

Assessment of Prevention of Mother to Child Transmission of HIV/AIDS Services Utilization among Pregnant Mothers in Bushenyi District

Kakwangire Paul

Medicine and Community Health, Kampala International University, Uganda

ABSTRACT

About 36.7 million people living with HIV are reported worldwide. In Eastern Africa, young women (aged 15–24 years) accounted for 26% of new HIV infections in 2016 despite making up just 10% of the population. These include 2.7 million children less than fifteen years of age and 17.6 million women. Hence, due to high HIV prevalence rate in women and children, preventing of mother to child transmission of HIV has become an essential element worldwide HIV/AIDS control strategy. The study was to assess the prevention of mother to child transmission of HIV/AIDS services utilization among pregnant mothers in Bushenyi district. We used descriptive research design and qualitative method in data collection. It was a health facility-based study. Data was collected using questionnaire which were administered to the pregnant mothers and mothers of child bearing ages who attended Bushenyi health center IV. Data was collected from 88 respondents. Data was statistically analyzed using SPSS (statistical package for social sciences 16.0V) and Stata i.e. descriptive analysis and analyzed and presented in tables.

Keywords: Mother-to-Child Transmission (MTCT); HIV/AIDS Prevention; Service Utilization; Pregnant Mothers; Bushenyi District

INTRODUCTION

HIV/AIDS has had a worldwide impact and there are virtually no areas that have not reported cases of infection. There has been a gradual rise in the number of HIV/AIDS in 2021 than it has, over a decade: while three quarters of people living with HIV have access to antiretroviral therapy approximately 10 million people do not. Only half (52%) of children living with HIV have access to life saving medicine. The latest data collected by UNAIDS shows that while new HIV infections fell globally last two years, the drop was only 3.6% compared to 2020 the smallest annual reduction since 2016. As a result, many regions, countries and communities are to address rising HIV infections alongside other ongoing crises [1, 2].

In 2016, there were 1.8 million new HIV infections, with a total of 36.7 million people living with HIV worldwide [3]. Young women remain at unacceptably high risk of HIV infection in high prevalence settings [3]. In Eastern Africa, young women (aged 15–24 years) accounted for 26% of new HIV infections in 2016 despite making up just 10% of the population [4, 5]. These include 2.7 million

children less than fifteen years of age and 17.6 million women [6]. Hence due to high HIV prevalence rate in women and children, preventing of mother to child transmission of HIV has become an essential element worldwide HIV/AIDS control strategy. Due to a number of barriers for the implementation of PMTCT program, in 2010, it was estimated that only 45% of HIV-positive pregnant women in the Sub-Saharan Africa (SSA) had access to PMTCT program [7, 8]. MTCT rates remain high in developing nations, particularly SSA countries where majority of HIV infected women of child bearing age live. Such high rates persist mostly due to lack of access to existing prevention interventions, lack of male involvement, and women not disclosing their status to their partners [9, 10]. Mother-to-child transmission of HIV remains as one of the biggest concerns that needs to be dealt with in taking effective preventive measures and maximizing treatment, care, and support for needy HIV-positive mothers order to save the life of large number of innocents in our developing country [11].

Mother to child transmission (MTCT) of HIV is a major component of AIDS epidemic, especially in sub-Saharan Africa and the less developed countries of south East Asia [12]. In more developed countries obstetric interventions, ARV treatment and replacement feeding for the infant resulted in to significant reduction in transmission rates but this is not the case in the less developed countries. Limited access to the above mentioned interventions are the main reasons for the differences in transmission rates ([13]. The East African countries are able to do this in collaboration with UNICEF, UNAIDS, WHO and other partners to implement activities of PMTCT of HIV with the aim to reduce the high rate of HIV transmission to children. In Uganda, PMTCT programme has made big strides in the campaign to prevent HIV spread through MTCT. New HIV infections in Uganda occurring from MTCT have dropped from 25% in 2017 to 18% in 2019 [14]. As at 2019, Uganda accounted for over 13% of the highest number of children in Africa with HIV through MTCT. Uganda is therefore a priority country for intensified support in reaching the Universal Access goal. MTCT is by far the largest source of HIV infection in children below the age of 15 years. HIV/AIDs threaten to reverse years of steady progress in child health and survival and have already doubled infant mortality in worst affected countries[15, 16]. In Sub Saharan Africa, MTCT is contributing substantially to raising child mortality. Because of this, the government of Uganda has provided numerous hospitals and health centers with antiretroviral drugs in prevention of mother to child transmission (PMTCT) service in order to protect the unborn children from getting HIV infection from their HIV positive mothers which is usually termed as MTCT of HIV[17]. Despite the availability of PMTCT services, the up take is low shown by 29% and little information is available on the mothers' knowledge about PMTCT and their attitude towards PMTCT services still pose a challenge. This study therefore sought to examine the awareness of the prevention of mother to child transmission of HIV/AIDS services utilization among pregnant mothers in Bushenyi district. Mother to child transmission route accounts for about 12.5% of the HIV burden globally [18]. Its potential impact on the achievement of the Strategic Development Goals is becoming increasingly

