

## Editorial

# Is the Fear of Mother-to-Child Transmission of HIV A Key Determinant of Non-Exclusive Breastfeeding in Nigeria?

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## Editorial

Globally, sub-Saharan Africa accounts for the largest burden of human immunodeficiency virus (HIV). Of the 39 million people living with HIV worldwide [1], approximately 25 million live in sub-Saharan Africa. Similarly, out of the 16 million women aged 15 years and older living with HIV worldwide, approximately 80% live in sub-Saharan Africa [2]. Given this, mother-to-child transmission (MTCT) of HIV is a significant mode of transmission of the virus among children, and has remained a major public health concern in many sub-Saharan African communities. Mother-to-child transmission of HIV refers to the transmission of HIV from an HIV-positive mother to her child during pregnancy, labor and delivery or breastfeeding [3]. More than 90% of HIV infection in children under-15 years is attributable to MTCT of HIV in countries (such as South Africa, Nigeria and Uganda) with high HIV burden [2].

Breastfeeding plays a major role in the transmission of HIV, accounting for approximately 45% risk of HIV transmission in the absence of preventive measures (such as exclusive breastfeeding or exclusive formula feeding with antiretroviral therapy or prophylaxis for the mother-infant pair) [4,5]. In sub-Saharan Africa, many mothers continue breastfeeding after the infant's first birthday [6]. However, the fear of MTCT of HIV has been documented as a major determinant of sub-optimal infant feeding practices (including non-exclusive breastfeeding) in most African's communities with high HIV prevalence [7-9]. Nigeria ranks second (after South Africa) with the largest proportion of people living with HIV (9%) and those who acquire new HIV infections (10%) worldwide [1,10]. Additionally, more than 210,000 women live with HIV, and 56,681 HIV-positive children are born annually in Nigeria [4,11]. These estimates make MTCT of HIV a key public health priority area in Nigeria – a country with African's largest population of over 180 million people, including 40 million children. Given the impact of MTCT of HIV on non-exclusive breastfeeding in other developing contexts, the fear of MTCT of HIV may likely affect exclusive breastfeeding practice in Nigeria. This article presents narrative overviews of the literature on MTCT of HIV and non-EBF in Nigeria to advocate for policy changes and/or future research directions.

## MTCT of HIV and Non-EBF in Nigeria

Exclusive breastfeeding (EBF) refers to infants 0-5 months of age who receive breast milk as the only source of nourishment, but allow oral rehydration solution, drops or syrups of vitamins C and medicines [12]. The benefits of EBF to the mother-infant pairs are well-documented in the scientific literature. These include, but not limited to a reduced risk of diarrhoea and upper respiratory tract infection, and under-5 mortality for the infant; and a reduced risk of cancers for the mother [6]. Based on the benefits of the breast milk, the World Health Organization and United Nations Children's Fund (WHO/UNICEF) recommends exclusive breastfeeding for all infants aged 0-5 months, except medically advised.

Although breastfeeding is the most common route of HIV transmission in children, empirical evidence have shown that the risk of HIV transmission is lower in infants who are exclusively breastfed compared to those who received mixed feeding [13-18]. Current recommendation for early infant feeding practices among HIV-positive mothers in Nigeria is exclusive breastfeeding, while both mother and infant receive anti-retroviral therapy or prophylaxis. However, where EBF is not feasible, it is recommended that HIV-positive mothers are adequately supported to exclusively formula feed in the first six months in a safe, clean and appropriate environment [4]. Mixed feeding is strongly discouraged as it increases the risk of diarrhoeal-related morbidity and mortality in infants [4, 5].

In Nigeria (regardless of a mother's HIV status), previous studies indicate that mothers have good knowledge and a positive attitude towards breastfeeding – a natural and culturally acceptable method of infant feeding [4,19,20]. Despite this, the prevalence of EBF in Nigeria remains low (16%) [21]. The major reasons for why EBF rate is low in Nigeria have been identified in a series of nationally representative studies as well as findings from regional areas of Nigeria. These include socio-economic factors (i.e., low maternal education and poverty), health service factors (i.e., no antenatal care visits and home birthing) and individual level factors (i.e., younger maternal age; <20 years) [21-24]. Additional factors reported in Nigeria include cultural belief systems and myths held for breastfeeding [25, 26], pressure on the mother to resume work, a lack of family support [27,28], marketing of infant food formula, and poor enforcement and monitoring of relevant legislations [29].

Although the fear of MTCT of HIV has been reported as a major determinant for non-EBF in many communities in developing countries, including Nigeria [7,8,30,31]; this has not been reported as a considerable factor of non-EBF in various population-based studies from Nigeria [21,22,28,32-34]. Plausible reasons for this observation have been proposed. Firstly, the introduction of various public health programmes at the national and sub-national levels in Nigeria which

promoted a single infant feeding option (EBF or exclusive formula feeding) in the context of infant feeding practices in HIV-positive mothers may have played a role. Aspects of these interventions included: introduction of revised national guidelines on HIV and infant feeding, and trainings of health professionals on key strategies to prevent MTCT of HIV [35]. Secondly, evidence has shown that Nigerian mothers living with HIV prefer to breastfeed because they are less likely to avoid this natural, convenient and culturally acceptable infant feeding option breastfeeding because of HIV stigma [4,20]. The issue with mothers not exclusively breastfeeding in Nigeria demonstrates the fact that many nursing mothers introduced water, water-based fluids and other complementary foods too early to their infants (mixed feeding), highlighting the double burden (i.e., sub-optimal infant feeding and HIV stigma) faced by HIV-positive mothers in Nigeria. Additionally, reductions in HIV prevalence [36], and limited evidence on MTCT of HIV and infant feeding practices in Nigeria may be additional reasons for why the relationship between fear of MTCT of HIV and non-EBF has not been adequately reported in Nigeria. Stigma associated with lower breastfeeding rates among HIV-positive mothers has been flagged as an impediment to optimal breastfeeding feeding practices among Nigerian mothers living with HIV [20].

In Nigeria, infant feeding legislations, health system framework and community level strategies to promote and support EBF have been described as “appropriate”. Despite these, studies from Nigeria have reported that key breastfeeding practices (including EBF) remain below levels required to achieve substantial benefits associated with optimal breastfeeding practices in populations [21,22]. Given the double burden of high HIV and low EBF prevalence estimates in Nigeria, studies that focus on the fear of MTCT of HIV and infant feeding practices are needed in Nigeria to guide and advocate for effective programmes and policy changes to improve infant feeding practices among HIV-positive mothers in Nigeria.

## Conclusion

Mother-to-child transmission (MTCT) of HIV is a health priority area in Nigeria. Optimal breastfeeding practices (including EBF) remain the best infant feeding option to improve health outcomes for the mother-infant pair; however, these practices are below expected levels in Africa’s most populous nation. To date, limited studies from Nigeria have investigated the relationship between the fear of MTCT of HIV and non-EBF in Nigeria, highlighting the need for evidence-based research in this domain to guide and advocate for initiatives and policy changes.

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