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Review Article

PREVENTION OF MOTHER TO CHILD TRANSMISSION OF HIV IN ETHIOPIA: AN INTEGRATIVE REVIEW

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Abstract: Introduction: Even though, much has been done to control transmission of human immune deficiency virus (HIV) from mother to child, significant number of children are still living with HIV virus.
Objective: To review literature on prevention of mother to child transmission of HIV (PMTCT) service utilization, organize, summarize key findings, Patterning conclusions and recommendations.
Method: To review this literature; an integrative thought examination method was used. Google scholar, Pubmed/MEDLINE/BMC and websites of WHO and UNAIDS data bases were used as search engine by limiting the period to 2010 to 2016.
Result: PMTCT service coverage is found in succeeding manner. However, according to the report of World Health Organization 2015; its utilization was decreased compared to the previous year's unfortunately. The main hindering factor was loss to follow-up of antenatal care (ANC) services. The factor(loss to follow up of antenatal care service) hindering utilization of PMTCT service was evidenced by Ethiopian demographic health survey report of 2014 and 2016 as only 32% of pregnant women were completed their fourth ANC follow up. Furthermore, HIV testing and provision of antiretroviral therapy (ART) drug was found in improving manner compared to previous years. However, it is still very low compared to high number of children living with HIV/AIDS. Similarly, proportion of health facility delivery was found very low. Regarding breast feeding habit of women, significant number of HIV positive breastfeeding women didn't rely on exclusive breastfeeding.
Conclusion: PMTCT service providing sites were found in promising manner. However, its utilization level was found at intermediate level compared to saddle of problem in the country. Thus, need to consider adhering means of women to antenatal care services as an intervention means to enhance utilization of service prevention of transmission of HIV from mother to child.

Keywords: PMTCT; MTCT; ANC; HIV/AIDS; pregnant women; breast feeding; Ethiopia.

Introduction: Remarkable progress has been made in addressing prevention of mother to child transmission of HIV (PMTCT) service. However, much has to be done again to overcome the burden of HIV in children as more than 150,000 new infections were

recorded at the end of 2015 worldwide[1]. Ethiopian country progress report 2014 revealed since the start of PMTCT service 2001 and its scale up in 2003; number of PMTCT service sites had been increased significantly in Ethiopia. Consequently, in 2012/13 total number of health facilities providing PMTCT service was reached more than two thousand [2]. This represents about 64.4% of public hospitals and health centers[2].

According to the same year report of the country; among 793,700 people living with HIV/AIDS; over 200,300 were children. Moreover, more than 90% of total HIV/AIDS infections in children were acquired through mother-to-child transmission which is during pregnancy, labor or breastfeeding. Fortunately, this is commonly occurs in sub-Saharan African countries [3, 4].

With evidence of findings from the most recent national antenatal care sentinel investigation in Ethiopia; a declining tendency of HIV/AIDS prevalence among pregnant women aged 15-49 years in both urban and rural areas were observed. To illustrate more, HIV/AIDS prevalence among pregnant women was 1.1% in 2011. In addition, According to the same year report 42,900 deliveries were recorded among women living with HIV/AIDS[5]. As a consequence, Ethiopia is still among the uppermost contributing country for highest prevalence of HIV in women globally. Nonetheless, a lot has been done by the government of Ethiopia to enhance access of PMTCT service delivery and its quality. Though, the national coverage is still low[6, 7]. In fact, according to the country's 2014 progress report; 55% (28,200 – 39,200) HIV positive pregnant women were received ART drug as an intervention to prevent mother to child transmission of HIV. However, only 21% of infants born to HIV-infected mothers were received a virological test for HIV within two months of birth[2]. This indicates as much as to be done to overcome barriers that hinder to reach the highest rate of achievements to prevent transmission of HIV from mother to child.

Furthermore, a number of studies revealed predominantly socioeconomic, women and health facility related factors were contributed to the low PMTCT service utilization as well coverage in Ethiopia [8-11]. Among many other factors that hinder achieving the goal of PMTCT; loss to follow up of antenatal care service, lack of knowledge towards MTCT of HIV/AIDS and its prevention method, Institutional factors, provider factors, stigmatizing perception of the community towards people living with HIV/AIDS are the predominant ones. As well, reviewed literature to this title is also very limited. Therefore, this review aimed at published literature and reports to examine and identify utilization extent of PMTCT in Ethiopia. Furthermore, it helps the health planners of the country to design appropriate and effective method to overcome transmission of HIV from mother to child.

