22.3)
During labor and delivery	270 (66.8)	129 (33.2)
During breast feeding	267 (66.1)	132 (33.9)
I don't know	29 (7.2)	-
MTCT of HIV prevention		
Giving ART drug to pregnant women	345 (85.4)	54 (14.5)
Avoiding breastfeeding by HIV infected mothers	193 (47.8)	206 (52.2)
Aborting pregnancies of HIV infected women	37 (9.2)	362 (91.8)
Vaccine	25 (6.2)	374 (93.8)
Caesarean Section	11 (2.7)	388 (97.3)
Traditional therapy	8 (2.0)	391 (98.0)
I don't know	19 (4.7)	380 (95.3)
Discussion points		
Did your PMTCT/ART service provider discuss about family planning & child bearing?	356 (88.1)	43 (11.9)
Did your PMTCT/ART service provider discuss about dual protection (using condom)?	318 (78.7)	81 (22.3)
Did your PMTCT/ART service provider discuss about the risk of Unintended pregnancies?	307 (76.0)	92 (24.0)
Did your PMTCT/ART service provider discuss about STI's?	291 (72.0)	108 (28.0)

Coming to prevention of mother-to-child transmission (MTCT) of HIV, as reported by the respondents, 85.4% suggest use of ART followed by avoiding breastfeeding by HIV infected mothers (47.8%) while 6.2% and 2.0% believed that there is vaccine and traditional therapy respectively. Almost above seventy percent of women have had a discussion on FP and child bearing, condom (dual protection), unintended pregnancy and STI's with their ART and antenatal care service provider during their visit (see table 3 for detail).

Concerning the transmission rate of MTCT of HIV from infected mother to child, 41.6%, 26.0% and 3.5% of the respondent rated as high, medium, and not transmitted during pregnancy respectively (See fig 2).

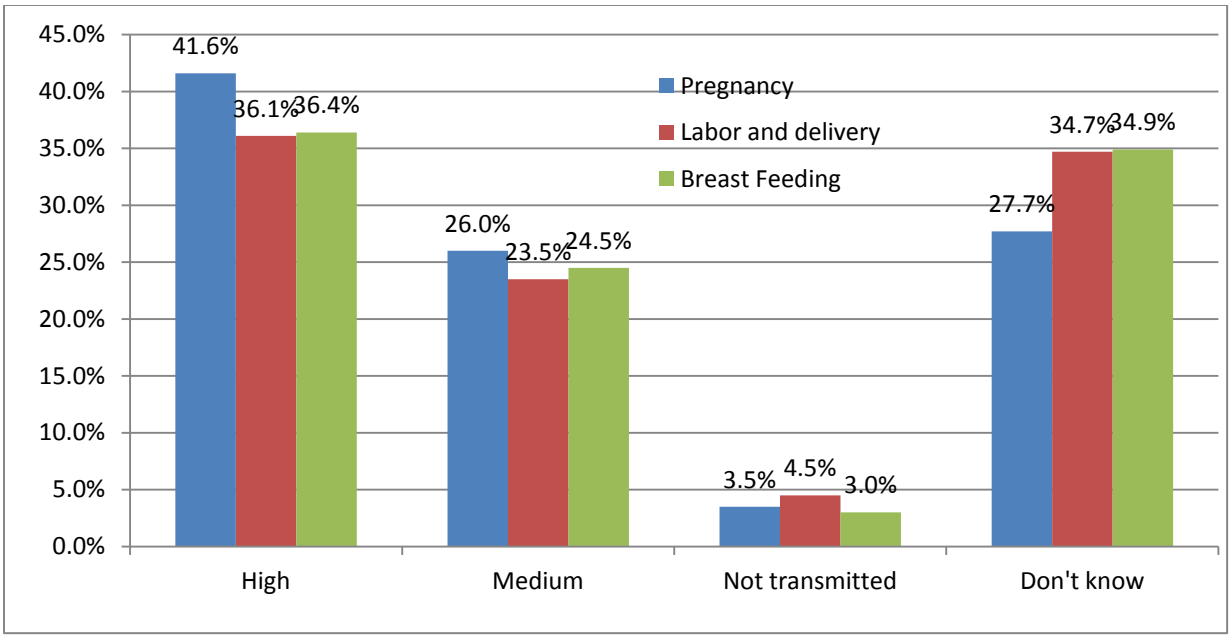


Figure 2: R**ate of MTCT of HIV transmissioitive among HIV+ women in Addis Ababa, Ethiopia, 2017**

5.4. Socio-demographic characteristics associated with knowledge on timing of MTCT of HIV

Bivariate analysis showed that the socio-demographic characteristics of HIV+ women such as marital status, educational status, and occupation were significantly associated with the knowledge on timing of MTCT of HIV ($p \leq 0.05$) (See table 4 for detail).

Regarding marital status, married women were 47% less likely knowledgeable on MTCT of HIV as compared to unmarried respondents (AOR = 0.53, 95% CI: 0.33 - 0.85). HIV positive women who were able to read and write found to be more knowledgeable on MTCT of HIV, (AOR = 21.68; 95% CI: 4.72 - 99.69) than college/ university. On the other hand, there was a statistically significant difference of knowledge on timing of MTCT among women's occupation; housemaid and daily laborer were more knowledgeable (AOR= 3. 44, 95% CI: 1.18 – 10.06) and (AOR = 4.67, 95% CI: 1.45 – 14.97) on MTCT of HIV than students, and private workers. This might be due to lack of recognition as well as discussion with health care providers and those

attended elementary and higher education may consider themselves as knowledgeable. However; there was no statistically significant difference of knowledge on timing of MTCT with regards to women's age, religion and ethnicity.

Table 4: Binary logistic regression results on socio-demographic characteristics of HIV+ women's and timing of MTCT of HIV knowledge, Addis Ababa, 2017

Variables	Parameter	Complete Knowledge		P-value	COR (95% C.I)	P-value	AOR (95% C.I)
		Yes	No				
Marital Status	**Married**	80	75	**0.01**	**0.57 (0.38- 0.85)**	**0.01**	**0.53 (0.33-0.85)**
	Not Married	94	155	1.00			
Education	**Unable to read and write**	10	24	**0.01**	**3.20 (1.36-7.52)**	0.09	2.34 (0.88–6.28)
	Only able to read and write	2	41	**0.00**	**27.33 (6.20-120.5)**	**0.00**	**21.68 (4.72 - 99.69)**
	Grades 1 – 6	18	43	**0.00**	**3.19 (1.58 - 6.41)**	0.07	2.09 (.96- 4.59)
	Grades 7 – 12	96	86	0.50	1.19 (0.71 - 2.01)	0.73	0.90 (0.49 - 1.64)

	Attended University/College	48	36	1.00			
Occupation	**House wife**	57	48	**0.05**	**1.71 (1.01–2.90)**	0.12	1.59 (0.88-2.92)
	Government employee	62	60	0.59	0.87 (0.52 - 1.45)	0.83	1.07 (0.59 - 1.94)
	Commercial Sex Worker	38	63	0.09	2.86 (0.89 – 9.37)	0.54	1.50 (0.41 - 5.53)
	House maid	9	31	**0.01**	**4.13 (1.46–11.65)**	**0.02**	**3.44 (1.18-10.06)**
	Daily Laborer	4	24	**0.00**	**6.19 (2.03–18.83)**	**0.01**	**4.67 (1.45-15.0)**
	Other(marchent, students, farmer & private workers)	4	4	**1.00**			

5.5. Information sources on HIV utilized by HIV positive woman

As presented in table 5, many of them had multiple sources of awareness. In this study the main source of information utilized were Health Professional's / Health Institution's 68.8%, while news paper/ leaflets/ books 12.9% and others (tesfa goh, internet and AIDS campaign) were the least. The responses indicated that 52.2% and 44.8% of the study participants were used TV and Radio respectively.

Table 5: Information sources on HIV utilized by HIV positive woman in Addis Ababa, 2017 (N=404)

Variables	Parameters	Number	Percentage
HIV information sources	Health Professional's/ health institutions	278	68.8
	Television	211	52.2
	Radio	181	44.8
	Friends and neighbors	108	26.7
	Social ceremonies (edir, coffee ceremony)	105	25.9
	Schools/ teachers	96	23.8
	Family members	67	16.6

	News paper/Leaflets/Books	52	12.9
	Others (Tesfa goh, compaign and internet)	8	1.8

Percentages were calculated using the number of actual responses to the question.

