PREVENTING MOTHER-TO-CHILD TRANSMISSION OF HIV IN NEPAL

Situation Assessment and Recommendations
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# Abbreviations

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<tr>
<th>Abbreviation</th>
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<tr>
<td>AIDS</td>
<td>Acquired immunodeficiency syndrome</td>
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<td>ANC</td>
<td>Antenatal care (or clinic)</td>
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<td>ARV</td>
<td>Antiretroviral</td>
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<td>BCC</td>
<td>Behavior change communication</td>
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<td>CDC</td>
<td>Centers for Disease Control and Prevention (US)</td>
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<td>DHS</td>
<td>Demographic and health surveys</td>
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<td>EDP</td>
<td>External development partner</td>
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<td>EOC</td>
<td>Emergency obstetric care</td>
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<td>FHI</td>
<td>Family Health International</td>
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<td>FSW</td>
<td>Female sex worker</td>
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<td>HIV</td>
<td>Human immunodeficiency virus</td>
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<td>HMG</td>
<td>His Majesty's Government</td>
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<td>ICDDR B</td>
<td>International Center for Diarroheal Disease Research - Bangladesh</td>
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<td>IDU</td>
<td>Injection drug user</td>
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<td>IEC</td>
<td>Information, education and communication</td>
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<td>MCH</td>
<td>Maternal and child health</td>
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<td>MTCT</td>
<td>Mother-to-child transmission</td>
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<td>NCASC</td>
<td>National Centre for AIDS and STD Control (Nepal)</td>
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<td>NGO</td>
<td>Non-governmental organization</td>
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<tr>
<td>OI</td>
<td>Opportunistic infection</td>
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<td>PEP</td>
<td>Post exposure prophylaxis</td>
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<td>PLWHA</td>
<td>People living with HIV/AIDS</td>
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<td>PMTCT</td>
<td>Prevention of mother-to-child transmission</td>
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<td>SMAG</td>
<td>Safe Motherhood Action Group</td>
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<td>STI</td>
<td>Sexually transmitted infection</td>
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<td>TA</td>
<td>Technical assistance</td>
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<td>UNAIDS</td>
<td>Joint United Nations Programme on HIV/AIDS</td>
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<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
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<td>VCT</td>
<td>Voluntary counseling and testing</td>
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<td>WHO</td>
<td>World Health Organization</td>
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Executive summary

This report begins with a review of the fundamentals of mother-to-child transmission (MTCT) of HIV and its prevention (PMTCT). The epidemiology of HIV as it is currently understood in Nepal is analyzed for implications for women in reproductive age and their infants. Women at particularly high risk for HIV at present are female sex workers (FSWs), injecting drug users (IDUs) and wives or sexual partners of men who engage in high-risk behavior.

Special challenges for implementing PMCT in Nepal include low awareness of MTCT, low rates of uptake of antenatal care, low rates of hospital delivery, the difficulty of serving high-risk groups and geo-political constraints. Enabling factors for delivering PMTCT include the commencement of PMTCT training, and successful efforts to reach FSWs and IDUs with overall HIV/AIDS prevention interventions such as the use of condoms.

PMTCT policies, training and services offered to date by His Majesty's Government (HMG) and UNICEF and its partners, as well as an overview of PMTCT services to date are outlined.

The overall conclusion of the assessment is the importance of initiating PMTCT efforts now. General recommendations include:

- Select 2-3 institutions initially to undertake PMTCT, based on a specific set of criteria
- Use a combination of approaches to PMTCT
- Do not initiate nation-wide ANC screening for HIV at this stage of the epidemic
- Use PMTCT activities to complement other emerging AIDS prevention efforts

More specific recommendations are presented related to the six major PMTCT interventions:

- Voluntary counseling and testing (VCT)
- Antiretroviral (ARV) prophylaxis for mother and infant
- Infant feeding counseling and support
- Obstetrical care
- Family planning
- HIV/AIDS-related care and support

Finally, a detailed list of steps that need to be taken to implement high-quality PMTCT that is appropriate for the epidemiological, cultural and health services setting of Nepal, are presented.
I. Introduction

For the last two decades, UNICEF has, in the context of its focus on maternal and child health, led the United Nations effort to prevent mother-to-child transmission (MTCT) of HIV. In this context, UNICEF works with a number of government and non-governmental (NGO) partners.

The major objective of this consultancy, undertaken together with a special Nepal-based Assessment Team, was to assess the national situation related to MTCT in Nepal, and to recommend a feasible strategy of interventions for preventing MTCT (PMTCT) that are appropriate for Nepal's epidemiological, cultural, and health services context. Detailed terms of reference are found in Annex A.

For lists of persons met, documents reviewed and a schedule of visits, see Annexes B, C and D, respectively.

Critical questions that the Assessment Team sought to answer include:

- **WHAT** PMTCT services do already exist in Nepal and how efficient are they?
- **WHO** needs to be reached?
- **HOW** to identify and serve high-risk women?
- **WHAT** types of services should be delivered?
- **WHERE** should comprehensive PMTCT services be offered?

The methodology for this assessment included:

- Development of an assessment tool (found in Annex E)
- Review of relevant documents
- Interviews with key stakeholders
- Visits to relevant hospitals and organizations in Kathmandu, Biratnagar and Pokhara
II. Fundamentals of MTCT

The common pattern MTCT follows is: a man becomes infected with HIV; the man infects his female sex partner; the HIV-infected woman becomes pregnant; and the woman infects her baby during pregnancy, during labor and delivery, or through breastmilk.

In the absence of any PMTCT intervention, an estimated 15 to 30 percent of mothers with HIV infection will transmit HIV during pregnancy and delivery and an additional 10 to 20 percent will transmit HIV through breast milk.

The reality of pediatric AIDS is sobering, and worth describing briefly, since the increasing availability of antiretroviral (ARV) drugs for treatment may give the false impression that AIDS in developing country children, as in adults in resource-privileged settings, is now a relatively “controllable” disease.

In reality, with HIV-infected infants:

- Symptoms of HIV appear soon after birth (but may not actually be recognized as HIV-related)
- Chronic, severe morbidity is common
- Symptoms often do not respond to conventional treatment
- Life expectancy is short (without complex treatment)

In comparison with adults, pediatric ARV treatment is not only expensive, but is complex to administer (in terms of choice of regimen, dosing, adherence, side effects, changing regimens, etc.)

In addition, pediatric AIDS-related mortality could, in future, impede other child survival efforts in Nepal, worsening the already unacceptably high infant mortality rate of 64 deaths per 1000 live births.
III. Fundamentals of PMTCT

The United Nations system has now adopted a four-pronged approach to PMTCT:

- Primary prevention of HIV in women
- Prevention of unwanted/unplanned pregnancies in HIV-infected women
- A package of specific PMTCT interventions for pregnant, HIV-infected women and HIV-exposed babies
- Care and support activities for persons living with HIV/AIDS (PLWHA)

It is the third prong, “specific PMTCT interventions for pregnant, HIV-infected women and HIV-exposed babies” that was the focus of this consultancy.

PMTCT interventions currently recommended for resource-constrained settings have now been extensively tested and proven to be safe and effective, and are feasible to deliver. Additionally, a) they have also been shown to help reduce the pervasive stigma against PLWHA and b) have been found to have other positive benefits for women’s health and maternal and child health (MCH) services.

