



# **Roles and Challenges of Traditional Birth Attendants in Prevention of Mother to Child Transmission of HIV in Nigeria - A Brief Review**

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## **Authors' contributions**

*This work was carried out in collaboration among all authors. Author AFC designed the study, performed the statistical analysis and wrote up the discussion, while the protocol and the first draft of the manuscript were written by author POUA. The literature searches were co-managed by author HNC. All authors read and approved the final manuscript.*

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## **ABSTRACT**

**Introduction:** About 65% of deliveries in Nigeria (including HIV infected women) take place in settings like traditional birth attendants (TBAs). Though TBA involvement in PMTCT has some challenges, their success stories of increased HIV counseling and testing (HCT) uptake among pregnant women remains a reason for training, supervising and successfully integrating them into formal health centres and to reach the PMTCT target population. This is a brief review of roles and challenges of traditional birth attendants in Prevention of Mother to Child Transmission of HIV in Nigeria.

**Methods:** Keywords from objectives of review are MTCT, PMTCT and TBA which were used to search for related literatures through online libraries like national and international journals example medline and pubmed including google. About 62 related literatures/studies were initially generated and then narrowed down to 21 literatures which were selected because they met the inclusion criteria of less than 10 years and related to objective of review.

**Findings:** Because 65% of deliveries take place at non-formal settings like TBAs, they are being trained/engaged mainly by NGOs to be involved in PMTCT. Major success stories include; improved PMTCT knowledge and practices after training ( $p = 0.01$ ) and increased HCT uptake at the TBAs ( $p = 0.001$ ). Major challenges include low education level, reluctance to refer HIV positive patients in absence of incentives, poor reporting mechanism and poor-quality assessment/supervisions. National plans on accelerated PMTCT and elimination of MTCT currently advises that TBAs be integrated into formal health centres to further reach target population and cover the PMTCT gap in Nigeria.

**Conclusion:** TBAs have the potential of bridging the gap between formal PMTCT delivery points and the cultural communities where majority of the target population-pregnant women- live. Though challenges of TBA involvement are visible, support for training/retaining and quality assessment/supervision among TBAs could be the answer to the challenges of reaching the PMTCT target group and reaching the PMTCT target in Nigeria.

*Keywords: Roles; challenges; TBA; PMTCT; HIV.*

## 1. INTRODUCTION

WHO defines Traditional birth attendants (TBA) as “a person who assists the mother during childbirth and initially acquired her skills by delivering babies herself or through apprenticeship to other TBAs” [1]. TBAs include non-formally trained people who take deliveries in a non-formal setting through a skills acquired from generational or traditional means. In Nigeria a Traditional Birth Attendant (TBA) can be defined based on the Traditional Health Practitioners Act as a person who engages in traditional health practice and is registered under the Act [1]. It has been observed that TBAs include both uneducated and educated persons whose basic education may or may not be in the line of health or midwifery. The education level ranges from primary, secondary or post-secondary education. However, the uneducated ones usually constitute the bulk of the group with studies showing the educated ones to have mostly primary and secondary education level [2].

The importance of TBAs for years has been denied by professional western trained health practitioners and other scientists until during the late 1980s, when World Health Organization through Safe motherhood 1987 found TBAs have a significant role in reducing maternal and newborn mortality [3]. The World Health Organization (WHO) notes that TBAs can potentially improve maternal and new born health at community level. TBAs play an important role in settings where most births take place in the home. In Asia, TBAs constitute the largest single group of birth attendants (41% of births) [4]. In various studies in Africa, including Nigeria, 40 - 60% home deliveries are conducted by TBAs [1,5,6].

TBAs are integral members of their communities and provide an important window to local customs, traditions, and perceptions regarding childbirth and newborn care. About 65% deliveries take place at non-formal settings like TBAs, they are being trained/engaged mainly by NGOs to be involved in PMTCT [5]. Moreover, challenges like low HCT/PMTCT service uptake (35.5%), low HCT/PMTCT service delivery facilities (27%), low ANC (58%) and low (35%) delivery in formal health setting constitute gaps that can be bridged by TBAs [5].

TBA practices may include advice or instructions as to what nutrition; orthodox and herbal medications; deliveries; newborn care; postnatal care; health education and psychological/emotional comfort in the most culturally acceptable way [7].

These role of TBAs in maternal and child care (MCH) is known in many African and Asian communities but they are not all generally trained in formal education setting and to deal with complications in pregnancy. Because all pregnancies carry a degree of risk, it is unquestionable fact that all pregnancies should be cared for and delivered by skilled birth attendance with prompt referrals where necessary so as to reduce the maternal and child mortality rate which has remained high in Nigeria.

