Research article

J. Pub. Health &Tox. Res., 3(3):268-280 (2026)
DOI: https://doi.org/10.71637/jphtr.vol3no3.61

EXPLORING KNOWLEDGE AND ACCEPTABILITY TO ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION (eMTCT) OF HIV GUIDELINES AMONG HIV-POSITIVE PREGNANT WOMEN IN JAMAN SOUTH MUNICIPALITY, GHANA

Harrison K. Ampaaben[illegible] [illegible]yishetu Musa Maliki[1].

[1]Africa Center for Public H[illegible] [illegible]earch University of Port Harcourt

***Corresponding author's email**:

Article History

Received: 25 Apr 2026
Accepted: 15 Jun 2026
Published: 03Aug 2026

Abstract

This study explored the knowledge, acceptability, and adherence to elimination of mother-to-child transmission (eMTCT) of HIV guidelines among HIV-positive pregnant women in Jaman South Municipality, Bono Region, Ghana. A quantitative study design was employed. The quantitative method involved 250 HIV-positive pregnant women selected through census sampling from health facilities providing eMTCT services. Data were using a structured questionnaire, and data were analysed using SPSS version 28 and presented using descriptive statistics. The findings revealed that 44.0% of respondents demonstrated high knowledge collected and 38.0% demonstrated moderate knowledge of eMTCT guidelines, indicating that 82.0% possessed moderate-to-high knowledge. Regarding acceptability, 66.0% demonstrated high acceptability and 24.0% demonstrated moderate acceptability, resulting in an overall acceptability rate of 90.0%. The study concludes that although knowledge and acceptability to eMTCT guidelines were generally high. Strengthening counselling, confidentiality, community support systems, and partner involvement may improve programme outcomes and contribute to the elimination of mother-to-child transmission of HIV.

Keywords: eMTCT, HIV, acceptability, knowledge, pregnant women, Ghana

How to cite this paper: *Ampaabeng et al., (2026). Practice of Non-Pharmacological Pain Management Techniques during Labour among Midwives in Secondary Health Facilities, Rivers West Senatorial Zone. Journal of Public Health and Toxicological Research, 3(3):268-280 (2026).*

1. Introduction

HIV remains a substantial public health matter, especially relevant to women and children. Up to 39.9 million people were estimated globally to be living with HIV in 2024, and sub-Saharan Africa continues to carry the brunt of the epidemic (Akweh et al., 2025; Astawesegn et al., 2022). One of the most critical dimensions of that burden is the mother-to-child transmission (MTCT) of HIV, which usually occurs during some time of pregnancy, labour, and delivery, or in breastfeeding. Whereas there has been significant progress towards the reduction of pediatric HIV infections, no predominant conditions have allowed the elimination of mother-to-child transmission in many low- and middle-income countries, particularly in sub-Saharan Africa, where over 90% of MTCT cases are diagnosed (Dako-Gyeke et al., 2019; Hussen et al., 2022; Katigi, 2023). This enduring burden highlights not only efficient policy architecture but also the crucial need to understand the female and adherence to prevention interventions against the backdrop of practical life experience.

Global response to MTCT has significantly changed over the past few years. The World Health Organisation (WHO) has been working for the elimination of MTCT through different means, including lifelong glycoside states, combating maternal attrition from care, early infant diagnosis, safe practices of feeding infants, and a complete support system during pregnancy and breastfeeding. The introduction of Option B+ stood tall as a massive change in policy and practice when it was proposed that all pregnant and breastfeeding women should be placed on lifelong ART, regardless of CD4 count (World Health Organisation, 2015; Laar et al., 2018). This was subsequently reinforced by the WHO Treat All policy-your-arm approach of immediate ART for anyone diagnosed with HIV. Together, these strategies have the potential to significantly reduce maternal viral load, improve maternal health, and lead to a significant reduction in transmission of the virus to the infants.

Sub-Saharan Africa provides an illustrative account of the highs and lows faced by eMTCT. Some countries show success once they have introduced Option B+ and expanded PMTCT services, while maternal health-related facility adherence, retention in care, ART adherence, stigma, transportation accessibility, and health systems weaknesses all work against program outcomes in many settings (Méda et al., 2020; Tait et al., 2020; Wessels et al., 2020). For many women, taking ART from pregnancy through breastfeeding is not just a prescription; it is deeply tied to social relationships, fear of disclosure, constraints upon income, cultural norms, and perceptions of the health care system. Thus, when the practical demands of women's lives come into play, in the long run, whether eMTCT gets implemented and sustained becomes a matter of question.

From the point of view of the pregnant woman, the Ghanaian AIDS situation was seriously about integrating AIDS services into public health maternal care. At this time, the AIDS anatomy poses some concern from a programmatic perspective, particularly in the context of ensuring optimal health care for both mother and child (Chasweka, 1987). Conversely, under those policy points, mother-to-child HIV transmission rates have decreased since 2012, and nearly 1 per cent of women are now visited by health care personnel to prevent this deadly virus from infecting a child at birth (Kasper et al., 2016).

Despite this success, significant gaps still exist in Ghana in its response to eMTCT. Because not all coverage translates into sustained adherence, routine feedback continues to show the presence of missed opportunities across the continuum of care. In 2018, only 79% of pregnant women who were living with HIV received ARVs for PMTCT, and there is a significant gap in access or retention of some individuals eligible for treatment (UNAIDS 2019). As VAT remains high, some regional disparities are cited in testing and treatment uptake, as previously identified in similar reviews, along with the addiction to sightseeing at some point, to an extent in maternal-child health services (Dako-Gyeke et al. 2016). Beyond these, stigma, fear of disclosure, transportation difficulties, and limited community support continue to interfere with the ability of women to seek care early and remain adherent to treatment throughout pregnancy and breastfeeding (Boakye and Adjorlolo 2023).