In resource-rich settings, where a full package of PMTCT interventions have been available for some years:

- Very few children are now born with HIV
- MTCT rates are less than 2 percent
- Children with HIV/AIDS are living longer and healthier lives due to early diagnosis and complex therapy.
- Mothers with HIV are living longer and healthier lives and are better able to nurture and care for their children

A full PMTCT package (for mothers and infants) currently includes:

- HIV testing (for pregnant women)
- Antiretroviral (ARV) prophylaxis for HIV-infected mother and infant
- Infant feeding counseling and support
- Safe obstetrical care
- Family planning counseling and services
- Care and support

Support for health workers and health care settings that provide PMTCT includes:

- Specific training and supervision
- Availability of necessary supplies
Focus on infection control (universal precautions)
Making links between antenatal care (ANC), obstetric care, well-baby care, family planning, care and support
Availability of post-exposure prophylaxis (PEP) to treat incidents of occupational exposure of HIV

More information on the technical aspects of MTCT and PMTCT in Asia can be found in Preble and Piwoz, 2002.1

Apart from the technical aspects, the most important issue to be addressed for establishing effective comprehensive PMTCT services in Nepal might be to reduce the stigma and the discrimination with which PLWHA are confronted. Every endeavour has to be made to develop a PLWHA friendly environment within the PMTCT sites.

IV. Epidemiology of HIV/AIDS in Nepal

Nepal was formerly considered a “low-prevalence” country, but has moved into the category of a “concentrated” epidemic, where HIV has moved significantly into high risk populations such as injecting drug users (IDUs) and female sex workers (FSWs). In just seven years (1995-2002) the HIV prevalence among male injecting drug users in Kathmandu rose from 1 to 68 percent. Some believe that Nepal is now moving toward a more “generalized” epidemic, where HIV infection reaches a high prevalence in the general population, including women of reproductive age.

There are few data on the epidemic in rural areas of Nepal. However, there is apparently a growing rural epidemic (especially in the far-Western hill districts), fueled by returning labor migrants. Neighboring countries (particularly India) that share common HIV risk factors with Nepal are now experiencing rapid rise in HIV/AIDS, raising concern that this is also likely in Nepal.

National estimates of adult HIV cases2 were as follows (see also table 1 and 2).

The estimated HIV seroprevalence in adults aged 15-49 at end of year 2003 was 0.52 percent. The number of women living with HIV/AIDS in Nepal is estimated to be 15,599.

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The potential impact of HIV/AIDS on children depends on the course of the epidemic in women. At present, an estimated twenty-six percent of HIV cases in Nepal are found in women. The HIV seroprevalence rate in pregnant women is estimated to be 0.2 percent, based on sentinel surveillance studies undertaken among women attending antenatal clinics.

In terms of pediatric AIDS, only 28 cases have been officially reported to date. However, this may underreport the actual situation, since clinical signs and symptoms of pediatric AIDS are likely be missed in most cases.

Nepali women at special risk for HIV include wives or female sex partners of men who are:

- IDUs
- Migrant workers
- Clients of sex workers
- Long-distance transport workers
- Uniformed services
- Having sex with men

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Women who are at risk as a result of their own behavior include:

- FSWs (including trafficked women)\(^5\)
- Women who inject drugs

The same women at risk for HIV are likely to have unplanned pregnancies; not to access ANC services or HIV tests; not to deliver in hospital and to transmit HIV to their infant when they become pregnant.

V. Special challenges and opportunities

Poor access to, and utilization of, ANC services is the major constraint to introducing ANC-based PMTCT services in Nepal. The 2001 Demographic and Health Survey (DHS) found that only 50 percent of Nepali women had had one ANC visit during their last pregnancy. Of those, 28 percent received care from a doctor, nurse, midwife or auxiliary nurse midwife and an additional 11 percent from a health assistant or auxiliary health worker. Most women who do receive ANC get it at a relatively late stage of pregnancy, and do not make the four minimum recommended ANC visits.

Postnatal care is also poor in Nepal. Despite the Safe Motherhood Programme's recommendation that women should have a postnatal check up within 2 days of delivery, 79 percent of mothers who delivered outside a health facility do not receive any postnatal checkup. This will make it difficult for HIV-exposed babies who were not delivered in hospital to receive their pediatric dose of nevirapine.

Other conditions present in Nepal that will make the introduction of PMTCT interventions especially challenging include:

- Few women deliver in hospitals
- Little awareness of PMTCT, especially among women\(^6\)
- HIV in women is concentrated in high risk groups (IDUs, FSWs, trafficked women)
- High risk women are difficult to reach, and adherence to PMTCT interventions may be difficult for them
- The Maoist insurgency hampers ability to work in many vulnerable, high risk areas of the country, especially in the western areas
- Some current (mandatory) HIV testing is being done for the sole benefit of health worker, not the patient

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\(^5\) The NGO Maiti Nepal estimates that between 1995 and 1999, about 80 percent of all repatriated trafficked girls tested positive for HIV. In 2000, the rate dropped to approximately 50-60 percent.

\(^6\) According to the 2001 Demographic and Health Surveys in Nepal, in 2001, only 41.2% of women and 63.3% of men knew that HIV/AIDS can be transmitted from a mother to her child. Interestingly, among interviewees aged 15-29, almost twice as many men knew, as women.
- Prevailing stigma and discrimination in the community as well as in health institutions

In addition to constraints, there are also special enabling factors, or opportunities, for introducing PMTCT in Nepal:

- Some health worker training has already taken place, and study tours to Bangkok have begun to enhance policy-makers’ awareness in this field
- Extensive (non-PMTCT) efforts to reach IDUs and FSWs with prevention interventions are already underway and are reported to reach a large percentage of risk groups in some geographic areas (i.e. 40 percent of FSWs nationwide are reached with condom promotion, behavior change communication (BCC) and sexually transmitted infection (STI) services)
- Condom use is now reportedly high among FSWs, supporting primary prevention
- Voluntary counseling and testing (VCT) services are being expanded and could may set stage for testing pregnant women
- The donor community works well together – this will be important, as successful implementation of comprehensive PMTCT will need to rely on interventions from a number of sources
- His Majesty’s Government (HMG) is committed to the establishment of PMTCT services (see below).

VI. Current PMTCT policies, training and services in Nepal

A. His Majesty's Government

His Majesty’s Government (HMG) officially launched PMTCT services on 1 December 2003 (World AIDS Day) at the Maternity Hospital in Kathmandu, but comprehensive PMTCT services have not yet been delivered.

The NCASC (National Centre for AIDS and STD Control) has also developed a National HIV/AIDS Strategy (2002-2006). This strategy stipulates that given the current epidemiological situation, a nationwide system for PMTCT is not feasible in the medium term. However, it nevertheless concludes that PMTCT should be available to pregnant women known to be HIV infected at a few selected facilities in the country. In addition, the NCASC has developed national guidelines for single dose ARV therapy for PMTCT.

