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# HIV and safe motherhood



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# DEFINITIONS

**AIDS** stands for Acquired Immune Deficiency Syndrome. HIV destroys the body's immune system, leaving the body open to infections that it cannot fight in the normal way. When this happens, a person has AIDS.

**Amniocentesis** is a test for genetic abnormalities done in hospital. A needle is passed through the abdomen of a pregnant woman and into her uterus, to take a sample of the amniotic fluid surrounding the baby.

**Antibodies** are produced by the body's immune system in response to an outside organism that causes disease, such as a virus or bacteria. Antibodies are specific to the particular virus or bacteria.

**Antiretrovirals (ARV)** are drugs that fight the HIV virus.

**Artificial feeding** means feeding a baby on breastmilk substitutes. These can be any food or drink which is used as a replacement for breastmilk, whether or not it is suitable. Examples are infant formula, cow's milk and goat's milk.

**Asymptomatic** is when a person has HIV infection, but is well and has no signs or symptoms of HIV-related illness.

**CD4 count** is a blood test that measures the number of CD4 cells in a cubic millimetre of blood. CD4 cells help to protect the body from getting infections. The CD4 count roughly reflects the state of a person's immune system. The CD4 count in a healthy, HIV-negative adult is usually 600-1200 CD4 cells per cubic millimetre of blood. HIV attacks and destroys CD4 cells, so the CD4 count of people with HIV usually falls over time. If the CD4 count drops below 200 cells per cubic millimetre of blood, there is a high risk of serious infection.

**Combination therapy** is drug treatment with two or more different ARV drugs.

**ELISA** stands for enzyme-linked immunosorbent assay. This is one of the blood tests done to find out if somebody is HIV positive.

**Exclusive breastfeeding** is when a baby is given nothing except breastmilk – no water, no juice, no other food or drink. Exceptions are medicines and vitamins.

**HIV** stands for Human Immunodeficiency Virus. It is the virus which causes AIDS. There are two types of HIV: HIV-1 and HIV-2. This paper is only about HIV-1, because HIV-2 does not usually pass from mother to child.

**HIV-positive** is when somebody has become infected with the HIV virus. The virus multiplies rapidly in the blood, and antibodies are produced. A person is then said to be HIV positive. Although she may have no signs of illness, she can still infect others.

**MTCT** stands for mother-to-child transmission, and means the same as vertical transmission.

**Monotherapy** is drug treatment with only one ARV drug (not a combination).

**Opportunistic infections** are the infections which people with HIV/AIDS get because their immune systems are damaged. These are infections which the person's body would normally be able to fight, like thrush, or which are only common among people with HIV/AIDS, like pneumonia caused by pneumocystis carinii.

**Perinatal transmission** is any transmission from mother to child which happens during pregnancy or delivery or up to one week after birth.

**Prophylaxis** is the prevention of, or protection against disease. For instance, if women are routinely given antimalarial tablets in pregnancy to prevent, rather than treat, malaria, it is called malaria prophylaxis.

**Rapid assay testing** is a test for HIV using a kit which clinic staff can be trained to use. It gives an immediate result on a blood test to show whether a person is HIV positive, without the need for a laboratory. Some rapid assay tests need refrigeration.

**Resistance** to an ARV means that the HIV in a person's body has changed so that the drug no longer works against it.

**Symptomatic HIV** is when a person with HIV has started to become ill with HIV-related illness.

**Sexually transmitted infections (STIs)** are infections which can be passed from person to person by sexual contact. HIV is an STI, so are gonorrhoea, syphilis, chlamydia trachomatis, herpes simplex, trichomoniasis, cytomegalovirus (CMV) and hepatitis B.

**Unprotected sex** means having sexual intercourse without a condom. It also refers to other sexual activities where there is a risk of HIV transmission (oral sex, anal sex).

**Vertical transmission** is when the HIV virus passes from an HIV positive mother to her baby. This can happen during pregnancy, during labour and delivery, or during breastfeeding.

**Viral load** is one of the tests done on the blood of an HIV-positive person. It measures the amount of HIV in the blood. If a person is HIV positive, a viral load more than 100,000 is considered to be high, and less than 10,000 is considered to be low. An **undetectable viral load** means that there is not enough HIV in the blood for it to be measured with the usual tests.

**Window period** is the time between a person becoming infected with HIV and a blood test showing a positive result. Because the blood tests look for antibodies to HIV, rather than the virus itself, it can be up to three months before the tests show a positive result. During the window period people can transmit the HIV virus to other people.

# INTRODUCTION

The health and wellbeing of women everywhere is of great importance in its own right. It is also key to the health and wellbeing of their families, communities and societies. But every year, over half a million women in developing countries die in pregnancy and childbirth. The Safe Motherhood Initiative was started in 1987 to improve maternity services and to protect the health of mothers and their infants.

HIV presents an enormous challenge to safe motherhood. In 1998, it was estimated that approximately two million HIV-positive women worldwide would give birth. In several major towns in eastern and southern Africa, more than a quarter of pregnant women are now HIV positive.

Women with HIV are more likely to have complications during pregnancy and delivery, or abortion. They are also more vulnerable to anaemia, malaria, pneumonia, urinary infections, and tuberculosis (TB). For women with symptomatic HIV, pregnancy can also speed up the progress of their illness to AIDS. In South Africa, about one in eight maternal deaths are directly due to HIV, and it is a factor in other maternal deaths, for instance from bleeding.

It is estimated that in Africa and Asia, more than two million children each year will lose their mother or both parents to AIDS. These children can be at especially high risk of poverty, neglect and early death. When grandparents or older children are left to look after orphans, they often lack the support or resources to meet basic needs.

HIV can also pass from mother to child during pregnancy, labour and delivery, or through breastfeeding. It is not known exactly what proportion of babies born to HIV-positive mothers will be infected

themselves, but without any kind of intervention, it is estimated that between 15 and 45 out of every 100 would be infected. Around 570,000 children aged 14 or younger (most of them in sub-Saharan Africa) became HIV positive in 1999, almost all from mother-to-child transmission.

The prospects for infected children are not good. Children who are HIV positive are over 20 times more likely to die before the age of five than non-infected children. A study in Rwanda found that, even with frequent medical treatment, over a quarter of the children with HIV in the study died before they were two years old, and over half died before their fifth birthday.

Good HIV prevention and care is an essential part of safe motherhood. Maternity services could play a crucial role by improving care for pregnant women with HIV and AIDS, and helping to reduce the spread of HIV and AIDS before, during and after pregnancy. Fewer resources will be needed if programmes work together.

This briefing paper is for health workers in sub-Saharan Africa who care for mothers during and after pregnancy and delivery. It will also be useful for health planners, and anyone working with young people and with women and men, providing information, advice or counselling on reproductive health and parenthood.

The paper provides information on the issues raised for Safe Motherhood by the high prevalence of HIV in the region. It suggests actions that can improve care and advice for all women, including those who are HIV positive, as well as ways to reduce the risk of mother-to-child transmission for those women who know they are HIV positive.

# 1

## BEFORE PARENTHOOD

Young people, women and men, need advice about HIV and about pregnancy long before they consider becoming parents.

### Avoiding infection

Health workers can play an important role in educating people about HIV/AIDS and how they can protect themselves against infection. This may involve working with teachers, youth groups, women's groups and others, to help people to understand HIV better and find ways to encourage and support behaviour change. Improving women's status in society is also crucial – only then will women be able to negotiate with their partners for safer sex.

### Reproductive rights and choices

All women, regardless of their HIV status, should have the right to choose whether and when to have children and how many they would like to have. A woman who knows she is HIV positive needs information about the HIV-related risks of pregnancy for herself and her baby and how they can be reduced. But she must still be free to make her own decision about whether or not to have children, and should be supported in her choice.