In addition, a profile of the Bono region can offer an opportune moment for us to critically assess the problems surrounding the issue under discussion. In 2022, HIV prevalence (assumed to be less than 2.27%) was high compared to the national average, and within the same period, the region also had a considerably high number of people living with HIV and new infections, as well (BRCC, 2022). Such figures suggest that despite the national policies and interventions in place, the burden of HIV is substantially prevalent in the region. Reports from the Regional Coordinating Council in the Bono highlight stigma, smallness of uptake for tests, and continuing incidence as key challenges (BRCC, 2022). These realities perhaps provide enough reason for this region to be investigated concerning mother-to-child health services, as to how women perceive them and engage in members assisting in the enterprise.

In such a backdrop, the topic of Acceptability and Adherence to eMTCT of HIV Guidelines among mothers: exploring how pregnant and breastfeeding

mothers in the context of Jaman South Municipality, Ghana, perceive the guidelines, accept the measures, and adhere to the advice for their infants' and their own benefit, becomes both timely and contextually appropriate. It goes further away from policy rhetoric and service statistics to look into this notion from a woman's perspective in a specific rural Ghanaian setting. Through gazing at women's viewpoints, this study will arguably provide the first context-specific evidence to be used in understanding social, cultural, emotional, and health-system factors that influence adherence. This information is critical for strengthening maternal HIV services and retaining women in care goals, which will help in the gradual elimination of mother-to-child transmission of HIV in the Ghanaian context.

Aim of the study

The study aims to investigate the acceptability and adherence to elimination of mother-to-child transmission (eMTCT) guidelines among HIV-positive pregnant women in Jaman South Municipality, Bono Region, Ghana. The specific objectives are to:

1. Assess the knowledge of HIV-positive pregnant women regarding eMTCT guidelines in Jaman South Municipality.
2. Assess the acceptability of HIV-positive pregnant women regarding eMTCT guidelines in Jaman South Municipality.

Methodology

A quantitative design was warranted for this investigation. The target population comprises HIV-positive pregnant women (age 18–49) who have registered or have received eMTCT services in Jaman South. A pilot study revealed that there are 250 pregnant women who have registered for or have received eMTCT services in Jaman South. The researcher used all 250 pregnant women for the study. The study used Census sampling techniques to select the sample size. Eighteen HIV-positive pregnant women were used for the qualitative study. Data for the study were collected using a quantitative method. In the quantitative section, a structured questionnaire was used on eligible HIV-infected mothers in several South Municipal Jaman. For this purpose, a structured questionnaire was utilised for gathering information on socio-demographics, knowledge of eMTCT guidelines, acceptance of the guidelines, and compliance with the guidelines by the pregnant women. The process of testing and retesting the research instruments was followed. To ensure the consistency of the test result, the researcher distributed 30 copies of the instrument to a set of respondents who were not part of the study area. After two weeks, the researcher redistributed the same instruments to the same sets of respondents. The two different responses were gathered and analysed using Pearson's product-moment correlation, and a reliability index of 0.85 was obtained, showing that the instrument was reliable. All quantitative data from paper forms were entered into SPSS version 28.0. Data entry was double-entry verification (two different assistants entered the same data) to minimise errors. The study was conducted in accordance with the ethical principles outlined in the Declaration of Helsinki for research involving human participants. Ethical approval was obtained from the University of Port Harcourt Research Ethics Committee before the commencement of the study.

Results

Socio-Demographic Characteristics of Respondents

Table 2 presents the socio-demographic characteristics of the respondents. The respondents were aged between 15 and 49 years, with a mean age of 30.8 ± 6.7 years. Half of the respondents (50.0%) were between 25 and 34 years.

Most respondents were married (74.0%), while 12.0% were cohabiting. Smaller proportions were single (8.0%), widowed (2.4%), divorced (2.0%), and separated (1.6%).

The majority of respondents were Christians (86.0%), followed by Muslims (10.0%). Regarding educational attainment, 30.0% had completed Junior High School, 28.0% had Senior High School education, and 12.0% had tertiary education. However, 12.0% had no formal education.

In terms of occupation, trading (38.0%) and farming (28.0%) were the predominant occupations, reflecting the socio-economic characteristics of the municipality. More than half of the respondents (56.0%) resided in rural communities.

Regarding obstetric characteristics, half of the respondents (50.0%) were multigravida, while 22.0% were experiencing their first pregnancy. Most respondents (48.0%) were in their third trimester of pregnancy at the time of data collection.

With respect to HIV-related characteristics, 36.0% had been diagnosed with HIV for one to three years, while 38.0% had been receiving antiretroviral therapy for a similar duration. Half of the respondents (50.0%) had attended between four and seven antenatal care visits during the current pregnancy.

