

Preventing mother-to-child transmission of HIV in Africa: issues and challenges

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Commission on HIV/AIDS and Governance in Africa

Preventing mother-to-child transmission of HIV in Africa: issues and challenges

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About CHGA

Under the Chairmanship of the Executive Secretary of the Economic Commission for Africa (ECA), K. Y. Amoako, the Commission on HIV/AIDS and Governance in Africa represents the first occasion on which the continent most affected by HIV/AIDS will lead an effort to examine the epidemic in all its aspects and likely future implications. The challenge for CHGA is to provide the data, clarify the nature of the choices facing African governments today, and help consolidate the design and implementation of policies and programmes that can help contain the pandemic in order to support development and foster good governance.

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Abstract

The risk of mother to child transmission of HIV (MTCT) has dropped to as low as 2% among the limited number of HIV-infected women in developed countries. In developing nations, however, particularly Sub-Saharan African countries where the vast majority of HIV-infected women of childbearing age live, MTCT rates remain high. Such high rates persist mostly because of the lack of access to existing prevention interventions, including HIV voluntary counseling and testing (VCT), replacement feeding, selective caesarian section, and antiretroviral drugs.

Introduction

Current estimates suggest that between 21.4 and 25.7 million adults live with HIV/AIDS in Sub-Saharan Africa. Well over half of these are thought to be women. In the absence of appropriate interventions, about a third of children born to HIV-positive women are likely to also be infected. Presently, around 2 000 000 children are estimated to live with HIV in Sub-Saharan Africa. Close to 700 000 children were infected in 2003 alone. Almost all of these were infected through vertical or mother-to-child transmission (MTCT).

The scale of HIV infection in children is reversing gains made in child mortality, and is lowering life expectancies significantly in the worst-hit countries. About half of the children who are infected with the HIV through vertical transmission develop AIDS symptoms and die within 2 years. The child infected through MTCT also runs a very high risk of being orphaned, as the mother, and probably also the father will be infected. In the absence of efficient life-prolonging interventions, the likelihood of the parent(s) dying within 8-10 years after infection is high. Recent estimates suggest that there are nearly 14 million orphans in Africa, and this number is projected to rise to a staggering 25 million by 2010.

Components of MTCT prevention

As a result of progress in understanding the risk factors of MTCT, as well as increased availability of effective MTCT interventions, we now have a better opportunity to prevent children becoming infected with HIV by their mother.

On a general level, preventing HIV infection in women of childbearing age will also limit the number of infants being infected by their mother. Support for prevention of unwanted pregnancies in HIV-positive women would have the same effect. However, programmes to prevent MTCT are mainly delivered through the health care system, and aimed at preventing an already infected mother from transmitting the virus to her child around the time of birth and in the following months.

In an ideal setting, the risk of transmission of HIV from an infected mother to her child can be reduced to 2% or less by providing a set of interventions. These include:

a. Improving availability, quality and use of MCH services

Adequate maternal and child health (MCH) services are the cornerstone of any intervention to prevent MTCT. However, most African countries provide only limited MCH services, facing managerial, financial and human resource constraints. Uptake of available services is also low on the continent. Upgrading and expanding MCH services, as well as increasing uptake of these services, therefore need to be central to PMTCT programmes.

b. Voluntary Counseling and Testing

Voluntary Counseling and Testing (VCT) helps women explore options and make decisions regarding testing, as well as infant feeding and other central issues. As women have to know their HIV serostatus in order to know whether MTCT interventions are merited, VCT is an important entry point into these interventions and related services. VCT is also a critical, and possibly under-utilised opportunity to inform and counsel women (and men) on HIV.

c. Antiretroviral Therapy

Potent antiretrovirals (ARVs) administered around the time of delivery have proven to reduce the risk of MTCT by between 30 and 50 per cent. Administering short-term courses of ARVs has its own sets of challenges, including cost, health system capacity, and risk of resistant strains of the virus developing. However, this is still found to be a cost-effective way to prevent transmission of the virus from mother to baby during birth, and presently a number of initiatives are put in place to increase ARV availability for PMTCT.