### Improving access to contraception

In an ideal world, every pregnancy would be a wanted pregnancy. All women and men should have access to safe and reliable contraceptives, which include barrier methods, such as condoms. Condoms prevent sexually transmitted infections (STIs), including HIV, as well as unwanted pregnancy.

Where women choose other ways to prevent pregnancy, they should still be encouraged to use condoms as well, to protect against HIV and other STIs. Couples should also be advised to use condoms to avoid infection throughout pregnancy, breastfeeding and afterwards. Even when both partners are HIV positive, they should still use condoms to avoid other STIs and the possibility of re-infection with HIV.

Many women find it difficult to negotiate male condom use with their partners and more female-controlled methods, such as the female condom, are needed. The female condom is already available in many parts of Africa, but often women find it expensive to buy and difficult to use. Female condoms



Kuleana

Role play helps young people develop their skills in negotiating and is a good starting point for talking about HIV prevention.

need to be made more affordable and accessible with better information on how to use them.

### Abortion

HIV status should never be used as a reason for forcing a woman to have an abortion. In many parts of Africa abortion is illegal. In places where it is available, an HIV-positive woman may decide to end her pregnancy. If she does, she should be supported in her decision. Any decision must be made freely, without pressure from health workers or family members.

### Getting pregnant

Getting pregnant involves a risk of transmitting HIV if either partner has been exposed to infection. Couples trying to conceive can minimise the risk of transmission by only having unprotected intercourse (without a condom) during the few days each month when the woman is most likely to be fertile.

Research is being done to develop vaginal microbicides (chemical substances that can be used in the vagina to reduce transmission of STIs including HIV). It is hoped that some microbicides will prevent pregnancy by killing sperm, and also kill sexually transmitted infections such as HIV. It is also hoped that other microbicides will be developed which will kill HIV and other STIs without killing sperm, so that couples can become pregnant without risking HIV infection. However, it is likely to be five to ten years before any microbicides are on the market.

# 2 HIV IN PREGNANCY

It is estimated that at the end of 1999, over 12 million women in sub-Saharan Africa between the ages of 15 and 49 were living with HIV. As more and more women become HIV positive, the number of pregnant women with HIV also increases. In some areas, the proportion of pregnant women who are HIV positive is very high. For instance, information collected in a number of antenatal clinics in major urban centres in Botswana, Rwanda and Malawi between 1996 and 1998, found that more than 30 in every 100 pregnant women were HIV positive.

## Mother-to-child transmission

In developing countries, between one in three and one in four babies born to HIV-positive women are born with HIV themselves. Some of these babies become infected during pregnancy, but most become infected during the birth itself.

There appears to be a greater risk of HIV transmission during pregnancy and childbirth if the mother has a high viral load, or if her immune status is poor. Her viral load will be higher if she:

- has become HIV positive just before or during her pregnancy
- is continuing to be exposed to the HIV virus through unprotected sex in pregnancy
- has symptomatic HIV.

A woman's immune status may be linked to a high viral load and can be assessed by taking a CD4 count. The lower the CD4 count, the lower her immune status.

Poor diet, having another STI such as gonorrhoea, chlamydia or syphilis or having other infections such as malaria also appear to increase the risk of transmission from an HIV-positive mother to her baby. In general, the better the health of the mother, the less likely she is to transmit HIV to her baby.

## Keeping all mothers healthy

All women need care and advice to help them remain healthy during their pregnancy.

**Protect women from HIV** The only completely reliable way to stop mother-to-child transmission of HIV is to prevent all girls and women becoming HIV positive.

**Involve fathers** Talking to the male partner about HIV and parent-to-child transmission, and explaining to him what he can do to keep the pregnancy safe, can encourage him to practise safer sex and protect the health of his baby.



Gisele Wulfsohn/Panos Pictures

Women with HIV need information and support to help them make the best choices for themselves and their babies.

**Promote safer sex** Even after becoming pregnant, women should continue to practise safer sex (use a condom) unless they are absolutely certain that their partner is not HIV positive. Continuing to use condoms will also prevent STIs. Keeping to one sexual partner makes sex safer.

**Test for, and treat, all infections** An essential part of care for all pregnant women is to look for, ask about and treat, any infections the woman may have, especially STIs, tuberculosis (TB) and malaria.

**Prevent malaria** In areas where malaria is common, malaria prophylaxis is an important part of antenatal care. It is even more important for women who are HIV positive, because an infection can increase the risk of transmission (see below). Pregnant women should take whichever antimalarial drug is recommended in their area, and sleep under an insecticide-treated bed net where possible.

**Promote a well-balanced diet** Eating a good diet, including all the necessary vitamins and minerals, is important for all pregnant women, but especially those who are HIV positive. It is difficult for many women to decide what they eat – poverty, custom or their status may mean they have few choices. Education about which local foods are most nutritious and the importance of pregnant women being well fed, needs to be ongoing. In many parts of sub-Saharan Africa, traditional foods are often more nutritious and cheaper than popular western diets.

**Encourage rest** For many pregnant women, particularly where hard physical tasks are part of their daily routine, getting enough rest can be difficult. Supporting women to look after themselves during their pregnancy, including resting whenever they can, is important.

**Discourage smoking and the use of alcohol and other drugs** Smoking cigarettes, drinking alcohol and the use of some drugs and herbal remedies can harm the unborn child. HIV-positive women need to be especially careful, because anything that damages their health can lower their CD4 count.

**Avoid invasive medical procedures** Because of the risk of HIV and other infections being passed to the baby, procedures such as amniocentesis should be avoided unless they are really necessary (see Section 4, page 8).

**Avoid blood transfusions** Blood transfusions are still a source of HIV infection in some parts of Africa and should be avoided unless they are absolutely essential.

**Provide voluntary counselling and testing for HIV** (see Section 3, page 5) Many women do not know their HIV status and may wish to find out during pregnancy. Knowing their status can help women to make decisions that reduce the risk of transmitting HIV to their baby. Confidentiality is essential if women are to be encouraged to take up services offered and avoid the risks of their status becoming public.

## Caring for women who know they are HIV positive

For women who know they are HIV positive, additional care may be available.

**Antiretroviral therapy (see box)** Most women in sub-Saharan Africa do not have access to long-term combination ARV treatment for their own health or the necessary support services to ensure its correct use. If an HIV-positive woman is on combination therapy, she should continue to take it during pregnancy after talking to her doctor about any changes which might be needed.

**Treatment of HIV-related infections** Even if combination ARV therapy is not available for women, many women do have access to treatments for HIV-related infections such as TB and Herpes zoster. There are also plenty of locally available, relatively cheap and effective treatments for symptoms of opportunistic infections, such as diarrhoea, weight loss and skin infections.

Health workers need to be aware of what treatments women in their community are using – including traditional treatments – so that they can promote ones which are effective and warn women against false and dangerous treatments.

Providing a safe, supportive environment in which to raise concerns and fears is an important part of care, and can also help HIV-positive women stay healthy.

### TYPES OF ANTIRETROVIRAL THERAPY

Antiretrovirals (ARVs) are drugs that fight the HIV virus. ARV therapy can help people with HIV stay healthy.

#### Combination therapy

ARVs are usually given in combination, because different ARVs fight HIV in different ways and are therefore more effective when used together. This is known as combination therapy. (See Section 7 Resources for where to find more information on ARVs).

#### Reducing mother-to-child transmission

Short courses of treatment (using a single drug, known as monotherapy) can be given to women in the late stage of pregnancy and/or during labour and delivery, in order to reduce the risk of passing HIV to the baby. Sometimes drugs are also given to the baby in the first week of life. This short course treatment will not be of any benefit to the mother's own health, but will not harm it either. (See Section 4, pages 8 and 9 for more information).

#### Post exposure prophylaxis for healthworkers

ARV drugs can also be used for post-exposure treatment of health workers, in the event of an accidental needle-stick or other injury (see Section 6, page 13).