Table 2 Socio-Demographic Characteristics of Respondents (n = 250)

Variable	Frequency (n)	Percentage (%)
Age Group (Years)		
15–24	55	22.0
25–34	125	50.0
35–44	60	24.0
45–49	10	4.0
Marital Status		
Single	20	8.0
Married	185	74.0
Cohabiting	30	12.0
Divorced	5	2.0
Separated	4	1.6
Widowed	6	2.4
Religion		
Christianity	215	86.0
Islam	25	10.0
Traditional Religion	7	2.8
Other	3	1.2
Educational Level		
No Formal Education	30	12.0
Primary	45	18.0
JHS/Middle School	75	30.0
SHS/Technical	70	28.0
Tertiary	30	12.0
Occupation		
Farmer	70	28.0
Trader	95	38.0
Artisan	20	8.0
Civil/Public Servant	18	7.2
Self-Employed	25	10.0
Unemployed	15	6.0
Student	7	2.8
Residence		
Urban	110	44.0
Rural	140	56.0
Gravidity		
Primigravida	55	22.0
Secundigravida	70	28.0
Multigravida	125	50.0
Parity		
Nulliparous	50	20.0
Primiparous	70	28.0
Multiparous	110	44.0
Grand Multiparous	20	8.0
Gestational Age		
First Trimester	35	14.0
Second Trimester	95	38.0
Third Trimester	120	48.0

Duration Since HIV Diagnosis		
Less than 1 year	45	16.0
1–3 years	90	38.0
4–6 years	65	28.0
More than 6 years	50	18.0
Duration on ART		
Less than 1 year	40	16.0
1–3 years	95	38.0
4–6 years	70	28.0
More than 6 years	45	18.0
ANC Visits During Current Pregnancy		
1–3 visits	45	18.0
4–7 visits	125	50.0
8 or more visits	80	32.0

Knowledge of eMTCT Guidelines among Respondents

Table 3 presents respondents' knowledge regarding key eMTCT recommendations. The highest level of knowledge was observed regarding the importance of regular antenatal care attendance for preventing mother-to-child transmission of HIV, with 92.0% of respondents answering correctly. Similarly, 84.0% knew that adherence to antiretroviral therapy during pregnancy reduces the risk of HIV transmission to the baby, while 80.0% recognised the importance of facility-based delivery.

Knowledge regarding infant prophylaxis and Early Infant Diagnosis was moderate. Approximately 72.0% knew that HIV-exposed infants should receive antiretroviral prophylaxis after birth, while 68.0% were aware of the need for Early Infant Diagnosis testing.

However, comparatively low knowledge levels were observed regarding infant feeding practices and post-breastfeeding HIV testing. Only 56.0% correctly identified mixed feeding as a risk factor for HIV transmission, while 52.0% knew that HIV-exposed infants require a final HIV test after breastfeeding has ceased.

As shown in Figure 1, 110 respondents (44.0%) demonstrated high knowledge of eMTCT guidelines, while 95 respondents (38.0%) demonstrated moderate knowledge. Only 45 respondents (18.0%) had low knowledge levels. Overall, more than four-fifths (82.0%) of respondents exhibited moderate-to-high knowledge of eMTCT guidelines.

Table 3a Overall Knowledge Level of Respondents (n=250)

Knowledge Level	Frequency (n)	Percentage (%)
High Knowledge	110	44.0
Moderate Knowledge	95	38.0
Low Knowledge	45	18.0
Total	250	100.0

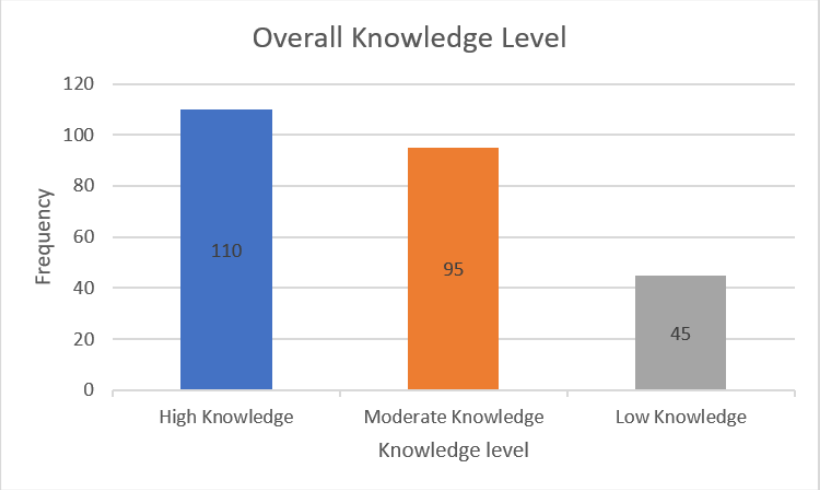

Figure 1: Knowledge Level of eMTCT Guidelines Among Respondents

Table 3b Knowledge of eMTCT Guidelines Among Respondents (n = 250)

S/N	Knowledge Assessment Item	Yes n (%)	No n (%)	Not Sure n (%)
1.	Taking ARV medication as prescribed during pregnancy can reduce HIV transmission to the baby	210 (84.0)	25 (10.0)	15 (6.0)
2.	Regular ANC attendance is important for preventing mother-to-child transmission of HIV	230 (92.0)	10 (4.0)	10 (4.0)
3.	Facility-based delivery reduces the risk of HIV transmission to the baby	200 (80.0)	30 (12.0)	20 (8.0)
4.	HIV-exposed newborns should receive ARV prophylaxis after birth	180 (72.0)	40 (16.0)	30 (12.0)
5.	HIV-exposed infants require continued ARV prophylaxis as recommended	160 (64.0)	50 (20.0)	40 (16.0)
6.	Mothers on effective ART are encouraged to breastfeed for six months exclusively	150 (60.0)	60 (24.0)	40 (16.0)
7.	Mixed feeding before six months increases the risk of HIV transmission	140 (56.0)	70 (28.0)	40 (16.0)
8.	HIV-exposed infants should undergo Early Infant Diagnosis at the recommended age	170 (68.0)	45 (18.0)	35 (14.0)
9.	HIV-exposed infants require a final HIV test after breastfeeding cessation	130 (52.0)	70 (28.0)	50 (20.0)
10	Partner support contributes to the successful implementation of eMTCT interventions	190 (76.0)	35 (14.0)	25 (10.0)