Aims of the review: To review published literature about the extent of utilization of prevention of transmission of HIV from mother to child in Ethiopia from January to March 2017.

Method: For this integrative review of literature on utilization of PMTCT of HIV/AIDS; basically Google Scholar, PubMed, WHO and UNAIDS websites were used to identify studies limited to year 2010 - 2016.

The basic key terms used in search strategy of this review were mother to child transmission of HIV; prevention of mother-to-child transmission of HIV; infant feeding; pregnant women; HIV/AIDS; safe delivery and antenatal care. Each basic search terms used were

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accompanied by UNAIDS/WHO, and/or Ethiopia.

To be included in the theme synthesis of this literature review; studies, reports and/or guidelines should be related with utilization of PMTCT of HIV service and deals on factors related to PMTCT within the period limited to 2010 to 2016 and should be conducted in Ethiopia. The study population should be also comprised of pregnant, breastfeeding women and infants living with HIV/AIDS. Moreover, the stated objective of the study/report or guideline should be affirmed about utilization of PMTCT service components: such as counseling and testing of HIV, ARV, obstetric care, infant feeding and infant HIV testing. Guidelines and country reports should deal on PMTCT of HIV and associated factors that enhance or tackle utilization of the service.

Exclusion of Studies and/or reports was made by examining information's that are not related to PMTCT service utilization or women's health care. Data were extracted regarding; country, authors, study aims, study area, utilization of PMTCT. After, search was completed the final selected literature were exported to data management software Endnote X6.

Relevant literatures were organized as grouped theme of:

- General theme of PMTCT
- Antenatal care utilization
- Extent of PMTCT of HIV service delivery sites
- Utilization of PMTCT of HIV
  - Utilization of HIV testing and counseling and ARV/ART
  - Institutional/Safe delivery utilization
  - Male partner involvements in PMTCT of HIV
  - HIV/AIDS and infant feed

Result: In this review a total of forty papers: comprised of 13 reports, 5 reviews and 23 articles were included based on the criteria formulated.

General theme about PMTCT: To be fully benefited from PMTCT of HIV service, HIV/AIDS-positive pregnant women and/or breast feeding women including their infants should be well adhered to PMTCT cascades. The cascades includes maternal HIV testing and counseling, HIV positive mothers early initiation to antiretroviral drugs, infant HIV testing and counseling and ART initiation for HIV infected infants[12]. Even if fact that, about 90% adherence to PMTCT cascade at each step is essential to be effectively decrease mother-to-child transmission of HIV/AIDS[13] loss to follow-up occurs at all stages of PMTCT cascade is considerable[14].

Successful PMTCT of HIV needs women and their infants to have access to its service and to take-up its cascades of intervention together with antenatal care services and HIV testing during pregnancy, utilization of antiretroviral treatment for women living with HIV, protected childbirth practices and proper infant feeding, use of infants HIV testing and other post-natal healthcare services[15].

Antenatal care Utilization: It is known that, one of the key sites for PMTCT service utilization site is ANC service delivery centers. In view, report by two recent national surveys and three studies of the country revealed, ANC utilization of the country was progressively increasing as it ranges from 27% to 41% with average ANC visit time of 4.9 months. Based on the two reports, one in three pregnant women would get the recommended four ANC visits. Thus, this showed a 10% increment compared to ANC utilization level of 2000[16-18]. Furthermore, even though, among the 34% ANC utilization level reported by a national health survey of the country in 2011; the number of women got ANC visit before their fourth month of pregnancy was only 11%. Nevertheless, 19% received the recommended four or more ANC visits in their pregnancy period[16], this was increased to 32% in 2014 and 2016[19].

Moreover, in support of the two reports of the country; three studies of the country revealed

that ANC utilization levels ranged between 45.5 to 90% from first visit to fourth visit [20-22]. Some of the common factors influenced ANC utilization were economic status, educational status, Maternal age, awareness why recommended for ANC visit, attitude towards maternal health care, attitude towards pregnancy, media exposure level, knowledge on danger sign of pregnancy, presence of the husband on ANC visit[20, 22]. Overall, different study showed antenatal coverage in Ethiopia is very low; which needs an intervention to increase ANC utilization which has a significant impact in controlling mother to child transmission of HIV/AIDS, morbidity and mortality of women and infants.