Giacomo Prozzi/Panos Pictures

Subsidised pharmacies are one way to improve access to antiretroviral drugs.

# 3 VOLUNTARY COUNSELLING AND TESTING FOR HIV

The majority of women in sub-Saharan Africa do not know their HIV status. But if they are to make appropriate choices about how to prevent their children from becoming infected, they need to have access to affordable confidential and voluntary counselling and testing. Counselling and testing should be offered to both the woman and her partner. Both parents are responsible for preventing HIV transmission to their children, not just the mother. Women, however, should never be pressured to include their partner in counselling and testing if they do not wish it.

## Counselling

HIV counselling is a confidential and supportive dialogue between a person and a trained counsellor. It should focus on both the physical and emotional wellbeing of the person, and help them to make the decisions that are right for them. Counselling is not the same as giving advice or telling people what they should do. The counsellor's role is to listen to the individual concerns, raise issues that need to be considered, and provide information, emotional support and appropriate referral. Counsellors should avoid judging the person or their partner.

Counselling must be confidential – the person must be confident that the counsellor will not talk to anybody else about what they have discussed together. But this does not mean that counselling must only be between one individual and the counsellor. It may sometimes be better to counsel people together with their sexual partner. In societies where decisions about health and welfare are taken by the family, shared counselling with other family members can be helpful. Confidentiality is just as important in this situation.

The counsellor may be a health worker such as a midwife or a nurse, or may be a layperson. Peer counsellors – such as people who are themselves HIV positive – can be very valuable and health workers should welcome their help and involvement. Whoever takes on this role needs to be specially trained and to be a good listener. Counselling should be more about listening than about talking.

## Pre-test counselling

Anyone thinking about having an HIV test should always have pre-test counselling. This is not only to ensure that the man or woman gives their informed consent to the test, but so that they have the chance to consider the impact that a positive result will have on their life and the life of their family. If, after counselling, the person decides not to have a test, the counsellor has



Maggie Murray/Format

Pre-test counselling of couples, such as here in Zambia, can help the couple discuss important issues together.

no reason to pressurise them. The following guidelines may be helpful:

- Be in a private area for counselling, where you will not be disturbed or overheard.
- Assure the person that everything said is confidential and that you will not talk to anyone else about it. (You could have a poster on your wall making this clear and showing your commitment).
- Talk through the reasons for HIV testing – theirs and yours. Look at both the benefits and the disadvantages.
- Ask questions in a sensitive way to find out about current and previous risk behaviour. Remember that they may not know about their partner's risk behaviour.
- Offer information about HIV and AIDS.
- Offer information about the HIV antibody test, including information about the 'window period' of infection (this is the time between becoming infected and a blood test showing positive results).
- Go through the implications of a positive test result for the person and their family.
- Discuss the person's possible responses to a positive test result. They can think about who they would tell and where they might get support.
- Be aware of what the person's concerns are and let these guide the discussion. For example, if a woman is being counselled and already has children, her major concern may be what will happen to them if she is HIV positive.
- Go through the implications of a negative test result.
- Provide information about how the test is done, how long before the results will be ready, and how they should find out the results.
- Give enough time for them to think about whether or not they want to have the test.
- If they decide to have the test, obtain informed consent.

## Post-test counselling

Counselling after an HIV test is essential, whether or not the result is positive. Always meet with the person to give the result as soon as possible after the test.

### If the result is negative

- Deal with the feelings arising from a negative result and explain about the 'window period'.
- Discuss ways to prevent HIV infection through safer sex and the importance of remaining negative for the rest of the pregnancy, during breastfeeding, and afterwards.

### If the result is positive

- Tell the person as clearly and gently as possible. Deal with their immediate feelings and explain the need for a supplementary test to confirm the result.
- Give them time to understand and discuss the result.
- Provide information in a way that they can understand, give emotional support and help them to discuss how they will cope.
- Discuss how the person plans to spend the next few hours and days.
- Identify what support they have.
- Discuss who they want to tell about the result. Find out if they intend to tell their partner, help them to decide whether or not to tell them and, if appropriate, how to tell them.
- Go through the ways they can take care of their own health and let them know about any available treatment.
- For a pregnant woman, go through the ways to reduce the risk of transmitting HIV to her baby during pregnancy, labour and after the birth.
- Discuss how she will feed the baby and the importance, if she breastfeeds, of exclusive breastfeeding.
- Identify what difficulties or problems the person foresees and discuss how to deal with them.
- Encourage them to ask questions.
- Refer the person, where possible, to a community-support organisation and for follow-up care and counselling.
- Encourage them to return for another session when they have had time to take in some of the information they have just heard. If appropriate, some information could be written down as the person is unlikely to be able to remember everything that was said.

## Testing for HIV

### What is an HIV test?

Testing for HIV is done on a blood sample. Most tests look for antibodies to the virus in the blood. Antibodies are produced by the body as it tries to fight the HIV virus. If no antibodies are found, the person is antibody negative (also called seronegative or HIV negative). If antibodies are found, the person is

antibody positive (also called seropositive or HIV positive).

The test result may be negative if the person has been infected only recently. It can take up to three months from the time of infection for antibodies to be produced. This is known as the window period. Anyone who might have become infected in the last three months should take a second test three months after the first test.

Until recently, the most commonly used antibody test was the ELISA (enzyme-linked immunosorbent assay). ELISA testing needs skilled technical staff, equipment in good order, and a steady power supply. Now, simple or rapid assay tests are used more widely. These are quicker and easier to use than ELISA tests, and can be used for on-the-spot testing. They do not need highly trained staff or expensive laboratory equipment, although some do need refrigeration.

It is better to use a combination of tests to be sure of the results. The price of ELISA and other screening tests range from about US\$0.45 to \$2. Using a combination of rapid tests cost about US\$5 per person.

### Deciding whether to be tested

Most women living in the developing world do not have a choice about whether to be tested for HIV, because the test is not available to them. It is thought that only one in twenty women in the developing world have been tested and know their status.

For those women who do have a choice, deciding whether to have a test should be done very carefully. The health worker should not try to persuade the woman to have the test – it should be a decision which she takes freely. Because of the fear and misunderstanding that surrounds HIV and AIDS, there is a lot of stigma towards HIV-positive people.

There are benefits and risks of testing, and these will



Testing blood samples for HIV.



Pregnancy is the time when couples may want to think about being tested for HIV.

vary for each woman. Some of the **possible benefits** of a pregnant woman knowing she is HIV positive are that she can:

- take the measures available to her to keep herself healthy for as long as possible
- decide, in countries where abortion is available, whether to continue the pregnancy
- take appropriate steps to reduce the risk of transmitting HIV to her baby
- tell her sexual partner(s) that she is HIV positive, so that they can be tested too.

Some of the **possible risks** of knowing that she is HIV positive are:

- her family may blame her for bringing HIV into the family and may react violently or make her leave her home
- she may be stigmatised and looked down on by her neighbours and by health workers (if her HIV status is known about)
- she may become anxious and depressed.

Even where HIV tests are available to all pregnant women, many choose not to have the test. And after having the test done, some women will not return to find out the result.

*'My partner died six years ago. Before he died we talked, and he agreed, on my suggestion, to have an HIV test. We both took the test and were both diagnosed positive. Hell broke loose, but we got counselling and accepted the*

*situation. I have since faced problems as a human being and as a health worker. Ill health may lead to me losing my job, which is a major worry. I see patients suffering and it is an indication of what I may face in the future. I always think about what people may say about me. However, knowing about HIV and AIDS does help me practise positive living.'*

*Health worker, Uganda*

### Being tested without consent

In some places, women find out they are HIV positive through routine testing during antenatal visits, without having been given adequate pre-test counselling and without their consent. This should be avoided if at all possible, but if a healthworker is meeting a woman for the first time after she has already been tested, she will need a particularly sensitive approach when being told her results.