TBAs have therefore been engaged in training for expanding MCH intervention in developing countries where the ratio of skilled birth attendance to pregnant women needing their services are low. In Nigeria, the MCH engagement has been done through the government midwifery program [8] and more

recently with focus on expanding HIV interventions, TBAs have been engaged in HCT/PMTCT interventions through Non-Governmental Organisations (NGO) and implementing partners like Centre for Clinical Care and Clinical Research Nigeria (CCCRN), Faith Alive, AIDS prevention in Nigeria (APIN), Institute of human virology (IHVN). The TBAs are trained to improve knowledge and practices regarding HIV, routes of transmission and hygienic procedures for prevention; risk of transmission from mother to child, HIV counselling and testing of the pregnant women; and referral of the positive infected mother through a linked health facility.

In Nigeria, traditional birth attendants also known as traditional midwives provide basic health care, support and advice during and after pregnancy and childbirth, based primarily on experience and knowledge acquired informally through the traditions and practices of the communities where they originated [7]. They usually work in rural, remote and other medically underserved areas and may not receive formal education and training in health care provision, with no professional requisites such as certification or licensing but get skill through apprenticeship or are self-taught.

TBAs may or may not be integrated in the formal health care system [3,7]. While some health workers explained that integration between their facilities and TBA's have been quite successful and helpful because TBAs refer pregnant women to facilities when need arises, others insisted that the underutilization of the healthcare centres due to TBA patronage and that women are exposed to risks as a result of the patronage. Be it as it may, TBAs sometimes serve as a bridge between the community and the formal health system, and may accompany women to health facilities for delivery [7]. The TBAs primary assignment in Nigeria center around conducting ANC, delivery and post-natal services for mothers. The objective of this review was to unravel the roles played and challenges faced by traditional birth attendants in prevention of mother to child transmission of HIV in Nigeria.

## 2. METHODOLOGY

Keywords from objectives of review are MTCT, PMTCT and TBA which were used to search for related literatures through online

libraries like national and international journals example medline and pubmed including google using Medical subject headings (MeSH terms). About 62 related literatures/studies were initially generated and then narrowed down to 21 literatures which were selected because they met the inclusion criteria of less than 10 years and related to objective of review.