Specific PMTCT strategies outlined by the HMG include:

- Develop a standard protocol for ARV treatment and ensure sufficient resources for free services in selected facilities
- Increase awareness
- Develop information, education and communication (IEC) materials appropriate for use during ANC
- Ensure that ANC clients receive information about HIV/AIDS and have access to other HIV prevention services
- Integrate into the Safe Motherhood Strategy the fact that HIV infection may be an indication for a caesarean section delivery
- Create a supportive and friendly environment at health institutions for attracting the pregnant HIV infected women for PMTCT services

This National HIV/AIDS Strategy has been translated into a National Operational Plan for HIV/AIDS Control by the NCASC, together with key stakeholders and technical experts, and with support from the consortium of External Development Partners (EDPs). The mission is to halt (by 2015) and to have begun to reverse the spread of HIV/AIDS in Nepal through an expanded and effective response. Targeted populations include sex workers and their clients, IDUs, men who have sex with men (MSM), mobile populations and families, uniformed services, prison populations and young people. Increased access to VCT and PMTCT services is mentioned as a short-term outcome, within the component of targeted prevention, and receives a small budget allocation. PMTCT is not elaborated upon in detail.

Finally, a national PMTCT Working Group is in the process of being established. Draft terms of reference are:

- Identify areas of PMTCT that require policy changes, technical advice and interventions
- Assist the NCASC in developing guidelines, adapting global guidelines to conditions unique to Nepal, and monitor implementation
- Provide technical support to the planning, management and implementation of PMTCT interventions
- Propose surveys and research plans on PMTCT-related issues
- Prepare periodic reports and disseminate to NCASC and concerned partners
- Undertake joint supervisory/monitoring visits to PMTCT sites and prepare and disseminate reports on status of implementation
- Maintain close working relationship with the broader HIV/AIDS network of partners
- Document and disseminate success stories with the help of communication partners
- Contribute inputs into the annual reports of HIV/AIDS interventions
B. UNICEF and other partners

UNICEF has taken the lead on PMTCT within the United Nations system in Nepal by initiating the following activities:

- Including “prevention from HIV infection” as one of the goals in the latest Nepal UNICEF Country Programme of Cooperation (2002-2006).
- Participating in the UN Regional PMTCT Workshop in Bangkok in May 2004 to share information and experiences and to update colleagues on developments relating to PMTCT in most countries in South and Southeast Asia and the Pacific.
- Holding a PMTCT Workshop in Kathmandu on 15 June 2004
- Supporting this current PMTCT situation assessment

C. PMTCT services in antenatal settings

Three approaches to PMTCT in ANC settings were identified as currently existing in Nepal:

- "No PMTCT" approach: Little or no awareness of MTCT/PMTCT among health workers, no HIV testing offered to ANC clients, and no PMTCT interventions available for pregnant women known to be HIV-infected
- “Passive” approach: No routine HIV testing is provided to ANC clients, however nevirapine is made available to pregnant women who self-identify as being HIV-infected and their HIV-exposed infants (either directly or by referral or prescription)
- “Selective” approach: Health workers screen for, and identify, pregnant women who they think may be at special risk for HIV, and ensure that they have access to HIV tests. It is not clear how consistent their categorization of high risk behavior is, nor how effective the criteria are. Nevirapine is made available for HIV-infected women and exposed infants who are identified by this high risk screening (either directly or by referral or prescription).

These approaches vary significantly in terms of financial and human resources required, and in cost-effectiveness in a low-prevalence setting such as Nepal.

To date, through the "passive" and "selective” approaches, only a few women have been identified as HIV-infected, and provided with nevirapine. For a description of PMTCT services offered in selected hospital-based ANC settings, see the table below.

The PMTCT approach used in most countries is an “active” approach, whereby all antenatal clients are offered HIV testing and those who are identified as HIV-infected receive most, if not all of the six standard PMTCT interventions. This approach has not been introduced yet in any public (or other) hospital in Nepal.

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7 Many women who are HIV-infected are likely to have become infected through their husband’s behavior, and they may not know their husbands indulge in high risk behavior.
PMTCT services currently offered by hospital-based ANC services in selected hospitals in Nepal

Maternity Hospital (Kathmandu)
- 16,000 deliveries/year
- 150 (first and subsequent) ANC visits per day
- 2001: all (5,000) ANC clients in one section of the hospital were tested for HIV. Only 3 women were found HIV+ and these were referred to Teku Hospital for PMTCT services
- 2002: routine testing was stopped – 1 ANC woman presented with HIV infection
- 2003: 3 HIV+ women were referred by the NGO Maiti Nepal. Nevirapine was given to mother and baby (supplied by Maiti)
- 2004: HIV screening is only done for high risk groups
- Nevirapine is now available at the hospital. 2 HIV+ pregnant women have presented to date (both referred from outside sources)
- No provision of post-exposure prophylaxis (PEP) for health workers in need

Tribhuvan University Teaching Hospital (Maharajgunj, Kathmandu)
- Every ANC client gets a compulsory HIV test, however there is no consent, no counseling and women who are found to be HIV-infected are referred elsewhere for counseling
- There is a policy of giving nevirapine to HIV-infected mothers, but the 2 HIV-infected women detected in 2004 did not receive the drug
- There is a provision for PEP for staff who require it

BPKIHS Hospital (Dharan)
- No routine HIV testing at present, however this is under consideration, since Dharan is a high prevalence area. Clients who they feel (based on their history) are at high risk are tested, with consent, and the patients pay for this service
- ANC women considered at high risk include women with an STD, history of STDs, women whose husbands are in the military, police, work abroad, or are long-distance drivers
- HIV+ women are counseled but no ARV prophylaxis for PMTCT is currently available here

Western Regional Hospital (Pokhara)
- ANC clients found to be VDRL-positive are referred for HIV testing, and, pre- and post-test counseling is provided by the (INF-supported) Paluwa VCT Center. There are no available data on how many women were referred for testing to date, but no HIV-infected women have been identified through this service
- The hospital would be willing to deliver HIV-infected women, if necessary
- The hospital is currently providing care to 100 adult PLWHA
- Infection control procedures are lacking
VII. General conclusions and recommendations

The major conclusions of this assessment mission are as follows:

- The prevalence of HIV in Nepal is increasing, including in women of reproductive age\(^8\)
- No comprehensive PMTCT programmes are currently in place
- Comprehensive PMTCT services should start now in Nepal, although on limited scale
- Some institutions currently do have capability to start PMTCT
- 2-3 sites should be selected to receive support to initiate PMTCT services. The sites should be selected according to specific criteria (see Chapter X)
- A combination of "passive", "selective" and "active" approaches should be adopted, as appropriate in the selected sites.
- At present, routine HIV screening of ANC clients nationwide is not likely be affordable, cost-effective, or to necessarily reach high-risk women (IDUs, FSWs, etc.) who are not likely to come for ANC
- One site (with a large ANC patient load and relatively high level of seroprevalence) should offer "active", "opt-out" HIV counseling and testing
- PMTCT activities should complement other emerging HIV/AIDS prevention efforts

Some advantages of starting PMTCT on a pilot basis while HIV seroprevalence is still relatively low in antenatal women in Nepal are that it will:

- help prevent HIV-infected patients from being discriminated against by health professionals, especially obstetricians, who are often reluctant to deliver women who are HIV-infected
- help “normalize” HIV testing as part of routine, comprehensive antenatal care
- raise awareness of HIV-related risks to women and infants
- prepare the health system to expand high-quality PMTCT services as the epidemic grows in women of reproductive age

\(^8\) Women of reproductive age (15-49) constitute 49.2% of the total female population (HMG, National Planning Commission Secretariat: Population Monograph of Nepal, 2003).
VIII. Specific recommendations for introducing PMTCT interventions

A. Voluntary counseling and testing

A1. Background:

Sources of VCT

There are 22 HIV/AIDS testing facilities in the Kathmandu Valley\textsuperscript{9}, but few of these facilities are equipped to accept “walk-in” cases, or to provide counseling and referral services. Community-based VCT centers are expanding in Nepal, such services tend to cater primarily to male, rather than female clients, and are rarely prepared to address specific MTCT-related issues.