*'My first husband died of what I suspect was AIDS. I think I must have the virus too, especially when I know that we were having sex right throughout even in the month he died. I don't want to be told I've got it – even though I suspect it. It would break my heart to know for certain I would go through all that suffering like my husband.'*

*29 year old woman, Zambia*

### Testing babies

When babies are born they have their mother's antibodies in their blood. So if their mother is HIV positive, the baby's blood will often be positive too, until the baby is about 18 months old. If they do not have the virus, the mother's antibodies go away by this time. So antibody tests cannot tell if babies are themselves infected with HIV until the age of about 18 months. If an earlier test is negative, however, it does mean that the child is not infected.

There are tests which can give an accurate result earlier (such as PCR tests) but these are expensive and not usually available in developing countries.

### Where to be tested?

Counselling and testing can be offered as part of an antenatal service or as a separate service. There are advantages in both types. Using the antenatal services may be more convenient for women and so increase the uptake of testing. But in a separate service there will often be links to ongoing support services for people living with HIV and AIDS. This will mean that continuing care for HIV-positive women may be available. If a woman is tested elsewhere and is found to be positive she should be encouraged to share the information with the antenatal services in order to ensure that she is given appropriate care and advice.

# 4 CARE DURING LABOUR AND DELIVERY

All women, whether they are HIV positive or not, should be offered good care and support through their labour and delivery. For women who are known to be HIV positive however, there may be additional types of care or treatment available which can help to reduce the risk of mother-to-child HIV transmission. Health workers have no reason to be afraid of looking after HIV-positive women. Universal precautions for infection control should be used for all deliveries, whatever the woman's HIV status, and if used properly, will minimise the risk of HIV infection for the health worker during the delivery (see Section 6, page 17).

Many women do not know their HIV status, so the following advice on care during labour and delivery should be followed for all women. However, interventions specifically for HIV-positive women, such as ARV therapy (where it is available), will only be possible where women can find out their status and have access to confidential voluntary counselling and testing (see Section 3, pages 7-9).

## General care during labour

**Keep the skin intact** Avoid, as far as possible, all practices that break the baby's skin or increase the baby's contact with the mother's blood, for example, episiotomy and fetal scalp electrodes (for listening to the baby's heart beat).

**Keep the membranes intact** The risk of HIV being transmitted to the baby increases after the membranes have been ruptured ('waters broken') for more than four hours. It follows that it is better if the health worker does not rupture the membranes ('break the waters') unless there is a very good reason for doing so, as this opens up a route for HIV and other infections to reach the baby.

It is already known that it is better not to do more vaginal examinations during labour than absolutely necessary, and this is even more important when the membranes have ruptured, as it increases the risk of infection to the mother and baby. The risk of transmitting infections may be reduced by washing the vagina (see box).

## Elective caesarean section

If the baby is delivering by elective caesarean section (a

planned caesarean delivery which is done before labour begins), the risk of HIV transmission is reduced by half. In resource-rich settings, elective caesarean section is becoming a routine part of care for HIV-positive women.

However, the situation is very different in many parts of sub-Saharan Africa. In resource-poor settings, the risks of serious complications after a caesarean delivery may outweigh the potential benefits. This is particularly true for HIV-positive women who are more vulnerable to other infections and whose wounds may be slow to heal. All women who have a caesarean delivery should be given antibiotics to prevent infection, whether they are HIV-positive or not.

## Antiretroviral therapy (ARV)

Antiretroviral therapy (ARV) is one of the most effective ways of reducing the risk of mother to-child transmission, but it is also the most expensive. The drugs work by reducing the viral load in the mother, making it less likely that she will pass on HIV to her baby.

Several different regimens for short courses of ARV drug treatment to reduce mother-to-child transmission during pregnancy and delivery have been studied, and these are summarised in the table on page 11. Further research is needed to find out whether longer treatment of infants following delivery can prevent transmission, whether mothers breastfeed and not.

Decisions on the appropriate drugs to use will be made by health planners and policy makers according to which is the most affordable and cost-effective option. The most recent research does suggest, however, that single-dose nevirapine given to the woman at the onset of labour and then to the baby, may offer the most affordable option for many countries. For example, in order to treat all HIV-positive pregnant women in Uganda, the costs for nevirapine would be US\$640,000 per year while for zidovudine the cost would be US\$21,450,000.

### WASHING THE VAGINA

Known as 'vaginal lavage', this technique consists of cleaning inside the vagina with a disinfectant such as chlorhexidine hydrochloride shortly before the baby is born (when the woman begins to push). Research shows that vaginal lavage reduces the risk of HIV transmission to the baby when the membranes have been ruptured for more than four hours, but not in other cases. It also seems to reduce other types of infection in the baby. More research is being done on this at the moment.

## Summary of short-course antiretroviral treatments for prevention of mother-to-child transmission

NAME BY WHICH STUDY IS KNOWN	STUDY LOCATION	DRUGS USED	TREATMENT REGIMEN			PERCENTAGE TRANSMISSION FROM MOTHER TO CHILD		PERCENTAGE REDUCTION IN MOTHER-TO-CHILD TRANSMISSION
			From 36 weeks	During labour	1 week post partum	Active group (receiving treatment)	Placebo group (not receiving treatment)	
<b>NOT BREASTFED</b>								
CDC Thailand	Thailand	Zidovudine (ZDV)	300mg 2 x daily	300mg every hour	None	9.4%	18.9%	50%
<b>BREASTFED</b>								
CDC Abidjan <sup>1</sup>	Côte D'Ivoire	Zidovudine	300mg 2 x daily	300mg every 3 hours	None None	15.7% 21.5%	24.9% 30.6%	37% (3 months) 24% (18 months)
ANRS Abidjan <sup>2</sup>	Côte D'Ivoire and Burkina Faso	Zidovudine	300mg 2 x daily	600mg at onset of labour	300mg 2 x daily for mother only	16.8% 22.8%	25.1% 30.1%	38% (3 months) 30% (15 months)
PETRA A	South Africa, Tanzania and Uganda	Zidovudine and Lamivudine (3TC)	300mg ZDV and 150mg 3TC 2 x daily	300mg ZDV every 3 hours and 150mg 3TC every 12 hours	ZDV and 3TC every 12 hours for mother and baby	7.8%	16.5%	53% (6 weeks)
PETRA B	South Africa, Tanzania and Uganda	Zidovudine and Lamivudine	None	As above	As above	10.2%	16.5%	38% (6 weeks)
NVP HIVNET Uganda	Uganda	Nevirapine (NVP)	None	Single dose 200mg of NVP at onset of labour	None for mother but single dose of NVP 2mg/kg for baby at 2-3 days old	11.9% 13.1%	21.3% 25.1%	44% (6-8 weeks) 48% (14-16 weeks)

- 1 Wiktor et al., Lancet 1999; 353: 781-5, with update on follow up data from presentations at Montreal MTCT Conference
- 2 Dabis et al, Lancet 1999; 353: 786-92, with update on follow up data from presentations at Montreal MTCT Conference

# 5 INFANT FEEDING AND HIV

For anyone working with mothers and infants, it has been distressing to learn that HIV can be transmitted through breastmilk, because the promotion and support of breastfeeding has been so important in reducing the number of infant deaths from diarrhoeal and respiratory infections and from malnutrition. The situation has left many unsure about what they should be doing and saying about breastfeeding in places where HIV prevalence is high.

It is estimated that out of every 100 children breastfed by HIV-positive mothers, 14 (or one in seven) will become HIV positive through breastfeeding. If mothers are newly infected while breastfeeding, the infection rate from breastfeeding is even higher – 29 in every 100 children, or more than one quarter of the children will become HIV positive. A recent study showed that the number of infants who get HIV from their mothers could be reduced by 40 per cent if HIV-infected women avoided breastfeeding.