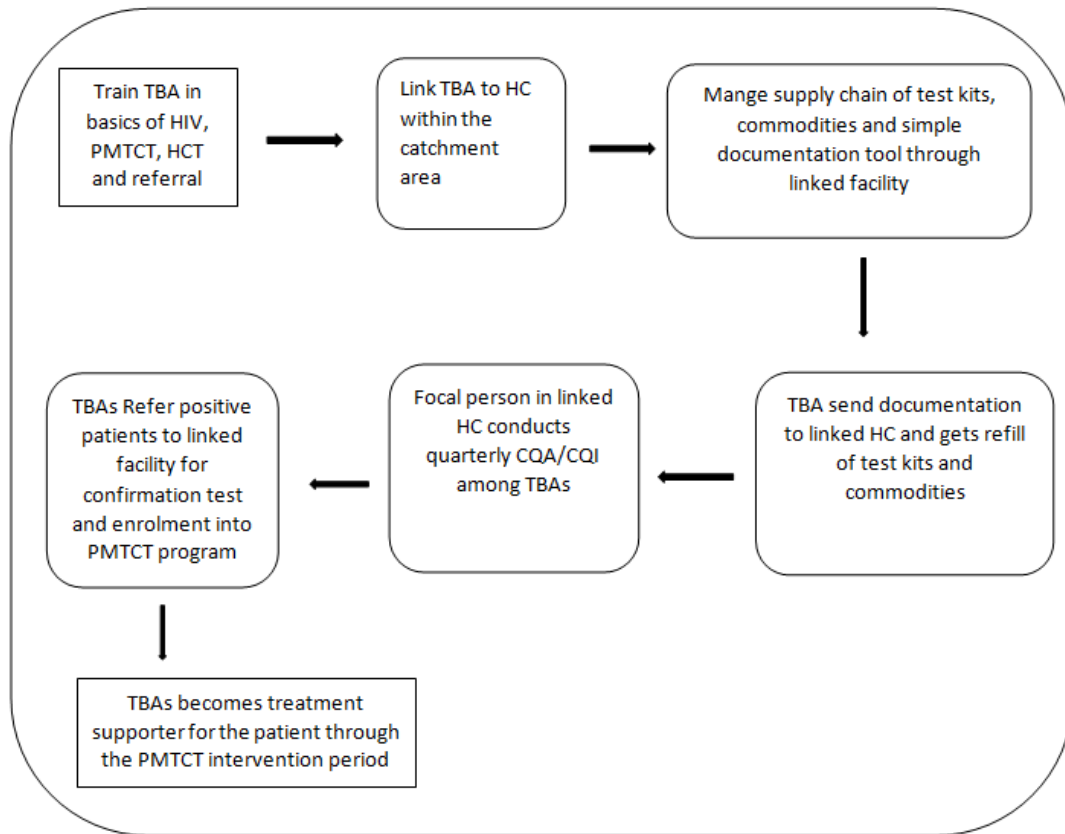
## 3. REVIEW RESULTS

### 3.1 Functions of TBAs in PHC System in Nigeria [9]

It's amazing to know that despite the controversies for and against involvement of TBAs in maternal and child health and in PMTCT program, the Nigeria PHC model accommodates the functions of TBAs as part and parcel of the village health committee while assigning to them clear cut roles/function. The functions that demand their involvement in MCH program of which PMTCT is a package. Their functions include thus; Mobilize women and children for maternal and child health clinics (MCH), Identify pregnant women at risk for referral, conducting normal deliveries, keeping simple records, teaching health education on nutrition, child care and child spacing, dispensing FP commodities, provide health education to the community at ceremonies and public gatherings. These have been partly captured by the framework of process of TBA involvement in PMTCT in Nigeria as shown in Fig. 1.

The TBA involvement process thus include;

- Organize a meeting of the TBAs through TBA leader and community opinion leaders.
- Assess knowledge and practice with focus on HIV such as horizontal and vertical transmission and hygienic delivery practices, using focused group discussions
- Conduct at intervals, trainings on HCT and PMTCT including HCT using the first test kit in the serial testing algorithm. These trainings are done by trained health care workers who work and live in the community and can speak the local language.
- Encourage the illiterate TBAs to appoint someone who can read and write to work with them such as his/her child.



**Fig. 1. Framework of process of TBA involvement in PMTCT in Nigeria**

*Developed by Amara Frances Chizoba. Centre for Clinical care and Clinical Research Nigeria. 2015*

Fig. 1 above shows the framework of process of TBA involvement in PMTCT in Nigeria thus involves the following steps;

1. Instruct the TBAs to test and document name and test result of the women- to be done by literate ones and by assistants of the illiterate ones earlier appointed as aforementioned.
2. The documentation is taken to the linked health centre at the end of the month where the focal person in the health centre updates the main registers domicile in the facility.
3. New test kit is reimbursed to the TBA after review of documentation.
4. The focal person in the health centre conducts a quarterly visit to the TBAs under the HC catchment area for continuous quality assessment and improvement (CQA and CQI).
5. A patient testing positive is accompanied by the TBA or assistant to the linked health centre for confirmation test and enrolment
6. The TBA continues to be a treatment supporter of the patient through the

PMTCT intervention period (18 months after delivery) and even beyond.

### 3.2 Success Stories of TBA Involvement in PMTCT; Efforts to Bridge the Gaps in PMTCT

Gaps in PMTCT implementation in Nigeria as aforementioned need bridging interventions towards achieving the PMTCT goal. Involvement of traditional birth attendant (in PMTCT) who are widely distributed in the communities where formal health centres are unavailable and whose approach to clients are culturally acceptable have been proven by studies as a necessity. Involvement of TBAs in MCH in Nigeria began through the government midwifery program. However, their involvement in HIV and very importantly in PMTCT in Nigeria has been done through the efforts of Non-Governmental Organizations (NGO), [1,7] and implementing partners such as Faith Alive, AIDS prevention in Nigeria (APIN), Centre for clinical care and clinical research Nigeria (CCCRN), Institute of human virology (IHVN) amongst others. Though the basic knowledge deficiency among the TBA

has been a challenge in training this group and involving them actively in PMTCT, studies have shown significant success in training and involvement of the TBAs in PMTCT [1,2,10].

In a study by A. F Chizoba et al, [2] -on increasing HCT uptake among pregnant women in Nigeria; evaluating the impact of TBA and PHC integration (TAP-in) model intervention- it was observed that HCT uptake among pregnant women in PHCs that had the TAP-in model intervention over 6 months period increased by 53% whereas HCT uptake remained at 6.4% increase in control group with TBAs contributing 53% of the uptake and having a significance/p value of 0.01.