Extent of PMTCT of HIV service delivery sites: Evident fully, PMTCT service coverage is found in increasing progress starting from its start 2001[2, 6, 16]. To illustrate more, at the start of PMTCT in 2001 and scaled up in 2003[23], number of PMTCT service sites were much limited. However, in support of Intra health international reached to 2150. This accounts 64.5% of government public health care settings providing ANC service in 2012/13[2, 24]. This finding was supported by one secondary data analysis of six years from 2006 to 2010, which stated that PMTCT service coverage in Ethiopia was 21.3% in 2006 increased to 61.9% in 2010[6]. However, within five year gap of this report, the report of WHO 2015 revealed among total health care service sites; 79% of the health sectors were providing HCT service while PMTCT service coverage was a bit decreased to 57% compared to 61.9% PMTCT site coverage stated by one secondary data analysis of the country[25].

Utilization of PMTCT of HIV

Utilization of HIV testing and counseling and ARV/ART: Report of WHO 2015 and two other secondary data analysis studies of the country revealed that HIV testing and counseling level in Ethiopia is in increasing sort[6, 25, 26]. As the report revealed, 79% of health service centers provides HIV testing and counseling service with 24% of them also provides ARV/ART services. However, utilization of HIV counseling and testing in adult population was much low (27%) compared to the service site coverage's[25]. In fact, a onetime event was documented in Gambella region, which was tested more than 3000 people at one testing site on the worlds AIDS day in 2014[25]. In contrast, a two year and six year secondary data analysis studies of the country revealed that significant progressive increment of HIV testing among pregnant women attending ANC was recorded, which was ranged 50.7% to 92% from 2006 to 2010. This implies, an average yearly 7% increment of pregnant women counseled for HIV testing [6, 26]. This noticed increment was due to shift of the service from client initiated to provider initiated program. However, only 53.7% HIV positive women and 40.7% of their infant took ARV prophylaxis [26].

Moreover, another study of the country revealed that while PMTCT service sites were available in only 43% of all ANC facilities in 2010, HIV testing and counseling utilization level among pregnant women was increased from 2% in 2005 to 26% in 2010. However, it is still very low [5]. As a result, the percentage of HIV/AIDS positive pregnant women recognized at PMTCT sites had augmented from 1.88% in 2006 to 22.1% in 2010 and during the unchanged period of time the number of health facilities giving PMTCT services has shown much increment from 21.3% to 61.9%[27]. As a whole, even though there were some contradicting findings were recorded with a report of WHO, HIV testing among pregnant women is promising in Ethiopia. Nonetheless, there were limited awareness and practice of couple counseling and testing for HIV.

In spite of low ARV/ART service providing centers in the country, the country progress report of 2014, showed that a total of 10,302 pregnant women were on ARV/ART, among these; 5280 were on AZT while the rest were taking ART for life in 2011[2]. Moreover, 65%

of HIV positive pregnant women had received ARV/ART to prevent the vertical transmission of HIV/AIDS from mother to child in 2014. Compared to 2001, when only less than 7000 HIV/AIDS positive women received ARV/ART treatment, 19,813 positive women received ARV/ART in 2014 was a great improvement even if it is still low. However, pediatric ART coverage is below 15% still, which is an issue of concern[25]. As it is supported by more evidences and the recommendation of WHO to take ARV during breast feeding for women, there is a need to scale-up ARVs, especially in the area of PMTCT. This would be based on how health workers should counsel and support pregnant women who are HIV/AIDS positive[28].

Institutional/Safe delivery utilization: The recent national survey of Ethiopia revealed institutional delivery was ten percent only. This implies, only one in ten births was attended by skilled health care provider. In addition, almost twice of home births (95%) were from rural parts of the country. Regarding the proportion of labor and delivery attendee; 4%, 7%, 28% and 57% of deliveries were attended by Doctors, Nurses/Midwifes; TBA's and Untrained relatives or friends respectively. Moreover, only 7% of the women got the chance to attend PNC[16]. In support of the national health survey of the country, a number of studies from the countries revealed that low level of institutional delivery; ranged from 4.1% to 28.6%[22, 29-31]. In contrast to these studies one study revealed 78.8% of the study participants attended institutional delivery in their past delivery[32].

