

FACT SHEETS

HIV/ AIDS

**FOR
NURSES & MIDWIVES**



World Health Organization
Regional Office for South-East Asia



World Health Organization
Regional Office for South-East Asia



**Adapted from WHO Geneva Publication 2000
Fact Sheets on HIV/AIDS for Nurses and Midwives**

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Valuable contributions made by the intercountry group members are gratefully acknowledged. We thankfully acknowledge the contribution of Dr E Pontali, Dr V Dias-Ferrao and Ms U Doma in doing the final revision.

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FOREWORD

The AIDS epidemic is growing rapidly in the South-East Asia Region. Considering that high-risk behaviours that promote HIV transmission are present in all countries of the Region, there is no room for complacency.

The nursing and midwifery workforce provides a valuable resource for coping with the HIV/AIDS epidemic. By virtue of their numbers and their close and continuous contact with individuals, families and communities both in times of health and sickness, they are recognized, in our Region and throughout the world as a significant support to national health development efforts. The potential of effective contribution by nurses and midwives to HIV/AIDS care however, has to be harnessed.

Nurses and midwives need to be equipped with the requisite knowledge, attitudes and skills for HIV/AIDS prevention and care. This will enable them to contribute meaningfully towards providing comprehensive, holistic and compassionate care for people living with HIV/AIDS and educating the community on how to prevent HIV transmission.

These Fact Sheets on HIV/AIDS for Nurses and Midwives provide most useful and relevant information. By allaying fears and clearing misconceptions, the fact sheets should help to foster a positive attitude towards HIV/AIDS care.

WHO is committed to help Member States adapt these fact sheets for their use, within their own unique health systems and sociocultural environments. I am confident that with their wide dissemination, nurses and midwives will be better equipped to provide quality HIV/AIDS care. It is my firm belief that our joint efforts can, and will make all the difference to combat HIV/AIDS in our Region.

Dr Uton Muchtar Rafei
Regional Director
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List of abbreviations and acronyms used in the text

AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal Clinic
ARV	Antiretroviral
DOTS	Directly Observed Treatment, Short-course
ELISA	Enzyme Linked Immuno Sorbent Assay
HIV	Human Immunodeficiency Virus
ICN	International Council of Nurses
IDU	Injecting Drug User
IVDU	Intravenous Drug User
MSM	Men who have sex with men
MTCT	Mother-to-child Transmission
NGO	Nongovernmental Organizations
PLHA	People Living with HIV/AIDS
STI	Sexually Transmitted Infections
TB	Tuberculosis
UNAIDS	Joint United Nations Programme on HIV/AIDS
USD	US Dollar
VCT	Voluntary Counselling and Testing
WHO	World Health Organization
SEARO	South-East Asia Regional Office



INTRODUCTION

What are the Fact Sheets?

As the name suggests, the Fact Sheets provide basic information on HIV/AIDS. There are thirteen Fact Sheets, covering major topics of importance on prevention and care of people living with HIV/AIDS. The Fact Sheets deal only with the core facts therefore detailed information about nursing care and medical matters are not included.

The Fact Sheets was originally published by the Department of Organization of Health Services Delivery (OSD), World Health Organization, Geneva in the year 2000, in collaboration with the International Council of Nurses and UNAIDS.

The World Health Organization, South-East Asia Region, in 2001, adapted the Fact Sheets to make it more suitable for use in the South-East Asia Region. The changes made were minor in nature since the basic principles and facts related to HIV/AIDS remain the same for all.

Who can use the Fact Sheets?

The intended target audience of the Fact Sheets is nurses and midwives. Nursing schools/colleges may also find the Facts Sheets a useful teaching-learning resource material. Other people who can benefit from the information contained in the Fact Sheets are other health workers and community workers. Teachers may find them useful for teaching students about HIV/AIDS prevention, control and care.

What is the purpose of the Fact Sheets?

The primary purpose of the Fact Sheets is to provide HIV/AIDS information for nurses and midwives who may not have easy access to information. Nurses and midwives will undoubtedly find the information in the Fact Sheets most useful in caring for PLHA. As individuals, they may perhaps feel helpless or frustrated, particularly if the situations under which they work makes it difficult for them to practise the principles of care and prevention spelt out in the Fact Sheets. For putting the information provided by the Fact Sheets into practical use, particularly those dealing with strategies for prevention of HIV, continuum of care and universal precaution, it is essential for multisectoral teamwork and effective networking. A team consisting of hospital, nursing and medical managers, nursing council, nurses in service, nursing schools and national AIDS control programme could jointly identify areas of concern that need to be addressed. Such teamwork can be instrumental in planning and establishing effective system to ensure holistic and comprehensive care for PLHA.