d. Elective Caesarean section

Elective caesarean section at 38 weeks reduces the probability of HIV infection in the child. However, in resource-poor settings, the morbidity and fatality risks of such surgical procedures need to be taken into consideration before recommending caesarean sections as a viable strategy for preventing MTCT.

e. Infant feeding

A child born uninfected to a HIV positive mother has a 5-15% chance of acquiring the virus from the mother's milk, if exclusively breastfed. The risk of transmis-

sion is much higher if breastfeeding is mixed with other feed. However, not breastfeeding in resource-constrained settings may also entail health risks for the baby if breast milk substitutes are unaffordable, clean water unavailable, or sterilization impossible. The World Health Organization recommends not breastfeeding only when bottle feeding is acceptable, feasible, affordable and sustainable, and safe. Counseling on breastfeeding is increasingly included in PMTCT services.

Programmes and initiatives to prevent MTCT

Programmes to prevent mother-to-child transmission (PMTCT) have focused on the prevention of HIV transmission from HIV-infected women to their infants.

MTCT programmes were started in 1990 under the umbrella of a United Nations inter-agency MTCT Programme and by 2001, this effort was supporting nearly 80 programmes in 16 countries.

Preventing children from becoming infected is clearly important, but the exclusive focus on preventing infection in the child may be missing the point. If the mother is not cared for, becomes sick and dies, the child also suffers – HIV-infected or not. The death of a mother is a high risk factor for child mortality. The imperative should therefore be on keeping the mother healthy. This is not only beneficial to the child and the family unit. Preventing the massive growth in the number of orphans also helps to ensure stability and further intergenerational knowledge formation on a societal level.

An Inter-Agency Task Team on PMTCT (IATT) was initiated in 1998 to provide leadership and guidance to countries on PMTCT. IATT views PMTCT as part of broader strategies to prevent the transmission of HIV, to care for HIV-positive women and their families, and to promote maternal and child health.

The MTCT-Plus Initiative was started as a response to the UN Secretary General Kofi Annan's "Call to Action" in 2001 to increase access to HIV/AIDS care and treatment in resource-poor settings. The initiative expands on the MTCT model and recognises that care and support is needed not just for the infants but also for their families. The "Plus" refers to the addition of the family-focused care and treatment. The programme offers antiretroviral therapy, family-centred counseling, preventive care, psychosocial support and patient education in seven countries in Africa, with a number of additional countries set to join.

There are a number of plus points with the initiative, although no evaluations have been made so far:

1. The family focus is essential in that other members of the family (including fathers) also benefit from long-term treatment and care. PMTCT is more likely to be accepted in such situations where other family members are involved.
2. The community linkage and support is also important, as is the education to be provided on HIV and MTCT.
3. The improvement of health facility infrastructure and the recruitment of multi-disciplinary teams is an improvement on current PMTCT programmes.
4. The attention to psychosocial well being, which is new in PMTCT+.

Challenges

Broadening PMTCT programmes

Programmes to reduce MTCT generally focus on health-system based interventions to reduce transmission from mother to child around the time of birth and in the breastfeeding period. MTCT+ represents a broadening of the focus, but it is still a challenge to discuss key issues such as:

- prolonging the life of the mother in the context of PMTCT;
- primary prevention of HIV infection in the mother and father;
- prevention of unintended pregnancy among HIV-infected women; and
- care and support for women, children and families infected and affected by HIV/AIDS.

Lack of resources and capacity to upscale

In Africa, limited human as well as financial resources represent major barriers to up scaling MTCT. A study in Zambia found that the actual programme cost per infection averted was prohibitive USD 848. The human resources required for counseling and testing and for administering the drugs remain the highest cost, and in a number of African countries necessary fiscal and human resources are simply not available.