## International guidelines

In 1997, the WHO, UNAIDS and UNICEF made a new policy about HIV and infant feeding. It says that where adequate alternatives are available and the risks associated with artificial feeding can be minimised, HIV-positive women should be advised not to breastfeed because of the risk that infants can become infected through breastfeeding.

In many of the larger towns and cities across sub-Saharan Africa, at least amongst the more affluent and well-educated families, HIV-positive women can get access to breastmilk substitutes and can ensure that feeds are prepared safely. But for many women, there will be no safe and economic alternative to breastfeeding. The risk to the infant of early death because of not breastfeeding in such circumstances is likely to be greater than the risk of HIV transmission.

## Deciding whether to breastfeed

Women everywhere have the right to be given the information they need to make an informed decision about whether or not to breastfeed, according to their individual circumstances.

### Getting tested

Many women do not know their status. Voluntary testing and counselling services should be made more widely available to enable women to make an informed decision about the best feeding option for them and their baby.

Women who know that they are HIV negative can



Susheela Engelbrecht, MNH Program

Women who choose to breastfeed need support to ensure their baby is properly attached.

breastfeed their baby with confidence (or near confidence, see page 2 for information on the window period), provided they take care not to become infected while they are breastfeeding.

## What increases the risk of HIV through breastfeeding?

The risk of HIV transmission through breastmilk is higher when a woman:

- becomes infected with the virus during pregnancy or while breastfeeding
- shows signs of HIV-related illness (AIDS) – this is because she has a high viral load, and because her CD4 count will be low.

Breast problems such as cracked nipples or breast infection (mastitis) may also increase the risk, but further research is needed to confirm this.

## Essential information for HIV-positive women

For HIV-positive women, it is essential that they are given all the information they need to make an informed decision about infant feeding.



HIV-positive women need ongoing support with decisions about infant feeding.

- There is a one in seven risk of an HIV-positive woman passing the virus to her baby through breastmilk.
- Children who are HIV positive are much more likely to die before the age of five than non-infected children and may suffer from frequent illness during their childhood.
- Mixed feeding (giving other foods or drinks as well as breastmilk) seems to have the highest risk of HIV transmission. If a woman chooses to breastfeed she should breastfeed **exclusively** for at least the first three months, which means giving no other drinks or food (see box, page 14).
- Breastfeeding protects babies against infections other than HIV, and is nutritionally the best and most hygienic form of infant feeding. In countries where malnutrition and infectious diseases are the main cause of infant deaths, infants who are not breastfed are more likely than breastfed babies to die from diseases such as diarrhoea and acute respiratory infections.
- Breastmilk alternatives – formula or animal milk – can be very expensive. For example, in Zimbabwe, the monthly cost of formula milk for a baby would be around Zimbabwe \$250-300, about the same as the monthly minimum wage.
- Safe and hygienic preparation of breastmilk alternatives requires access to adequate supplies of clean water and fuel, and knowledge about how to mix feeds correctly. Health workers have an important role in ensuring that women have good information and support to help them to prepare feeds safely.
- Cup feeding, rather than bottle feeding of breastmilk substitutes, is recommended to reduce the risk of contamination.
- Exclusive breastfeeding protects against pregnancy. If a woman decides not to breastfeed, she needs to have access to safe and reliable contraception.
- Not breastfeeding may signal to others that a mother has HIV, and she may wish to keep her status confidential. The public disclosure of a woman's status

can put her, and her family, at risk of social exclusion or even violence.

Once a woman has made a decision about which method of infant feeding is best for herself and her baby, she should be given support and advice so that she can do this as safely as possible. (See 'Alternatives to breastfeeding' and 'Care and advice to breastfeeding women').

## Alternatives to breastfeeding

- Commercial infant formula provides the best mix of nutrients for infants who cannot have breastmilk. But it is expensive if bought commercially, and is not an option for many mothers at the moment. Feeding an infant for six months requires on average 40 x 500g tins (44 x 450g tins) of formula. There are efforts being made to reduce the price of commercially prepared infant formula and to make it more widely available. This would mean that HIV-positive women who decide not to breastfeed would be able to give their babies a safe and nutritionally adequate alternative to breastmilk, whatever their economic circumstances.
- Home-prepared formula – made with fresh animal milk, dried whole milk or unsweetened evaporated milk. These milks must be modified to make them suitable for infants. For example, to prepare fresh cow's milk: mix 100mls milk with 50mls of water and two level teaspoons of sugar, and boil. Micronutrient supplements should also be given, because animal milks contain insufficient iron and zinc, and sometimes vitamin A and folic acid.
- Expressed breastmilk – this must be boiled (to kill the virus) and then cooled immediately by putting it in cold water or a refrigerator.
- Breastmilk banks – in some areas donated breastmilk is used for short periods, for example, to feed sick and low birth weight babies in hospital. Donors should be tested for HIV and the donated milk pasteurised before use.
- Breastmilk from another woman who can breastfeed (known as a wet nurse) and who already knows that she does not have HIV. This is often the grandmother. Women who act as wet-nurses, must be given information about how to practise safer sex, to make sure they remain HIV negative while breastfeeding the infant.

## Exclusive breastfeeding

For women who decide that breastfeeding is still the best option for them, it is important that they **exclusively breastfeed**, for at least the first three months. This means giving nothing at all to the baby from the moment he or she is born except breastmilk – no water, no tea, no formula, no honey, no juice, no porridge and no dummies.

Recent observations from a study in Durban, South Africa, found that mixed feeding, where infants were breastfed but were also given other drinks or food in their first three months, carried the highest risk of HIV transmission through breastmilk. These results have not been confirmed by other studies and more research is urgently required.

It is not clear exactly why mixed feeding puts the baby at higher risk of becoming infected with HIV, but it may be because anything except breastmilk can damage the lining of the baby's stomach and intestines. Once the baby's intestines have been damaged, then the natural protection against all infections, including HIV, is lost.

### When women cannot breastfeed exclusively

Mothers cannot always breastfeed exclusively. These mothers face difficult decisions about how to feed their babies, whether they are HIV positive or not. Each must do their best according to their own circumstances, depending on what food is available, who is caring for the baby, how old the baby is, and so on. For women who are not HIV positive, the best advice is for them to carry on breastfeeding the baby as much as they can; during the night, before going to work, after coming back from work, on days off. During work hours breastmilk will need to be substituted with the most nutritional, cleanest food and drink possible.

For women who know they are HIV positive and have decided to breastfeed, going back to work means that they cannot exclusively breastfeed their babies. Their babies may then be at a higher risk of becoming HIV infected through mixed feeding.

### Stopping breastfeeding early

There is much discussion about when, and how, to wean the babies of HIV-positive mothers. HIV can be transmitted through breastmilk at any time – even when the baby is over six months old. Some people think that it might be best to wean the baby from the breast at six months of age. This is because the main

## CARE AND ADVICE TO BREASTFEEDING WOMEN

The care and advice to give HIV-positive women who decide to breastfeed is the same as to other breastfeeding women:

- 1 Breastfeed within the first hour of birth, so that the baby gets the full benefit of colostrum with all its anti-infective properties. HIV is present in higher concentrations in colostrum, but there is no evidence to show an increased risk of transmission.
- 2 Give nothing but breastmilk for the first four to six months of life. Breastmilk will meet all the babies' needs for nutrition up to the age of six months and protects against infections.
- 3 Make sure the baby is 'attached' properly when breastfeeding. This means that the baby has got enough of the breast in its mouth for feeding not to hurt. Good attachment prevents cracked and sore nipples.
- 4 Use a condom when having sex. For women who are already HIV positive, this may help to prevent reinfection with HIV or infection with another STI and thus keep down the viral load and reduce the risk of HIV transmission.
- 5 Seek treatment for infections, particularly malaria, TB, other chest infections and STIs. This will help to keep the mother healthy and able to breastfeed and, in HIV-positive women, may help to keep the CD4 count up.

benefits of breastfeeding are in the earliest months and the baby can cope better with other foods after six months.

