Prevention of HIV transmission from mother-to-child:

Meeting on planning for programme implementation
Geneva, 23–24 March 1998

Background

Transmission of HIV from mother-to-child can occur during pregnancy and delivery, as well as through breastfeeding. Such mother-to-child transmission of HIV represents a major cause of morbidity and mortality among young children, particularly in developing countries with a high prevalence of HIV infection. Interventions to prevent mother-to-child transmission of HIV, including recent breakthroughs in antiretroviral therapy, offer immediate opportunities to: (i) save children's lives; (ii) reduce the impact of HIV on families and communities; and (iii) strengthen maternal and child health services.

In addition to the long regimen (ACTG 076) proven effective in 1994, a CDC-sponsored trial in Thailand demonstrated in February 1998 that the use of a shorter zidovudine regimen, which is more feasible and affordable in developing countries, is also effective. This shorter regimen, involving the administration of zidovudine to mothers during the last four weeks of pregnancy and during delivery, has been shown to reduce mother to child transmission by half among women who do not breastfeed. An

integrated prevention programme which combines the use of this regimen and the use of safe alternatives to breastfeeding would be effective in reducing mother to child transmission of HIV among breastfeeding populations.

Recent cost-effectiveness data suggest that in many developing countries this intervention is comparable to other public health interventions. It is clear that there is an urgent need to begin to implement such interventions to reduce the transmission of HIV from mother to child.

Taking interventions to scale

Any national strategy to prevent mother to child transmission of HIV should be part of broader strategies to prevent the transmission of HIV and STDs, to care for HIV-positive women and their families, and to promote maternal and child health. The ability to make widely available, and as soon as possible, the interventions to reduce HIV transmission from mother to child depends on political will, affordability of the interventions, and the strength of existing human resources and infrastructures. Powerful means of effecting change lie in demonstrating the success of interventions to reduce mother to child transmission of HIV, as well as the costs of not acting to prevent this kind of transmission.

Three factors that affect the affordability of interventions to prevent mother to child transmission are: (i) the cost of drugs; (ii) the cost of safe alternatives to breastfeeding; and (iii) the cost of HIV tests. WHO has added zidovudine for mother to child transmission to the Essential Drug List. Glaxo-Wellcome

has recently offered zidovudine at substantially reduced prices. Further negotiations are planned to minimise the cost of each of these components.

Service delivery, including voluntary HIV counselling and testing, represents a further set of costs. In countries with well-functioning health systems, the additional service delivery costs of interventions to prevent mother to child transmission may be affordable. Other countries may require more substantial investments in order to strengthen their health infrastructure to allow for the incorporation of large scale interventions. Where applicable, traditional health and community support systems should also be fully utilised. Such investments will have a broad beneficial effect on the health sector more generally and should be encouraged.

Optimum context

The following parameters describe the optimum context in which to implement effectively the interventions necessary to reduce transmission of HIV from mother to child:

• All women should have knowledge about HIV, and should have access to the information necessary to make appropriate choices about HIV prevention and about sexual and reproductive health and infant feeding in the context of HIV.

• HIV counselling should be available for pregnant women and those contemplating pregnancy. Such counselling should address the needs of pregnant women and women living with HIV, including reproductive health issues such as family planning and safe infant feeding. Active referral and/or networking for follow-up counselling, comprehensive care, and social support should be available for the HIV positive woman and her family.

• Pregnant women, and those contemplating pregnancy, should have access to voluntary HIV testing, to test results

with the least possible delay, requiring that appropriate laboratory services be available to process such tests, and to counselling.

• All pregnant women should have access to antenatal, delivery and post-partum care, and to a skilled attendant at birth. For the shorter zidovudine regimen to be effective, at least one antenatal visit with follow up is needed before 36 weeks, and preferably before 34 weeks, of gestation. In order to benefit from this intervention, women who access antenatal services prior to 36 weeks should have access to HIV voluntary counselling and testing. Skilled care during delivery is also needed; the shorter zidovudine regimen also involves administration of zidovudine during labour and delivery.

• There should be follow-up of children at least until 18 months, especially for nutrition and for childhood illnesses.

