Photo: Manuelle Hurwitz/Guinea

14 HIV INFECTION AND AIDS

1 Introduction

Human immunodeficiency virus (HIV) infection and acquired immunodeficiency syndrome (AIDS) are major health problems. HIV/AIDS affects all ages, rich and poor. It is estimated that some 40 million people are living with HIV/AIDS. The International Planned Parenthood Federation (IPPF) is committed to mainstream management of HIV/AIDS into sexual and reproductive health services. Individual IPPF Member Associations and other sexual and reproductive health (SRH)/family planning services have opportunities to play an important role in fulfillment of this commitment: they are well placed to meet the challenges and to provide services for HIV/AIDS within their programmes.

1.1 Definition

HIV (human immunodeficiency virus) causes AIDS. An HIV-positive person develops AIDS (Acquired Immune Deficiency Syndrome) - the late stage of HIV disease - after years of infection. AIDS involves the loss of function of the immune system as CD4 cells are infected and destroyed, allowing the body to succumb to opportunistic infections (e.g., *Pneumocystis carinii* pneumonia, toxoplasmosis) that are generally not pathogenic in people with intact immune system.

1.2 Transmissibility

HIV may be passed directly from one person to another, either by sexual contact, transfusion of blood and blood products, perinatal transmission and use of contaminated needles and syringes.

The routes of mother-to-child transmission (MTCT) are:

- In-utero transplacental transmission.
- Intrapartum transmission during labour and delivery by inoculation or ingestion of blood or other fluids.
- Postpartum transmission via ingestion of infected milk.

1.3 The role of sexual and reproductive health services

This role encompasses:

- Prevention information and counselling messages directed to infected and uninfected individuals.
- The provision of family planning services.

- The provision of voluntary counselling and testing (VCT).
- Access to antiretroviral (ARV) therapy including prevention of mother-to-child transmission (PMTCT) and management of opportunistic infections when indicated.
- Referrals and palliative care and support.
- Increasing access of young people and vulnerable groups to information, education and services.

The HIV/AIDS services that SRH clinics can offer will depend upon their resources. These services may include all or some of the following:

- Education about integrated HIV/AIDS prevention.
- Voluntary counselling and testing.
- HIV/AIDS counselling, including advice on lifestyle management.
- Contraceptive counselling.
- PMTCT services, HIV/AIDS management, including treatment.
- Provision of ARV treatment, PMTCT services and management of opportunistic infections when indicated.
- Identification of referral services and referral networks.

2 Prevention

In the absence of curative treatment the only way to stop the spread of disease is by prevention. This is mainly done through increasing awareness and education in the community and increasing access to male and female condoms. The spread of HIV/AIDS is influenced by several factors, including sexual behaviour and attitudes, as well as the availability of facilities for early diagnosis and treatment. These factors should be borne in mind so that effective programmes to prevent the spread of HIV/AIDS can be designed and implemented. SRH programmes are well placed to disseminate information on the risks and complications of HIV/AIDS and to promote low-risk behaviour. They can also encourage the use of condoms, not only for the prevention of pregnancy but also for the prevention of HIV infection.

2.1 Prevention of sexual transmission

Sexual transmission can be prevented by:

- Consistent use of male condoms whenever there is a risk of infection, by sero-discordant couples to protect the other partner, and when both partners are positive to prevent re-infection with different viral mutations and exposure to new sexually transmitted infections (STIs).
- Use of female condom if male condom cannot be used in heterosexual relationship.
- Rapid and effective treatment of STIs.

2.2 Prevention of non-sexual transmission

- People who have or are vulnerable to HIV infection such as sex workers, men who have sex with men, injecting drug users should not donate blood, semen, or organs or tissue for transplantation.
- Special education activities should be targeted at injecting drug users to make them aware of the high risk of sharing needles and syringes. Needle exchange programmes should also be implemented.
- Efforts should be made to discourage practices such as female genital mutilation and scarification.
- Avoidance of unhygienic habits such as sharing razors and toothbrushes.

2.3 Prevention of perinatal transmission

- Prevent HIV infection among women.
- Prevent unwanted pregnancies in HIV-infected women.
- Provide counselling and safe delivery practices and antiretroviral drugs to HIV-infected mothers.

2.4 Prevention of transmission in health care facilities

Health care facilities should observe proper practices of infection prevention and control in providing care (see chapter 15: Infection prevention and control).