Acceptability of eMTCT Guidelines Among Respondents

Table 4b presents respondents' acceptability of eMTCT guidelines. The findings indicate a generally positive perception of the programme among respondents. The highest levels of acceptability were observed for trust in healthcare workers' advice regarding eMTCT (92.0%), belief that adherence to eMTCT guidelines increases the likelihood of having an HIV-free baby (90.0%), and confidence in the protective effect of maternal antiretroviral therapy during pregnancy (90.0%).

Similarly, a high proportion of respondents expressed willingness to take their babies for Early Infant Diagnosis testing (88.0%) and reported being comfortable with facility-based delivery in health facilities providing eMTCT services (86.0%).

However, comparatively lower levels of acceptability were observed regarding exclusive breastfeeding while

on antiretroviral therapy (58.0%) and avoidance of mixed feeding (62.0%).

Acceptability scores were computed by summing respondents' scores across the twelve acceptability assessment items. As presented in Figure 3, 165 respondents (66.0%) demonstrated high acceptability of eMTCT guidelines, while 60 respondents (24.0%) demonstrated moderate acceptability. Only 25 respondents (10.0%) exhibited low acceptability.

Overall, 90.0% of respondents demonstrated moderate-to-high acceptability of eMTCT guidelines.

Table 4a Overall Acceptability Level (n=250)

Acceptability Level	Frequency (n)	Percentage (%)
High Acceptability	165	66.0
Moderate Acceptability	60	24.0
Low Acceptability	25	10.0
Total	**250**	**100.0**

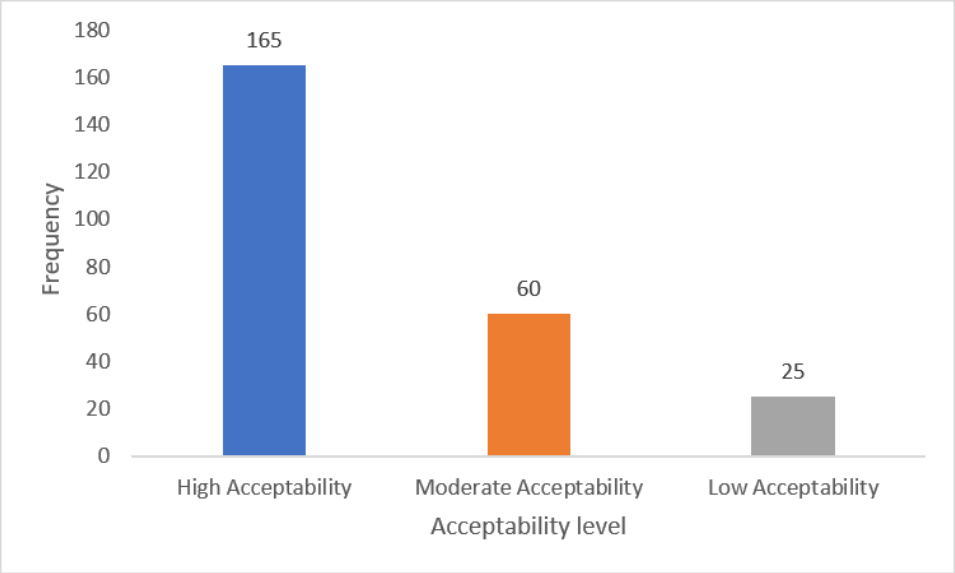

Figure 2: Acceptability Level of eMTCT Guidelines Among Respondents

Table 4b. Acceptability of eMTCT Guidelines Among Respondents (n = 250)

S/N	Acceptability Assessment Item	Always n (%)	Sometimes n (%)	Rarely n (%)	Never n (%)
1.	I am comfortable taking my ARV medication every day during pregnancy as recommended.	190 (76.0)	40 (16.0)	15 (6.0)	5 (2.0)
2.	I believe that taking ARV medication throughout pregnancy protects my baby from HIV infection.	225 (90.0)	15 (6.0)	7 (2.8)	3 (1.2)
3.	I am comfortable delivering my baby at a health facility that provides eMTCT services.	215 (86.0)	20 (8.0)	10 (4.0)	5 (2.0)
4.	I believe that giving my baby ARV prophylaxis after birth is necessary and beneficial.	200 (80.0)	30 (12.0)	15 (6.0)	5 (2.0)
5.	I am comfortable with the recommendation to breastfeed for six months while taking ARVs exclusively	145 (58.0)	65 (26.0)	25 (10.0)	15 (6.0)
6.	I believe that avoiding mixed feeding is important for reducing HIV transmission to my baby.	155 (62.0)	55 (22.0)	25 (10.0)	15 (6.0)