No data were found on the breakdown of VCT attendees by gender, with the exception of the Paluwa VCT Center in Pokhara, where it was reported that approximately 30 percent of VCT clients are women. Most of these women come for testing as a result of their husband’s perceived risk behavior or known HIV infection. Only 3 HIV-infected pregnant women were seen by this center in 2003, and none, to date, in 2004. The NGO Maiti Nepal\textsuperscript{10} offers VCT to vulnerable women, but very few of these women are pregnant.

Other entry points for VCT for high risk women (which could serve to identify HIV-infected pregnant women and refer them for PMTCT services) include:

- sites that will be established for IDUs (in Pokhara and Kathmandu)
- services for FSWs
- other groups such as SMAG (Safe Motherhood Action Group) that focus on pregnant women
- private and government ANC services

Availability of VCT during labor

The proportion of pregnant women in Nepal who never receive ANC is very high, and some women who do not receive ANC nevertheless deliver in hospital. As a result, it will be important to establish at least one pilot facility where HIV testing can be done during labor for women who think they might be at risk of HIV but have not been previously tested. With consent, women can be tested early on in labor and if found positive, nevirapine can be administered to the woman and her baby, with counseling provided after the delivery. This approach has been used in selected sites in the developing

\textsuperscript{10}The mandate of Maiti Nepal is to protect, rescue and rehabilitate trafficked children and girls, extend counseling and rehabilitation plans to women victims of domestic violence, provide with a home with education to orphans and destitute children.
world, and the efficacy of this approach in the United States has recently been documented through a Centers for Disease Control and Prevention (CDC) study.\(^{11}\)

**National guidelines**

National (government) Guidelines on VCT exist\(^ {12}\) in Nepal, but there is very little focus on special issues related to pregnant women, and testing in the ANC setting.

**Universal, national testing in ANC settings**

Introducing universal, routine or mandatory VCT for all women who attend ANC across all of Nepal is not recommended at this time for the following reasons:

- Universal testing would not be a cost-effective at this stage of the epidemic
- Most (especially government) facilities are not yet prepared to manage the counseling, record keeping, laboratory and other technical aspects of VCT in the ANC setting; do not have PMTCT interventions to offer women who are identified as HIV-infected; and cannot assure confidentiality of VCT records.

**"Opt-in" vs. "opt-out" approach to VCT in ANC settings**

The so-called “opt in” approach to HIV testing requires that women deliberately request an HIV test, and give written consent to have the test during an ANC visit. The “opt-out” approach considers the HIV test part of a normal package of diagnostic laboratory tests that are given during pregnancy. Women are informed that HIV is part of the package, that it is not mandatory, and it will be is performed unless the woman specifically requests not to have the test. Advantages to the "opt-out" approach are:

- it is less stigmatizing to women
- more women can be reached
- it normalizes HIV testing as a woman's right, as part of comprehensive antenatal care.

While universal ANC testing is not recommended on a national basis (see section above), it could be advantageous to introduce routine screening in one pilot ANC setting where PMTCT will commence with an "active" approach. For this setting alone, it is recommended that the “opt out” approach be used. As experience is gained in delivering high quality HIV testing in ANC and as the epidemic grows, this approach can be replicated in appropriate sites.


Laboratory issues

The current NCASC testing protocol calls for using rapid tests for VCT and authorizes laboratory assistances or midwives to perform and read the test\textsuperscript{13}. If the first rapid test is positive, a second rapid test (by a different manufacturer) should be done on the same sample. If both tests are positive, the mother is positive. If both tests are negative, the mother is negative. If the results are discordant, the mother is considered to be HIV indeterminate and another test is required, probably with the assistance of a separate reference laboratory.

This approach is endorsed by WHO, is an appropriate regimen for Nepal, and should continue to be followed as services scale up. The rapid test approach has already been used successfully in the Paluwa VCT center visited by the Assessment Team in Pokhara, and in the Police sector nationwide.

This consultant recommends the Determine® rapid test for ANC-based PMTCT projects in Nepal. This test, manufactured by Abbott Laboratories, is advantageous because it can\textsuperscript{14}:

- be completed in 15 minutes
- has excellent sensitivity and specificity
- does not require instrumentation
- uses a small amount of whole blood, serum or plasma collected by a finger prick
- requires only minimum infrastructure (can be used without laboratory equipment or electricity)
- can be stored at room temperature
- has highly accurate results

Free distribution of this Determine® rapid test has been made available by Abbott Laboratories, and the donation is being managed by Axios International. The donations are available to any governments, NGOs, charitable organizations or health care providers with comprehensive PMTCT programs and the approval of local governments.


Quality control and assurance

Laboratory support needed to accurately read rapid HIV tests is not as challenging as other HIV-related laboratory tests such as CD4 cell count or viral load. Nevertheless, quality control and quality assurance will be essential.

A recent study of laboratory support for HIV testing in Nepal, undertaken by the International Center for Diarroheal Disease Research - Bangladesh (ICCDRB), noted the following problems in the Nepal setting\textsuperscript{15}:

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\textsuperscript{13} Nevirapine: A single dose treatment instructions for Prevention of Mother to Child transmission of HIV virus in Nepal Developed by His Majesty’s Government of Nepal. 1 December 2003.

\textsuperscript{14} Abbott Laboratories. About the Determine® HIV-1/2 test.

www.pmtctdonations.org/en/products/determine
lack of experience with HIV testing
- lack of observance of infection safety and Universal Precautions,
- insufficient observance of confidentiality of patient’s test results
- lack of uniform systems and guidelines for establishing standard procedures

These problems need to be overcome by provision of adequate training, supervision and appropriate equipment, to ensure high quality testing in ANC (and other) settings.

A2. Summary of recommendations:

- Establish lab facilities on site in selected ANC & maternity settings
- Use rapid HIV tests for ANC settings and apply for free HIV test kits from Abbott
- Ensure that proper training, quality assurance and quality control systems are in place
- Ensure that community VCT services are trained and willing to counsel on issues related to women, and/or refer women to PMTCT services
- Establish other referral systems for PMTCT

B. Antiretroviral prophylaxis for mother and newborn

B1. Background:

It is important to distinguish between:

- Antiretroviral (ARV) drugs given to HIV-infected pregnant women and their HIV-exposed babies for short term prophylaxis (prevention) of MTCT, and
- ARV drugs given on a long-term basis for chronic treatment of AIDS-related symptoms.

This section discusses ARV prophylaxis only.

Choice of ARV prophylaxis regimen

A number of different ARV regimens have been developed for PMTCT. The earliest and most complex of these regimens involved long-term administration of oral ARV drugs to the mother during pregnancy, intravenous administration of ARV drugs during labor and delivery and ARV drugs given to the baby for several weeks after birth. Other regimens followed, varying in cost, complexity and efficacy. The simplest regimen endorsed by

WHO is single dose nevirapine\textsuperscript{16}. This is also the protocol endorsed for PMTCT by the NCASC, and is recommended by this consultant for introduction in Nepal\textsuperscript{17}.