3 Management of HIV/AIDS

HIV management includes:

- Voluntary counselling and testing (VCT).
- Prevention messages directed to infected and uninfected individuals.
- Partner notification.
- Sexual behaviour.
- Reproductive decision-making.
- Contraception.
- Treatment.
- Care and support for people living with HIV/AIDS (PLWHA).

3.1 Voluntary counselling and testing (VCT)

Voluntary counselling and testing (VCT) is an integral component of SRH services and should be offered to high-risk/vulnerable groups. It allows individuals to know their HIV status and thereby provides an early access for HIV counselling, treatment and care. VCT should not take place in isolation but be part of a continuum of care. It should be linked with a referral system to appropriate treatment, care and support services to help to reduce barriers to testing.

VCT services must adhere to local and national protocols, laws and regulations governing the provision of HIV-related services.

VCT comprises:

- Knowledge of status is *voluntary*.
- Pre-test counselling.
- Informed consent.
- HIV testing.
- Post-test and follow-up counselling including positive prevention.

Pre-test counselling

Counselling should be confidential, non-judgmental, and be tailored to the needs and realities of the client. This enables clients to make

an informed choice about learning about their HIV status and to take appropriate action (see chapter 13: Reproductive tract infections and sexually transmitted infections, section 4).

The client should be aware that the process is entirely voluntary and confidential. The session should also:

- Provide clear information about HIV, its spread, how it differs from AIDS.
- Accurately describe the testing process.
- Ensure the client understands the advantages and implications of knowing their HIV status.

Informed consent

This is an authorization given by the client to the service provider to undergo testing for HIV after receiving relevant information about the risks and benefits of HIV testing. Only then can the client make an informed choice. Informed consent is necessary as HIV infection is life threatening and may cause harm to the client in the way of emotional stress, social stigma and discrimination in many forms.

HIV testing

HIV testing is performed by use of approved HIV test kits and testing protocols. HIV testing is not recommended without pre-test and post-test counselling.

Post-test counselling

Negative test result

Discuss with the client

- About the window period and the limitations of the test.
- The need for a repeat test after three months if exposure was within the last six weeks.
- Risk reduction strategies including safer sexual behaviour and the correct use of condoms.

Positive test result

- Reassure the clients and give emotional and psychological support.
- Explain the difference between HIV infection and AIDS and that people with HIV infection can remain healthy for a long period.
- Help them to identify sources of support, both personal and in the community (treatment and access, psychosocial support, networks, etc.).
- Review with them their immediate plans, intentions and actions.
- Discuss partner notification and assess risk of domestic violence; provide a referral, where necessary.
- Discuss the risk of transmitting HIV to others, risk of re-infection with HIV or other STIs.
- Discuss risk reduction strategies.
- Encourage partner testing as well as any children who could be infected.
- Establish a follow-up counselling plan with the client to discuss future issues, such as further testing and immune T cell testing (CD4), management, treatment and access, being part of a support group, healthy living, advantages of early access to care, etc.

3.2 Follow-up counselling

The first weeks and months are important for people when they learn that they are HIV positive. They need access to:

- Social and psychological services.
- Medical services to obtain treatment.
- Other support services to establish and maintain behaviour changes that reduce the likelihood of transmitting the virus to others as well as keeping themselves healthy to reduce the risk of re-infection.

It is important that HIV positive people retain their self worth and remain productive members of society. HIV-positive people may develop internalized stigma, which can have a negative impact on their mental health and well being. For some people, the knowledge of their HIV status may precipitate significant depressive symptoms. Providers of care should be aware of these possibilities and provide treatment and support where required.

When counselling, providers of services should stress that successful treatment does not prevent HIV transmission. Preventive actions, such as condom use, safer sex practices and clean needles for injecting drug users should be emphasized. Women with HIV are often caregivers themselves, accustomed to attending to others, such as children, a spouse, parents, etc. As a result, they may postpone their own self-care. Providers should counsel the client appropriately, explaining that care for oneself is an integral component of effective HIV management.

3.3 Partner notification/counselling

Partner notification involves the process of contacting sexual and/or injecting partners of an HIV-positive person in order to advise these partners that they may have been exposed to HIV and to encourage them to attend for voluntary and confidential HIV testing and counselling.

Providers of services should be sensitive to the complexities of partner notification, as this situation poses a conflict of rights: the right of the HIV-positive person to confidentiality and privacy versus the right of the partner to protection against HIV infection. It is not a straightforward issue which remains unresolved and needs to be handled with sensitivity. Partner notification is important and should be encouraged and discussed.