clearer. HIV has been recognized as a major contributor to the persistently high maternal mortality in Africa. It is responsible for 80% of maternal deaths in HIV + pregnant women within two years of delivery [19]. As at 2019, Uganda accounted for over 13% of the highest number of children in Africa with HIV through MTCT. Uganda is therefore a priority country for intensified support in reaching the Universal Access goal. MTCT is by far the largest source of HIV infection in children below the age of 15 years. In Sub Saharan Africa, MTCT is contributing substantially to raising child mortality. Because of this, the government of Uganda has provided numerous hospitals and health centers with antiretroviral drugs in prevention of mother to child transmission (PMTCT) service in order to protect the unborn children from getting HIV infection from their HIV positive mothers which is usually termed as MTCT of HIV[20]. Despite the availability of PMTCT services, the up take is low shown by 29% and little information is available on the mothers' knowledge about PMTCT and their attitude towards PMTCT services still pose a challenge. Bushenyi district has increasing numbers of HIV transmissions though the district is performing well in the delivery of services compared to other districts and despite mothers being discouraged, mixed feelings are still being practiced by some of the HIV positive mothers and this could potentially erode success of governments' interventions in providing PMTCT services[21]. This study assessed the prevention of mother to child transmission of HIV/AIDS services utilization among pregnant mothers in Bushenyi district.

MTCT is a majority route of HIV infection to children in Uganda accounting for 95% of HIV transmissions in children. The risk of MTCT of HIV may be reduced by utilization of PMTCT services. These services can only be utilized if women have adequate knowledge of the importance of PMTCT, positive attitudes about PMTCT programs in the prevention of HIV/AIDS. The results from the study may help to improve the PMTCT services in Bushenyi district. The findings of this study will proffer to policy makers suggestions for designing strategies for appropriate information on PMTCT programme among mothers attending ANC services in Bushenyi district and the nation at large.

METHODOLOGY

Study Design

The study was descriptive using qualitative method for data collection. Data was collected using questionnaires administered to the pregnant and other administrators in the health facility.

Study Area

The study was conducted in Bushenyi health center IV located in Bushenyi Municipality.

Study Population

The study population was made up of all mothers attending AN clinic days and selected healthcare workers in the sampled health facility.

Inclusion Criteria and exclusion criteria

Mothers attending Antenatal clinic days, medical officers, counselors, in-charges of ANC and maternity ward in the sampled health facility who consented to and those who did not consent were studied and not studied respectively.

Sample size determination

The sample size was calculated according to the desired number of participants in the selected sample group using Kish and Leslie formula.[22]

$$n = \frac{Z^2 \alpha/2 \times P(1-P)}{D^2}$$

Where $Z^2 \alpha/2$ is the standard normal value at the 95% CI level = 1.96,

n is the sample size

Sampling techniques

The Medical officers, counselors, in-charges of ANC and maternity ward were sampled purposively while the pregnant women were sampled randomly.

Data Collection tools

A structured questionnaire was used to collect data from both pregnant women and the health workers.

Data Analysis

Data was sorted, edited and recorded for accuracy and completeness. The qualitative data collected was statistically analyzed using SPSS and STATA i.e. descriptive analysis. The analyzed data was then presented in form of tables which formed the basis for discussion and conclusion among others.

Ethical Considerations

An introductory letter for permission to collect data was obtained from the office of the Dean of School of Allied Health Sciences and presented to the DHO. After its approval, it was presented to the hospital authorities to access the participants. Those who consented were informed of the objectives of the study and assured of strict confidentiality of any information they will provide.