Financial resources for up scaling HIV-related programmes are increasingly becoming available in Africa. Although still insufficient, the big and immediate challenge for African governments is now likely to be human and health system capacity to deliver the programmes and services, as well as capacity to absorb the additional financial resources into public budget and spending frameworks.

Ethical considerations in allocating scarce resources

In the context of Africa, expensive foodstuffs, treatments, and other forms of care and support will not be available to all who need it. The many difficult choices that have to be made will centre on the critical issue of who gets access to life-saving services and why. These ethical dilemmas involve choices that will affect the life and death of millions of people in Africa.

Human rights, law and ethics provide guidance to expanding services in a just and equitable manner. The human rights to life, health and non-discrimination that all African countries have committed themselves to, oblige states to progressively provide HIV-related prevention, treatment, care and support to all those who need it. In the unanimously adopted 2001 UNGASS Declaration of Commitment, African states have signed up to employing a rights-based approach in their work against HIV/AIDS. A rights-based approach to mother-to-child transmission ensures that programmes and initiatives are grounded in an ethical framework, where the ultimate goal is universal access to HIV prevention, treatment, care and support. In a resource-limited setting, this is a major challenge.

Low uptake of services

Even where PMTCT services are available, women may, for a number of reasons, not make full use of the services. A pattern known as the ‘cascade’ effect is often seen: client use of services, from initial contact, through counseling, testing, returning to collect results, receiving treatment, and receiving infant treatment counseling, declines at each step of the process.

a. Barriers to service uptake

The cascade effect leads to low uptake of the services that are available. Reasons identified include denial of HIV infection, opposition from male partners, women’s fear of disclosure of HIV status to their partner – and fear of being ‘found out’ if taking drugs or not breastfeeding, concern about taking drugs in pregnancy, not returning for checkups in the month before delivery, and delivering at home and premature delivery, before treatment can be given.

b. Overcoming the barriers

Recommendations for improvement centre on addressing the identified barriers, and include:

- Involvement of the male partner and the wider family in the MTCT programme. A criticism of MTCT services is that they are too female-

focused, which may be understandable given that most of these services are linked to antenatal clinics. However, as lessons from family planning programmes have shown, the highest uptake of services is achieved where male partners approve and give support for services. Couple HIV counseling and testing would be a way to greater involve men.

- Ensuring confidentiality and providing services in such a way that it is impossible to tell whether the individual is part of a PMTCT programme would address a key obstacle to utilising available services: fear of being discriminated against by health workers, the community, by family members and partners is an obstacle to entering PMTCT programmes.
- Intensifying education on infant feeding practices would address the low adherence to recommended breastfeeding practices. There are strong cultural barriers to the recommended feeding strategies: either full breastfeeding for the first 4-6 months and rapid weaning, or full artificial feeding. There is also a strong stigma attached to HIV. This suggests a need reducing stigma attached to HIV (many refuse to follow recommendations for fear of being 'found out') and increase partner and community support for artificial feeding.
- More support to women who deliver at home will be required if the uptake of ARVs for HIV prevention is to increase. In Africa, many women attend an antenatal clinic during pregnancy, and a large proportion deliver outside of health facilities. Interventions administered through health facilities therefore simply do not reach a large proportion of the target group.
- Involving the family and community is key to both designing appropriate service delivery, as well as increase demand for services. Some PMTCT programmes already do this through activities such as fostering couple and community discussion on HIV/AIDS, and by working with community structures and local organizations to normalize HIV counseling, testing, and care. These activities need to be further integrated into PMTCT activities and scaled up.

Increased political commitment and leadership

Fundamental to addressing the challenges listed above is political commitment and leadership. Over the past few years governments, particularly Ministers of Health, have made significant advances in defining policies and implementing programmes to curb the spread of HIV in their contexts. The unanimous adoption of the 2001 UNGASS Declaration of Commitment is an international milestone in these efforts. Governments are now challenged with continuing and increasing their firm leadership by providing the necessary enabling environment for the promotion of PMTCT programs.

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