7.	I am willing to take my baby for Early Infant Diagnosis (EID) testing at the recommended time.	220 (88.0)	20 (8.0)	5 (2.0)	5 (2.0)
8.	I am comfortable with the follow-up HIV testing schedule recommended for my baby.	180 (72.0)	45 (18.0)	15 (6.0)	10 (4.0)
9.	I find the eMTCT recommendations practical and suitable for my daily life.	165 (66.0)	55 (22.0)	20 (8.0)	10 (4.0)
10.	I trust the information and advice provided by healthcare workers regarding eMTCT.	230 (92.0)	12 (4.8)	5 (2.0)	3 (1.2)
11.	I believe that adhering to eMTCT guidelines gives my baby the best chance of being born HIV-free.	225 (90.0)	15 (6.0)	7 (2.8)	3 (1.2)
12.	Overall, I accept the eMTCT guidelines and am willing to follow the recommendations provided by healthcare workers.	210 (84.0)	25 (10.0)	10 (4.0)	5 (2.0)

Discussion

Knowledge of HIV-positive pregnant women regarding eMTCT guidelines in Jaman South Municipality

This study assessed the level of knowledge regarding eMTCT guidelines among HIV-positive pregnant women receiving care in Jaman South Municipality. The findings revealed that 44.0% of respondents had high knowledge, while 38.0% demonstrated moderate knowledge, indicating that more than four-fifths (82.0%) of respondents possessed adequate knowledge of eMTCT guidelines. Respondents exhibited particularly high levels of awareness regarding the importance of regular antenatal care attendance, adherence to antiretroviral therapy (ART) during pregnancy, and facility-based delivery for preventing mother-to-child transmission of HIV. However, comparatively lower levels of knowledge were observed regarding infant feeding recommendations, mixed feeding, and final HIV testing after cessation of breastfeeding.

The generally high level of knowledge observed in this study suggests that health education and counselling provided through antenatal care and HIV treatment services within the municipality may be contributing positively to women's understanding of eMTCT interventions. This finding is consistent with the study by Mohammed et al. (2024), which reported that women in Ghana who had access to maternal healthcare services and HIV-related information were significantly more likely to possess adequate knowledge regarding HIV transmission during pregnancy and methods of prevention. The authors emphasised that regular exposure to healthcare providers and health education programmes enhanced women's understanding of HIV prevention strategies (Mohammed et al., 2024).

The findings are further corroborated by the qualitative study conducted among pregnant women in Accra by Adongo et al. (2024), which found that most pregnant women possessed general knowledge regarding HIV transmission and prevention but demonstrated varying levels of understanding regarding specific PMTCT-related interventions, particularly infant feeding and postnatal follow-up. The authors concluded that although awareness of HIV was widespread, comprehensive understanding of all PMTCT components remained inadequate among some women, thereby highlighting the need for continuous education throughout pregnancy and the postpartum period.

Similarly, evidence from the WHO indicates that maternal knowledge remains one of the strongest predictors of uptake of PMTCT services because women who understand HIV transmission pathways and prevention measures are more likely to engage with HIV care services, initiate treatment early, and remain in care throughout pregnancy and breastfeeding (Mohammed et al., 2024).

The findings are also supported by the World Health Organisation (WHO), which identifies maternal knowledge as a critical component of successful eMTCT programmes. According to WHO (2021), women who understand the benefits of lifelong ART, infant prophylaxis, facility-based delivery, and Early Infant Diagnosis are more likely to engage actively in

prevention programmes and adopt recommended health behaviours. Adequate knowledge therefore serves as a foundation for improving programme uptake, adherence, and retention in care.

The high awareness of antenatal care attendance and ART adherence observed in the present study may reflect the increasing integration of HIV counselling and testing into routine antenatal services in Ghana. Recent evidence from the Tamale Metropolis demonstrated that pregnant women attending antenatal care clinics generally possessed favourable knowledge and attitudes towards HIV counselling and testing services integrated into routine maternal healthcare (Abdulai et al., 2025). This suggests that strengthening antenatal-based HIV education remains an effective strategy for improving maternal understanding of eMTCT interventions.

Despite the generally favourable knowledge levels observed, important gaps remain regarding infant feeding and postnatal HIV care. Knowledge regarding mixed feeding and final HIV testing after breastfeeding cessation was comparatively lower than knowledge related to antenatal interventions. Similar findings have been reported among pregnant women in Ghana, where, although general awareness of HIV transmission was high, misconceptions regarding specific aspects of infant feeding and postnatal HIV management persisted (HIV/AIDS-related knowledge, attitudes and perceptions of urban Ghanaian pregnant women, 2024). These gaps may be attributable to cultural beliefs, inconsistent understanding of changing infant feeding recommendations, and greater emphasis placed on antenatal rather than postnatal counselling.

The findings imply that although HIV-positive pregnant women in Jaman South Municipality generally possess adequate knowledge of eMTCT guidelines, healthcare providers should strengthen counselling on infant feeding practices, Early Infant Diagnosis, and final HIV testing after breastfeeding cessation. Addressing these knowledge gaps is essential because incomplete understanding of postnatal eMTCT interventions may compromise programme effectiveness and increase the risk of HIV transmission during breastfeeding.

Acceptability of HIV-positive pregnant women regarding eMTCT guidelines in Jaman South Municipality

The present study assessed the acceptability of eMTCT guidelines among HIV-positive pregnant women in the Jaman South Municipality and found that 66.0% of respondents demonstrated high acceptability, while 24.0% demonstrated moderate acceptability. Overall, 90.0% of respondents exhibited moderate-to-high acceptability of the recommended eMTCT interventions. Respondents expressed particularly high levels of confidence in healthcare providers, willingness to attend infant HIV testing appointments, belief in the effectiveness of antiretroviral therapy, and trust that adherence to eMTCT recommendations could result in the birth of an HIV-free child.