More research is needed to find out more about the importance of breastfeeding to the health of babies after they reach six months, and the time at which the risk of HIV transmission through breastmilk is greatest. It is also important to look at how acceptable early weaning is to mothers and babies.

# 6 WHAT ELSE CAN HEALTH WORKERS DO?

Health workers can do many things to improve the services they offer, and reduce the spread of HIV among women and their families. This may involve providing information and services or improving their own skills in dealing with the sensitive issues of HIV and sexual health.

## No need to feel helpless

If you work in a health service with very little money to spend, it is easy to feel helpless in the face of HIV and AIDS. Even if you cannot provide ARV therapy for the HIV-positive pregnant women in your area, there is still plenty you can do:

- Make sure all young men and women are well informed about HIV and how to keep themselves safe. This may include getting involved in schools or with youth groups and organisations.
- Make condoms available as widely and as cheaply as possible and promote their use through bars, clinics, markets, grocery shops, truck stops and so on. They are still the best way of preventing HIV spreading.
- Improve access to confidential voluntary HIV counselling and testing services for women and their partners.
- Encourage women with HIV to form support groups. Positive women can gain a lot of mutual support and strength from such groups and they can also be powerful agents for change.
- Make links with organisations and groups that are already active in your country. As well as government health services, you can look for support and resources from AIDS organisations, churches and mission hospitals, community-based groups, and many non-governmental organisations (NGOs).



JHU/CCP Photoshare

Market places are a good place to promote condoms.

- Strengthen maternity services. Make good-quality antenatal care accessible to more women, particularly the poor and those in rural areas. This could involve running mobile clinics, training traditional birth attendants, making stronger links with the nearest hospital and using their laboratory facilities for testing blood and other specimens.
- Update your own practice by getting together with colleagues who also work in maternity care to look together at the areas of practice which need to change.
- Improve services for STIs and encourage people to practise safer sex.
- Make sure all women are well informed about the risks and benefits of different feeding options for their infants. Where women choose to breastfeed, encourage them to do so exclusively for the first six months of life. Find out what women in your area do, and what they believe, about supplementing breastmilk. Try to find ways to overcome the common fears that a baby will go hungry or thirsty if he or she does not receive other drinks or foods.

## Becoming more at ease with HIV and sexuality

You cannot work in the field of HIV and AIDS without coming face-to-face with sexuality and very intimate areas of people's lives. These are things which you would not normally talk to people about. They may make you feel ashamed, embarrassed or angry and you may not know which words to use. Here are some activities to help you become more comfortable discussing these difficult topics.

### ACTIVITY 1

## GIVING THINGS A NAME

- You can do this exercise alone, but it is better in a group.
- You might prefer to do it in single sex groups, but everyone will learn more if it is a mixed group.
- Think of all the words you need for your work with HIV and AIDS which can be difficult or embarrassing. Write up all the 'proper' words for the group to see – you might have words like: sexual intercourse, masturbation, condoms, penis, testicles, kissing, sex worker, anal intercourse, oral sex, breasts, sperm, vagina, homosexual.
- Now, ask the group to think of other names which might be used for these things. Write them up for everyone to see.
- Discuss where, or how, these words would be used and by whom – friends of the same sex, health workers, boyfriend or girlfriend, husbands or wives, children and so on.
- Decide which words health workers should use in their work to make sure that they are clearly understood without causing offence.



Role playing helps health workers practice how to handle concerns about HIV more confidently.

## ACTIVITY 2 ROLE PLAYING

It makes it easier to deal with an embarrassing or difficult situation if you have thought it through ahead of time. One of the best ways of doing this is by role playing a situation with a group of your colleagues. Here are some examples:

- Michael, aged 26, is HIV positive. He tells a health worker he has a new girl friend, Angela, who is now pregnant by him. She does not know he is HIV positive. Try acting this out with a health worker and Michael and then with different combinations, for example, Michael and Angela, the health worker and Angela, all three together. *What can the health worker say and do? What works and what doesn't work?*
- Maria is pregnant and has had an HIV test. Now the health worker has received the result – Maria is HIV positive. *How does the health worker tell Maria? What words should the health worker use? What information should be given? How can the health worker find out Maria's concerns?*
- Nasiba comes to talk to the health worker. She is an educated woman with two young children. Her husband is expected home soon from the city where he has been away working. Last time he came home Nasiba was frightened that he might have become HIV positive and tried to talk to him about using a condom. He became angry and violent and refused to even discuss it. Now Nasiba is even more afraid; what would become of her children if she became HIV positive? Nasiba asks the health worker for advice. Try acting this out with just Nasiba and her husband, with the health worker and Maria, and with all three of them together. *What can the health worker say and do? What works and what doesn't work?*

## ACTIVITY 3

### ACCEPTABLE BEHAVIOUR

- This exercise can be used for small groups where the members trust each other and can agree to keep the exercise confidential. The facilitator should make sure that the exercise is used to challenge stigma and discrimination and not to reinforce negative stereotypes about people living with HIV and AIDS.
- Prepare separate pieces of paper with words describing different kinds of sexual behaviour such as unprotected vaginal sex, vaginal sex with a condom, oral sex with a woman, oral sex with a man, group sex, sex with a prostitute, anal sex, sex outside marriage, sex between two men, sex between two women, a man forcing his wife to have sex with him.
- Ask the group to sit around a table. Mark one end of the table 'Very Acceptable' and the other end 'Not at all acceptable'.
- Each person then selects a piece of paper and places it in a position on the table according to how she or he feels about the activity named. The participants should be asked to say what thoughts and feelings made them decide to place the paper at that point. You could also ask people to discuss how some of their attitudes would affect their work and their relationships with HIV-positive people.

### Safe working practices

Although the risk of health workers becoming HIV positive through their work is very low, all health workers who care for people with HIV and AIDS need to protect themselves.

Midwives, birth attendants, obstetricians and anybody else attending births are at higher risk than other health workers, because of the large amount of blood present during and after delivery. As well as being exposed to HIV, they are also exposed to other serious infectious diseases such as hepatitis B and C, and TB. Health workers need to know what the risks are and how to minimise them.

Like anyone else, health workers can also be at risk from their own or their partner's sexual behaviour. This is likely to put them at much greater risk than their work with HIV-positive patients, yet is often the most difficult to accept.

### Risks at work

HIV can be transmitted from one person to another in blood and other body fluids such as, amniotic fluid (the waters that surround a baby when inside the mother), vaginal and cervical secretions, and breastmilk. HIV cannot be transmitted in saliva, sweat, tears, vomit, urine or faeces, unless blood is visibly present.

- Splashes of HIV-infected blood or body fluid on unbroken skin, presents a **very low risk** of HIV transmission.

- HIV-infected blood or body fluid on cuts or grazes, or in the eye, presents a **possible risk** if a lot of blood or fluid is in contact with the cut, graze or eye for a significant length of time.
- Needlestick injuries involving HIV-infected blood, where the skin is pierced by a sharp instrument such as a needle or scalpel, present a **higher risk**, especially if the injury is caused by a hollow needle.

### Preventing accidents

Accidents normally happen during emergencies, when health workers are working quickly. Poor working conditions, such as bad lighting or long working hours, also make accidents more likely. Both individual health workers and managers have responsibility for preventing accidents at work.

### Health workers

**Use universal precautions (see box).**

- ✓ Handle sharps carefully, especially in emergencies.
- ✓ Use gloves to prevent contact with blood and other body fluids. If necessary, re-use gloves after rinsing in water (not alcohol or disinfectant) and leaving to dry, out of direct sunlight.
- ✓ Only give injections or take samples for laboratory tests when it is really necessary.
- ✓ Avoid episiotomies (cutting the opening to the vagina during labour).