Presentation for easy use

The Fact Sheets are presented in a loose-leaf binder so that you can insert your own pages of relevant information such as updated regimens for drugs and supportive care. The Fact Sheets can be used individually or together as a package.

A list of reference materials is provided at the end of each Fact Sheet, for additional reading and information.

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FACT SHEET 1: HIV/AIDS: THE INFECTION

- **Introduction: What is HIV/AIDS?**
- **HIV transmission**
- **Natural history of HIV infection**
- **Testing for HIV antibodies**
- **Informed consent and confidentiality**
- **Questions for reflection and discussion**

INTRODUCTION: WHAT IS HIV/AIDS?

In 1983, the virus that causes Acquired Immune Deficiency Syndrome (AIDS) was discovered by Dr Luc Montagnier in France and subsequently by Dr Robert Gallo in the USA. The virus eventually became known as the Human Immunodeficiency Virus (HIV).

There are two different types of HIV:

- HIV-1, the most common type found worldwide, and
- HIV-2 found mostly in West Africa and in a few countries in South-East Asia.

HIV infection affects the immune system. The immune system is the body's defense against infections by microorganisms (such as very small bacteria or viruses) that get past the skin and mucous membranes and cause disease. The immune system produces special proteins called antibodies to fight off or kill these microorganisms. A special weakness of the immune system is called an immunodeficiency. HIV infects, and eventually destroys, special cells in the immune system called lymphocytes and monocytes.

These cells carry the CD4 antigen on their surface (CD4+ lymphocytes). HIV recognizes the CD4 antigen and enters and infects CD4+ lymphocytes. The result is the killing of many CD4+ lymphocytes. This slowly leads to a persistent, progressive and profound impairment of the immune system, making an individual susceptible to infections and conditions such as cancer. HIV infection can be detected by a blood test (described in this Fact Sheet). When the immune system gets progressively destroyed, the infection progresses to the end stage of the HIV infection and the illness progresses to AIDS.



HIV TRANSMISSION

HIV can be transmitted by:

- Sexual intercourse (vaginal, anal and oral) between an infected person and his/her partner (man to woman, woman to man and man to man). This is the most frequent mode of transmission of HIV worldwide. The presence of other sexually transmitted infections (STIs) especially those causing genital ulcers increases the risk of HIV transmission because more mucous membrane is exposed to the virus.
- Through exchange of infected blood during transfusion or by skin-piercing instruments eg. sharing contaminated needles and syringes during injecting drug-use, using unsterilized needles for tattooing, ear piercing, acupuncture etc.
- Mother to child transmission of HIV can occur during pregnancy, labour and delivery, and as a result of breastfeeding.

HIV can NOT be transmitted by:

Coughing or sneezing
Insect bites
Touching or hugging
Water or food
Kissing
Public baths

Handshake
Work or school contact
Using toilet
Using telephones
Swimming pools
Sharing cups, glasses, plates and others
utensils

HIV is transmitted in the South-East Asia Region:

- Through unprotected sex (80-90%)
- Sharing infected needles by drug users (3-5%)
- Transfusion of infected blood (3-5%)
- From mother to child at time of delivery/breast feeding (1-5%)



NATURAL HISTORY OF HIV INFECTION

Acute HIV Infection

During the first few weeks of infection, some people develop flu-like symptoms (fever, rash, joint pains and enlarged lymph nodes). Occasionally acute infections of the nervous system (e.g. aseptic meningitis, peripheral neuropathies, encephalitis and myelitis) may occur.

Most people infected with HIV do not know that they have become infected. HIV infected persons develop antibodies to HIV, which become detectable usually six weeks to three months after being infected. However, in some individuals, the test for the presence of these antibodies may not be positive until six months or longer (although this would be considered unusual).

HIV Infection Before the Onset of Symptoms

In adults, there is often a long, silent period of HIV infection (called “latency period”) before the disease progresses to “full blown” AIDS. A person infected with HIV may have no symptoms for 7 to 10 years.

The period without symptoms is shorter in children. Most children start to become ill before two years; however, a few remain well for several years (See Fact Sheet 6).