On the other hand, Edmund JK, [11] observed that TBAs helped to break socio-cultural barriers on intervention on reproductive health- a PMTCT program. But however, warned that projects targeting TBAs should not be of hit and run; but gradually familiarize with the target group, build trust, transparency, and tolerance, willing to learn and creating a better relationship with them.

Recently it has been noted that TBAs can play a role in prevention of HIV from mother to child [1] as evaluation of training programs for TBAs on HIV/AIDS and safe delivery has proved very successful [1].

Having a successful PMTCT program requires the ability to follow up women in the community settings where they feel most comfortable in delivering their infants. TBAs are able to provide insight into the lives of women in the community and to use their own experience to help bridge the gap between the clinical setting and the realities of culture. This is in line with the words of Oluwakemi G [7] who stated that TBAs sometimes serve as a bridge between the community and the formal health system, and may accompany women to health facilities for delivery.

Highlights of the success stories include: TBAs ability to apply for training and experience in universal precautions and safe birth practices to the potential of reducing maternal sepsis and infection transmission [12]; TBAs are able to offer health education to their clients on issues around HIV and PMTCT [13-15] while offering risk assessment; Dissemination of HIV education/information in home based and community approach [13,14]; Ability to offer HCT to their clients [10]; Able to refer HIV positive

women to health centres [12]. Provision of alternative, low-cost, efficacious community-based interventions outside health facilities for more women living in remote areas to access HIV care, treatment and support as well as other health care needs [7]; Several studies have thus concluded that Traditional birth attendants have a role in the prevention of mother to child transmission of HIV [10,12-15].

In addition, the roles of trained TBAs should be maintained in the organization of PMTCT services to ensure that all women recruited into PMTCT programs actually receive prophylaxis at the time of delivery if they are not formally enrolled into any HIV Care, treatment and support program at the health centres.

### **3.3 Challenges of TBA Involvement in PMTCT**

While trained TBAs are not considered skilled birth attendants (SBAs), their potential contribution has been recognized in diagnosing labour, ensuring clean deliveries, detecting and referring maternal complications, providing hygienic cord-care, supporting early exclusive breastfeeding, administration of post exposure prophylaxis(PEP), immunizations, nutritional advice, and providing counselling on a number of health topics including HIV and PMTCT [10,12-15]. Though with these beneficial contributions by TBA in involvement in MCH and PMTCT programs, the role of TBAs in improving maternal health has been heavily debated, especially in the context of a renewed focus on Millennium Development Goals (MDGs).

According to federal ministry of health, [5] main challenges in TBA involvement include;

Non-reporting of data: This is due to poor literacy level among the TBAs, lack of training and non-organization of TBAs for mentoring and supervision. There is also absence of deployment of reporting tools to the TBA. Therefore, there is need to evolve a reporting mechanism among all TBAs involved in PMTCT.

Quality issues: TBAs has been known not to follow guidelines on quality maintenance and improvement either due to low level of literacy, lack of training, lack of commitment or cultural beliefs. This has formed the debate on TBA involvement in health care delivery including PMTCT. This shows need for continuous training and supportive supervision of the TBAs.

Inadequate supervision: Due to low integration of TBAs in health system delivery, there is little or inadequate supervision of the TBAs by the health system. Though in some localities, the TBAs are expected to belong to the Traditional medicine association, a body that forms a liaison between the ministry of health and the TBAs [5]. Supervision is done through this association but a number of TBAs in some other localities do not belong to this association. Linkage of TBAs with health centres is the responsibility of the local government health committees

Furthermore, while some studies have demonstrated the challenge of poor HIV/PMTCT knowledge [1,12-14], others have shown relatively good basic PMTCT knowledge. For instance, in the Sotunsa J et al study, [16] 67.6% respondents believed that HIV can be transmitted by the mother to the child during pregnancy and in study by A. F Chizoba, et al. [2] 87% are aware that mother can transmit HIV to infant.

Poor hygienic practices in delivery and circumcision have also been observed, thus increasing the risk of occupationally acquired HIV infection or its cross infection among TBAs [1]. This is seen mostly among those that have not been sensitized or trained on HIV prevention. This concludes that segregation against traditional birth attendants only impede opportunity to provide them with knowledge and support that could translate into implementation of universal precautions and invariably reduction in risk of transmission.