Moreover, the factors associated with institutional delivery were socio-demographic characteristics: educational status of the women, Maternal age, ANC visit, Gestational age, awareness about health facility, birth order, preference of skilled health provider, awareness and perception of women & distance of health institution [29-31]. As has been distinguished, the more studies including the health survey of the country showed; institutional delivery/safe delivery were very low, which in need to have intervention to increase in Ethiopia.

HIV/AIDS and infant feeding: In spite of the fact that, almost half (48%) of infants under six months of age were not on exclusively breastfeeding in Ethiopia, significant number (10%) of infants under six months was given additional foods[16]. On the other hand, in support of the national health survey report of 2011, one study from northern part of Ethiopia revealed that 89.5% women living with HIV/AIDS had used the recommended way of infant feeding practice by WHO while significant percentage 10.5% had practiced mixed breastfeeding[33]. Factors related with not adhering to the recommendation of WHO about breastfeeding practice were discussion ability about HIV/AIDS status with their partner's, inadequate breast milk for their infant, working condition, economic status, stigma of HIV/AIDS found in the community, and husband resistance[33].

What's more is regarding in relation to infant feeding and HIV/AIDS transmission risk, one of a retrospective study conducted in eastern part of Ethiopia, revealed; among the study participants (HIV exposed infants on care and on follow up) 78.0% took ARV prophylaxis at birth and 56.8% received Cotrimoxazole prophylactic treatment. To the regard of infant feeding practice; 69.9% infants were on exclusive breastfeeding while 9.2% were on mixed feeding[8]

Male partner involvements in PMTCT of HIV/AIDS: Male partner involvement is a crucial part in optimizing goal of PMTCT service. For this reason, Antenatal care /prevention of mother to child transmission is the only chances to test pregnant mothers and their male partners to prevent the transmission of HIV during pregnancy, labor and breastfeeding[34].

Among uncommon practices in Ethiopia, the foremost one is to accompany pregnant women in their ANC check up time. One of the studies

from northern part of Ethiopia revealed, among pregnant women attending ANC; only 20.1% of them were found with their male partner. Likewise, 82.1% of male partners came up with their wives were tested and counseled for HIV in the current pregnancy at ANC center. However, Pregnant women who know their HIV status previously were more likely to refuse to bring their partner to the ANC clinic than those who didn't [35].This indicates that couple HIV testing and counseling had great value in up taking HIV test, preventing partner's reaction to positive HIV test.

Table: 1 Main findings of studies conducted in Ethiopia about PMTCT of HIV limited to period 2010 to 2016.

Author	Publication year	Main findings
Utilization of PMTCT of HIV		
Utilization of HIV testing and counseling and ARV/ARV		
Nigatu and Woldegebriel[6]	2011	There was an increased HIV counseling proportion at PMTCT site, which was rated as three-fold increment in proportion to clients attended ANC service. Moreover, those tested among counseled was also increased significantly. Similarly, even though, the proportion of HIV positive pregnant women who received ARV prophylaxis was not consistently increased, it was higher than the corresponding annual figure for the proportion of infants born to HIV mothers who received ARV prophylaxis by an average of 16.4%.
Mirkuzie AH, Hinderaker SG, Mørkve O[26]	2010	HIV testing and counseling among new ANC service utilizers were increased from 50.7% in 2007 to 84.5% in 2009 following the shift to routine opt-out testing. However, in 2009 only 53.7% of the HIV positive women and 40.7% of their infants were received antiretroviral prophylaxis.
Asefa and Mitike[27]	2014	Among study participants participated in the study 52.0% of them were counseled about mother to child transmission of HIV and its prevention method. However, the counseling extended to infant feeding for 2.4% study participants only.
Institutional/Safe delivery utilization		
Wilunda C, Quaglio G , Putoto G , Takahashi R, Federico Calia F, Abebe D[22]	2015	Among women participated in the study only 28.6 % of them were delivered with the help of skilled birth attendant. However, the major 54.4 % proportion of women participated in the study were assisted by traditional birth attendants. Moreover, significant percentage 15.1 % was assisted by relatives/friends while the rest were assisted by health extension workers or no one.
Tsegay Y, Tesfay Gebrehiwot T, Goicolea I, Edin K, Lemma H and Sebastian MS[29]	2013	Even though more than half 54% of the women participated in the study were attended at least one antenatal care visit, only 4.1% of the study participants were delivered at health facility. The rest 95.9% of women participated in the study were delivered at home with assistance of their relatives like mother, neighbors, TBAs. However, among deliveries