The high level of acceptability observed in this study suggests that most women perceived eMTCT interventions as beneficial, practical, and necessary for protecting their infants from HIV infection. This finding is encouraging because acceptability is a critical prerequisite for successful programme implementation. According to the World Health Organisation (2021), women's acceptance of HIV prevention interventions significantly influences uptake of maternal ART, facility-based delivery, infant prophylaxis, and retention in care throughout the breastfeeding period. When women believe that interventions are effective and beneficial, they are more likely to participate actively in prevention programmes and comply with clinical recommendations.

The high level of acceptability observed among respondents may be partly explained by increasing confidence in the effectiveness of antiretroviral therapy and PMTCT services. WHO reports that effective maternal ART can reduce the risk of vertical transmission to very low levels when women remain adherent throughout pregnancy and breastfeeding. As awareness of these benefits increases, women may become more willing to accept programme recommendations (Mohammed et al., 2024).

Furthermore, qualitative evidence from Ghana suggests that positive relationships between pregnant women and healthcare providers significantly influence women's willingness to participate in HIV-related services. Women who perceive healthcare workers as respectful, supportive, and trustworthy are more likely to accept counselling messages and engage in recommended care pathways (Ameyaw et al., 2024).

The high level of trust in healthcare providers identified in this study is consistent with findings from Ghana and other sub-Saharan African countries, where supportive interactions with healthcare workers have been associated with improved engagement in HIV care. Ameyaw et al. (2024) reported that social and professional support significantly enhanced treatment uptake and retention among pregnant and postpartum women living with HIV in Ghana. Women who perceived healthcare providers as supportive and trustworthy were more likely to attend appointments regularly, discuss concerns openly, and adhere to medical advice. These findings suggest that the quality of provider-client relationships remains a crucial determinant of programme success.

The finding may also reflect increased awareness of the effectiveness of modern antiretroviral therapy in preventing vertical HIV transmission. UNAIDS (2024) reported that countries that have successfully expanded access to ART among pregnant women have achieved substantial reductions in mother-to-child transmission rates. As women increasingly observe positive outcomes among mothers enrolled in HIV care programmes, confidence in the effectiveness of eMTCT interventions may improve, thereby enhancing programme acceptability.

Despite the generally high level of acceptability, the study identified comparatively lower acceptance of exclusive breastfeeding and avoidance of mixed feeding. This finding suggests that infant feeding recommendations remain one of the most challenging components of eMTCT implementation. Similar observations have been reported across sub-Saharan Africa, where traditional infant feeding practices and cultural expectations often conflict with recommended HIV feeding guidelines (World Health Organisation, 2021). In many communities, family members may encourage the introduction of water, herbal preparations, or complementary foods before six months of age, thereby creating uncertainty regarding recommended feeding practices.

The qualitative findings of this study further support this explanation. Several participants indicated that family influence and community expectations sometimes conflicted with healthcare recommendations regarding infant feeding. This suggests that acceptability is not determined solely by individual knowledge but is also shaped by broader social and cultural factors. Consequently, interventions aimed at improving acceptability should extend beyond pregnant women to include partners, family members, and community leaders who influence maternal decision-making.

Overall, the findings indicate that eMTCT guidelines are widely accepted among HIV-positive pregnant women in the Jaman South Municipality. However, targeted education and community-based interventions are required to address persistent concerns regarding infant feeding practices and to further strengthen programme acceptability.

Conclusion

Based on the findings of the study, it can be concluded that HIV-positive pregnant women in Jaman South Municipality generally possess adequate knowledge of eMTCT guidelines and demonstrate high levels of acceptability towards recommended interventions. The majority of women understand the importance of antiretroviral therapy, antenatal care attendance, facility-based delivery, infant prophylaxis, and infant HIV testing in preventing mother-to-child transmission of HIV.

Recommendations

Based on the findings of the study in the Jaman South Municipality, the following recommendations were made to improve adherence and outcomes for the eMTCT program:

1. Strengthen continuous health education on all components of eMTCT guidelines, with particular emphasis on infant feeding practices, Early Infant Diagnosis, and post-breastfeeding HIV testing.
2. Intensify community-based HIV stigma reduction programmes through community durbars, media campaigns, religious institutions, and community leaders.
3. Develop community outreach services to improve access to eMTCT services for women living in remote communities.
4. Provide regular individualised counselling to address specific barriers affecting adherence, including disclosure concerns, medication side effects, and infant feeding challenges.
5. Encourage male partner involvement in antenatal care and eMTCT services to improve social support and treatment adherence.

6. Strengthen confidentiality measures within health facilities to minimise fears of unintended HIV status disclosure.

Reduce clinic waiting times through improved appointment scheduling and service organization.

References

Adjetey, V., Obiri-Yeboah, D., & Dornoo, B. (2019). Differentiated service delivery: A qualitative study of people living with HIV and accessing care in a tertiary facility in Ghana. *BMC Health Services Research*, 19(1), 95.

Adongo, A. A., Akuoko, K. O., Dapaah, J. M., & Manful, E. (2025). Breastfeeding complexities and sociocultural barriers in the context of preventing perinatal transmission of HIV: A descriptive phenomenology in Northern Ghana. *PloS One*, 20(7), e0327353.

Adongo, A. A., Dapaah, J. M., & Addo, B. (2024). HIV/AIDS-related knowledge, attitudes and perceptions of urban Ghanaian pregnant women: Results of a qualitative study. *International Journal of Africa Nursing Sciences*, *21*, 100785. https://doi.org/10.1016/j.ijans.2024.100785

Akweh, T. Y., Adoku, E., Mbiba, F., Teyko, F., Brinsley, T. Y., Boakye Jr., B. A., Aboagye, R. G., & Amu, H. (2025). Prevalence and factors associated with knowledge of HIV Self-Test kit and HIV-Self Testing among Ghanaian women: Multi-level analyses using the 2022 Ghana Demographic and Health Survey. *BMC Public Health*, 25(1), 1161.