Providers should explain the aims and benefits of partner notification:

- It helps individuals who have been exposed to HIV to learn about their risk and encourages testing.
- If they are positive, they can learn how to protect others from HIV infection by **practising safer sex** and not sharing needles, and how to get access to treatment and support.
- If they are negative, they can get information on how to remain uninfected.

In many cases, individuals are not notified about their partner's HIV status, or when they are, they do not volunteer to be tested themselves. This provides a challenge to providers of services, as it may have an impact on the practice of safer sex. Moreover, there may be problems around adherence to ARV therapy and/or self-medication of the untested partner.

In certain countries it is compulsory for health care providers to inform partners of the status of their HIV-positive partner in the event that the individual refuses to disclose the information themselves. In these circumstances, the potential for violence and for serious disruption to the relationship should be assessed and necessary steps taken. Counsellors should be appropriately trained on how to provide counselling and advice, especially where there is the potential for violence and all attempts must be made to provide support to the HIV-positive individual.

Providers should create an enabling environment for disclosure.

3.4 Sexual behaviour

On diagnosis there is often a reappraisal of sexual behaviour, leading to the adoption of safer sex practices. However, in cases where the client has not disclosed to the sexual partner, it may be difficult to initiate/maintain safer sex practices. Clients may require intensive counselling and support to deal with these challenges. At all times providers need to maintain a non-judgmental supportive attitude.

Advances in HIV treatment and care have helped many HIV-positive people to enjoy an increase in life expectancy. For many, this allows for a renewed interest in sexual activity. It is essential that HIV-positive clients have a clear understanding of the gradient of risk between various sexual practices. Providers should be able to explain sexual practices and their associated risks in explicit terms to ensure complete understanding and openness. Clients should be aware of the correct use of sex toys and the dangers of sexual practices such as dry sex, douching, the use of intra-vaginal herbs to promote dryness of the vagina, etc. Creating an environment in which the client does not feel stigmatized or judged is crucial to encourage openness. It is important that providers be aware of different cultural sexual practices. Service providers should provide an environment that is secure for the disclosure of these private sexual practices.

Successful HIV treatment through provision of ARVs can lower a client's viral load which may reduce, but does not exclude, the risk of HIV transmission to an HIV-negative partner. There are also other factors that influence sexual transmission of HIV, such as:

- The presence of other STIs—e.g., herpes simplex type II or human papiloma virus inection.

- Genital irritation.
- Menstruation.
- Malnutrition and vitamin and mineral deficiencies.

3.5 Reproductive decision-making

HIV infection raises difficult issues relating to contraception and pregnancy. Because of the special circumstances of HIV-positive clients, counselling should be conducted with particular sensitivity. Once pregnant women decide about whether or not to continue their pregnancy they should be counselled and offered services based on their choice. Providers have an important role to play in facilitating a woman's decision-making process. Whenever possible, the partners should be counselled both separately and together.

Couples where one or both partners are positive face challenging reproductive decisions which include:

- Desire for pregnancy.
- Contraceptive practices.
- Choices for the outcome of an unintended pregnancy.

HIV-positive couples should be able to make informed choices, free of coercion and have access to quality services to implement these choices.

Desire for pregnancy

HIV-positive individuals or couples who are considering pregnancy should be informed clearly of the risk of transmission to the uninfected partner during the unprotected sexual intercourse required to achieve pregnancy. They should also know that, for an infected woman who is already showing symptoms of AIDS, pregnancy might accelerate the course of the disease. If an HIV-positive woman wishes to become pregnant, she should be educated about the local fertility and prenatal services, as well as the types of chemoprophylaxis available to reduce the risks of transmission to her child.

Prevention of mother-to-child transmission (PMTCT)

Transmission of HIV from an infected mother to her infant can occur in utero; at the time of delivery; and through breast milk. To reduce the risk of transmission from mother to child providers should keep in mind:

- The use of ARV treatment (different ARV regimens can be used determined by local availability and guidelines).
- Delivery by caesarian section.
- Breastfeeding choices.

Antiretroviral therapy (ARVs)
The use of antiretroviral drugs (ARVs) during pregnancy and delivery has been shown to be effective in reducing transmission of HIV from mothers to infants. ARVs reduce the risk of transmission by decreasing viral replication in the mother and through prophylaxis of the infant during and after exposure to the virus. There are many regimens differing in terms of efficacy, costs, practicality and safety. All these regimens include an intrapartum treatment, with varying durations of antepartum and/or postpartum treatment. Regimens which start early in pregnancy and are relatively complex have shown to be more effective than those that are simple and start late in pregnancy or just during labour. However, the practicality of the latter regimens makes them an attractive option for women who obtain antenatal care late in pregnancy and/or who cannot easily adhere to the ARV regimen. The choice of antiretroviral prophylactic regimen to be included in a service delivery programme will depend on availability, feasibility and cost.