5.6. Information source preferences among HIV+ women

The survey explored respondents' assessments of MTCT of HIV information sources along several lines. The findings of this study indicated that respondents use many information sources but have a strong preference for health professionals/ health institutions, followed by HIV+ peer educators, and TV. As shown in figure 3, 71.5% of respondents selected health professionals/ health institution as their top first preferred choices, and 92.3% ranked HP's/HI's in their top 3 choices. HIV+ peer educators (13.1%) and TV (6.2%) had the 2nd and 3rd first choices but were more than 5 and 6 times lower than HP's/HI's respectively. The most preferred second sources were HIV+ peer educator, TV and radio at 31.2%, 22.5% and 13.6% respectively. Also 19.8%, 18.6% and 15.2% of the respondents were ranked radio, TV and HIV+ peer educators as the top third preferred sources. Traditional healers, book and telephone hotline at 1.4%, 1.2% and 1.0% respectively had very low ''first choices'' frequencies (See figure 3 for detail).

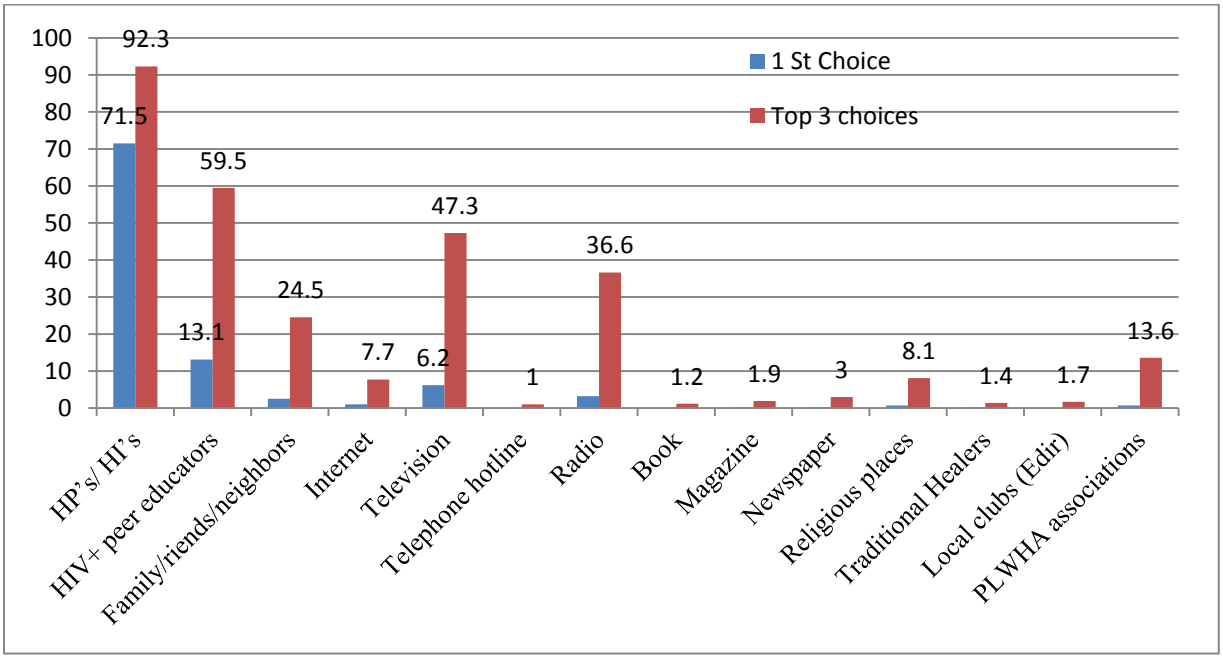


Figure 3: Information source preferences among HIV positive woman in Addis Ababa, 2017

(N=404)

5.6. Information sources that ‘‘encourage and support” HIV+ women to make positive actions

In separate question, respondents were asked what information sources ‘‘encourage and support you to take positive actions to deal with MTCT of HIV?”. The health professionals were again rated highest, with 97.3% of respondents followed by HIV+ positive peer educators (69.6%). Internet and telephone hot line were the least information sources, at 13.4% and 11.4%, respectively, while traditional healers with 6.4% of respondents listing them.

Table 6: Encouraging and supporting information sources to make positive actions among HIV positive woman in Addis Ababa, 2017 (N=404).

Information sources	Frequency	Percentage
Health professional	393	97.3
HIV+ peer educators	281	69.6
Television	213	52.7
Radio	191	47.3
Family, friends & neighbors	164	40.6
Religious places	113	28.0
PLWHA association	102	25.2
Books	86	21.3

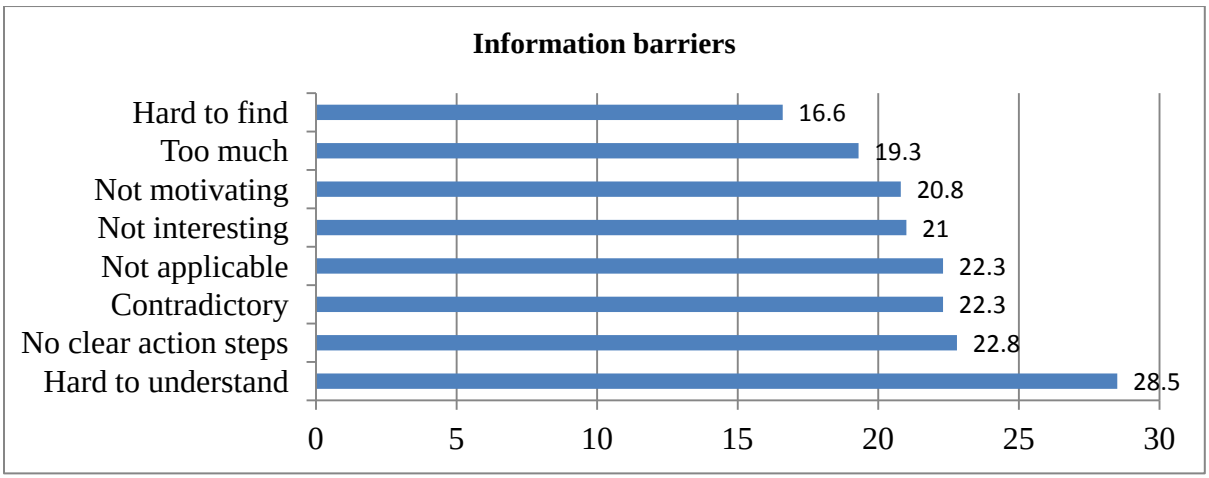
Magazines/leaflets	83	20.6
Newspapers	83	20.5
Local clubs (edir)	71	17.6
Internet	54	13.4
Telephone hotline	46	11.4
Traditional healers	26	6.4

Percentages were calculated using the number of actual responses to the question.

5.7. Barriers to utilize MTCT of HIV Information sources

As illustrated in Figure 4, the most selected barriers were ‘‘hard to understand’’ at 28.5%, “ not provide clear action steps” at 22.8%, “not applicable” and “contradictory” at 22.3% while the least selected barriers were ‘‘hard to find’’ at 16.6%.

Figure 4: Barriers to utilize MTCT of HIV information among respondents in Addis Ababa, 2017



Percentages were calculated using the number of actual responses to the question.

5.8. Information seeking and sharing behavior among HIV positive women

As shown in Table 7, Majority of respondents agreed or strongly agreed that they were learning new MTCT of HIV information, feel good about themselves when they seek out new MTCT of HIV information and they were confident to find MTCT of HIV information respectively. In this study 62.2% agreed or strongly agreed that it was easy to feel overwhelmed by MTCT of HIV information while 61.7% disagreed or strongly disagreed that at times it was better not to seek information.

Table 7: Information seeking and sharing behaviours among respondents in Addis Ababa, 2017 (N=404)

Survey questions	Strongly disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly Agree (%)
Learning new MTCT of HIV information helps to keep me healthy	2.0%	0.5%	1.0%	66.6%	30.0%
I feel good about myself when I seek out new MTCT of HIV information	1.7%	4.2%	4.9%	66.8%	23.3%
I am confident that I can find MTCT of HIV information I want and need	1.7%	3.0%	7.2%	67.3%	20.6%
It is easy to feel overwhelmed by MTCT of HIV information	1.5%	7.7%	28.7%	52.5%	9.7%
At times it is better not to seek more MTCT of HIV information	14.9%	46.8%	24.3%	12.9%	1.2%

I actively search for new MTCT of HIV information	2.0%	3.2%	13.1%	66.6%	15.1%
I regularly read things that help me learn more about MTCT of HIV	1.5%	4.0%	26.2%	54.5%	13.9%
I try to give friends advice about MTCT of HIV or tell them where to go to get more MTCT of HIV information	2.2%	4.7%	16.1%	55.0%	22.0%

Note: Percentages were calculated using the number of actual responses to the question.