Low knowledge of HCT/PMTCT service benefits for their clients/patients [17]. Though this cannot be quantified, it has a lot to do with knowledge gained through training, showing benefits of PMTCT to patients. Thus, training and supportive supervision can help TBAs understand the benefit of PMTCT and referral of positive patients to health centres.

Fear of losing clients to Health Care Workers (HCW [17]: This has been reported as a common attitude among TBAs which is not limited to challenge in involvement in PMTCT but maternal and child health in general. This explains the issue of non-referral of complicated pregnancy and HIV positive women to Health centres when necessary. Ngala E [18] suggested that a leaf to overcome the delay in or non-referral be borrowed from Sierra Leone project where the World Bank is funding a scheme that pays

traditional birth attendants about £1 for every woman they bring to hospital. While further suggesting to the Cameroon government to endear such a venture as well as supply TBAs with communication tools, noting that The Maternal and Child Aid Cameroon is underway with an m-health project tagged "call a midwife" which TBAs will aid referral benefits. Training and supportive supervision could help abate this fear and challenge

Little or no formal education among TBAs: This makes it more difficult to understand basic HIV/PMTCT training. A study by Sotunsa J et al [16] in Ogun State reported 66.6% of TBAs had only secondary school education while another study by Amara F et al. [2] in Ebonyi state reported majority (59%) of participants (TBA and patent medical vendors) to have had only secondary school education.

### **3.4 Way Forward for TBA Involvement in PMTCT**

In spite of the challenges, the desired changes in TBA involvement include quality services provision and structural referral of pregnant women, including understanding of the usefulness as well as the limitations of the services they provide and how collaborations with HCWs can improve their work. According to National Agency for the Control of AIDS on PMTCT Demand Creation for Accelerated Uptake of Services, [19] the behavioural and communication objectives for TBA involvement in PMTCT in Nigeria is that by 2015, there will be a 90 percent increase in the number of TBAs who refer and link pregnant women to facilities and by the end of 2015 there will be a 90 percent increase in the number of TBAs who know about the benefits of HCT/PMTCT are motivated to refer women for HCT/PMTCT services, respectively.

To this effect, the sixth priority area of the national operational plan for the elimination of mother to child transmission of HIV (EMTCT) in Nigeria entails the involvement of non-formal private health service providers include TBAs in PMTCT. Stating that provision of health services through the non-formal providers is also thought to be significant. Such providers include traditional healers, traditional birth attendants (TBAs) and spiritual healing institutions [1]. This is crucial because according to DHS 2013, [1,6] only 35% of deliveries take place in health facilities; 20% in public health facilities and 15%

in private health facilities. The rest (65%) of the deliveries take place at homes and at the non-formal settings like TBAs. However, engagement of the non-formal and private facilities has been low and linkages remain rudimentary resulting in little or no information about their activities. Therefore as a matter of way forward, there is recommendation of improved mechanism for the engagement of non-formal private health service providers with the objective to increase their involvement in the PMTCT programme [1].

The EMTCT plan identified the following as the way forward at different levels of ministries of health: [1] Federal ministry of health to facilitate the involvement of more private health facilities in the National Health Insurance Scheme (NHIS); advocate to and engage the leadership of the private health providers to buy-in to the PMTCT programme; conduct TOT for private health care practitioners.

State ministry of health to: sensitize informal service providers on PMTCT, provision of intervention and prompt referral; conduct periodic mentorship and supervisory visits to the non-formal sectors like TBA; sensitize professional bodies of various private health service providers like association of traditional and complementary/alternative medicine which TBAs belong to, on PMTCT and prompt referral; conduct HCT and PMTCT training for non-formal service provider like TBA; provide commodities, data and referral tools, and job aids to the trained private health workers like TBA; facilitate periodic supervisory visits to SDPs of the private health sectors like TBAs; and facilitate quarterly review meetings with representatives of service providers from private health sectors like TBA.

LGA/Community: Sensitize TBAs and other community resource persons (CORPs) on PMTCT and on mobilization of pregnant women in their communities for ANC; conduct HCT outreaches to TBAs and other appropriate CORPs service delivery points; provide commodities, data collection tools, and job aids to the trained TBAs and appropriate community-based organizations (CBOs)/CORPs; utilize the hub and spoke model, map out catchment areas and assign or designate trained TBAs and appropriate CBOs/CORPs for ease of referral; conduct regular supervisory visits to trained TBAs and CORPs; and convene monthly review meetings with trained TBAs and CORPs.