Progression from HIV Infection to HIV-related Disease and AIDS

Almost all (if not all) HIV-infected people will ultimately develop HIV-related disease and AIDS. This progression depends on the type and strain of the virus and certain host characteristics. Factors that may cause faster progression include age less than five years, or over 40 years, the presence of other infections, and possibly genetic (hereditary) factors. HIV infects both the central and the peripheral nervous system early in the course of infection. This causes a variety of neurological and neuropsychiatric conditions. As HIV infection progresses and immunity declines, people become more susceptible to opportunistic infections.

Some of the opportunistic infections are:

Tuberculosis (see Fact Sheet 12)

Pneumonia (usually *Pneumocystis carinii*)

Recurrent fungal infections of the skin, mouth and throat (*Candida spp.*)

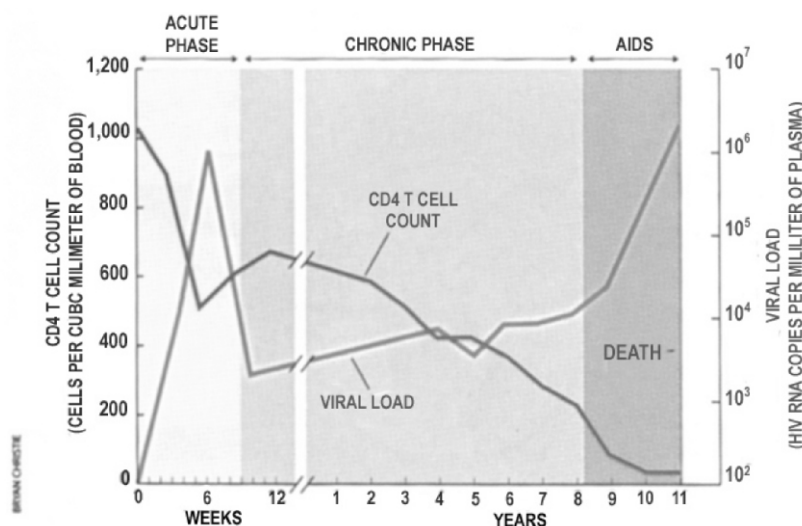
Chronic diarrhoea with weight loss (often known as “slim disease”)



Natural History of HIV Infection and AIDS in Untreated Patients

The primary infection (Acute Phase) is characterized by a peak in viral load, which decreases over time, stabilizing at different levels (set-point) in different individuals. Viral load remains relatively stable for several years (Chronic Phase), to increase again when the infected individual progresses to severe disease (AIDS). During the acute phase, the number of CD4 T cells suddenly decreases and, after a slight recovery following the acute phase, they continue to decrease at an average rate of 50 cells per cubic millimetre of blood per year. When the CD4 T cell count falls below 200 per cubic millimetre (a laboratory definition of AIDS), severe opportunistic infections begin to occur, leading to death within the next two years. Antiretroviral treatment can delay progression to AIDS in HIV infected individuals and prolong the life of patients with AIDS.

Natural Course of HIV Infection



Source: July 1998 International Edition *Scientific American*, and reproduced with permission from Fauci et al., "Immunopathogenic mechanism of HIV infection." *Annals of Internal Medicine*, 1996; 124: 654-663

TESTING FOR HIV ANTIBODIES

Purpose of HIV Testing

Testing has helped contain other infectious diseases such as tuberculosis or syphilis, but HIV is different. Once a person is infected with HIV, it's for life. A person who tests positive for syphilis can be cured with a short course of antibiotics and a person diagnosed with tuberculosis can be made non-infectious with antibiotics. With HIV, there is no medical way to "test and treat" or "test and vaccinate" to break the chain of transmission. Unlike for other diseases, systematic identification of people with HIV infection or AIDS is neither rational nor appropriate. Therefore, the World Health Organization (WHO) recommends that HIV testing be done only for selected purposes as stated below.



The main objectives for which HIV antibody testing is performed are:

- Screening of donated blood, blood products, and organs and tissues for transplantation (See Fact Sheet 3)
- Epidemiological surveillance of HIV prevalence using unlinked anonymous HIV testing methodology where all personal details of the person being tested are removed from the blood samples, so that the results of HIV testing cannot be linked with the identity of the person (See Fact Sheet 2)
- Diagnosis of symptomatic infection among those clinically suspected of having AIDS (See Fact Sheets 5 & 6)
- Early diagnosis of HIV infection among asymptomatic persons who would like to know their HIV status

In the latter two situations, HIV testing is carried out with informed consent and with strict maintenance of confidentiality. No situation other than the four listed above warrants HIV testing.