5.9. Characterizing MTCT of HIV Information sources

In a separate question, respondents were asked to characterize how useful, available, understandable, and trustworthy 14 different MTCT of HIV information sources were to them, using a 3-point Likert scale. Together, these information attributes might be considered an assessment of reliability and quality. Table 8 presents the percentage of respondents who gave the sources the highest possible rating. People, including health professionals, and HIV+ peer educators were rated more highly than print information followed by media. Health Professional's/Health Institution's, and HIV+ peer educators were considered the most useful, available, understandable and trustworthy sources followed by TV and Radio. While the sources had notable differences in terms of how useful, available, understandable, and trustworthy they were. Traditional healers were judged the least useful, available, understandable and trustworthy information sources.

Table 8: Characterizing MTCT of HIV information sources among respondents in Addis Ababa, 2017 (N=404)

Information sources	Usefulness of the source	Availablity of the source	Understandability of the source	Trustworthyness of the source
Health professional/ Health institution	89.9%	84.7%	82.4%	90.1%
HIV+ peer educators	61.1%	52.5%	51.7%	55.9%
Television	47.5%	41.3%	34.9%	40.1%

Radio	39.1%	34.9%	31.7%	36.1%
Family, friends & neighbors	29.5%	33.9%	25.7%	24.0%
PLWHA association	26.2%	19.1%	22.5%	25.2%
Religious places	21.3%	21.3%	21.0%	23.3%
Internet	14.4%	9.2%	9.9%	6.9%
Magazines/leaflets	10.4%	8.7%	9.4%	10.4%
Books	9.7%	7.7%	9.7%	9.2%
Newspapers	8.2%	6.7%	7.2%	8.4%
Local clubs (edir)	6.7%	5.0%	7.2%	5.2%
Telephone hotline	6.2%	7.2%	7.7%	7.4%
Traditional healers	3.7%	3.2%	3.5%	4.0%

Percent who responded ‘‘a lot’’ on a 3-point scale ranging from 1 ‘‘a little’’ to 5 ‘‘a lot’’
Note: Percentages were calculated using the number of actual responses to the question.

6. Discussion

The objectives of the study was first to assess the knowledge levels of HIV positive women on the timinig of MTCT of HIV. The second was to identify the preferred sources of information on MTCT of HIV among HIV positive women in Addis Ababa. The third and final objective was to determine the barriers to utilize MTCT of HIV information and investigate the information seeking behavior of HIV positive woman in the study area.

The first objective of this study was to assess HIV+ women’s knowledge on timing of MTCT of HIV. Beyond HIV positive womens knowledge on timing on MTCT of HIV this study try to assessed women’s HIV awareness, mode of transmission and prevention. The findings from this study reveal that 100.0% of HIV positive women were aware of HIV. This finding was similar to a study conducted in Cameroon (100%), Mekelle (99.1%), Ethiopian women (98.1%), and Hossana (98.3%) (23, 27, 28, & 25).

In this study the most known method of prevention of HIV infection was by use of condom (80.4%), followed by not sharing sharp objects (70.0%), abstaining from sex (58.7%), and being faithful to spouse (56.9%). A study conducted in the general population of Ethiopia, 58.0% of women age 15 - 49 know that consistent use of condoms is a means of preventing the spread of HIV. 69% of women know that limiting sexual intercourse to one faithful and uninfected partner can reduce the chances of contracting HIV (10).

Though all respondents in this study were aware of HIV with almost all (98.8%) of women were aware of the possibility of MTCT of HIV from an infected mother to her child. This finding is similar in a study conducted among HIV positive women in Nigeria (99.0%) and Mekele (94.8%) (24, 27) but higher than a study conducted among antenatal women in Sebeta town (74.6%) and Cameroon (79.3%) (26, 23). The difference of awareness may be due to HIV status of the respondents and period of study.

Furthermore, only 43.1% of women who were aware of MTCT of HIV in this study had full knowledge on the timing of MTCT. This finding is inconsistent with the 2016 EDHS findings where MTCT knowledge in the general population was 48.0% (10). This finding is lower than a study conducted in Assosa Town among antenatal women (57.5%) (21) and a study of Ethiopian women (59.0%) (28). On the other hand the finding of this study is higher than a study conducted in Nepal among PLWHA (18.0%) and SNNP (11.5%) among pregnant women (31, 22). This shows that HIV positive women were well aware of MTCT of HIV but lack knowledge of MTCT of HIV. This difference maybe due to the fact that ART/PMTCT service provider may not give adequate and timely information to their clients.

As noted in this study, the possibility of HIV transmission through breastfeeding was known by 66.1% of HIV+ women, which is less than the 2016 Ethiopian Demographic and Health Survey data where 87.2% of women in Addis Ababa knew that HIV could be transmitted through breastfeeding (10). This study was lower than a study conducted among HIV+ women reported that HIV could be transmitted through breast feeding (89.1%) (28). The findings of this study revealed that MTCT of HIV during pregnancy was quoted by nearly 78.7%. Likewise, this study agreed with a study conducted among Ethiopian HIV-positive women (78.4%) answered that HIV could be transmitted through pregnancy (28).

Generally, in this study the knowledge of HIV positive women about MTCT of HIV during pregnancy, labor & delivery and breast-feeding was 78.7%, 66.8% and 66.1% respectively. The result of this study is not consistent with the findings from Mekele among pregnant women attending ANC about MTCT of HIV during pregnancy, labor & delivery and breast feeding were 95.9%, 93.6% & 91.5% (27). The findings of this study higher than a study conducted in Assosa town at 33.5%, 33.6%, and 32.8% during pregnancy, labor & delivery and breast feeding respectively (21).

In this study, use of medications (ART) could be taken to avoid MTCT of HIV during pregnancy were 85.4%. This study is consistent with EDHS study among Addis Ababa (87.2%) and Amhara (83.0%) women (10). This result are higher than the results obtained from Ethiopia (67.5%), Mekele (58.9%), Gondar (58.4%), Assossa (36.9%) and SNNPR (40.1%) (28, 27, 33, 21, & 22). The finding of this study is much lower than findings from Cameroon (95.8%) (23) and Nigeria (99.3%) (29). Knowledge regarding PMTCT is higher in urban areas, and highest in Addis Ababa, and increases with increasing education and wealth (10). This finding somewhat suggests a positive attitude towards the use of ARVs by infected mothers that helps to reduce the risk of infecting their babies.

On the other hand, avoiding breastfeeding by HIV infected mothers mentioned by (47.8%) of HIV+ women in this study which is higher than 34.9% (21) and much lower than by half (90.9%) of pregnant women by abstaining from breast feeding (27). This is a noteworthy and contemporary issue, breastfeeding is the cultural norm and exclusive breastfeeding is advocated because of high infant mortality and morbidity from diarrheal diseases and malnutrition. This may be contributing for raising the number of new paediatric infections. Thus, adherence advice approach should include raising awareness on timing of MTCT and ARV's, as well as encouraging safe breastfeeding practices.

In this study, the most utilized sources of HIV information were Health Professional's / Health Institution's with 68.8%, while news paper/ leaflets/ books with 12.9% were the least. In a study conducted by Yusuf Felicia *et al.* (38) Television has the highest frequency (87.8%), while herbalist has the least and in other study television was also the highest ranked source (23). In this study 52.2% and 44.8% of the study participants were used TV and Radio respectively. In

consistent with this study, radio (48.8%), and television (37.8%) were used by mothers attending the pediatric HIV clinic (29).

Concerning the second objective of this study, the preferred sources of information on MTCT of HIV for HIV positive women were health professionals/ health institutions followed by HIV+ peer educators and TV were highly preferred while the least preferred sources were traditional healers, book and telephone hotline. In a study conducted in HIV community, 43% of respondents selected doctors as their most preferred information source, and 70% selected doctors as one of their top three preferred sources (14). Doctors and other health professionals, the central information source, can do much to help PLWHA learn which sources are most trustworthy (41). In this study internet was listed as one of their top 3 information sources (7.7%). Similarly internet was listed as one of their top three information source in a study of Hogan and Palmer (14).

This is more or less similar to a study conducted in the country, where the majorities (98.1%) have obtained useful information from health professionals, and moreover, the married were more likely to get useful and encouraging information from many sources, including health professionals, television, magazines and newspapers (39). Similarly in other study, friends and family are key providers of encouragement and support for the PLWHA (41). In this study family, friends and neighbours also listed in their top three sources (24.5%). In opposite to this study, Huber and Cruz (37) find that newsletters and magazines are more highly rated sources of information than personal physicians and friends. Again in a study conducted among 205 HIV positive men and women, Huber and Cruz (37) find that AIDS newsletters, magazines, and personal physicians are the three most popular sources of information for PLWHA, followed by information from friends, pamphlets, and brochures.

