



**KENYA PMCT**  
**PROJECT**

**PMCT TRAINING CURRICULUM**

**Prevention of mother-to-child  
transmission of HIV**

**A short course for health workers  
providing PMCT services in areas with limited resources  
and high HIV prevalence**

# PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF HIV

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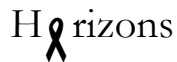
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**KENYA PMCT**  
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Partners:

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## Introduction

In the past 15 to 20 years, HIV has emerged as a global pandemic. The most severely affected areas are in sub-Saharan Africa, where two-thirds of the 37 million people with HIV live. HIV is transmitted primarily through sexual contact, from mother to child, and by contact with contaminated blood or instruments. The number of men and women affected is almost equal, although HIV prevalence peaks at different ages—20 to 30 years in women and 10 years later in men.

In many areas of sub-Saharan Africa, both urban and rural, one in every three to four pregnant women has HIV infection. This means that many children born in this region are exposed to HIV. It is estimated that every year 500,000 new HIV infections occur in infants. Most of these infections are a result of mother-to-child transmission (MTCT) during pregnancy, at the time of delivery or postnatally through breastfeeding. It is estimated that half of the transmissions take place during delivery and a third to a half through breastfeeding.

It has been demonstrated that using antiretroviral drugs during pregnancy, delivery and early neonatal life is effective in preventing MTCT transmission of HIV. A variety of protocols based on Zidovudine, Nevirapine and Lamivudine as monotherapy or in combination are now in use. Elective caesarean section and avoidance of breastfeeding have also helped prevent such transmission, and by such means developed countries hope to eradicate MTCT of HIV.

In developing nations, where funds and trained personnel are in short supply but where most of the HIV-infected people live, preventing mother-to-child transmission presents many challenges. The first is that breastfeeding is the cornerstone of infant feeding. In the pre-HIV era, it was essential for the survival of children. Many studies have demonstrated that breastfeeding protects the newborn infant against diarrhoea and pneumonia, two leading causes of infant morbidity and mortality. Even now during the current HIV pandemic, the majority of infants are born to uninfected women. Hence uninfected women and women of unknown status should still be encouraged to breastfeed their infants. Preliminary data suggest that exclusive breastfeeding may be associated with lower risk of breast-milk transmission of HIV. The health worker who is providing PMTCT services needs to be knowledgeable and skilled to advise both HIV-infected and uninfected women how best to feed their infants.

The second big challenge is to make voluntary counseling and testing (VCT) services more widely available. Testing services are not adequate, and consequently, most pregnant women and their partners are not aware of their HIV status. Provision of HIV testing in the antenatal clinic context requires skills in counseling individuals and couples, and it requires some knowledge of the cultural norms governing relationships between men and women and the extended family in the context of childbirth. Integrating VCT into the antenatal clinic also means reorganizing client flow to ensure that most, if not all, clients attending the clinic have an opportunity to make a decision about testing.

The third challenge is how to share information with others who are working with the HIV-infected woman without violating her confidentiality and exposing her to stigmatization.

Finally, continued follow-up is needed in both the health facility and the community for persons identified as infected with HIV. Health workers need to be able to refer their clients to ongoing support facilities and to mobilize family and community support.

A needs assessment was carried out among health workers and communities at the beginning of the Kenya PMTCT project. It identified gaps in health workers' knowledge and practice related to preventing mother-to-child transmission of HIV, maternal and infant nutrition, counseling and health education. In April 1999, a team of experts from eastern and southern Africa developed the curriculum for a course designed to fill these gaps. The team included experts on MTCT of HIV, nutritionists, counselors, adult educators and policy-makers.

Experts then selected to write different modules included an obstetrician, paediatricians, lactation management specialists, counselors and an adult educator. Initial drafts of the modules underwent an extensive period of peer review. In December 1999, the course was pilot tested during a training-of-trainers course, which was conducted by the experts who had written the modules. After further text revisions and beginning in January 2000, the trained trainers went out to conduct a series of training courses for health providers. By the end of 2001, over 500 health workers had been trained using this course. They are now providing PMCT services at various locations in Kenya. Other PMCT projects in Kenya, in addition to the Kenya PMCT project, have also used the course to train their providers in PMCT.

Extensive revisions of the course have been carried out, based on comments and criticisms from various sources. In the early workshops conducted using this course, experts in different fields would sit in during the training and report back to the module writers about the sessions. The trainers who conducted the sessions also gave the writers feedback. Furthermore, during each training workshop each course participant filled in a form rating the clarity of materials, the duration of the session and the adequacy of the materials.

The course is targeted at those who provide MCH services at the district hospital—the midwife or nurse. Course participants, however, have included all cadres of health workers such as doctors, clinical officers, pharmacists, environmental technicians and nutritionists. Trainers of the various modules in the course must be experts in the particular field. For example, the module on counseling is conducted by an experienced HIV counselor and the child nutrition module is conducted by an expert in lactation management.

The course design is an integrated approach to PMTCT in the setting of mother and child health.

The curriculum consists of five training modules; conducting it requires 10 working days.

1. Mother-to-child transmission of HIV: epidemiology and prevention strategies—2 days
2. Maternal nutrition and preparation for breastfeeding—2 days
3. Child nutrition—3 days
4. Counseling skills for prevention of mother-to-child transmission of HIV—2 days
5. Advocacy and community mobilization for MTCT intervention—1 day

The area of PMCT is changing very fast, and this course will certainly change in structure, content and duration. The intent is that this first edition, published in 2002, will be revised periodically. The publishers therefore request users and readers to send in their comments. They will be compiled and used in the periodic revisions of the course.

# Symbols



INTRODUCTION



OBJECTIVE



DEFINITION



KEY MESSAGE



QUESTION



DISCUSSION



WRITE



DURATION OF LEARNING SESSION



CLINICAL



GROUP WORK