According to faith Alive foundation, future activities for TBA involvement include identifying and carrying out advocacy visits to TBAs; organization of regular PMTCT/PPTCT, HCT, Safety and infection control trainings and supervision of TBA; expansion of HCT services to all the TBAs and organization of joint medical outreach programs; and education of TBAs on proper documentation and Referral system.

The expectations of TBAs as secondary audience involved in PMTCT Demand Creation for Accelerated Uptake of Services include the following; [19] Know the benefits of HCT/PMTCT; know when to refer pregnant women to health facilities for HCT/PMTCT services; work positively with HCWs; refer pregnant women for HCT; ensure they get to the facility; hand her over to a health worker at the facility

The above way forward entails requirements for TBA involvement in PMTCT. However, the health care workers are the ones charged with responsibility to understand the benefits of linking with TBAs and to work positively with them.

Studies have also recommended way forward in establishing the role of TBA in PMTCT in Nigeria.

Study by Sotunsa L et al. [16] recommended that the traditional birth attendants should be organized for effective teaching, training and supervision. Regular and consistent trainings and/or retraining are required to achieve this goal. It will be better that the training and supervision be done by health workers in health institutions from where the TBAs get their information about PMTCT especially those closer to their communities. Also that the electronic mass media should consistently broadcast the information of HIV transmission especially PMTCT before the people on regular basis. Furthermore, TBAs should be taught the guidelines for the prevention of mother-to-child transmission of HIV on a quarterly basis, or more frequently. The TBAs can be trained and retrained to screen pregnant women using the rapid test kits in order to enable them refer HIV-positive women for follow up in the nearest health centre with facility to care for such women. The study further posited that negative practices like scarification marks and use of herbal concoction by HIV-pregnant women and their babies should be discouraged. Finally, it is recommended that for quality HIV client satisfaction, [20] universal education/training curriculum on basic knowledge of HIV/AIDS and

PMTCT should be developed as a working tool to aid TBAs in carrying out HIV/AIDS preventive education promotion among their clients.

Another study by Oluwakemi G, [7] also suggested that the following way forward be considered: Integration of health facilities and TBAs should be made compulsory –TBAs should refer pregnant women to facilities for delivery and counselling; facility personnel can also be invited to provide support for TBAs, where distance to the facility is a huge issue; every local government secretariat should have a TBA desk and make it mandatory for TBAs to be registered and accredited for easy monitoring; TBAs should be constantly trained and carried along in various health programs and thematic areas, at state and local government levels; As part of birth preparedness and emergency readiness plan for pregnant women, [21] communities should be provided with mobile vans and head TBAs provided with mobile phones, to enable mobility and communication for effective transfer of women in labour to health centres; Community awareness, door-to-door education should be revitalized to encourage women to visit health centres and the benefits; Above all, quality service delivery in health centres and healthcare workers needs to be strengthened and sustained.

#### 4. CONCLUSION

TBAs are a force to reckon with in HIV/AIDS comprehensive services especially for Prevention of Mother to Child Transmission of HIV (PMTCT) especially as a score card to bridge the numerous PMTCT gaps identified along the PMTCT cascade in Nigeria. Though major challenge identified in TBA involvement include poor knowledge of HIV/PMTCT and formal education background and unwillingness for timely referral, despite these challenges, the success stories of how TBA has bridges the gaps in HIV education, testing and referral of the large number of women who patronize their services. In addition, the initiation of the steps highlighted as the way forward-such as support for training/retaining and quality assessment/supervision among TBAs- if adhered to could be the answer to the challenges of reaching the PMTCT target group and reaching the PMTCT target in Nigeria.

#### 5. RECOMMENDATION

The following are thus recommended;

1. In keeping with international efforts to meet the demand for additional trained health care needs especially in rural regions of developing countries, training and retraining of TBAs involved in attendance to pregnant women is encouraged to bridge PMTCT gap
2. In line with national operational plan for EMTCT, TBAs in the communities should be identified and linked with health centres for provision of PMTCT services to larger population of women in need of the services
3. Continuous quality assessment and improvement (CQA/CQI) system at TBAs be ensured through routine mentoring and supportive supervision of TBAs by TBA mentors (TM)
4. There is also need to create continuous computer awareness and education of TBAs on importance of reporting cases using computers and preparation of documents among the educated TBAs [22].

#### CONSENT

It is not applicable.

#### ETHICAL APPROVAL

It is not applicable.

#### COMPETING INTERESTS

Authors have declared that no competing interests exist.

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