Regarding the third objective, the most commonly mentioned barrier to MTCT of HIV information use was‘‘hard to understand’’ at 28.5%, followed by “not provide clear action steps” at 22.8%, “not applicable” and “contradictory” at 22.3% while the least selected barriers were ‘‘hard to find’’ at 16.6%. In opposite to this study, a study conducted in Addis Ababa, Ethiopia also reported that about 29.7% of the respondents cited the availability of too much information as the main barrier to information use (39). In study of innformation preferences and practices

among people living with HIV/AIDS: Hard to understand (35%), don't trust (38%), too much (35%), no clear action steps (32.0%) and hard to find were the least mentioned barrier (8.0%) (41). The findings may suggest that giving the right information, and tailoring information that should be readable, understandable, non contradictory and providing clear action steps.

In this study about 89.9% said that a lot useful, 84.7% a lot available, 82.4% a lot understandable and 90.1% a lot trustworthy MTCT of HIV was health professionals. In another study by Hogan and Palmer (41), People, including health professionals and individuals from the respondents' personal lives, were rated more highly than print information and other media. Doctors, peer educators, nurses, and case managers were considered the most trustworthy sources, and they were seen as the most useful and understandable sources (41). In this study HIV positive peer educators were the second most useful, available, understandable and trustworthy sources. Likewise, consistent with Hogan and Palmer study HIV-positive peer educators were useful (35%), available (34.0%). Understandable (39.0%) and trustworthy (36.0%) (41). This finding shows that health professionals and HIV positive peer educators are the sole primary utilizable and preferred sources of information for HIV positive women on PMTCT/ART clinic.

The last objective of this study was to investigate the information seeking behavior of HIV positive woman. Majority (96.6%) of them agreed or strongly agreed that learning new HIV information helps to keep them healthy. This study was consistent with a study conducted in Addis Ababa, Ethiopia 92.3% of people on ART agreed or strongly agreed that learning new HIV information helps them to be healthy (39). In other study, PLWHA see HIV information as a resource that helps to keep them healthy (41).

In this survey, about 90.1% also agreed or strongly agreed about feeling good when they seek for new HIV information and about 87.9% were confident in their abilities to find HIV information. Similarly, in USA, even though seeking new HIV information helps the study participants to feel better about them, Hogan and Palmer (41) had found in their study that substantial number of the respondents lacks the confidence in getting the information they need.

In this study 62.2% agreed or strongly agreed that it was easy to feel overwhelmed by MTCT of HIV information while 61.7% disagreed or strongly disagreed that at times it was better not to

seek information. This study agreed with Hogan and Palmer (41), 71% of respondents were overwhelmed with information, and 43% of strongly disagreed that at times it was better not to seek information. Giving advice about HIV or telling them where to get the information to friends is agreed or strongly agreed upon by 77.0% of the respondents. The findings suggest that information seeking and sharing is clearly an important activity in the lives of HIV positive women.

8. Strength and Limitations of the study

Strength

- This study is primarily conducted to obtain relevant information that provides an insight on MTCT of HIV knowledge among HIV positive women.
- The other strength of this study is that it tried to investigate information sources, source preferences, barriers to utilize, characterizing information sources, and information seeking behavior of HIV positive women.
- However, being a pioneer it will be helpful to give insight on the issue for further studies to improve awareness/knowledge levels.

Limitations

- The limited funds and time, did not allow to conducting qualitative study. This may have implications on the extent to which the findings can be interpreted.
- The other limitation of the study is the use of health professionals for data collection as it was very important due to confidentiality. This may bias the respondents to provide responses that are agreeable with health professionals.

9. Conclusion and Recommendations

Conclusion: The results of this study revealed important points with regard to MTCT of HIV knowledge among HIV positive women on ANC and ART clinic:

- Majority of the respondents were between the ages of 25 and 34 years. These were the productive years of women.
- The majority of the study participants had able to read and write.
- In as much as there are high levels of awareness regarding MTCT, knowledge regarding on timing of MTCT in the study area was low.
- Findings also showed that health workers and HIV+ peer educators are the preferred sources of information followed by TV. The importance of print information sources should not be ignored. However, books, megazins/ leaflets, news paper are less preferred.

- In this study learning and seeking new MTCT of HIV information helps to keep them healthy, feel good and confident. This shows that information seeking is clearly an important activity for HIV positive women.
- The most commonly mentioned barriers in utilizing MTCT of HIV information sources were “hard to understand”, “not provide clear action steps”, “not applicable” and “contradictory”.
- Health workers and HIV+ peer educators the most highly useful, available, reliable and trusted sources of information to the women. So they are considered as sole agents for women’s information need.

Recommendations:

- Health workers and HIV+ peer educators need to be given continuous medical education regarding MTCT of HIV since they are the preferred, useful, available, understandable and trusted sources of information for HIV positive women.
- During adherence, more attention and emphasis needs to be given on providing accurate and up-to-date knowledge on MTCT of HIV related issues and complemented by using appropriate channels of information.
- These findings may therefore be used to develop educational materials regarding MTCT of HIV. Print materials regarding MTCT of HIV related issues should be available since majority of the respondents able to read and write. Health workers may talk with clients but also give them pamphlets/ brouchers to read. Similarly it can reduce the burden of HIV positive peer educators, ART and PMTCT service providers.
- Health service planners and managers should strengthen awareness creation activities on modes mother to child transmission of HIV among HIV positive people attending ART and PMTCT service.
- The Federal and Addis Ababa HAPCO offices and other organizations work on HIV/AIDS prevention and control,
    - Should develop new MTCT of HIV guidelines and policies for continuous education in order to reach HIV positive women.

  - Should revise adherence advice strategies and more attention should be placed on MTCT of HIV related issues.
- The Federal and Addis Ababa HAPCO offices and other organizations work on HIV/AIDS prevention and control should invest selectively on the information sources that have greater potentials to inform audiences (HIV positive women).

- The findings of this study suggest additional qualitative studies in these areas.

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Questionnaire

Annex 1: Consent form (English)

Addis Ababa University

School of Information Science

Department of public health and health informatics

Knowledge on MTCT of HIV and Information source preferences among HIV+ women Survey

Information sheet: The quantitative questionnaire will have 6 pages containing 26 questions divided among 4 sections. First you will found the informed consent. Please make sure that all the stated sections & questions will be present, and read (inform verbally) the consent for the interviewee before beginning the interview. Please circle the answers against the code numbers or write if stated otherwise on the space provided.

Introduction: My name is _____. I am working temporarily as a data collector. This survey questionnaire is prepared by a student at AAU, Department of Public Health, and Information science, and principal investigator of the research, Mulatu Ayele.

Title of the study: Assessment of the Knowledge regarding MTCT of HIV among HIV positive women in Addis Ababa, Ethiopia.

How you will be identified: You have been purposively selected for the study.

Your Part in the Research Study: You were asked to respond to a survey. Your participation in this study is completely based on your will and there is no penalty for refusing to take part. You can discontinue at any time you want to do so. You can ask any question related with the study.

Consent: I have heard this form and the research study were explained to me. I have been given the opportunity to ask questions and my questions have been answered. I agree to participate voluntarily in the research study described above and by responding to the survey, give my consent to participate. If yes, proceed.

If no, thank and stop here._____ (Signature of interviewer certifying that respondent has given informed consent verbally).

Annex 2: Research Tool (English)

Department of public health and information science

Knowledge on MTCT of HIV and Information Source Preferences among HIV+ women Survey

Dear respondent,

You are kindly invited to respond to this survey. The purpose of the survey is to assess the knowledge on MTCT of HIV and Information source preferences among HIV positive women on ART and PMTCT/ANC clinics. Individual names not required since the information you give is strictly confidential. Remember you can decide to terminate the session without any penalty. Thank you in advance for taking the time and effort to respond to this survey. Please answer the questions as honestly as you can.