WHO believes that in addition to the safety and efficacy of nevirapine, the low cost and simplicity of use of this regimen makes it particularly attractive. WHO recently considered emerging concerns about nevirapine resistance, and again endorsed the use of nevirapine for PMTCT, stating that nevirapine remains a practical alternative when provision of more effective regimens is not feasible.

Further, WHO stated that “the expansion of programmes to prevent mother to child transmission using single-dose nevirapine should not be hindered while necessary improvements in health systems are taking place to enable more complex antiretroviral regimens to be delivered”\textsuperscript{18}.

In Nepal, to address the needs of HIV-infected women who do not deliver in hospital, national guidelines allow HIV-infected women to be given nevirapine to take home for self-administration at the time of labor.

**Availability of free nevirapine:**

Viramune\textsuperscript{®} is the brand name for nevirapine produced by the pharmaceutical company Boehringer Ingelheim. Free distribution of this drug has been made available by the manufacturer, and this donation is being managed by Axios International. The donations are available to any governments, NGOs, charitable organizations or health care providers with comprehensive PMTCT programs and the approval of local governments.

More information about administration of Viramune (nevirapine) can be found at www.pmtctdonations.org/en/products/determine and information about how to access the free donation programme can be found on the website, www.PMTCDonations.org. A joint application can be made for both Viramune\textsuperscript{®} and the Determine test\textsuperscript{®}.

**B2. Summary of recommendations:**

- Continue to use single dose nevirapine as the standard ARV prophylaxis protocol in Nepal in settings where more complex regimens would not be feasible
- Work with NCASC to request free nevirapine from the manufacturer


\textsuperscript{17} With this regimen, a single dose of the drug nevirapine (200 mg given orally) is provided to the mother at the onset of labour plus a single dose (2 mg/kg of nevirapine pediatric syrup) is provided to the newborn within 72 hours of birth.

C. Infant feeding counseling and support

C1. Background:

Infant feeding practices in Nepal

2001 DHS data show that breastfeeding is nearly universal in Nepal, with a median duration of 33 months. Nearly one-third of Nepali children are breastfed within one hour of birth, but only about one half of children below six months of age are exclusively breastfed (as recommended). Fortunately, the use of breast milk substitutes via a bottle with nipple (which can contribute to contamination and infection) is relatively rare in Nepal.

Hospital practices

As of December 2003 there were 7 hospitals out of 83 in Nepal that are officially Baby Friendly Hospitals, however it was reported that many of these 7 actually no longer meet the criteria due to frequent changes in personnel and lack of resources to provide ongoing training and IEC materials.

It will be important to revive the Baby Friendly Hospital initiative in Nepal both to continue to encourage breastfeeding for its health benefits to mothers and infants, and to prevent infant formula marketers from using the emergence of HIV to unethically market formula use in hospital settings.

Infant feeding and HIV

Breastmilk can transmit HIV, however, the dangers of feeding the infant with an industrially formulated breast-milk substitute (formula) in resource-constrained settings are also well understood. In Nepal, the high incidence of diarrheal disease in infants (reported in the 2001 DHS) clearly demonstrates these dangers. In Nepal, infant diarrhea is frequently caused by the use of contaminated water and unhygienic practices related to food preparation and excreta disposal.

Detailed WHO guidelines on HIV and infant feeding have been developed and revised. Provision of infant formula is only recommended for HIV-infected mothers when it will be affordable, feasible, acceptable, sustainable and safe. One way to help health workers and their HIV-infected clients come to the optimal decision about whether to breastfeed or formula feed, is to develop a checklist appropriate to the Nepal setting, that helps determine whether the formula criteria (mentioned above) can be met.

It is not recommended that PMTCT providers in Nepal provide free formula to HIV-infected mothers for the following reasons:

- The potential for infant diarrhea and other infectious diseases resulting from unsafe formula use is high in Nepal, and resulting infant morbidity and mortality could outweigh the HIV-prevention benefits of formula
- Women who cannot afford to purchase formula are also unlikely to be able to use it safely
- A “spillover” effect could result, with formula being unnecessarily and unsafely used by HIV-uninfected women
C2. **Summary of recommendations:**

- revive efforts to promote "Baby Friendly Hospitals"
- encourage exclusive breastfeeding for six months for all women who are HIV-uninfected, of unknown HIV status, or HIV-infected but unable to safely use formula
- Support the WHO marketing code for breast milk substitutes
- Include detailed infant feeding information in PMTCT training curricula for health workers
- Develop a checklist for PMTCT counselors to determine whether formula or breastfeeding is best for each HIV-infected woman
- Do not include free formula in PMTCT interventions for HIV-infected women in Nepal

D. **Safe obstetrical care**

D1. **Background:**

*Forging links with emergency obstetric care services*

UNICEF Nepal supports projects to reduce maternal mortality through improving emergency obstetric care (EOC). MTCT-related issues have not been included in these training curricula to date, but should be. This should include training on avoidance of unnecessary obstetric practices that increase the risk of MTCT, the importance of infection control, the need for PEP, etc.

At the Maternity Hospital in Kathmandu, health worker training in basic and comprehensive emergency obstetric care has already markedly reduced the incidence of episiotomy, vacuum delivery and forceps delivery\(^\text{19}\). These practices increase the risk of transmission of HIV from an HIV-infected mother to her infant, during delivery.

Another channel that could be used to engage health workers involved in deliveries in PMTCT is the Nepal chapter of the South Asian Federation of Obstetricians and Gynecologists. The UNICEF regional office (ROSA) has entered into a partnership with SAFOG at regional level to develop tools and materials for use by their country chapters, and will also hold a one day seminar/workshop with SAFOG members in Kathmandu in early 2005 on PMTCT.

*Home deliveries and hospital deliveries*

Only 16 percent of (expected) deliveries in 2002-2003 were estimated to have been conducted by health workers\(^\text{20}\) and only 1 in 10 births in the late 1990s in Nepal took place in a health facility. However, if women's HIV infection can be identified during

\(^{19}\) Personal report. Dr. Sushila Shrestha, Maternity Hospital

pregnancy, home delivery does not necessarily preclude them from receiving important PMTCT interventions, including nevirapine (for the mother to take by herself as she begins labor) and a single dose of pediatric syrup for the baby within 72 hours of birth. The practice of giving the tablet to the pregnant, HIV-infected woman has already been endorsed by the NCASC.

**Mode of delivery for HIV-infected mothers**

Scheduled cesarean section delivery (which is often recommended for HIV-infected women whose viral loads are high), is not likely to be a viable option for most HIV-infected women in Nepal because of the:

- lack of facilities for viral load testing
- the expense of the procedure
- the scarcity of facilities that can offer a safe cesarean section delivery
- national policy on who can conduct cesarean section procedures

**Other obstetric issues**

Observing infection control practices during delivery, wherever the delivery takes place, will be critical to protect both clients and providers from HIV infection.