Health workers working in people's homes need to take special care. Poor housing often means that they have to work in dark and crowded rooms. Home deliveries may be particularly difficult. Health workers will have to think ahead about how they and other family members will stay safe in an environment where there may not be a clean water supply or an easy way of disposing of needles. How will the blood of the delivery be cleared up? Who will dispose of the placenta and how? The best answers to these questions will depend on the circumstances, but preparation is needed.

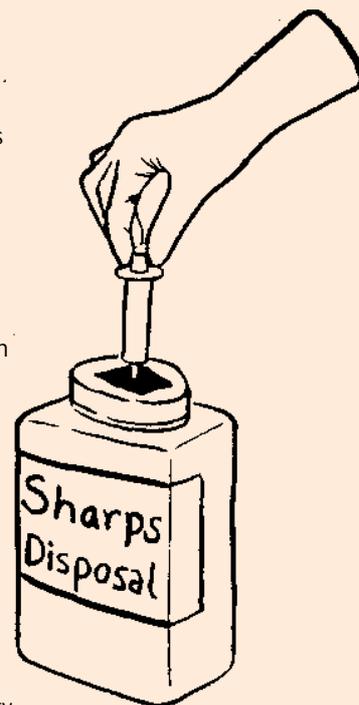
Health workers also need to explain to family members how to protect themselves – make sure that the person washing any clothes from the delivery or disposing of the placenta knows how to do it safely.

### Managers

- ✓ Judge where the greatest risk is: injecting rooms, operating theatres, delivery rooms, laboratories, clean-up departments and mortuaries, and make sure that infection control procedures are followed.
- ✓ Use resources rationally. For example, if supplies of gloves are limited, keep them for activities with the greatest risk of exposure, such as delivery.
- ✓ Make staff safety a priority. If health workers believe that infection at work is unavoidable, they may take unnecessary risks. Some health units have set up infection control committees to reduce the number of accidents.

## UNIVERSAL PRECAUTIONS FOR LABOUR AND DELIVERY

- Cover open cuts, sores or dermatitis with a waterproof dressing.
- **Wear gloves whenever there is a risk of contact with blood and body fluids**, including when caring for women after delivery, if you may come in contact with lochia (the bloody vaginal discharge which is passed for the first few days after delivery).
- If your skin does come in contact with blood or other body fluids, wash with soap and water straight away.
- Wear glasses or goggles and a mask if there is a risk of blood or amniotic fluid being splashed and always during a caesarean section. Wear a waterproof apron for delivery.
- Always wash hands before and after contact with the woman and after removing gloves.
- Take care to prevent injuries when handling sharps. Handle them as little as possible and use a needle holder when suturing. Do not recap used needles. Do not remove needles from syringes by hand. Do not bend or break them by hand. Hollow needles are the most risky.
- Place used sharps in a puncture-resistant container with a lid (sharps boxes). Keep these as close to the place of use as possible. Sharps boxes can be made from large drug tins, or buckets with a lid.
- During a Caesarean section: wear eye goggles, use double gloves, pass sharps using a receiver rather than hand-to-hand, use needle holders and avoid using the fingers in needle placement.
- Avoid using suction on newborns unless really necessary. If essential, use wall suction if available. The De Lee type of suction apparatus (in which the suction is provided by the health worker's mouth) puts health workers at risk.
- Dispose of solid waste such as blood soaked dressings safely.
- Handle newborn babies with gloves until they have been washed.
- Advise women how to handle and dispose of sanitary pads and rags safely.



- ✓ Remember the needs of cleaners, porters and other auxiliary staff and provide them with the protection and information they need too.
- ✓ Encourage staff to report all exposure incidents and try to make sure that they are treated in a non-judgemental and supportive way.

### After an accident

Even if they are careful, health workers can be vulnerable to an accident at some time in their work which may put them at risk of infection. All health workers need to know what to do after an accident and where to go for help. It may be useful to have this information on a poster on the wall of the clinic or ward (see box).

Health workers who have possibly been exposed to HIV need time to think about the implications of having an HIV test. They need access to trained, confidential counselling and support in making decisions.

### Post-exposure prophylaxis

Antiretroviral treatment after exposure to HIV can reduce the risk of infection. After a needlestick injury with HIV-infected blood, zidovudine alone reduces the risk of HIV transmission from an average of 3 in 1,000 injuries to less than 1 in 1,000. Combination therapy with zidovudine and lamivudine is recommended for deeper injuries and lacerations but is obviously more expensive. It is recommended that all health facilities, particularly those offering ARV treatment to patients, should make drugs available to staff for this purpose. The availability of the drugs, even if they are never used, is likely to make health workers feel safer in their work and reduce the likelihood of substandard care for patients known to be HIV positive.

#### ACTION AFTER AN ACCIDENT

- 1 If body fluids have been spilled, clean them up immediately using soap and water, or a chemical disinfectant if available. Bleach, isopropyl alcohol, povidone iodine and soap will all work to stop the HIV virus.
- 2 If the eyes or skin have been splashed with blood or body fluid, wash them as soon as possible with water (for eyes) and soap (for skin). Do **not** scrub skin or use disinfectant chemicals as this may cause cuts or grazes.
- 3 If the skin has been cut or pricked, let the wound bleed for two minutes. Then clean with alcohol disinfectant if available (which will burn) for 3-4 minutes. Try to judge the risk of transmission. Unless quite a lot of blood is involved, such as with a hollow needle, there is no need to do any more.
- 4 Report the accident to the manager, so that steps can be taken to avoid similar exposures in the future.

## Making the most of limited resources

People working in the field of HIV in pregnancy will need to make decisions about the best use of the available resources. The following exercise can help health planners, policy makers, health care providers, community leaders, pregnant women and their partners and people living with HIV, plan effective activities.

### ACTIVITY

## HIV INTERVENTIONS

- 1 Get people together in small informal groups and ask them to list, on separate pieces of paper, all the interventions which they believe will reduce the number of pregnant women with HIV within their community or country. These might include:
  - HIV education in schools
  - accessibility and promotion of condoms
  - education activities which focus on men
  - improved status of women
  - health services which diagnose and treat STIs
  - availability of ARV therapy.
- 2 Ask each small group to rank the interventions in order of effectiveness, that is, putting the most effective intervention at the top and the least at the bottom. Each group will then present their list to the larger group.
- 3 In the large group discuss the lists of each group and discuss which of the interventions would be easiest to achieve and which would be the most difficult. The group should also try to identify:
  - particular barriers and how these might be overcome
  - resources required and where they might come from.
- 4 Repeat the whole exercise looking at the interventions which would reduce the risk of mother-to-child transmission of HIV. This time the interventions might include:
  - ARV therapy for pregnant women known to be HIV positive
  - increased availability of voluntary counselling and testing
  - HIV education in schools
  - better information for women on the risks and benefits of breastfeeding
  - accessibility and promotion of condoms.
- 5 Finally, ask participants to agree:
  - What are the priority interventions?
  - What can be done now within existing resources?
  - Who will do it?
  - By when?