For additional information:

Investigator: Mulatu Ayele

Mob: +251-911870494 Email: mulatuayele1@gmail.com

Quantitative Survey Questionnaire:

Section 0: General Information

#	Question Item	Response	Cod No	Skip to
001	Place of interview (Health center)	Addis Ketema Health Center Arada Health Center Teklehaymanot Health Center Selam Health center Wereda 19 Health center	1 2 3 4 5	

Section 1: Socio Demographic Characteristics of study participants

#	Question Item	Response	Code No	Skip to
010	Age of the respondent	In years……		
020	Marital Status	Married …… Single – Never Married …… Separated but not divorced…… Divorced …… Widowed …… I do not want to respond to this question……	1 2 3 4 5 9	
030	Educational Status	Unable to read and write …… Only able to read and write…… Attended elementary school (Grades 1-6)…… Attended high school (Grades 7-12) …… Attended University/College ……	1 2 3 4 5	
040	What is your religion?	Orthodox Christian …… Islam …… Catholic …… Protestant …… Other (specify)	1 2 3 4 77	
050	To which ethnic group do you belong?	Amhara…… Oromo…… Tigray…… Other (specify)……	1 2 3 77	
060	Occupational status	House wife…… Government employee …… Farmer …… Commercial sex worker …… House maid Daily Laborer …… Other (specify) ……	1 2 3 4 5 6 77	

Section 2: HIV/AIDS related Knowledge

#	Question Item	Response			Code No	Skip to
070	Have you ever heard about HIV/AIDS?	Yes ……. No …… Not Sure ……			1 2 3	
080	What is HIV/AIDS?	No	Response	1=Yes	2=No	
		081	Sexualy transmitted infection	1	2	
		082	Life threatening disease	1	2	
		083	Blood disease	1	2	
		084	Other (e.g. curse, punishment)	1	2	
090	Can you tell me how HIV is transmitted? If the answer is yes, please specify: (Do not read the alternatives. More than one response is possible)	No	Source	1= Mentioned	2= Not mentioned	
		091	Sexual intercourse	1	2	
		092	Mother to child during delivery	1	2	
		093	Breast milk (breast feeding)	1	2	
		094	During pregnancy (in the womb)	1	2	
		095	Injections (unsterile needles)	1	2	
		096	Blood transfusions	1	2	
		097	Unsterile instruments	1	2	
		098	Other (e.g. spiritual, witchcraft))	1	2	
100	What are some of the symptoms/ signs of AIDS? (Do not read the alternatives. More than one response is possible)	No	Response			
		101	Weight loss	1	2	
		102	Prolonged fever	1	2	
		103	Chronic diarrhea	1	2	
		104	Recurrent boils	1	2	
		105	Skin rashes	1	2	
		106	Chronic cough	1	2	
		107	Herpes zoster	1	2	
		108	Other (Specify)			
110	What is the cure / treatment for AIDS?	No cure No cure but palliative I don't know		1 2 3		

120	*How can HIV prevented? (Do not read the alternatives. More than one response is possible)*	*No*	*Response*	*Yes*	*No*	
		121	*Being faith ful to partner*	*1*	*2*	
		122	*Abstain from sexual intercourse*	*1*	*2*	
		123	*Not sharing sharps*	*1*	*2*	
		124	*Condom use*	*1*	*2*	
		125	*Other (specify …..*			

Section 3: Knowledge regarding MTCT of HIV

130	*Can HIV positive women transmit HIV to her baby?*	*Yes* *No* *I don't know*			*1* *2* *3*		
140	*When does transmission from infected mother to her baby occur? (Do not read the alternatives. More than one response is possible)*	*During pregnancy (in the womb)*			*1= mentioned*	*2=not mentioned*	
		During labor and delivery			*1*	*2*	
		During breast feeding			*1*	*2*	
		I don't know			*1*	*2*	
150	*How do you rate the transmission of HIV virus during pregnancy, delivery and breast feeding?*	*No*	*Response*	*1- High*	*2= Mediu m*	*3=no transmissi on*	*4= I can't guess*
		151	*During pregnancy*	*1*	*2*	*3*	*4*
		152	*During labor &delivery*	*1*	*2*	*3*	*4*
		153	*During breast feeding*	*1*	*2*	*3*	*4*
160	*Do you know how MTCT of HIV can be prevented? If yes please list the way by which one can prevent from being infected with HIV? (Do not read the alternatives. More than one response is possible)*	*No*	*Response*		*1 = Mentioned*	*2= Not Mentioned*	
		161	*Giving ART drug to pregnant women*		*1*	*2*	
		162	*Avoiding breastfeeding by HIV infected mothers*		*1*	*2*	
		163	*Aborting pregnancies of HIV infected women*		*1*	*2*	
		164	*Traditional therapy*		*1*	*2*	
		165	*Vaccine*		*1*	*2*	
		166	*I don't know*		*1*	*2*	
		167	*Others (specify)*		*1*	*2*	
170	*Did your PMTCT/ART service*	*Yes ……*			*1*		

	provider discuss about family planning& child bearing?	*No ……………………….* *Not sure……………….*	*2* *3*	
180	*Did your PMTCT/ART service provider discuss about the risk of Unintended pregnancies?*	*Yes...* *No...* *Not sure……………………..*	*1* *2* *3*	
190	*Did your PMTCT/ART service provider discuss about STI's?*	*Yes...* *No...* *Not sure……………………..*	*1* *2* *3*	
200	*Did your PMTCT/ART service provider discuss about dual protection (using condom)?*	*Yes...* *No...* *Not sure……………………..*	*1* *2* *3*	

Section 4: Information about MTCT of HIV information sources preference, encouraging and support sources, information source barriers, information source attributes & information seeking behavior.

#	***Question Item***	***No***	***Sources***	***Response***	
210	***Where did (do) you hear / learn about HIV/AIDS? (Do not read the alternatives. More than one response is possible)***	*211*	*Friends*	*1=Yes*	*2=No*
		212	*Relatives*	*1*	*2*
		213	*School teachers*	*1*	*2*
		214	*Health institutions /health professionals/*	*1*	*2*
		215	*Radio*	*1*	*2*
		216	*Internet*	*1*	*2*
		217	*Television*	*1*	*2*
		218	*Magazines*	*1*	*2*
		219	*Social ceremonies – coffee drinking,idir, etc.*	*1*	*2*
		220	*Others (specify)*		

#	***Question Item***			***No***	***Question Item***		
220	***How do you best like to get MTCT of HIV information?(Put the numbers "1," "2," and "3" next to your top three (3) choices)***			***240***	***Which information sources ''encourage and support you to make positive actions to deal with MTCT of HIV"?***		
	No	*Information Source*		*No*	*Information Source*	*Yes*	*No*
	221	*Health professional*		*241*	*Health professional*	*1*	*2*
	222	*HIV-positive peer educators*		*242*	*HIV-positive peer educators*	*1*	*2*
	223	*Family, Friends and neighbors*		*243*	*Family, Friends and neighbors*	*1*	*2*
	224	*Internet*		*244*	*Internet*	*1*	*2*
	225	*Television*		*245*	*Television*	*1*	*2*
	226	*Telephone hotline*		*246*	*Telephone hotline*	*1*	*2*
	227	*Radio*		*247*	*Radio*	*1*	*2*

	228	*Book*		*248*	*Book*	*1*	*2*
	229	*Magazine*		*249*	*Magazine*	*1*	*2*
	230	*Newspaper*		*250*	*Newspaper*	*1*	*2*
	231	*Religious places/holy waters*		*251*	*Religious places/holy waters*	*1*	*2*
	232	*Traditional Healers/Faith healers*		*252*	*Traditional Healers/Faith healers*	*1*	*2*
	233	*Local clubs(Edir)*		*253*	*Local clubs(Edir)*	*1*	*2*
	234	*PLWHA associations*		*254*	*PLWHA associations*	*1*	*2*
	235	*Others (mention)*		*255*	*Others (mention)*		

260 ***Which of the barriers prevent you from using MTCT of HIV information you find from the sources?***

No	*Barriers*	*1=Yes*	*2=No*
261	*Information is hard to understand*	*1*	*2*
262	*Information is contradictory*	*1*	*2*
263	*Information is hard to find*	*1*	*2*
264	*Information is not motivating*	*1*	*2*
265	*Information is not interesting*	*1*	*2*
266	*Information is not applicable*	*1*	*2*
267	*Information does not provide clear action steps*	*1*	*2*
268	*Information is too much*	*1*	*2*

270 ***How do you characterize the information sources (information attributes)?***

No	*Sources*	*How useful is the source?*			*How Available/ accessible is the source?*			*How understandable is the source?*			*How trustworthy is the source?*		
		Not at all	*A little*	*A lot*	*Not at all*	*A little*	*A lot*	*Not at all*	*A little*	*A lot*	*Not at all*	*A little*	*A lot*
271	*Health professional*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
272	*HIV-positive peer educators*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
273	*Family, Friends and neighbors*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
274	*Internet*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
275	*Television*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
276	*Telephone hotline*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
277	*Radio*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
278	*Book*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
279	*Magazine*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
280	*Newspaper*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
281	*Religious places/holy waters*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
282	*Traditional*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*

		Healers												
	283	*Local clubs(Edir)*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
	284	*PLWHA associations*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*