**D2. Summary of recommendations:**

- Insert HIV/AIDS/PMTCT information into the curricula of:
  - emergency obstetric care
  - safe motherhood projects
  - community-based groups such as the Safe Motherhood Action Group (SMAG)
- Strengthen efforts to improve infection control/universal precautions in obstetric settings
- Train obstetricians, nurses, and other health and hospital workers not to discriminate against women known to be HIV-infected
- Initially, establish a core of obstetricians across Nepal who are willing and able to deliver and treat HIV-infected women
- The optimal mode of delivery should be decided on case-by-case basis
- Continue to strengthen the partnership with the South Asian Federation of Obstetricians and Gynecologists in PMTCT efforts and also with regional and national paediatric associations
E. Family planning counseling and services

E1. Background:

Current fertility and contraceptive patterns

According to the 2001 DHS, fertility in Nepal has declined steadily from 5.1 births per woman in 1984-6 to 4.1 births per woman in 1998-2000. Rural women have more than twice as many children (4.4) as urban women (2.1), and fertility is highest in the mountains (4.8 births/woman). The mean ideal number of children among ever-married women was 2.6 in 2001.

Knowledge of family planning is nearly universal among Nepalese women and men, with knowledge of modern methods generally much higher than knowledge of traditional methods.

Contraceptive prevalence in Nepal showed impressive increases between 1996 and 2001, with a contraceptive prevalence rate in 2001 of 39 percent. Female sterilization is the most common method (15% among currently married women) followed by the injectable (8%) and male sterilization (6%).

Nevertheless, 28 percent of currently married women in Nepal still have an unmet need for family planning. If properly, and sensitively counseled, women in Nepal who know they are HIV-infected may be especially motivated to use contraception, and most contraceptive methods are suitable for HIV-infected women. Avoidance of unwanted and unplanned pregnancies by HIV-infected women is one of the most effective means of PMTCT.

In March 2002, HMG’s Parliament approved legislation to permit abortion on request during the first 12 weeks of pregnancy for any reason, up to 18 weeks of pregnancy in cases of rape or incest and up to any time during gestation in case of disability or risk to the woman’s life or fetal deformity\(^21\). It is not clear whether HIV infection in a pregnant woman would qualify as a condition to allow her a voluntary abortion after 12 weeks of pregnancy, if desired. To allow HIV-infected women the option of a safe and legal abortion, it is important that they learn of their HIV infection early in pregnancy.

Links between family planning and PMTCT services

Links need to be made between VCT and ANC services, HIV care and support services, and family planning services. Adoption of temporary or permanent methods of contraception can play a significant role in reducing MTCT by:

- encouraging safe sexual behavior (primary prevention of HIV among women)
- avoiding unplanned and/or unwanted pregnancies in HIV-infected women (pregnancies that could result in MTCT)

E2. Summary of recommendations:

- Work with EDPs (particularly UNFPA), government and NGOs to ensure that referral links are established between ANC/PMTCT and family planning services.
- Ensure that HIV/AIDS information is included in family planning training curricula.
- Similarly, ensure that family planning information is included in PMTCT training curricula.

F. Care and support

F1. Background:

Comprehensive clinical programmes that provide life-long ARV therapy for treatment of clients who meet clinical eligibility criteria are just beginning in Nepal. However, when the Global Fund agreement is finalized, more drugs will be available in the public (as well as private) sector. Irresponsible use of these drugs, from either public or private sector, could quickly lead to drug resistance, reducing the effectiveness of the drugs.

Pediatric clinical care for HIV/AIDS is not well-developed in Nepal, in large part because few cases have so far been identified.

In the absence of complex ARV treatment drugs, the health care system in Nepal should also be gearing up to prevent HIV-related opportunistic infections (OIs) such as tuberculosis (TB) and PCP (pneumocystis carinii pneumonia). This should include cotrimoxazole prophylaxis as per official national treatment guidelines. TB is already a serious problem in Nepal, and could worsen in the HIV-uninfected population, as a result of its spread in HIV-infected population.

In principle, postnatal visits for HIV-infected women can be the source of checkups for her own health, follow up and testing of her baby, support for her infant feeding choice, counseling on family planning, and referrals for HIV/AIDS-related care and support services.

In addition to clinical care, support for people living with HIV/AIDS ideally includes a range of social support including:

- ongoing counseling and support for infant feeding
- family planning counseling and services
- psychosocial support
- nutritional guidelines and support
- income generating activities
- health care services and/or drugs to monitor health status and prevent opportunistic infections
- HIV testing for HIV-exposed infants

Provision of care and support increases the motivation for HIV testing, and PMTCT.

There are few organizations in Nepal that currently offer social support or medical care for persons living with HIV/AIDS, although such services are increasing.
Immediately following this assessment, Family Health International (FHI) was planning to support a team to explore HIV/AIDS-related care and support needs and facilities in Nepal.

**F2. Summary of recommendations:**

- Review the results of the FHI care and support for implications for PMTCT
- Ensure referral links are established between PMTCT and emerging social and clinical care services provided by NGOs, HMG and the private sector
- In the medium-term to long-term, UNICEF may wish to consider offering training in pediatric AIDS care to a core group of referral pediatricians in Kathmandu

**IX. Technical assistance for PMTCT**

When international technical assistance (TA) needs are identified for PMTCT in Nepal in the near future, it suggested that the source of this TA shift from Thailand (which has been used in the past) to India for the following reasons:

- India has a culture and health system more similar to Nepal
- The Government of India and UNICEF/India now have vast experience with PMTCT in government and NGO sectors
- PMTCT strategies modeled on Indian programmes are more likely to be feasible and replicable in Nepal

There are several possible forms such TA could take, including:

- An initial study tour for selected PMTCT site leaders to a PMTCT site in India to learn the process of setting up PMTCT policies and services
- Using Indian trainers to train PMTCT workers in Nepal
- Sending Nepali PMTCT workers to India to attend a PMTCT course
X. Suggested work plan

The following activities are recommended to be launched in the short- to medium-term future (not necessarily in this order) to expediently commence PMTCT projects in Nepal:

- Formalize and activate PMTCT Working Group
- Ensure linkage or combination of PMTCT Working Group with Care & Support Working Group (i.e. 3 by 5 rollout group)
- Complete field visits to Nepalgunj and other remaining institutions
- Select and support 2-3 sites to PMTCT services (passive, selective, or active model)
- Selection (of PMTCT sites) should be based on specific criteria
- Find ways to involve private sector clinicians
- Engage professional associations (obstetricians, pediatricians, nurses, etc.)
- Develop IEC materials specific to women and HIV (including PMTCT)
- Design community mobilization and support activities for PMTCT
- Arrange study tour (possibly to India) to study process of establishing PMTCT
- Assess current PMTCT capacity in health workers
- Provide specific technical training to health workers in selected sites
- Determine supply requirements and ensure availability (primarily ARV drugs and test kits/reagents)
- Ensure linkages with 3 by 5 procurement plan to avoid overlap and duplication; and explore UNICEF role in procurement/procurement services

Criteria suggested against which to select appropriate sites for "passive", "selective" or "active" PMTCT activities include the following:

- Adequate, skilled human resources
- Located in an area of relatively high seroprevalence that has a large “high risk” client base
- Presence of a large ANC client base (to be cost-effective)
- Potential to serve as a future “center of excellence”
- Interest, commitment and enthusiasm
Annex A: Terms of Reference

UNICEF-NEPAL COUNTRY OFFICE: TERMS OF REFERENCE (TOR)