Ali, H., Amoyaw, F., Baden, D., Durand, L., Bronson, M., Kim, A., Grant-Greene, Y., Imtiaz, R., & Swaminathan, M. (2019). Ghana's HIV epidemic and PEPFAR's contribution towards epidemic control. *Ghana Medical Journal*, 53(1), 59–62.

Ameyaw, E. K., Nutor, J. J., Okiring, J., Yeboah, I., Agbadi, P., Getahun, M., Agbadi, W., & Thompson, R. G. A. (2024). The role of social support in antiretroviral therapy uptake and retention among pregnant and postpartum women living with HIV in the Greater Accra region of Ghana. *BMC Public Health, 24*, 540. https://doi.org/10.1186/s12889-024-18004-z

Boateng, D., Kwapong, G. D., & Agyei-Baffour, P. (2013). Knowledge, perception about antiretroviral therapy (ART) and prevention of mother-to-child-transmission (PMTCT) and adherence to ART among HIV positive women in the Ashanti Region, Ghana: A cross-sectional study. *BMC Women's Health*, *13*(1), 2. https://doi.org/10.1186/1472-6874-13-2

Buh, A., Deonandan, R., Gomes, J., Krentel, A., Oladimeji, O., & Yaya, S. (2023). Barriers and facilitators for interventions to improve antiretroviral therapy adherence in sub-Saharan African countries: A systematic review and meta-analysis. *PLoS One*, *18*(11), e0295046. https://doi.org/10.1371/journal.pone.0295046

Dame, J. A., Nightingale, K. J., Sefogah, P., Aggrey, I., Ahmed, D., Afrane, A. K. A., & Lowenthal, E. D. (2026). Viral load suppression among pregnant and breastfeeding women living with HIV in Ghana: A prospective longitudinal study. *BMC Infectious Diseases, 26*, 1012. https://doi.org/10.1186/s12879-026-13282-x

Dirisu, O., Eluwa, G., Adams, E., Torpey, K., Shittu, O., & Adebajo, S. (2020). " I think this is the only challenge… the stigma" Stakeholder perceptions about barriers to Antenatal care (ANC) and Prevention of mother-to-child transmission (PMTCT) uptake in Kano state, Nigeria. *PloS One*, 15(4), e0232028.

Dyeshana, H. M., & Zuma, S. M. (2025). Contributory factors to the partial implementation of the prevention of mother-to-child transmission policy in South Africa. *BMC Pregnancy and Childbirth*, 25(1), 792.

Fassinou, L. C., Songwa Nkeunang, D., Delvaux, T., Nagot, N., & Kirakoya-Samadoulougou, F. (2024). Adherence to option B+ antiretroviral therapy and associated factors in pregnant and breastfeeding women in Sub-Saharan Africa: A systematic review and meta-analysis. *BMC Public Health*, 24(1), 94.

Fedlu, A., Alie, B., Siraj Mohammed, A., Adem, F., & Hassen, A. (2020). Adherence to antiretroviral treatment for prevention of mother-to-child transmission of HIV in Eastern Ethiopia: A cross-sectional study. *HIV/AIDS-Research and Palliative Care*, 725–733.

Fonsah, J. Y., Njamnshi, A. K., Kouanfack, C., Qiu, F., Njamnshi, D. M., Tagny, C. T., Nchindap, E., Kenmogne, L., Mbanya, D., & Heaton, R. (2017). Adherence to antiretroviral therapy (ART) in Yaoundé-Cameroon: Association with opportunistic infections, depression, ART regimen and side effects. *PloS One*, 12(1), e0170893.

Geremew, H., Geremew, D., Abdisa, S., Dessie, A. M., Kassa, G. M., & Moges, N. A. (2023). Adherence to the Option B+ PMTCT program and its predictors among HIV-positive women in Ethiopia. A systematic review and meta-analysis. *Health Science Reports*, 6(7), e1404.

Ghana AIDS Commission. (2020). National and sub-national HIV and AIDS estimates and projections. Accra: Ghana AIDS Commission. Retrieved May 20, 2023, from https://www.ghanaids.gov.gh/mcadmin/Uploads/2020%20HIV%20and%20AIDS%20Estimates%20and%20Projections%20PDF.pdf

Ghana AIDS Commission. (2020). National and sub-national HIV and AIDS estimates and projections, 2020 [PDF]. Ghana AIDS Commission. Retrieved May 20, 2023, from

https://www.ghanaids.gov.gh/mcadmin/Uploads/2020%20HIV%20and%20AIDS%20Estimates%20and%20Projections%20PDF.pdf

Ghana Health Service; Ministry of Health. (2022, October). Consolidated guidelines for HIV care in Ghana: Test, treat & track. Accra, Ghana: Ghana Health Service. Retrieved from https://www.differentiatedservicedelivery.org/wp-content/uploads/Consolidated-Guidelines-For-Hiv-Care-In-Ghana.pdf?utm_source=chatgpt.com

Joint United Nations Programme on HIV/AIDS (UNAIDS). (2024). *The urgency of now: AIDS at a crossroads: Global AIDS update 2024*. UNAIDS.