290	*How do feel about the following information practice statements?(information seeking and sharing behaviour)*						
	No	*Seeking and sharing statements*	***1=Strongly disagree***	***2=Disagree***	***3=Neutral***	***4=Agree***	***5=Strongly agree***
	291	*I think learning new MTCT of HIV information helps to keep me healthy*	*1*	*2*	*3*	*4*	*5*
	292	*I feel good about myself when I seek out new NTCT of HIVinformation.*	*1*	*2*	*3*	*4*	*5*
	293	*I am confident that I can find the MTCT of HIV information I want and need*	*1*	*2*	*3*	*4*	*5*
	294	*It is easy to feel overwhelmed by MTCT of HIV information*	*1*	*2*	*3*	*4*	*5*
	295	*At times it is better not to seek more MTCT of HIV information*	*1*	*2*	*3*	*4*	*5*
	296	*I actively search for new MTCT of HIV information*	*1*	*2*	*3*	*4*	*5*
	297	*I regularly read things that help me learn more about MTCT of HIV.*	*1*	*2*	*3*	*4*	*5*
	298	*I try to give friends advice about MTCT of HIV or tell them where to go to get more HIV information*	*1*	*2*	*3*	*4*	*5*

Assurance of completeness

Certified By (Name)		*Completed / Interrupted / Incomplete*	*Signature*	*Date*
Interviewer				
Supervisor				

THANK YOU FOR TAKING TIME TO BE PART OF THIS STUDY*!!!*

እባሪ 3: የስምምነት መጠየቂያና መጠይቆች (በአማርኛ)

እባሪ 3.1: <u>የስምምነት መጠየቂያ</u>

አዲስ አበባ ዩኒቨርስቲ

የህብረተሰብ ጤና ሳይንስ ትምህርት ክፍል እና የጤና መረጃ ክፍል /Health Informatics/

ኤችአይቪ ከእናት ወደ ልጅ መተላለፍ እውቀት እና የመረጃ ምንጭ ምርጫን በሚመለከት የተደረገ የዳሰሳ ጥናት

<u>ትእዛዝ</u>፡ ይህ መጠይቅ 6 ገፆች ሲኖሩት በአራት ንኡሳን ክፍሎች የተከፈለ ሲሆን 26 ጥያቄዎች አሉት፡፡ ጥያቄውን ከመጀመራችሁ በፊት የስምምነት መግለጫ ይገኛል፡፡ ይህን መጠይቅ ለመረጃ መሰብሰቢያነት ከመጠቀምዎ በፊት ሁሉም ገጾች መኖራቸውን ያረጋግጡ፡፡ በቅድሚያ የስምምነት መግለጫውን ለመረጃ ሰጪ በጥሞና አንብበው መስማማታችሁን በቃልዎ ያረጋግጡ፡፡ ለእንዳንዱ ጥያቄ መረጃ ሰጪ የሚሰጥዎትን መልስ በመልስ መስጫ ረድፍና በጥያቄው አኮያ የሚገኘውን ቁጥር ያክብቡ፡፡

***<u>መግቢያ</u>*፡** ስሜ_____ ይባላል፡፡ በጊዜያዊ መረጃ ሰብሳቢነት በመስራት ላይ እገኛለሁ፡፡ የህብረተሰብ ጤና ሳይንስ ትምህርት ክፍል እና የጤና መረጃ ክፍል የድህረ ምረቃ ተማሪ በሆነው ዋና አጥኚ ሙላቱ አየለ የተዘጋጀ ነው፡፡

<u>የጥናቱርእስ፡</u> የኤችአይቪ ቫረስ በደማቸው ያለባቸው እናቶች የኤችአይቪ ከእናት ወደ ልጅ መተላለፍን እውቀት በሚመለከት የተደረገ የዳሰሳ ጥናት፡፡

<u>እርስዎእንዴትተመረጡ፡</u> እርስዎ የተመረጡት ቫይረሱ በደምዎ በመገኘቱ ብቻ ነዉ፡፡

<u>የእረስዎተሳትፎ፡</u> እርስዎ መረጃ እንዲሰጡን ስንጠይቅዎት በጥናቱ ላይ መሳተፍ ወይም አለመሳተፍ የሚወሰነው በርስዎ ፍላጎት ብቻ ነው:: ጥናቱን በፈለጉ ጊዜ ማቋረጥ የሚችሉ ሲሆን ባለመሳተፍዎ የሚደርስብዎት ጉዳት አይኖርም:: እንዲሰጡን የሚጠየቁት መረጃ ለሌላ ማንኛውም አካል የማይተላለፍ ሲሆን ሌላ አካል እንዳይጠቀምበት ዋና አጥኚው አስፈላጊውን ጥበቃ ያደርጋል:: ትዕግስትና በጥሞና አዳምጠው ለመመለስ የሚያደርጉትን ጥረት እያደነቅን በቅድሚያ ከልብ እናመሰግናለን፡፡

<u>ስምምነት፡</u> ስለጥናቱ በቂ መግለጫ የተሰጠኝ ሲሆን ጥያቄ ለመጠየቅም በቂ እድል አግኝቻለሁ:: ለጥያቄዎቼም በቂ መልስ ያገኘሁ ሲሆን በጥናቱ ላይ በፍቃደኝነት ለመሳተፍ መስማማቴን የተያያዘዉን መጠይቅ በመመለስ አረጋግጣለሁ:: ፈቃደኛ ካልሆኑ አመስግነሽ/ህ አሰናብች/ት፡፡ ፈቃደኛ ከሆኑ ቀጥይ/ል፡፡ ፈቃደኛነታቸውን ያረጋገጠው(ችው) ጠይቂ ስም ---------- ---------- ፊርማ ------

እባሪ 3.2/ መጠይቅ (በአማርኛ)

አዲስ አበባ ዩኒቨርስቲ

የህብረተሰብ ጤና ሳይንስ ትምህርት ክፍል እና የጤና መረጃ ክፍል /Health Informatics/

ኤችአይቪ ከእናት ወደ ልጅ መተላለፍ እውቀትን እና የመረጃ ምንጭ ምርጫን በሚመለከት የተደረገ የዳሰሳ ጥናት

ውድተሳታፊ:- ኤችአይቪ ከእናት ወደ ልጅ መተላለፍ እውቀት እና የመረጃ ምንጭ ምርጫን በሚመለከት የተዘጋጀውን የዳሰሳ ጥናት መጠይቅ እንዲሞሉ በትህትና ተጋብዘዋል፡፡ ስም መጥቀስ አያስፈልግም:: በጥናቱ ላይ መሳተፍ ወይም አለመሳተፍ የሚወሰነው በርስዎ ፍላጎት ብቻ ነው:: ጥናቱን በፈለጉ ጊዜ ማቋረጥ የሚችሉ ሲሆን ባለመሳተፍዎ የሚደርስብዎት ጉዳት አይኖርም:: የዚህ መጠይቅ ውጤት ለምንም ሌላ አላማ እንደማይውል ቃል እየገባን ጊዜዎንና ጉልበትዎን ሰውተው ለሚደርጉልን ትብብር በቅድሚያ እናመሰግለን፡፡

<u>ለተጨማሪ መረጃ፡</u> *ዋና አጥኚ: ሙላቱ አየለ የስልክ ቁጥር፡ 0911870494*

ኢሜይል፡ mulatuayele1@gmail.com

ንዑስ ክፍል 0) አጠቃላይ መነሻ ሀሳብ

ተ.ቁ	*መጠይቅ*	*ዝርዝር መልሰ*	*የመልሰ መለያ*	*ይለፍ*
001	*መጠይቁ የተካሄደበት ጤና ጣቢያ*	*አዲስ ከተማ ጤና ጣቢያ* *አራዳ ጤና ጣቢያ* *ተክለ ሀይማኖት ጤና ጣቢያ*	*1* *2* *3*	

		ሰላም ጤና ጣቢያ ወረዳ 19 ጤና ጣቢያ	4 5	

ንዑስ ክፍል 1) የተሳታፊው አጠቃላይ መረጃ

ተ.ቁ	መጠይቅ	ዝርዝር መልስ	የመልስ መለያ	ይለፍ
010	ዕድሜ ስንት ነው?	በጽሁፍ ይገለጽ		
020	በአሁኑ ሰዓት የጋብቻ ሁኔታ እንዴት ነው?	ባለትዳር ---------- በፍቅም አግብቼ አላውቅም ---------- ከባለቤቴ ጋር ተለያይተን ነው የምንኖረው (ነገርግን አልተፋታንም)…… ተፋትቻለሁ ---------- ባለቤቴ ከዚህ ዓለም በሞት ተለይቷል --------- ለዚህ ጥያቄ መልስ መስጠት አልፈልግም --------	1 2 3 4 5 9	
030	እርስዎ ያጠናቀቁት የትምህርት ደረጃ ምንድን ነው?	ማንበብ እና መጻፍ አልችልም ---------- ማንበብ እና መጻፍ ብቻ እችላለሁ ------ ከ1ኛ - 6ኛ ክፍል ተምሬአለሁ ---------- ከ7ኛ - 12ኛ ተምሬአለሁ ---------- ከፍተኛ ትምህርት ተምሬአለሁ ----------	1 2 3 4 5	
040	ሐይማኖትዎ ምንድን ነው?	ኦርቶዶክስ ክርስቲያን ---------- እስልምና ---------- ካቶሊክ ---------- ፕሮቴስታንት ---------- ሌላ (ይገለፅ) ----------	1 2 3 4 5	
050	ብሄረሰብዎት ምንድን ነው?	አማራ ---------- ኦሮሞ ---------- ትግሬ ---------- ሌላ (ይገለፅ) ----------	1 2 3 5	
060	መደበኛ ሥራዎ ምንድን ነው?	የቤት እመቤት ---------- የመንግስት ሠራተኛ ---------- ገበሬ ---------- ሴተኛ አዳሪ ---------- የቤት ውስጥ ሠራተኛ (ተቀጣሪ) --------- የቀን ሥራ ---------- ሌላ (ይገለፅ) ----------	1 2 3 4 5 6 5	