		conducted at home 6.8% were assisted by HEWs.
Yohannes A, Gobana T, Araya F and Obse N[30]	2016	Among women participated in the study only 10.3% of them were delivered at health facility. Among these 10.3% of the study participants delivered at health facility, 6.3% were from rural while 25% were from urban dwellers. Moreover, based on bivariate logistic regression analysis of this study, the younger the study participants were the more likely to attend health facility delivery compare to the older ones. Likewise, the rural dwellers were less likely to attend health facility delivery compared to urban dwellers.
Worku AG, Yalew AW and Afework MF[31]	2014	Among women participated in the study 32.3% of them were attended antenatal care service provided by the health care facility. However, only 13.8% of the study participants were attended health facility delivery. The bivariate logistic regression of this study revealed the higher the education of the women and/or the husband, the more likely to attend health facility delivery. Moreover, the wealthier they are, aware about risk of pregnancy, awareness about possible to get health care professionals in the health care facility were motivated the women to attend health facility delivery than home delivery.
HIV/AIDS and infant feeding		
Ethiopian Federal Ministry of Health[16]	2011	Even if, 98% of infants were ever feed breast feeding in their life time, only 52% of the infants less than six months were in exclusive breast feeding. Moreover, 10% of infants less than six months were started complimentary meal.
Muluye D, Woldeyohannes D, Gizachew M and Tiruneh M[33]	2012	Among the HIV positive women participated in the study, the majority 83.8% were practiced exclusive breast feeding while the rest 10.5% and 5.7% were practiced mixed breast feeding and exclusive replacement feeding respectively. Moreover, the more number 66% of the study participants were used cup to feed the infant while the rest 27.3% and 6.7% were used bottle and spoon to feed their infants.
Wudineh F and Damtew B[8]	2016	Among infants participated in the study, 69.9% infants were on exclusive breastfeeding while 9.2% were on mixed feeding. Further, Almost all, 99.0% women participated in the study had health breast during the follow-up.
Male partner involvements in PMTCT of HIV/AIDS		
Haile and Brhan[35]	2014	Among women participated in the study only 20.1% of them were accompanied by their male partner at the ANC/PMTCT. Moreover, Among male partners who accompanied their pregnant wives, 82.1% were counseled and tested for HIV.

Discussion: This integrative review was aimed at identifying, examining and exploring utilization level of PMTCT in Ethiopia. In reviewing this literature, it is fact that some related articles might not be included due to the reason that not found in the databases or may

not be for free.

ANC service utilization: ANC service utilization has a crucial role in contributing its part in reducing transmission of HIV from mother to child, as it is the most common site for prevention of mother to child transmission of HIV service utilization. So, as a report of the UNICEF 2014; ANC service utilization rate in Ethiopia was 41%. Compared to previous year's level of ANC service utilization level; it was in an increasing order. In support of this report and recent mini national health survey of Ethiopia 2014, a number of studies from the country revealed a low level of ANC utilization in different health care settings[22, 30, 31]. The most common factors cited for low level of ANC utilization were low level of awareness and perception towards ANC, low perception level for maternal health, low awareness for pregnancy complication, low level of educational status of women, low level of economic status of women.

Moreover, this result was lower than the global utilization level of ANC 58%[36]. likewise, it is much lower than low income countries like Egypt 90%, Indonesia 95%, and Eritrea 89%[18]. This is due to difference in socio-demographic characteristic of women, difference in awareness of women about the use of ANC, difference in awareness level complications of pregnancy, socioeconomic difference of the countries. Thus, the government of Ethiopia and stakeholders should give emphasis on how to improve ANC service utilization; like by enhancing awareness of women about the purpose of ANC service utilization, awaring women as complications of pregnancy will be identified and controlled during ANC visit, following loss to follow up of antenatal care in their home which helps in decreasing maternal and child mortality.