# 7

## RESOURCES

### BOOKS AND MANUALS

#### Background materials

*A positive woman's survival kit* is written by and for women living with HIV and AIDS. It includes a set of fact sheets on specific subjects such as STIs and reducing mother-to-child transmission. Price: free to readers in developing countries, £7/US\$10.50 elsewhere. Available in English, French and Spanish from: ICW, 2C Leroy House, 468 Essex Road, London N1 3QP. Fax: +44 20 7704 8070. E-mail: info@icw.org

*HIV/AIDS in Southern Africa – The threat to development* highlights the need to integrate HIV prevention with wider development activities. Price: £2.50. Available from: CIIR, Unit 3, Canonbury Yard, 190a New North Road, Islington, London N1 7BJ, England, UK. Fax: +44 20 7359 0017. E-mail: CIIR@CIIR.org

*Clinical Tuberculosis* is a practical, comprehensive and up-to-date guide to the diagnosis of all forms of TB, in both adults and children. Price: £3.50. Available from: TALC, PO Box 49, St Albans, Herts, AL1 4AX, UK. Fax: +44 1727 8453869. E-mail: talcuk@binternet.com

#### Counselling and testing

*Care counselling model: a handbook* designed primarily for HIV/AIDS counsellors working in the field, this book covers pre-test counselling, post-test counselling and ways to mobilise the community. Includes useful exercises to make counsellors aware of new techniques for dealing with clients. Price: free. Available from: SAfAIDS, 17 Beveridge Road, PO Box A509 Avondale, Harare, Zimbabwe. Fax: + 263 4 336195. E-mail: info@saf aids.org.zw

*Counselling and voluntary HIV testing for pregnant women in high HIV prevalence countries: guidance for service providers* provides an overview of the magnitude of mother-to-child transmission. It looks at both the content of counselling and voluntary testing during pregnancy and the operational issues in setting up and maintaining a service. Price: free. Available from: UNAIDS, CH-1211, Geneva 27, Switzerland. Fax: +44 7914187. E-mail: unaids@unaids.org. Internet: www.unaids.org

*HIV testing: a practical approach* contains information on HIV testing and counselling services for use in developing countries. Price: free to readers in developing countries, £7.50/US\$15 elsewhere. Available from: Healthlink Worldwide.

#### Infant feeding

*HIV and infant feeding*, a set of three manuals comprising: guidelines for decision-makers, a guide for health care managers and supervisors, and a review of HIV transmission through breastfeeding (WHO/FRH/NUT/CHD). Price: US\$8.30 developing countries, US\$14 elsewhere. Available in developing countries from any UNICEF office or from WHO, CH-1211, Geneva 27, Switzerland. Fax: +41 22 7910746. E-mail: publications@who.int

*Frequently asked questions on: Breastfeeding and AIDS*, a short but useful fact sheet. Price: free. Available from: AED, 1255 23<sup>rd</sup> Street NW, Washington DC, USA. E-mail: linkages@aed.org

#### Safe motherhood

*Care in normal birth: a practical guide* looks at common practices used during labour. It recommends interventions which can support normal birth and points out those which are harmful and should be discontinued (WHO/RHT/MSM/98.3). Price: free. Available from: RHR Documentation Centre, WHO, CH-1211, Geneva 27, Switzerland. E-mail: lambert.s@who.ch. Internet: www.who.int/rht  
*Note: practical guides are also available on postpartum care of mother and newborn; detecting pre-eclampsia; basic newborn resuscitation and preventing prolonged labour (the partograph)*

*Safe Motherhood Initiatives: critical issues*, analyses the successes and failures of safe motherhood initiatives and offers a wide range of perspectives on making pregnancy, childbirth and abortion safer in the future. Price: £8/US\$14 for students/those in developing countries, £24/US\$40 for others. Available from: Blackwell Science Ltd, Osney Mead, Oxford OX2 0EL, UK. Tel: +44 1865 206206. Fax: + 44 1865 721205. E-mail: jnl.orders@blacksci.co.uk. Internet: www.blackwell-science.com/rhm

*HIV in pregnancy: a review* is a technical overview of the issues, not written specifically for the developing world. Price: free. Available from: WHO (see above)

#### NEWSLETTERS

Relevant back issues of *Child Health Dialogue (CHD)* and *AIDS Action (AA)* are:

*CHD8* Safe motherhood (1997)

*CHD12* HIV and children (1998)

*CHD14* Reducing mother-to-child HIV transmission (special supplement, 1999)

*CHD18* Strengthening safe motherhood (2000)

*AA38* HIV and its impact on health workers (1997)

*AA43* Improving access to care (1999)

Please write to Healthlink Worldwide stating which issues you require.

# Other free and low cost practical publications from Healthlink Worldwide

## AIDS and Sexual Health



## Child Health



## Disability



## Health Policy



For further details and to receive a copy of Healthlink Worldwide's Publications List, please contact:

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E-mail [info@healthlink.org.uk](mailto:info@healthlink.org.uk)

or visit our website at [www.healthlink.org.uk](http://www.healthlink.org.uk)



*HIV and safe motherhood* is aimed at all those working in health, family planning and women's organisations in sub-Saharan Africa. It provides practical information to strengthen communication with women who are vulnerable to and affected by HIV, to help them keep themselves and their infants healthy. It calls for efforts to prevent HIV transmission among women and infants to be approached within the context of wider Safe Motherhood initiatives.

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# HIV and safe motherhood



Dear Reader,  
 Healthlink Worldwide would like to know what you think about *HIV and safe motherhood*. Your comments will help us to improve future publications and develop other materials to meet your information needs. Please fill in the following questionnaire and return it to Healthlink Worldwide. Thank you very much.

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 E-mail [info@healthlink.org.uk](mailto:info@healthlink.org.uk)  
<http://www.healthlink.org.uk>

**SECTION 1 About you and where you work**

First name \_\_\_\_\_  
 Family name \_\_\_\_\_  
 Organisation (if any) \_\_\_\_\_  
 \_\_\_\_\_  
 Occupation \_\_\_\_\_  
 Address \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Country \_\_\_\_\_  
 Fax \_\_\_\_\_  
 E-mail \_\_\_\_\_

Do you currently receive any of the following newsletters?  
 AIDS Action Yes  No   
 Child Health Dialogue Yes  No   
 Disability Dialogue Yes  No   
 Health Action Yes  No

If you do not but would like to, please tick the one(s) which you would like to receive:  
 AA  CHD  DD  HA

**SECTION 2 About HIV and safe motherhood**

1 Was the briefing paper easy to understand  hard to understand   
 2 Was the balance of text/words and pictures about right  too much text  too many pictures   
 3 How useful did you find each section?  
 Please tick relevant box

	Very useful	Quite useful	Not useful
1: Before parenthood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2: HIV in Pregnancy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3: Voluntary counselling and testing for HIV	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4: Care during labour and delivery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5: Infant feeding and HIV	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6: What else can health workers do?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7: Resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4 What aspects were missing?  
 \_\_\_\_\_  
 \_\_\_\_\_

5 Do you have any other comments about the briefing paper?  
 \_\_\_\_\_  
 \_\_\_\_\_

**SECTION 3 Use of HIV and safe motherhood**

6 Did the briefing paper change your knowledge?  
 No  Yes  If yes, please explain how  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

7 Will you use the briefing paper in your work?  
 No  Yes  If yes, please explain how  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**SECTION 4 Sources of information**

8 Have you received any other information about HIV and safe motherhood?  
 No  Yes  If yes, what?  
 \_\_\_\_\_  
 \_\_\_\_\_

9 Do you or will you, have access to the following?

	Now		Within the next 3 years	
	Yes	No	Yes	No
E- mail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Internet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CD-ROM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10 Are you a member of any electronic forums on health or development?  
 No  Yes  If yes, which ones?  
 \_\_\_\_\_  
 \_\_\_\_\_

11 Do you receive any e-mail newsletters?  
 No  Yes  If yes, which ones?  
 \_\_\_\_\_  
 \_\_\_\_\_

**SECTION 5 Types of information**

15 What type of information materials do you or would you like to receive?

Printed Briefing papers <input type="checkbox"/>	Computer-based CD-ROMs <input type="checkbox"/>
Newsletters <input type="checkbox"/>	E-mail newsletters <input type="checkbox"/>
Practical manuals <input type="checkbox"/>	Full text documents from the internet <input type="checkbox"/>
Resource lists <input type="checkbox"/>	

FLAP C

Returning the questionnaire to Healthlink Worldwide

Fold along the dotted line

AIRMAIL

Please  
put  
stamp  
here

FLAP B

Publications Administrator  
Healthlink Worldwide  
Cityside  
40 Adler Street  
London E1 1EE  
UK

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FLAP A

Country \_\_\_\_\_

Address \_\_\_\_\_

Name \_\_\_\_\_

Sender \_\_\_\_\_