ንዑስ ክፍል 2) የኤችአይቪ ኤድስ እውቀትን በተመለከተ

ተ.ቁ	መጠይቅ	ዝርዝር መልስ			የመልስ መለያ	ይለፍ
70	ስለ ኤችአይቪ/ ኤድስ ሰምተው ያውቃሉ?	አዎን ---------- ሰምቼ አላውቅም ---------- እርግጠኛ አይደለሁም ----------			1 2 3	
080	ኤችአይቪ ምንድን ነው?	ተ.ቁ	ዝርዝር ምርጫ	1=ተጠቅሷል	2=አልተጠቀሰም	
		081	በግብረ ሰጋ ግንኙነት የሚተላለፍ በሽታ	1	2	

		082	ለህይወት አስጊ በሽታ	1	2	
		083	በደም የሚተላለፍ በሽታ	1	2	
		084	ሌላ ለምሳሌ እርግማን፣ ቅጣት	1	2	
090	ኤችአይቪ እንዴት እንደሚተላለፍ ሊነግሩኝ ይችላሉ? (ከአንድ በላይ መልስ መስጠት ይቻላል፡ ምርጫው አይነበብም)	ተ.ቁ	ዝርዝር ምርጫ	1=ተጠቅሷል	2=አልተጠቀሰም	
		091	በግብረ ሲጋ ግንኙነት	1	2	
		092	ከእናት ወደ ልጅ በወሊድ ጊዜ	1	2	
		093	ጡትበ ማጥባት ጊዜ ከእናት ወደ ልጅ	1	2	
		094	በእርግዝና ወቅት ከእናት ወደ ፅንስ	1	2	
		095	ንጽህና በሌለው መርፌ በመወጋት	1	2	
		096	ደም በመለገስ (ንጽህናው ባልተጠበቀ)	1	2	
		097	ንጽህናው ባልተጠበቀ ስለታም አቃ በመጠቀም	1	2	
		098	ሌላ (ለምሳሌ በጥንቆላ)	1	2	
100	የኤች አይ ቪ ምልክቶችን ሊነግሩኝ ይችላሉ? (ከአንድ በላይ መልስ መስጠት ይቻላል፡ ምርጫው አይነበብም)	ተ.ቁ	ዝርዝር ምርጫ	1=ተጠቅሷል	2=አልተጠቀሰም	
		101	ክብደት መቀነስ	1	2	
		102	ረዘም ያለ የማያቆርጥ ትኩሳት	1	2	
		103	ሰር የሰደደ ተቅማጥ	1	2	
		104	ተደጋጋሚ እባጭ	1	2	
		106	የቆዳ መንደብደብ/ ሸፍታ	1	2	
		107	ሰር የሰደደ ሳል	1	2	
		108	አልማዝ ባለጭራ	1	2	
		109	ሌላ ይገለጽ			
110	ኤች አይ ቪ ህክምና ወይም መድሀኒት ምንድነው	አይድንም አይድንም ነገርግን ማሰታገሻ/እድሜ ማራዘሚያ አላውቅም		1 2 3		
120	ኤች አይ ቪ ኤድስን እንዴት መከላከል ይቻላል?	ተ.ቁ	ዝርዝር ምርጫ	1=ተጠቅሷል	2=አልተጠቀሰም	
		121	ታማኝነት	1	2	
		122	መታቀብ	1	2	
		123	ስለት ነገሮችን ባለመዋዋስ	1	2	
		124	ኮንዶም መጠቀም	1	2	
		125	ሌላ (ይገለጽ)			

ንውሰ ክፍል 3) ኤች አይቪ ከእናት ወደ ልጅ እውቀትን በሚመለከት

130	ኤችአይቪ ከእናት ወደ ልጅ ይተላለፋልን?	አዎ አይ አላውቅም			1 2 3	
140	ኤችአይቪ ከእናት ወደ ልጅ የሚተላለፈው መቼ ነው?(ከአንድ በላይ መልስ መስጠት ይቻላል፡ ምርጫው አይነበብም)	በእርግዝና ወቅት በወሊድ ወቅት ጡት በማጥባት ወቅት አላውቅም			1 2 3 4	
150	ፅንሱ በእርግዝና ላይ እያለ በወሊድ ጊዜ እና ጡት በማጥባት ጊዜ ኤችአይቪ የመያዝ እድሉ ምን ያህል ነው?	ተ.ቁ	ዝርዝር ምርጫ	1=ከፍተኛ	2=መካከለኛ	3=አይተላለፍም	4=መገመት አልችልም
		151	በእርግዝና ወቅት	1	2	3	4
		152	በወሊድ ወቅት	1	2	3	4

		153	ጡት በማጥባት ወቅት	1	2	3	4
160	ኤችአይቪ ህዋስ ከእናት ወደ ልጅ እንዳይተላለፍ ለመከላከል መደረግ የሚገባቸውን ጥረቶች ቢጠቅሱልኝ? (ከአንድ በላይ መልስ መስጠት ይቻላል፡ ምርጫው አይነበብም)	ተ.ቁ	ዝርዝር ምርጫ		1=ተጠቅሷል		2=አልተጠቀሰም
		161	በዘመናዊ ህክምና መድኃኒት በመውሰድ		1		2
		162	ከኤችአይቪ ጋር የምትኖር እናት ለልጇ ጡቷን ባለማጥባት		1		2
		163	ከኤችአይቪ ጋር ለምትኖር ነፍሰጡር ጽንስ በማስወረድ		1		2
		164	በባህላዊ ሕክምና		1		2
		165	ክትባት በመውሰድ		1		2
		166	የመከላከያ መንገድ አላውቅም		1		2
		167	ሌላ (ይገለፅ)				
170	ስለ ወሊድ መከላከያ ዘዴዎችና ልጅ መውለድን በተመለከተ ከጤና ባለሙያ የምክር አገልግሎት አግኝተዋል?		አዎ ----------				1
			አይ ----------				2
			አላስታውስም…….				3
180	ከጤና ባለሙያዎ ጋር ያልተፈለገ እርግዝና ስለሚያስከትለዉ ጉዳት ተገቢና በቂ ዉይይት አድርገዋል?		አዎ ----------				1
			አይ ----------				2
			አላስታውስም…….				3
190	ከጤና ባለሙያዎ ጋር ስለ አባላዘር በሽታዎች ተገቢና በቂ ዉይይት አድርገዋል?		አዎ ----------				1
			አይ ----------				2
			አላስታውስም…….				3
200	ከጤና ባለሙያዎ ጋር ስለ ጥምር መከላከያ (ኮንዶም መጠቀም) ዘዴዎች ተገቢና በቂ ዉይይት አድርገዋል?		አዎ ----------				1
			አይ ----------				2
			አላስታውስም…….				3

ንዑስ ክፍል 4) ስለ ኤችአይቪ ከእናት ወደ ልጅ በሚመለከት የትኞቹን የመረጃ ምንጭ የበለጠ ይጠቀማሉ፤ የሚያበረታታ ድጋፍ ከየትኞቹ የመረጃ ምንጮች ያገኛሉ፤ መረጃን እንዳይጠቀሙ የሚከለክሉ ችግሮች፤ የመረጃ ምንጭ ባሕርያትን ግምገማ እንዲሁም በተለያዩ ሃሳቦች ላይ የሚኖር አመለካከትን በተመለከተ