HIV/AIDS and infant feeding: It is fact that, there is a risk of HIV transmission in feeding of breast milk; however, it is the most important for survival of infants born to HIV positive mothers. Based on this fact, WHO recommends children should receive nothing than exclusive breastfeeding for the first six months of life and should not be given any extra complimentary foods until six months of age. However, nearly half (52%) of children under six months in Ethiopia are being exclusively breastfed and significant amount of infants (10%) under six months receive complementary foods[16]. In support of this national health survey report, a study from northern part of Ethiopia revealed that a significant number of women living with HIV didn't adhered to exclusive breastfeeding practice even if recommended by WHO[33]. This is due to low educational status of the women, low awareness and perception to HIV to be transmitted through breastfeeding or in general low perception about HIV/AIDS, partner influence, disclosure ability about HIV, Stigma from the community. Thus, the government and stakeholders of Ethiopia should increase the awareness of the women about the transmission/prevention rate of HIV through breast milk and how to prevent, encourage community agents in doing this in the community, encourage and motivate, update health extension workers to give health education consistently and persistently in the household about safe breast feeding, kind and timing of weaning food to be started based on the recommendation of the WHO.

Utilization of HIV testing and counseling and ARV/ART: Even though, it is fact that HIV testing and counseling is a gate point to prevent transmission of HIV from mother to child and it is strongly recommended by WHO to be HIV testing should be provided as provider initiated for each pregnant women. This literature review found that lower HIV test uptake in country level in 2014 (27%)[25], in spite of one time event win world record in Gambela by testing more than 3000 peoples as campaign and some studies from the country revealed varied results from study setting to study setting which have promising contribution in controlling the transmission of HIV from mother to child[37-39]. The main reasons for relatively low uptake of

HIV were low awareness and perception for HIV testing, low educational status of the women, relatively weaker health care system in addressing appropriate and relevant information to the women, stigma level found in the community, privacy level in counseling and testing area, confidentiality and quality of health care provider play its role for relatively low level of HIV uptake.

However, there is promising progress in addressing the access of HIV testing service to the community, as 79% of the health care, providing institutions provide HIV testing service with 24% of them providing ART service in Ethiopia. [25] This indicates government of Ethiopia and its stakeholders were doing promising work in controlling transmission HIV from mother to child. Thus, the relatively low uptake of HIV testing, even if progressing in promising way now a day's should have been considered as a tackle for the goal PMTCT of HIV. So the government of Ethiopia and its stakeholders should stick and improve provider initiated option of HIV testing strategy to improve its up take dramatically as it was doing. Some studies revealed that following opt out (provider initiated) approach; dramatically increased the uptake of HIV test among pregnant women and reduce lost opportunities greatly [40].

Institutional delivery and partner involvement in PMTCT service: Even though, it is fact that institutional delivery and partner involvement is recommended by WHO and other scholarly studies; for the reason that has a crucial role in preventing mother to child transmission of HIV, it is uncommon in Ethiopia.

Some studies and reports from Ethiopia revealed institutional delivery in Ethiopia ranged from 4.1% to 28.6% [22, 30]. However, one study form northern part of Ethiopia, Bahirdar, revealed relatively higher institutional delivery proportion[32].

The same is true for male partner involvement in PMTCT service which was not common in Ethiopia. This is due to low level of awareness and perception about institutional delivery, the government accepts the participation of traditional birth attendants, low educational status of the women and low economic status of women. Thus, the government and stakeholders of Ethiopia should deal much on improving institutional delivery as well male partner involvement in PMTCT sites, as they have a great contribution in reducing transmission of HIV from mother to child.

Conclusion and recommendation: This review concludes: even though, PMTCT cascade service utilization rate is in progressively increasing order, it is still low. The main reason for low utilization level of PMTCT cascade observed was loss to follow up of ANC services which have significant impact on the implementation of effective PMTCT service. Finally, findings of this review suggest:

1. There should be efforts to increase retention of clients in PMTCT program; by specifically focusing in reducing high loss to follow up found during ANC.
2. Improving HIV/AIDS testing and counseling trend to screen HIV/AIDS +ve women in ANC/PMTCT service sites.
3. Improving trend of institutional delivery for reversing HIV/AIDS transmission from mother to child and reduce new infection of HIV in children.

Limitation: As, the search strategy of this review was based only on open access reports and articles, there will be a chance not find all the findings regarding the topic retrieved. Secondly, the time limit of the review was short as it was from 2010 to 2016, might not represent the accurate findings.

Note: The conclusion and recommendations of this review are from the regard of the author only.

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