ASSESSMENT OF PREVENTION OF MOTHER-TO-CHILD TRANSMISSION IN NEPAL

1. BACKGROUND

In Nepal the first cases of AIDS were reported in 1988. Surveillance data is scarce in Nepal; however, limited data indicate that HIV prevalence is currently around 0.3 percent in the general population. As of December 2002, the Ministry of Health has reported 624 cases of AIDS and 2,598 HIV infections. Given the existing medical and public health infrastructure in Nepal and the limitations of the national HIV/AIDS surveillance system, it is very likely that the actual number of cases is many times higher. Compared with other countries in Asia and the world, available epidemiological data suggest that Nepal has a low prevalence of HIV in the general population. It is now evident that Nepal has entered a “concentrated epidemic” stage, i.e. the HIV/AIDS prevalence consistently exceeds 5% in one or more subgroups. These include infecting drug users (IDUs) nationwide, female sex workers (FSW) in urban areas, and returning sex workers from India. The dynamics of the epidemic area especially dramatic in the Kathmandu Valley where HIV/AIDS prevalence was 2% or below among FSWs and IDUs in the mid-1990s. It now exceeds 50% among IDUs and is approaching 20% among FSWs, and is over 70% among FSWs who also reporting being IDUs. In the absence of effective interventions, even a low growth scenario would make AIDS the leading cause of death in the 15-49 year old population over the coming years. For Nepal, a generalized epidemic would be a vicious circle. The impact of HIV AIDS would increase poverty and vulnerability to HIV/AIDS. This vulnerability would lead to more infections and higher impact. Besides the negative impact on socioeconomic development and the loss of productive life, the burden of disease would put further stress on the health sector and local communities.

Parent to child transmission is by far the largest source of HIV infection in children. However, the magnitude of parent to child transmission is not known in Nepal due to the scarcity of data on both HIV prevalence among pregnant women and the number of children affected. According to the Ministry of Health, it is estimated that among 900,000 pregnancies in a year 180 HIV infected pregnancies are recorded annually with transmission rate of 200 per year to the newborn.

While the most effective way of preventing parent to child transmission is prevention of primary infection in mother and her sexual partners, it is needed to explore what are the most suitable strategies that can be implemented in Nepal in order to attain the goal set up by the UNGASS Declaration of Commitment on HIV/AIDS, i.e. to reduce the number of babies infected by HIV by ensuring that by 2010 eighty percent of pregnant women in antenatal care receive HIV information, counseling and other prevention services, HIV infected women and babies receive treatment to reduce mother-to-child transmission, and HIV-infected women receive voluntary and confidential testing and counseling treatment, including antiretroviral drugs, and if needed, breast-milk substitutes.

The Regional Office has organized regional events to promote PMCT initiatives as a corporate task. But for Nepal it might be difficult to identify the right strategy to implement due to the still low prevalence of HIV in the population, the fact that only 13% of women deliver in hospitals and the low percentage of women going to antenatal care. There is a need for a clear understanding of the strategy to be adopted in the country to address PMCT and implement related activities: for this purpose strong technical advice is needed to address this issue consistently.
2. PURPOSE OF ASSIGNMENT:

- To gather and assess available information on prevalence of HIV infection among adolescents, women of reproductive age, pregnant women and expected HIV infection from mother to child. The assessment will include information on main services for antenatal care, postnatal care. EOC initiatives supported by UNICEF in the country should also be assessed in the framework of PMCT.

- Based on the analysis of the information gathered, to recommend what would be a feasible strategy and intervention options for addressing the mother to child transmission in the epidemiological and cultural context of Nepal.

- The assessment will be carried out by an international consultant and a national team to include a national consultant funded by WHO. The assessment will also be an opportunity to improve capacity of both Government and other counterparts to address PMCT.

3. DESCRIPTION OF ASSIGNMENT:

For The National Assessment, the consultant will accomplish the following tasks:

1. Lead team from UNICEF, UNAIDS co-sponsors, National AIDS Programme and selected NGOs to conduct the Assessment and recommend achievable actions to prevent HIV transmission among the target populations.

   The Assessment procedure includes:
   i. In collaboration with the Assessment team, adapt the WHO/UNICEF guidelines for PMTCT Assessment to be used during the assignment
   ii. Train team and local partners in Assessment techniques to carry out the Assessment
   iii. Plan and carry out discussions/workshops with health providers and care personnel
   iv. Visit selected project sites/facilities
   v. Assess and analyse:
      - prevalence of STD and HIV transmission to the target populations and available behavioural data
      - current situation of reproductive health infrastructure and ongoing services provided to women of reproductive age, pregnant women and children including HIV/STD awareness raising,
      - opportunities to integrate HIV/AIDS/STD prevention and care into Government, UN and INGO/local NGO programme e.g. Safe Motherhood, Reproductive Health, EOC UNICEF supported project and care/support activities
      - constraints to interventions to prevent HIV transmission to the target populations

2. Prepare a report with recommendation on the most appropriate strategy and potential activities that can be implemented to prevent HIV parent to child transmission

3. Based on the recommendation, prepare an action plan with the process/steps that should be carried out by agencies supporting the national response, in particular, key UNAIDS cosponsors as well as key government agencies.

4. Present preliminary assessment and analysis based on findings
Annex B: Persons met

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<td>Infectious Diseases</td>
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<tr>
<td></td>
<td>Dr. Rupa Singh</td>
<td>Prof., Dept. of Paediatrics &amp; Adolescent Medicine</td>
</tr>
<tr>
<td>Inaruwa Hospital (Sunsari, Inaruwa)</td>
<td>Dr. V.K. Thakur</td>
<td>Medical Superintendent &amp; DHO</td>
</tr>
<tr>
<td>The Policy Project</td>
<td>Ms. Sumi Devkota</td>
<td>Senior Program Officer</td>
</tr>
<tr>
<td>Sunsari district Safe motherhood Action Group (SMAG) (UNICEF DACAW programme)</td>
<td>Mr. Govinda Chhetri</td>
<td>District Field Officer</td>
</tr>
<tr>
<td>SMAG NGO and mothers presenting for ANC</td>
<td></td>
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<tr>
<td>Community Health Center - Yakaha (NGO), Itahari, Biratnagar</td>
<td>Mr. Ram Prasad,</td>
<td>Director</td>
</tr>
<tr>
<td>Bir Hospital</td>
<td>Dr. Ram Prasad Shrestha</td>
<td>Medical Superintendent &amp; Former Director, NCASC</td>
</tr>
<tr>
<td>Gandaki Regional Hospital, Pokhara</td>
<td>Dr. Yamuna Suwal,</td>
<td>Head Of Gynae Department, Gynae</td>
</tr>
<tr>
<td>Paluwa Voluntary Counselling &amp; Testing Centre, INF, Pokhara</td>
<td>Mr. Buddhi Bal Ramtel</td>
<td>Counselor, HIV/AIDs</td>
</tr>
</tbody>
</table>
Annex C: Documents reviewed

IBFAN/UNICEF. Infant feeding and HIV: A Regional Colloquium for the Asia Pacific. 28-29 November 2003.
### Annex D: Schedule of visits