Key principles

The following are some of the key principles that should underpin the implementation of all interventions to prevent mother to child transmission:

• The right to protect oneself from HIV infection, including through: (1) access to full information about HIV, including information on mother to child transmission, information from relevant research, and information concerning one's serostatus; and (2) access to the means of prevention, such as condoms and relevant HIV/STD health services. This requires the integration of HIV prevention, including prevention of mother-to-child transmission, into existing systems, e.g. education, health care (including traditional health care), and community and women's development (non-governmental and community-based organisations, traditional community leadership, etc.)

• The right to decide whether or not, and when, to bear a child. This requires access to information about family planning and access to family planning services. It also requires community and family acceptance of a woman's or a family's decisions.

• The right to voluntary/ informed consent and confidentiality in HIV testing, counselling and treatment, including choices made in the context of mother to child transmission. This involves training of health care workers, including traditional health care workers, in providing informed consent and protecting confidentiality, and should lead to voluntary, informed, and when possible, supported decision-making on these and related issues.

• The right to an environment which enables women, parents and families to make choices that protect their health and that of their loved ones, and to act upon these choices. This includes reducing stigma and discrimination related to HIV and to mobilising communities for support. It also includes improving access to health care, including voluntary counselling and testing, antiretroviral treatment in pregnancy, treatment for opportunistic infections, and to the conditions necessary to use safe alternatives to breastfeeding.

• The right to ethical research, including research that does no harm, is conducted with informed consent and with the participation of communities in research design and implementation, and involves the dissemination of research results to affected communities.

Unresolved issues

The efficacy of zidovudine in preventing HIV transmission to the child from an HIV positive mother who breastfeeds is currently not known. Zidovudine may provide some degree of protection, although probably less than the protection it provides to infants who are not breastfed. Since the majority of HIV positive women facing transmission from mother to child

are women who breastfeed, it is critical to resolve this issue. It is also necessary to learn more about the effect on the morbidity and mortality of infants born to HIV positive women of introducing alternatives to breastfeeding.

Nevertheless, the greatest reduction in mother to child transmission of HIV is likely to occur when an integrated prevention programme is implemented which combines the provision of zidovudine and safe alternatives to breastfeeding. In some countries, it may prove to be impractical to implement simultaneously access to zidovudine and access to safe alternatives to breastfeeding. In these situations, the implementation of one prevention component should not be delayed until the other is feasible. Furthermore, if a woman chooses not to use both zidovudine and safe alternatives to breastfeeding, she should still have access to the intervention of her choice and should be supported to carry out the use of this intervention safely and effectively.

Other unresolved issues involve the efficacy of even shorter regimens of zidovudine than that used in the Thai study, and the efficacy of interventions which do not require knowledge of serostatus, such as Vitamin A supplementation and vaginal cleansing for prevention of mother to child transmission. Results from ongoing research will indicate whether or not these can be proposed as effective interventions on their own, or only as measures complementary to an antiretroviral regimen.

Additional research is also required on issues such as factors influencing the uptake of voluntary testing and counselling, not returning for HIV test results, adherence to the regimen, and acceptance of interventions to prevent mother to child transmission.

The need for action and support

A global effort is needed to promote the updating and scaling up of interventions to prevent mother to child transmission of HIV. Furthermore, there is an ethical imperative to support the introduction of the shorter zidovudine regimen in countries in which trials have been completed, and to encourage the initiation of such interventions in countries which have the capacity and willingness to support them. Recognising the urgency of the situation and at the same time the fact that it will take time to mobilise new resources for these interventions, it is recommended that a phased approach be taken in the introduction of such interventions. Such an approach would tailor implementation to utilise fully and immediately existing national and local capacities, with a concrete plan to build on these initial efforts over time. Where the capacity to implement these interventions is limited, efforts should begin immediately to increase capacity, with a plan to introduce these interventions as soon as possible.

Coordination mechanisms

Mechanisms are being established through UNAIDS, in close collaboration with UNICEF and WHO, to coordinate and support efforts for accelerated capacity-strengthening and technical development, and to scale up the implementation of interventions to reduce mother to child transmission. These mechanisms will facilitate the exchange of information, mobilise resources, help to coordinate research, and resolve remaining policy, programmatic and technical issues. Key actors are presently discussing the nature and functioning of these coordination mechanisms.