Laar, A. S., & Govender, V. (2013). Individual and community perspectives, attitudes, and practices on mother-to-child transmission and infant feeding among HIV-positive mothers in sub-Saharan Africa: A systematic literature review. *International Journal of MCH and AIDS*, 2(1), 153.

Laar, A. S., Dalinjong, P. A., Ntim-Adu, C., & Anaman-Torgbor, J. A. (2018). Understanding health facility challenges in the implementation of Option B+ guidelines in Ghana: The perspectives of health workers. *Journal of Hospital Management and Health Policy*, 2(6).

Mabuka, S., Lowane, M. P., Nesengani, T. V., & Simbeni, T. V. (2025). Adherence, perceptions and knowledge of an HIV PMTCT programme: A mother-baby pair study. *Southern African Journal of HIV Medicine*, 26(1), 1648.

Méda, Z. C., Der A, S., Hien, H., Kouanda, I., Hien, L., & Sankara, N. (2020). Determinants of the Health Services Limited the Supply of Care Related to the Second Pillar of the Prevention of Mother-Child Transmission of HIV in the Region of Hauts Bassins, Burkina Faso. J. *Women's Health Care*, 3, 1.

Mohammed, H., Kebir, M. S., Obiribea, C., Essuman, M. A., & Ahinkorah, B. O. (2024). Knowledge of HIV transmission during pregnancy among women of reproductive age in Ghana. *BMC Infectious Diseases*, *24*(1), 507. https://doi.org/10.1186/s12879-024-09325-w

Mohammed, H., Kebir, M. S., Obiribea, C., Essuman, M. A., & Ahinkorah, B. O. (2024). Knowledge of HIV transmission during pregnancy among women of reproductive age in Ghana. *BMC Infectious Diseases*, *24*, 507. https://doi.org/10.1186/s12879-024-09325-w

Mohammed, H., Kebir, M. S., Obiribea, C., Essuman, M. A., & Ahinkorah, B. O. (2024). Knowledge of HIV transmission during pregnancy among women of reproductive age in Ghana. *BMC Infectious Diseases*, 24(1), 507.

Momplaisir, F. M., Fortune, K., Nkwihoreze, H., Groves, A. K., Aaron, E., & Jemmott III, J. B. (2021). Outcome expectancies toward adherence to antiretroviral therapy for pregnant and postpartum women with HIV. *Women's Health*, 17, 17455065211061094.

Mukomafhedzi, N., Tshitangano, T., & Tshivhase, S. (2025). Barriers and Facilitators to the Elimination of Mother-to-Child Transmission Services Among Pregnant and Breastfeeding Women in Gauteng Province, South Africa. *Nursing Reports*, 15(9), 318.

Simelane, P. T., Simelane, M. S., & Amoateng, A. Y. (2022). Barriers and facilitators to adherence for antiretroviral therapy: The perspectives of patients from a wellness centre in the Mpumalanga Province, South Africa. *African Health Sciences*, 22(3), 455–462.

Tabb, Z., Moriarty, K., Schrier, M. W., Amekah, E., Flanigan, T. P., & Lartey, M. (2017). Assessing the acceptability and feasibility of provider-initiated HIV testing and counselling in Ghana. *Rhode Island Medical Journal*, 100(8), 19.

Tait, C. L., Peters, R. P., McIntyre, J. A., Mnyani, C. N., Chersich, M. F., Grey, G., Buchmann, E. J., Struthers, H., & Violari, A. (2020). Implementation of a PMTCT programme in a high HIV prevalence setting in Johannesburg, South Africa: 2002–2015. *Southern African Journal of HIV Medicine*, 21(1), 1–7.

UNAIDS. (2019). Country progress report — Ghana: Global AIDS monitoring 2019. Geneva: Joint United Nations Programme on HIV/AIDS (UNAIDS). Retrieved February 23, 2022, from https://www.unaids.org/sites/default/files/country/documents/GHA_2019_countryreport.pdf

UNAIDS. (2019). Country Progress Report-Ghana: Global AIDS Monitoring.

UNICEF. (2017). Monitoring the situation of women and children: Elimination of mother-to-child transmission (EMTCT). UNICEF Data. https://data.unicef.org/topic/hivaids/eMTCT/

Wessels, J., Sherman, G., Bamford, L., Makua, M., Ntloana, M., Nuttall, J., Pillay, Y., Goga, A., & Feucht, U. (2020). The updated South African national guideline for the prevention of mother-to-child transmission of communicable infections (2019). *Southern African Journal of HIV Medicine*, 21(1).

World Health Organisation. (2015). Guideline on when to start antiretroviral therapy and on pre-exposure prophylaxis for HIV. Geneva: WHO. https://www.who.int/publications/i/item/9789241509565

World Health Organisation. (2016). Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection: Recommendations for a public health approach (2nd ed.). World Health Organisation. http://www.who.int/hiv/pub/arv/arv-2016/en/

World Health Organisation. (2021). Consolidated guidelines on HIV prevention, testing, treatment, service delivery and monitoring: Recommendations

for a public health approach. *World Health Organisation.*

World Health Organisation. (2025). HIV data and statistics. https://www.who.int/teams/global-hiv-hepatitis-and-stis-programmes/hiv/strategic-information/hiv-data-and-statistics#:~:text=%2A%20In%202024%2C%2087,aware%20of%20their%20HIV%20status

Ziblim, A. M., Inusah, A.-H. S., & Boah, M. (2024). Perceptions of patients and healthcare providers regarding barriers and enablers of HIV anti-retroviral therapy among women at a regional hospital in Ghana: Implications for national HIV/AIDS control. *BMC Women's Health,* 24(1), 459.