RESULTS**Table 1: Participant characteristics**

Factor	Mean/ Frequency	SD/percentage
Patient age	27.95	5.78
Marital status		
Single	17	19.3
Married	61	69.3
Cohabiting	7	8.0
widowed	3	3.4
Distance from the hospital		
<10km	42	47.7
11-19km	26	29.5
20-29km	13	14.8
30-39km	7	8.0
Education level		
Never been to any level	11	12.5
Primary level	15	17.0
Secondary level	37	42.0
College	15	17.0
University	10	11.4
Patient religion		
Catholic	27	30.7
Anglican	26	29.5
Adventist	17	19.3
Moslem	11	12.5
Others	7	8.0
Patient occupation		
Peasant	35	39.8
Civil servant	16	18.2
Business person	30	34.1
Others	7	8.0
Tribe of respondent		
Munyankole	42	47.7
Mukiga	23	26.1
Mukonjo	2	2.3
Mutooro	13	14.8
Others	8	9.1

Knowledge about PMTCT services		
Yes	56	63.6
No	32	36.4
Ways how mothers transmit HIV to their babies		
Through delivery	41	46.6
Through trans placental	37	42.0
Through breastfeeding	10	11.4
What can be done to avoid HIV transmission to baby		
Use of ARVs for PMTCT	54	61.4
Not breastfeeding	11	12.5
Cesarean section	18	20.5
Don't know	5	5.7
ANC visits		
None	9	10.2
Two times	17	19.3
Four times	62	70.5
Do you find healthy workers when you go for any service		
Yes	64	72.7
No	24	27.3
Have you ever heard about drugs used to prevent a baby from getting HIV from her mother		
Yes	50	56.8
No	38	43.2
How long does it take to reach the health facility		
Between 1-2 hours	49	55.7
Between 2-4 hours	27	30.7
Above 4 hours	12	13.6
The waiting time to access PMTCT services		
Moderate	24	27.3
Short	35	39.8
Long	21	23.9
Too long	8	9.1
At the hospital, the staff availing PMTCT services are		
Ever absent	7	8.0
Ever present	63	71.6
Present but take long to respond	18	20.5
Working days at the hospital		
Monday - Sunday	17	19.3
Monday- Friday	56	65.9
2 days a week	13	14.8
Distance to the nearest health unit where PMTCT is provided		
Within a radius of 5km	44	50.0
Within a radius of 10km	35	39.8
Above distance of 10km	9	10.2
Means of transport used to reach health facility		
Foot	10	11.4
Bicycle	5	5.7
Vehicle	22	25.0
Motor cycle	51	58.0

How do you find services at the hospital		
Good	60	68.2
Bad	28	31.8
Are PMTCT services available all the time		
Yes	57	64.8
No	31	35.2
Do you always find drugs at the health facility for PMTCT		
Yes	66	75.0
No	22	25.0
Is there stigma among those using PMTCT services		
Yes	61	69.3
No	27	30.7
Are patients aware of the side effects of ARVs		
Yes	53	60.2
No	35	39.8
Do patients believe in the HIV/AIDS result after testing		
Yes	54	61.4
No	34	38.6
Do you think an HIV positive woman should have a baby		
Yes	71	80.7
No	17	19.3
Should an HIV positive woman breastfeed her baby		
Yes	62	70.5
No	25	28.4
Don't know	1	1.1
Does your partner torture you while you go for ANC and PMTCT services		
Yes	9	10.2
No	79	89.8
Does your partner support you when you are going for ANC and PMTCT services		
Yes	57	64.8
No	28	31.8
None	3	3.4

The mean age of the respondents was 27.95 Years with a standard deviation of 5.78. Majority of the respondents 61(69.3%) were married, 17(19.3%) were single, 7(8.0%) were cohabiting and 3(3.4%) were widowed. Most of the respondents were from a distance less than 10km from the hospital 42(47.7%), 26(29.5%), 13(14.8%), and 7(8.0%) were from a distance of (11-19km), (20-29km), (30-39km) respectively. Majority 37(42.0%) of the respondents who participated in this study had attained secondary level education, Primary level and college had been attained by the same number of participants which is 15(17.0%), 11(12.5%) and 10(11.4%) had never been to any level and attained

university respectively. Most 27(30.7%) of the respondents were catholic, 26(29.5%) were Anglican, 17(19.3%) were Adventist, 11(12.5%) were moslem and only 7(8.0%) were from other religions. Most 35(39.8%) of the respondents were peasants, 30(34.1%) were business people, 16(18.2%) were civil servants and only 7(8.0%) had other occupations. Majority of the respondents 42(47.7%) were Banyankole, 23(26.1%) were Bakiga, 13(14.8%) were Batooro, 2(2.3%) were Bakonjo and 8(9.1%) of the respondents were from other tribes. Majority 56(63.6%) of the respondents had knowledge about PMTCT services and 32(36.4%) didn't have knowledge about PMTCT services. Majority