#### 4-15 July 2004

<table>
<thead>
<tr>
<th>Date/Time</th>
<th>Activity</th>
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</thead>
</table>
| **Sunday, July 4** | Arrival in Kathmandu  
Chief, Health Section, UNICEF (Agatha Pratt)  
Dinner with Sen. Prog. Officer (Jan van Manen)                                                                                           |
| **Monday, July 5** | Admin. Section – administrative issues/ticket etc.  
Country Programme Adviser – UNAIDS (Dr. Michael Hahn)  
Courtesy Call – UNICEF Representative (Dr. Suomi Sakai)  
Meeting with UN agencies: UNICEF, WHO, UNFPA, ILO, UNHCR  
World Bank (Dr. Tirtha Rana)  
Director, National Centre for AIDS and STD Control (Dr. S.S. Mishra and staff)  
UNICEF Regional Adviser HIV-AIDS (Ian Macleod)                                                                                     |
| **Tuesday, July 6** | Visit Paropakar Shree Panch Indra Rajya Laxmi Devi Prasuti Griha Maternity Hospital,  
Visit Maiti Nepal (NGO)  
Visit to Karuna Bhawan (NGO of the Catholic Church of Nepal - Sisters of the Adoration of the Blessed Sacrament)  
Meet with USAID/FHI/Policy Project/PSI (Sheila Lutjens et al)  
FHI – technical meeting  
Visit Nepal Police Hospital (Dr. Megh Bahadur Gurung, Superintendent of Policy/Chief Surgeon)                                      |
| **Wednesday, July 7** | KING’S BIRTHDAY – PUBLIC HOLIDAY  
Departure for field visit to Biratnagar                                                                                                  |
| **Thursday, July 8** | Meet Dr. Thakur, Inerwaha Hospital  
Visit NGO SMAG (Safe Motherhood Action Group)  
Travel to Dharan  
Meetings at BPKIHS  
Mr. Ram Prasad, Yakaha (NGO)  
Return to Biratnagar                                                                                                                   |
| **Friday, July 9** | Return to Kathmandu from Biratnagar  
Dr. Shrestha (former Director of NCASC)                                                                                                    |
| **Saturday, July 10** | Review notes and prepare presentations  
Lunch with Agatha et al                                                                                                                   |
| **Sunday, July 11** | Field visit to Pokhara                                                                                                                      |
| **Monday, July 12** | Return to Kathmandu                                                                                                                         |
| **Tuesday, July 13** | Dinner at Rep’s                                                                                                                             |
| **Wednesday, July 14** | Meet with Agatha, Debendra and Sushila  
Presentation workshop on summary of findings and preliminary recommendations for all stakeholders                                               |
| **Thursday, July 15** | Final debriefing and discussions with team  
Depart Kathmandu                                                                                                                          |
<table>
<thead>
<tr>
<th>ISSUE</th>
<th>DATA REQUIRED</th>
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<tbody>
<tr>
<td>Overall epidemiology (to assess specific impact of HIV on women and children)</td>
<td>General seroprevalence data already available in FHI report. Still need:</td>
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<tr>
<td></td>
<td>▪ TFR/BRs in women</td>
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<td></td>
<td>▪ Average age at marriage</td>
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<td></td>
<td>▪ Groups of women at special risk for HIV</td>
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<td></td>
<td>▪ Other?</td>
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<tr>
<td>Current status of PMTCT activities</td>
<td>▪ Relevant GON policies &amp; priorities</td>
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<tr>
<td></td>
<td>▪ NGO efforts/plans</td>
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<tr>
<td></td>
<td>▪ Govt. efforts/plans</td>
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<td></td>
<td>▪ UNICEF efforts/plans</td>
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<td></td>
<td>▪ Other?</td>
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<tr>
<td>General awareness and prevention efforts</td>
<td>▪ Studies of KAP re: PMTCT (in general population; among health workers, in pregnant women)</td>
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<td></td>
<td>▪ IEC efforts focusing on PMTC</td>
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<td></td>
<td>▪ AIDS prevention efforts targeted at women of repro. age</td>
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<td></td>
<td>▪ Other?</td>
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<tr>
<td>VCT</td>
<td>▪ Availability of community VCT &amp; % clients who are women</td>
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<td></td>
<td>▪ Govt</td>
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<td></td>
<td>▪ NGO</td>
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<td></td>
<td>▪ Any focus on PMTCT?</td>
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<td></td>
<td>▪ Availability of VCT in ANC (govt. or NGO)?</td>
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<tr>
<td></td>
<td>▪ If VCT is in ANC, is it “opt-in” or “opt-out?”</td>
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<td></td>
<td>▪ Laboratory facilities for rapid tests/ELISA/Western Blot/PCR</td>
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<td></td>
<td>▪ Other?</td>
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<tr>
<td>PATTERNS OF ANC CARE</td>
<td>▪ National patterns (frequency of visits, services offered, etc.)</td>
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<tr>
<td></td>
<td>▪ ANC patterns in high prevalence areas</td>
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<tr>
<td>PATTERNS OF WELL-BABY CARE</td>
<td>▪ Post-partum check-ups and immunization patterns</td>
</tr>
<tr>
<td>ARV</td>
<td>▪ ARV for PMTCT:</td>
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<tr>
<td></td>
<td>▪ Govt. policies?</td>
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<td></td>
<td>▪ NVP/ZDV approved for this use?</td>
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<tr>
<td>INFANT FEEDING</td>
<td>OBSTETRIC CARE</td>
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<td>----------------</td>
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</tr>
<tr>
<td>- Availability in ANC?</td>
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<tr>
<td>- Any links b/t PMTCT/VCT and treatment referrals?</td>
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<tr>
<td>- Choice of ARV regimen</td>
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<tr>
<td>- Any govt. policy?</td>
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<tr>
<td>- Cost</td>
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<tr>
<td>- Feasibility (adherence potential)</td>
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<tr>
<td>- Pediatric dose issues</td>
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<td>- PEP available?</td>
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<tr>
<td>- Current national infant feeding patterns (DHS data?)</td>
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<tr>
<td>- Government policies on infant feeding (baby friendly policies?)</td>
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<tr>
<td>- Current support mechanisms for infant feeding (BF support groups? Counseling post-partum?)</td>
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<tr>
<td>- Infant formula for PMTCT:</td>
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<tr>
<td>- Govt. policy?</td>
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<tr>
<td>- Potential affordability</td>
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<td>- Potential feasibility</td>
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<td>- Potential acceptability</td>
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<td>- Potential sustainability of supply</td>
<td></td>
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<td>- Potential safety</td>
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<tr>
<td>- Current delivery patterns (national &amp; high risk populations)</td>
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<td>- In hospital? Duration of stay?</td>
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<td>- At home?</td>
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<tr>
<td>- Prevalence of C-section?</td>
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<tr>
<td>- Prevalence of episiotomy &amp; forceps delivery</td>
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<tr>
<td>- Patterns of OB-related blood transfusion &amp; blood safety</td>
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<tr>
<td>- Special precautions for HIV+ mothers?</td>
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<tr>
<td>- PEP available for staff?</td>
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<tr>
<td>- Infection control status?</td>
<td></td>
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<tr>
<td>- Attitudes of OBs toward HIV+ women</td>
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<td>- Current trends in contraceptive use</td>
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<tr>
<td>- FP counseling given in ANC or postpartum?</td>
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<tr>
<td>- Availability of ARV treatment drugs (current &amp; planned)</td>
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<tr>
<td>- Special policies related to women of reproductive age</td>
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