Type of Tests

Usually, tests for HIV detect the presence of antibodies to HIV and not the virus itself. Although these tests are very sensitive, there is a **"window period"**. This is the period between the onset of infection with HIV and the appearance of detectable antibodies to the virus. In the case of the most sensitive HIV tests currently recommended, the window period is about three weeks. This period may be longer if less sensitive tests are used.

The accuracy or reliability of different HIV tests is measured according to their sensitivity and specificity. *A test with high sensitivity is one that can detect even minute amounts of antibodies. A test with high specificity is one which identifies all negatives correctly (i.e. produces no false positives). Tests with high sensitivity should be used when the objective is to minimize the number of false-negative results, such as in screening of donated blood. When the objective is to minimize false-positives, such as in confirming whether an individual is HIV-infected, tests with high specificity should be used. In areas where HIV prevalence is low, most positive results in initial screening tests are in fact false-positives, so supplemental tests should always be performed if the objective is diagnosis. Today's standards require HIV tests to have a sensitivity of >99% and a specificity of >98%. (Note that the specificity of test kits may vary according to the geographical origin of the serum samples.)*



ELISA

The most commonly used type of test for screening is the ELISA (enzyme-linked immunosorbent assay). ELISA is probably the most efficient test for testing large numbers of samples per day, as in large blood banks or for surveillance studies. Since ELISA requires skilled technical staff, equipment maintenance and a steady power supply, it is less suitable for smaller or more isolated hospitals, clinics or laboratories. Regular maintenance of the ELISA equipment is crucial to obtaining reliable results.

Simple/Rapid tests (S/R)

Recent advances in technology have enabled development of various simple rapid (S/R) tests. Most of these tests come in a kit and require no additional reagent, equipment, training, or specified temperature controls, and can be performed at any time. These tests are as accurate as ELISA and results can be obtained within hours. Although the cost of these simple rapid tests are higher than the ELISA, their advantage of providing results within hours encourages people to wait for their results, thereby addressing the problem of people who do not return for their results. Actually, in some countries, over 50% of people do not return for their results. Because of the ease of use, simple rapid tests are useful in STI clinics, antenatal clinics, counselling centres and other situations where the volume of tests is low.

Samples found positive by a first test are retested with a second confirmatory test. The most commonly used confirmatory test is the Western blot. However, its use has proved to be very expensive. Studies have shown that a combination of ELISA and S/R tests can provide results as reliable as the Western blot at a much lower cost. WHO and UNAIDS therefore recommend that countries consider testing strategies which use ELISA and S/R tests rather than ELISA and Western blot for HIV antibody detection.

False Positive Result

HIV tests have been developed to be especially sensitive and, consequently, a positive result will sometimes be obtained even when there are no HIV antibodies in the blood. This is known as a false positive, and because of this, all positive results must be confirmed by another test method. A confirmed positive result from at least three test methods means that the individual is infected with HIV.

False Negative Result

A false negative result occurs when the blood tested gives a negative result for HIV antibodies when in fact the person is infected, and the result should have been positive. The likelihood of a false negative test result must be discussed with patients if their history suggests that they have engaged in high-risk behaviours. In this situation, repeated testing over time may be necessary before they can be reassured that they are not infected with HIV. The most frequent reason for a false



negative test result is that the individual is newly infected (ie. the window period) and is not yet producing HIV antibodies.

HIV Testing in Health Care Settings

Many health care workers mistakenly believe in programmes of mandatory HIV testing because of fear of contracting HIV in the health care setting. Although there is a risk of HIV being transmitted in these settings, this risk is very small. In studies of health care workers who were exposed to HIV through needle stick injuries, the risk has been shown to be less than 0.4%. The risk of HIV transmission following mucous membrane or skin exposure to HIV-infected blood, body fluids or tissues is even lower. Based on such data, testing of ambulatory or hospitalized patients for HIV on a routine basis is not recommended by WHO. Rather the application of universal precaution in infection control procedures is recommended as the best way to minimize HIV transmission in the health care setting.

Some people advocate testing in antenatal clinics on the notion that women may want to know their HIV status in order to make a decision regarding having a baby, but routine testing of pregnant women may discourage many women from attending antenatal clinics for fear of being tested without their knowledge.