41(46.6%) of the respondents knew that mothers would transmit HIV to their babies through delivery, 37(42.0%) disclosed that transmission was through trans placental and 10(11.4%) disclosed that HIV is transmitted to the babies through breastfeeding. Responses on what can be done to avoid HIV transmission from the mother to the baby, 54(61.4%) disclosed use of ARVs for PMTCT, 18(20.5%) disclosed cesarean section, 11(12.5%) disclosed not breastfeeding and 5(5.7%) of the respondents didn't know. Majority 62(70.5%) reported to have attended ANC services four times, 17(19.3%) reported to have attended ANC two times and 9(10.2%) reported not to have attended ANC before. Majority 64(72.7%) of the respondents agreed that health workers were always found at the hospital whenever they visit and 24(27.3%) did not. Majority 50(56.8%) of the respondents reported to have ever heard about drugs used to prevent a baby from getting HIV from her mother and 38(43.2%) didn't have knowledge. Findings on the patient's access to factors affecting the utilization of PMTCT services among mothers attending ANC indicated that it took 1-2 hours to reach the health facility as disclosed by the majority 49(55.7%), followed by 27(30.7%) who disclosed that it took 2-4 hours to reach the health facility and only 12(13.6%) disclosed that it took above 4 hours to reach the health facility. Most 35(39.8%) of the respondents disclosed that the waiting time to access PMTCT services was short, 24(27.3%), 21(23.9%) and 8(9.1%) disclosed that the waiting time to access PMTCT services were moderate, long and too long respectively. Majority 63(71.6%) of the respondents disclosed that the staff are ever present at the hospital while availing PMTCT services, 18(20.5%) of the respondents disclosed that the staff are present but take long to respond and only 7(8.0%) of the respondents disclosed that the staff are ever absent at the hospital while availing PMTCT services. Majority of the respondents 56(65.9%) disclosed that the hospital works from Monday to Friday, most of the respondents 17(19.3%) disclosed that the

hospital works from Monday to Sunday and 13(14.8%) disclosed that the hospital only works twice a week. Asked about the distance to the nearest health unit where PMTCT is provided, 44(50.0%) disclosed that it was within a radius of 5km, 35(39.8%) disclosed a distance within a radius of 10km and 9(10.2%) disclosed a distance above 10km. Majority 51(58.0%) of the respondents used motorcycle to reach the health facility, 22(25.0%), 10(11.4%) and 5(5.7%) disclosed to have used vehicle, foot and bicycle as means of transport respectively. Majority 60(68.2%) of the respondents disclosed that the services at the hospital are good and 28(31.8%) disclosed the services to have been bad. Majority 57(64.8%) of the respondents disclosed that it's true that PMTCT services are available all the time and 31(35.2%) of the respondents didn't. Majority 66(75.0%) of the respondents reported to always finding the drugs at the health facility for PMTCT and only 22(25.0%) reported not to. Majority 61(69.3%) of the respondents disclosed that there's growing stigma among those using PMTCT and only 27(30.7%) disclosed not to have stigma. Majority 53(60.2%) disclosed to have been aware of the side effects of ARVs and 35(39.8%) weren't aware. 54(61.4%) of the respondents believed HIV/AIDS results after testing as the majority and 34(38.6%) believed not in the HIV/AIDS results. Majority 71(80.7%) of the respondents believed that HIV positive women should have a baby while 17(19.3%) didn't. Majority 62(70.5%) of the respondents believed that an HIV positive woman should breastfeed her baby while 25(28.4%) disclosed that the HIV positive mother shouldn't breastfeed her baby and only 1(1.1%) didn't know. Majority of the respondents 79(89.8%) reported not to have been tortured by their partners and only 9(10.2%) reported torture from their partners. Majority 57(64.8%) reported to have had support from their partners during ANC visits, 28(31.8%) reported no support from their partners and 3(3.4%) of the respondents didn't respond.