Delivery by caesarian section
About 60% of HIV transmissions from mother to child occur around the time of labour and delivery. Vaginal deliveries increase the risk while delivery by elective caesarian section reduces the risk of MTCT irrespective of viral load and prophylactic ARV therapy. However, the potential benefits have to be balanced against the risk to the mother. Caesarian sections should be done in settings where the operation can be safely carried out and where overall maternal mortality is low. In facilities where caesarian section is not available, vaginal cleansing by use of chlorhexidine 0.25% to cleanse the birth canal after each vaginal examination and during labour and delivery has been shown to be effective in reducing MTCT.

Breastfeeding choices
The risk of MTCT increases if a woman breastfeeds her infant. The decision to breastfeed or not has to be weighed against the benefits of breastfeeding. It is the best way to feed an infant as it not only provides essential nutrients but also protects the infant from gastrointestinal

infections and malnutrition. In certain cultures it is the normal practice and therefore its avoidance may lead to stigma and discrimination as the community will suspect that the woman has HIV. A decision regarding replacement feeding should be made after ensuring that it would be:

- Acceptable;
- Feasible;
- Affordable;
- Sustainable; *and*
- Safe.

Providers of services should:

- Educate the woman about safe preparation of replacement feeds, correct cleaning of utensils, and methods of sterilization.
- Monitor the growth and development of the child to ensure adequate infant feeding and nutrition.
- Teach the mother to inspect her child's mouth for thrush and breakages in the mucous membrane (an added risk for HIV transmission).
- Teach the mother about the increased risk of HIV transmission should she suffer from mastitis, breast abscesses, and bleeding or cracked nipples.

If the woman decides to breastfeed her infant she should be advised on exclusive breastfeeding for the first six months. It should be discontinued as soon as feasible, taking into account local circumstances, the individual woman's situation and the risks of replacement feeding (including infections other than HIV and malnutrition).

Options for unintended pregnancy

HIV does not necessarily have a negative impact on the pregnancy but might have an adverse effect on the health of the mother especially if her CD4 count is low and ARVs are not available. HIV also leads to increased rates of complications after delivery and is associated with an increase in maternal mortality. If the client is currently pregnant but does not wish to continue her pregnancy, she should be referred to safe abortion services, where legally permitted. Postpartum contraception should be offered as an option for those who do not wish to become pregnant again.

3.6 Contraception

If an HIV-positive woman or a woman with an HIV-positive partner does not wish to become pregnant, she and her partner should be advised of the appropriate methods of contraception as well as the best way to avoid transmission of the infection.

In this case, the couple should be provided with contraceptive counselling and services or be referred to an SRH/family planning programme. To optimize reproductive choices, VCT services should link directly with family planning and antenatal preventive services.

Highly effective contraceptive methods should be recommended. In discordant couples, the correct and consistent use of condoms is the only method to prevent HIV transmission. They should be used even when another method is chosen to prevent pregnancy.

In general, HIV-positive women have the same range of contraceptive options as other women.The World Health Organization (WHO) medical eligibility criteria (MEC) have been developed for women with HIV infection and include specific circumstances under which the use of certain methods is restricted, as outlined below.

Male condom

The correct and consistent use of male condoms has high efficacy against both unintended pregnancy and STI/HIV transmission whenever there is a risk of infection. The proper use of male condoms effectively prevents HIV transmission within HIV-discordant couples. When male condoms fail to protect against pregnancy and infection, the main reason is that they were used incorrectly; only a small fraction of these failures occur because of condom breakage/slippage.

Clients should be given clear instructions on the proper use of the method (see chapter 7: Barriers) including a demonstration, together with advice on the correct lubrication, storage and handling. Emergency contraception should be provided as a back up method.

Female condom

The female condom is available in many countries and offers an alternative to male condoms. The female condom affords women more control over the initiation of barrier contraception and can be inserted hours before intercourse. The contraceptive use-effectiveness of the

female condom is within the wide range quoted for other barrier methods, but lower than that of male condoms.

Although clinical data are limited, laboratory studies have shown that the female condom is an effective barrier not only to sperm but also to bacteria and viruses including HIV.