ተ.ቁ	መጠይቅ	ተ.ቁ	ዝርዝርምርጫ	1=ተጠቅሷል	2=አልተጠቀሰም
210	ስለ ኤችአይቪ ኤድስ ከየትኛው የመረጃ ምንጭ ሰሙ? (ከአንድ በላይ መልስ መስጠት ይቻላል፡ ምርጫው ግን አይነበብም)	211	ከጓደኛ	1	2
		212	ከዘመድ	1	2
		213	ከትምህርት ቤት/ ከመምህራን	1	2
		214	ከጤና ተቋማት/ ጤና ባለሙያ	1	2
		215	ከሬድዮ	1	2
		216	ከቴሌቪዥን	1	2

				217	*ከጋዜጣ/*	*1*	*2*
				218	*ከማህበራዊ ግንኙነቶች (ዕድር፣ቡና ጠጡ)*	*1*	*2*
				219	*ሌላ (ይገለፅ)*		
220	***ስለ ኤችአይቪ ከእናት ወደ ልጅ በሚመለከት መረጃ ለማግኘት የትኞቹን የመረጃ ምንጭ የበለጠ ይጠቀማሉ (1ኛ፣ 2ኛ እና 3ኛ በማለት ከፊት ለፊት ይጻፉ)***			***240***	**ስለ ኤች አይ ቪ ከእናት ወደ ልጅ በሚመለከት የሚያበረታታ ድጋፍ ከየትኞቹ የመረጃ ምንጮች ያገኛሉ?**		
	ተ.ቁ	**የመረጃ ምንጭ**	***መልሰ***	***ተ.ቁ***	**የመረጃ ምንጭ**	**1= አዎ**	**2= አይደለም**
	221	የህክምና ባለሙያ		*241*	የህክምና ባለሙያ	*1*	***2***
	222	ከቫይረሱ ጋር አብረው የሚኖሩ አስተማሪዎች		*242*	ከቫይረሱ ጋር አብረው የሚኖሩ አስተማሪዎች	*1*	*2*
	223	ቤተሰብ ጓደኞች እና ጎረቤቶች		*243*	ቤተሰብ ጓደኞች እና ጎረቤቶች	*1*	*2*
	224	ኢንተርኔት ወይም የመረጃ መረብ		*244*	ኢንተርኔት ወይም የመረጃ መረብ	*1*	*2*
	225	ቴሌቪዥን		*245*	ቴሌቪዥን	*1*	*2*
	226	የስልክ አገልግሎት		*246*	የስልክ አገልግሎት	*1*	*2*
	227	ሬድዮ		*247*	ሬድዮ	*1*	*2*
	228	መጽሀፍት		*248*	መጽሀፍት	*1*	*2*
	229	መፅሄቶች		*249*	መፅሄቶች	*1*	*2*
	230	ጋዜጣ		*250*	ጋዜጣ	*1*	*2*
	231	የእምነት ቦታዎች እና ፀበል		*251*	የእምነት ቦታዎች እና ፀበል	*1*	*2*
	232	የሃገር ባህል ሃኪሞች		*252*	የሃገር ባህል ሃኪሞች	*1*	*2*
	233	እድር		*253*	እድር	*1*	*2*
	234	ከቫይረሱ ጋር አብረው የሚኖሩ ሰዎች ማህበር		*254*	ከቫይረሱ ጋር አብረው የሚኖሩ ሰዎች ማህበር	*1*	*2*
	235	ሌሎች (ይገለጽ)		*255*	ሌሎች (ይገለጽ)		

260	**ኤች አይ ቪ ከእናት ወደ ልጅ በሚመለከት የሚያገኙትን መረጃ አንዳይጠቀሙ የሚከለክልዎት ምንድን ነው?**			
	ተ.ቁ	የመረጃ ችግሮች	1 = አዎ	2 =አይደለም
	261	የማገኘው መረጃ ለመረዳት ያስቸግራል	*1*	2
	262	የማገኘዉ መረጃ እርስ በርሱ የሚቃረን ነው	*1*	2
	263	መረጃ ለመግኘት ያስቸገራል	*1*	*2*
	264	የማገኘው መረጃ የሚያበረታታ አይደለም	*1*	*2*
	265	የማገኘው መረጃ የሚስብ አይደለም	*1*	*2*
	266	የማገኘው መረጃ ስራ ላይ ለመዋል የሚችል አይደለም	*1*	*2*
	267	የማገኘው መረጃ መወሰድ ያለባቸውን እርምጃዎች በግለፅ አያሳይም	*1*	*2*
	268	የማገኘው መረጃ ከመጠን በላይ ብዙ ነው	*1*	*2*

270	**የመረጃ ምንጮቹን ባህርያት እንዴት ይገመግሟቸዋል?**													
	ተ.ቁ	**የመረጃ ምንጭ**	**ምንያህል ጠቃሚ ናቸዉ?**			**ምንያህል ያገኟቸዋል?**			**ምንያህል መረዳት ይችላሉ?**			**ምን ያህል ያምኗቸዋል?**		
			በጭ ራሽ	በመ ጠኑ	በጣ ም	በጭ ራሽ	በመ ጠኑ	በጣ ም	በጭ ራሽ	በመ ጠኑ	በጣ ም	በጭ ራ	በመ ጠኑ	በጣ ም

												ሽ		
	271	የህክምና ባለሙያዎች	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
	272	ከቫይረሱ ጋር አብረው የሚኖሩ አስተማሪዎች	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
	273	ቤተሰብ ጓደኞችና ጎረቤቶች	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
	274	ኢንተርኔት ወይም የመረጃ መረብ	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
	275	ቴሌቪዥን	*1*	*2*	*3*	*1*	2	*3*	*1*	*2*	*3*	*1*	*2*	*3*
	276	የስልክ አገልግሎት	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
	277	ሬድዮ	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
	278	መጽሀፍት	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
	279	መፅሄቶች	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
	280	ጋዜጣ	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
	281	የእምነት ቦታዎችና ፀበል	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
	282	የሃገር ባህል ሃኪሞች	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
	283	እድር	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
	284	ከቫይረሱ ጋር አብረው የሚኖሩ ሰዎች ማህበር	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*

290	**ለተዘረዘሩት *የመረጃ ምንጭ ፍለጋ*እና ማጋራትን በሚመለከት ያለዎት ሃሳብ ምንድነው?**						
	ተቁ	*የመረጃ ምንጭ ፍለጋ*	አጥብቄ እቃወማለሁ	እቃወማለሁ	*አልቃወምም/አልሰማምም*	እስማማለሁ	አጥብቄ እስማማለሁ
	291	ኤች.አይ.ቪ. ከእናት ወደ ልጅ እንደሚተላለፍ አዳዲስ መረጃ ሳገኝ (ስማር) ጤናማ ለመሆን ይረዳኛል ብዬ አስባለሁ	*1*	*2*	*3*	*4*	*5*
	292	የኤች.አይ.ቪ. ከእናት ወደ ልጅ መተላለፍን በሚመለከት አዳዲስ መረጃ ስፈልግ ስለራሴ ጥሩ ስሜት ይሰማኛል	*1*	*2*	*3*	*4*	*5*
	293	ስለ ኤች.አይ.ቪ. ከእናት ወደ ልጅ መተላለፍ የምፈለገውን መረጃ ማግኘት እንደምችል እርግጠኛ ነኝ	*1*	*2*	*3*	*4*	*5*
	294	የኤች.አይ.ቪ. ከእናት ወደ ልጅ እንደሚተላለፍ የመረጃ መጥለቅለቅ ለመረዳት ቀላል ነው	*1*	*2*	*3*	*4*	*5*
	295	አንዳንድ ጊዜ ስለ ኤች.አይ.ቪ. ከእናት ወደ ልጅ በሚመለከት ተጨማሪ መረጃ አለመፈለግ ይሻላል	*1*	*2*	*3*	*4*	*5*
	296	የኤች.አይ.ቪ.ከእናት ወደ ልጅ እንደሚተላለፍ መረጃ ለማግኘት እተጋለሁ	*1*	*2*	*3*	*4*	*5*
	297	ስለ ኤችአይቪ ከእናት ወደ ልጅ ለመማር እና አዳዲስ ነገር ለማወቅ አዘውትሬ አነባለሁ	*1*	*2*	*3*	*4*	*5*
	298	ለጓደኞቼ ስለ ኤችአይቪ ከእናት ወደ ልጅ እንደሚተላለፍ ምክር ለመስጠት ወይም መረጃ ከየት ማግኘት እንደሚችሉ ለመንገር እሞክራለሁ	*1*	*2*	*3*	*4*	*5*

Sጠይl uትክkM KSጠናkl T[*ጋገጫ*

ያረጋገጠው(ችው)		ተጠናቋል/ አልተጠናቀቀም	*ፊርማ*	*ቀን*
መርጃ ሰብሳቢ				
ተቆጣጣሪ				

ጊዜዎንና ጉልበትዎን ሰውተው ለአደርጉልን ትብብር እናመሰግለን!!