Table 2: Bivariate analysis of the factors associated with awareness of PMTCT services

Factors	N (%)	N (%)	p-value
	Know	Don't Know	
Time taken to reach the facility			0.024
1 to 2 hours	37(75.5)	12(24.5)	
2 to 4 hours	12(44.4)	15(55.6)	
Above 4 hours	7(58.3)	5(41.7)	
Distance between home and facility			0.593
<10km	27(64.3)	15(35.7)	
11 to 19 km	15(57.7)	11(42.3)	
20 to 29km	8(61.5)	5(38.5)	
30 to 39 km	6(85.7)	1(14.3)	
Means of transport to the facility			0.437
foot	7(70.0)	3(30.0)	
bicycle	2(40.0)	3(60.0)	
vehicle	12(54.6)	10(45.5)	
motorcycle	35(68.6)	16(31.4)	
Marital Status			0.399
single	12(70.6)	5(29.4)	
Married	40(65.6)	21(34.4)	
cohabiting	3(42.9)	4(57.1)	
widowed	1(33.3)	2(66.7)	
Health worker availability			0.009
yes	46(71.9)	18(28.1)	
No	10(41.7)	14(58.3)	
Occupation			0.320
peasant	23(65.7)	12(34.3)	
Civil servant	7(43.8)	9(56.3)	
Business personal	21(70.0)	9(30.0)	
others	5(71.4)	2(28.6)	
Religion			0.381
Catholic	20(74.1)	7(25.9)	
Anglican	17(65.4)	9(34.6)	
Adventist	11(64.7)	6(35.3)	
Moslem	5(45.5)	6(54.6)	
others	3(42.9)	4(57.1)	
Support by partner			0.925
Yes	37(64.9)	20(35.1)	
No	17(60.7)	11(39.3)	
None	2(66.7)	1(33.3)	
Tribe of the respondent			0.016
Munyankole	32(76.2)	10(23.8)	
Mukiga	13(56.5)	10(43.5)	
Mutooro	9(69.2)	4(30.8)	
Mukonjo	0(0.0)	2(100.0)	
others	2(25.0)	6(75.0)	

The bivalent analysis for the factors associated with awareness of PMTCT service utilization are presented in table two above. Time taken to reach health facility, health worker availability and tribe of

the respondent with P-values 0.024, 0.009, 0.016 respectively are the only factors that are statistically significant with the awareness of the PMTCT service utilization.

Participants who took 1 to 2 hours to reach the facility had more knowledge about the PMTCT services (37(75.5%)) as compared to those who don't know (12(24.5%)). The respondents who took more than 2 hours to reach the facility, few had knowledge about the PMTCT services and the majority had no knowledge. Majority of the respondents who found health workers at the facility, (46(71.9%)) had more knowledge about the PMTCT services while those

who didn't find the health workers at the facility minority had knowledge about the PMTCT services (10(41.7%)) and majority had no knowledge about the services (14(58.3%)). People who knew lunyankole and those who could listen to lunyankole had more knowledge of the PMTCT services (32(76.2%)) than those who could neither speak nor listen to it.

Table 3: Multivariable analysis of the factors associated with awareness of PMTCT service utilization among mothers attending Antenatal services in Bushenyi District.

Variable	Odds ratio	Confidence interval	P-value
Age	0.946	0.876 to 1.021	0.153
Distance from the hospital	1.150	0.723 to 1.829	0.556
Tribe of the respondent	0.588	0.403 to 0.858	0.006
Religion	0.710	0.410 to 1.010	0.056
Health worker availability	0.280	0.105 to 0.743	0.011
Marital status	0.581	0.287 to 1.176	0.131
Means of transport	1.125	0.734 to 1.725	0.588
Time taken to reach the health facility	0.545	0.296 to 1.002	0.051
occupation	1.113	0.726 to 1.707	0.623

The multivariable analysis in table 3 above shows that the Tribe of the respondent (P=0.006, CI=0.403 TO 0.858) was scientifically associated with the awareness of PMTCT service utilization in that those who either spoke or listened to Lunyankole had more knowledge about the services available as compared to those who neither spoke nor listened to

Lunyankole. Health worker availability (P=0.011, CI= 0.105 TO 0.743) was also associated with awareness of PMTCT service utilization in that the respondents who always found the health workers at the facility had more access and knowledge about the services as compared to those who always didn't find the health workers.