The use of female condoms is limited by cost factors. While it is always preferable to use a new female condom for each act of intercourse, under certain circumstances re-use of the female condom may be acceptable, feasible and safe. The final decision about whether or not to support re-use of the female condom should be taken locally.

Diaphragm

The diaphragm has the advantage of being woman controlled and can be inserted several hours before intercourse. It offers contraceptive protection similar to other barrier methods (see chapter 7: Barriers).

For discordant couples, and whenever there is risk of infection, the use of diaphragms with spermicides is not recommended because of a possible increased risk of HIV infection associated with the use of spermicides containing nonoxynol-9 (N-9). Studies are under way to determine whether the diaphragm reduces the risk of transmission of STIs and HIV.

Spermicides

When used on their own, spermicides have lower contraceptive efficacy than other barrier methods and they do not protect against STIs. Spermicides containing nonoxynol-9 (N-9) do not protect against HIV infection and may even increase the risk of HIV infection in women using these products frequently. This method is therefore not recommended for HIV-negative women in a discordant couple. This method may be used by HIV-positive women only if no other options are available and acceptable. If a spermicidal method is chosen, the client should be advised to use it in combination with another barrier method.

Hormonal contraceptives

The correct use of hormonal contraceptives is highly effective for pregnancy prevention. Available evidence also indicates that hormonal contraceptives are safe for use by HIV-positive women and for uninfected women in a discordant couple. They do not protect against STIs/HIV, therefore the correct and consistent use of condoms is recommended.

ARV drugs have the potential to either decrease or increase the bioavailability of steroid hormones in hormonal contraceptives. The limited data available indicate that potential drug interactions between many ARVs and hormonal contraceptives may alter the safety and effectiveness of both the hormonal contraceptives and the ARVs.
If a woman on ARV treatment decides to start or continue hormonal contraceptive use, the consistent use of condoms must be recommended to prevent HIV transmission and may also compensate for any possible reduction in the effectiveness of the hormonal contraceptive.

IUDs

The IUD is a highly effective method of contraception, which can be used by HIV-positive women without AIDS and women with AIDS who are clinically well on ARV therapy. Women with AIDS who are not clinically well should generally not have an IUD inserted unless other methods are not available or acceptable (see chapter 6: Intrauterine devices). IUDs do not protect against STIs/HIV, therefore the correct and consistent use of condoms is recommended.

Emergency contraception

For HIV-positive women who have unprotected sex and may be at risk of an unwanted pregnancy, access to emergency contraception is essential. The IUD can be used by an HIV-infected woman for emergency contraception provided she meets the medical eligibility criteria (see chapter 6: Intrauterine devices).

Male or female sterilization

Sterilization can be provided to HIV-positive clients if an informed voluntary choice is made (see chapter 8: Female and male sterilization). Appropriate infection prevention procedures must be carefully observed (see chapter 15: Infection prevention and control). However, this method does not protect against STIs/HIV transmission and therefore the correct and consistent use of condoms is recommended following the procedure.

3.7 Treatment

Antiretroviral therapy

Antiretroviral drugs (ARVs) inhibit the replication of HIV. When given in combination they:

- Inhibit HIV replication.
- Delay immune system deterioration.
- Improve survival and quality of life.

ARVs should be introduced as part of SRH/family planning services and introduced at the primary care level. ARVs are effective in decreasing HIV-related morbidity and mortality. Community ARV roll-out may decrease the incidence of HIV in the community by reducing high risk behaviour, and decrease the risk of transmission in discordant couples by the increased use of condoms and mother-to-child transmission. ARV treatment helps to:

- Keep an individual in the asymptomatic phase.
- Improve symptoms.
- Return individuals to the asymptomatic stage of illness.

Although access to treatment can change HIV from a deadly disease to a chronically managed condition, it is important to highlight that there is still no cure for HIV.

HIV treatment involves the use of antiretroviral drugs to keep an HIV-positive person at all stages of HIV progression healthy by dropping their viral load to an undetectable level (below 50 copies) within 16-20 weeks.

Providers of services should be aware that HIV drug treatment is complex and adverse events manifest differently among different clients. They should:

- Follow national treatment guidelines.
- Monitor compliance by the client as drug resistance can develop if doses are skipped.
- Ensure patient's adherence to ARV regimen to get optimal results from treatment and minimize the emergence of viral resistance.

Post Exposure Prophylaxis (PEP)

PEP is a short-term antiretroviral treatment to reduce the likelihood of HIV infection after potential exposure, either occupationally or through sexual intercourse. PEP should be commenced as soon as possible after the incident and ideally within 2-4 hours. Combination therapy is recommended, as it is believed to be more effective than a single agent. However, provision of ARV therapy should be provided according to national protocols and guidelines.