DISCUSSION

According to our findings, majority of the respondents 56(63.6%) were aware and had utilized the PMTCT services whereas the minority 32(36.4%) were not. However, this is low as compared to a study that was conducted in Ukraine where pregnant women utilized the PMTCT of HIV/AIDs properly as the country had 99% ANC coverage [23]. The results of the finding are also low compared to a study in Ethiopia which showed that the majority 378(83.8%) of the pregnant women had utilized the available PMTCT services during the period of the study. The findings of the study in Nyanza province, Kenya which revealed that the utilization of PMTCT services is higher and significant as 82% of the participants took PMTCT ARVs and 87% of the total sample of 405 went for HIV testing [24]. It's also low compared to the findings of a study in Tanzania which revealed that there was significant utilization of PMTCT as 90.30% of the participants accessed PMTCT services at the booking of ANC unit[24] And finally the findings of our study are higher as compared to

the findings of the study on PMTCT service utilization conducted in Mulago National referral, Uganda where only 126 of 418 participants that's 30.1% had optimally used PMTCT services. However, utilization of PMTCT services was better among HIV positive mothers with 83%(54/65) having utilized the services optimally compared to the only 20%(72/353) of the HIV negative mothers [25].

According to our findings with 88 participant involvement, participants who take 1 to 2 hours to reach the facility had more knowledge about the PMTCT services (37(75.5%)) as compared to those who don't know (12(24.5%)). This was because they travelled a shorter distance to reach the health facility in time to listen and learn about the PMTCT services available [26].

The respondents who took more than 2 hours to reach the facility, few had knowledge about the PMTCT services and the majority had no knowledge. This is because and those who took more than 2 hours were believed to miss out on the

information given as they would take long to reach the facility. This is in agreement with the findings of the study that was conducted in Lusaka, Zambia where 103 of 145 (71.0%) who lived within 1.9 km of the facility had more knowledge and initiated PMTCT compared to 65 of 109 (60.0%) who lived further away from the health facility [27]. This means for every hour increase the association with PMTCT service uptake (Odds ratio 0.545, 95% CI: 0.296- 1.002) decreased. Our study is also in agreement to studies conducted in south Africa and Kenya where knowledge and uptake of PMTCT services was highest among individuals living within 1 km to the health facility and a decline in knowledge and uptake was observed in individuals living in a distance above 5km from the health facility [28]. Majority of the respondents who found

According to our findings, majority of the respondents 56(63.6%) were aware of PMTCT services and had knowledge about these services. Mothers who attended antenatal clinic four times and above were sensitized as services provided included; HIV/AIDs testing, counseling and distributing of ARVs. Access to utilization of

CONCLUSION

health workers at the facility, (46(71.9%)) had more knowledge about the PMTCT services this is because the health workers provided peer support, health education, patient advocacy and assistance while those who didn't find the health workers at the facility minority had knowledge about the PMTCT services (10(41.7%)) and majority had no knowledge about the services (14(58.3%)). People who knew lunyankole and those who could listen to lunyankole had more knowledge of the PMTCT services (32(76.2%)) than those who could neither speak nor listen to it. This was because our study was conducted in Bushenyi, Western Uganda where majority of the participants speak lunyankole, this explains why Banyankole and Bakiga had more knowledge about PMTCT services as compared to Bakonjo who had no knowledge about the services.

PMTCT services was mainly affected by number of hours to reach the health facility, waiting time to access PMTCT services, staff availability to provide PMTCT services, distance traveled to reach the health facility and perception of the PMTCT services.

RECOMMENDATION

Level of Individual Knowledge and awareness of PMTCT Service Utilization among Pregnant mothers in Bushenyi District.

Effective sensitization of the public about PMTCT services available to women especially the rural dwellers, social media, churches, mosques and community meetings should be explored by health workers to reach them.

Health facility-related Factors that influence the Awareness of the PMTCT of HIV/AIDs services Utilization among Pregnant Mother.

Regular training of health workers on the new innovations regarding PMTCT services should be communicated to them to update their own knowledge and skills in HIV/AIDs counselling, infant feeding and PMTCT in order to effectively educate the pregnant women and carry out community outreach programs to cater for the distant people. Employment of interpreters to minimize misperception due to language differences.

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