Sexually transmitted infections (STIs)

In populations with a high HIV prevalence, patients presenting with STIs are more likely to be HIV infected and, if infected, are more likely to transmit HIV to susceptible partners. Patients who do not know their HIV status should be referred to VCT services for counselling and testing. HIV-positive people, because of compromised immune systems, have more frequent and severe episodes of recurrent viral STIs. Treatment and/or prophylaxis where available should be offered.

Opportunistic infections

HIV-positive people have compromised immune systems and are more susceptible to a range of opportunistic infections (OIs), such as tuberculosis, malaria, candidiasis, toxoplasmosis, cryptococcal meningitis, *Pneumocystis carinii* pneumonia, toxoplasmosis, chronic diarrhea and malaria in endemic areas. Symptoms for these infections may manifest themselves differently in HIV-positive people.

The risk of acquiring an OI increases with lower CD4 counts. Where possible, treatment should be offered to patients who have stage 4 HIV or CD4 counts of less than 200. If treatment is not available at a particular site, patients should be referred to appropriate services. Treatment should follow national protocols.

Left untreated, infections may become more difficult to diagnose and require hospital admission for expensive investigation procedures. With the timely provision of ARVs, this can be avoided by strengthening the immune system, saving both time and money.

In HIV high-risk areas, tuberculosis (TB) is a marker for HIV. A person presenting with TB should also be referred to VCT for testing and counselling.

3.8 Care and support for infected individuals

General health advice

A healthy lifestyle is particularly important for the HIV-positive person.

Nutrition care and support services
HIV infection affects nutrition through increases in resting energy expenditure, reductions in food intake, nutriment absorption and loss, as well as complex metabolic alteration that culminate in weight loss and wasting common in AIDS. Therefore, proper nutrition is a vital component of healthy living for HIV-positive persons and nutrition counselling, care and support are integral to comprehensive HIV care.
Well balanced nutrition:

- Helps to maximize medical treatment.
- Boosts immunity.
- Reduces side-effects of ARVs.
- Improves physical health and enjoyment of life.

Diet specifications differ among individuals and depend on the stage of illness, social situation and a client's unique health concerns. The daily diet recommendations for those with HIV will depend on the country and local guidelines. They should generally include a diet with:

- High protein.
- High calories.
- Daily requirements of vitamins and minerals to ensure that micronutrient needs are met.

Service providers should work with communities and investigate all options to provide appropriate diet including referral to food-based interventions and programs where needed, in particular for pregnant and lactating HIV-positive women.

Lifestyle
Clients should be encouraged to lead a healthy lifestyle. Programmes should include counselling on:

- Exercise.
- Adequate sleep.
- How to reduce stress.
- Advice on unhealthy behaviours such as smoking and excessive drinking; both of which should be discouraged. Where required, patients should be referred to drug or alcohol prevention and treatment programmes.

Providers should encourage ongoing counselling to address new issues as they arise. Left unaddressed, these issues can negatively impact a client's mental health and adherence to treatment.

Support services
HIV infection affects all dimensions of a person's life: physical, psychological, social and spiritual. Counselling and social support can help people and their carers cope more effectively with each stage of the infection and enhances their quality of life. With adequate support clients are more likely to be able to respond adequately to the stress of being infected and are less likely to develop serious mental health problems.

Assessment and interventions may be aimed at the acutely stressful phase following notification of HIV infection, the ensuing adjustment period, and the process of dealing with chronic symptomatic HIV infection and disease progression through to death.

HIV infection often can result in stigma and fear for those living with the infection, as well as for those caring for them, and may affect the entire family. Infection often results in loss of socio-economic status, employment, income, housing, health care and mobility. For both individuals and their partners and families, psychosocial support can assist people in making informed decisions, coping better with illness and dealing more effectively with discrimination. It improves the quality of their lives, and prevents further transmission of HIV infection.

Referral
An efficient referral system is essential for the management of HIV/AIDS programmes. It is not possible for all the delivery sites to provide access to comprehensive services needed by people who suffer from HIV/AIDS. It is necessary to have a system by which individuals requiring special facilities for diagnosis, treatment and care would move from a basic level of service, such as clinics, to a more comprehensive service, such as those able to provide clinical management with laboratory tests.

The referral system should be based on linkages between institutions as well as across different levels of care within the same institution.