The issue of patients with STI being tested for HIV has been much debated because of the close association between STI and AIDS. The consensus is that all STI patients be offered appropriate counselling and STI care without resorting to mandatory HIV testing. If HIV testing is at all required and/or asked for, this can be provided through voluntary testing with appropriate pre- and post-test counselling.

Screening of donated blood accounts for the majority of HIV tests performed worldwide. WHO advocates the concept of screening of donated blood rather than the testing of donors. Blood samples are subjected to antibody testing and those found positive are discarded without relating the test to the individual. However, if the blood donors are to be tested for HIV and if they are to be notified of the results, they must know in advance that the blood is to be tested for HIV and they should give their informed consent to testing and be provided with pre- and post counselling.

Voluntary Testing and Counselling

For HIV testing to be beneficial, it should be entirely voluntary and anonymous with no possibility of breach of confidentiality. Voluntary testing should be a part of comprehensive counselling programmes which provides support services such as condoms and treatment for STIs. In the Asian region, current availability of HIV/AIDS counselling with voluntary testing and counselling is limited with the exception of Thailand. In countries where these services are not yet widely available, their introduction should proceed cautiously in order to ensure that confidentiality is guaranteed and that the services are delivered in a manner most likely to result in benefits to the individual and to public health.



Public Health Rationale Against Mandatory Testing

Mandatory testing means HIV testing without the informed consent of the individual. The Forty-fifth World Health Assembly held in May 1992, to which all countries were signatory, noted that “there is no public health rationale for any measures that limit the rights of the individual, notably measures establishing mandatory screening”. Mandatory testing measures can be counterproductive because they tend to drive those at high risk of HIV infection “underground” as a result of which such persons do not have access to education and counselling programmes. Such initiatives not only damage the credibility of the health services, but also create a false sense of security among the public that all HIV-infected persons are known and that there is no need to take necessary precautions. From the cost point of view, testing is an expensive business, not only to the national AIDS programmes because of the high cost of HIV kits, but also to individuals from the psychological point of view when the results of HIV testing are inadvertently disclosed and confidentiality not maintained.

INFORMED CONSENT AND CONFIDENTIALITY

A decision to be tested for HIV should be an informed decision. Informed decision or consent means that the person being tested is fully aware of the possible implications of the test result and understands the limits and the potential consequences of testing.

In some countries, law requires explicit informed consent before taking the test, in others, implicit consent is assumed whenever people seek health care. (Issues related to pre and post-test counselling and informed consent are covered in Fact Sheet 8). Testing for HIV must be organized in such a way that strict confidentiality is maintained. The results of the test must be kept absolutely confidential. However, shared confidentiality is encouraged. Shared confidentiality refers to confidentiality that is shared with others. These others may include family members, care givers, and trusted friends. This shared confidentiality is at the discretion of the person who will be tested. Although the result of the HIV test should be kept confidential, professionals such as counsellors, nurses and social service workers might also need to be aware of the person's HIV status in order to provide appropriate care.

QUESTIONS FOR REFLECTION AND DISCUSSION

- Why is it important that nurses/midwives educate people about how HIV is and is not transmitted?
- What role can nurses/midwives take in promoting HIV prevention?
- Why is it important to understand the danger of HIV transmission during the “window period”?



- Why is informed consent essential?
- What role can nurses/midwives play in promoting shared confidentiality?
- What are the dangers of receiving a false negative result? What should be done if a person's test is negative?

Additional Reading

HIV Prevention and Care: Teaching Modules for Nurses and Midwives, (1993) WHO/GPA/CNP/TMD/93.3

HIV Testing Policies & Guidelines, (1994) WHO, SEARO



FACT SHEET 2: THE GLOBAL HIV/AIDS EPIDEMIC

- Introduction
- The global summary of HIV/AIDS (2001)
- The evolving picture of AIDS
- The spread of HIV
- Using Epidemiology
- Questions for reflection and discussion

INTRODUCTION

Twenty years after the first clinical evidence of AIDS was reported, it has become the most devastating disease humankind has ever faced. Since the epidemic began, more than 60 million people have been infected with the virus. Worldwide, HIV/AIDS is the fourth biggest killer.

WHO and UNAIDS estimate that as of December 2001, 40 million people around the world were living with HIV 3.9 million more than at the end of 2000. In many parts of the developing world, the majority of new infections occur in young adults, with young women especially vulnerable. About one-third of those currently living with HIV/AIDS are aged 15-24. Most of them do not know they carry the virus and many millions more know nothing or too little about HIV to protect themselves against it.

The major concentration of HIV infection is in the developing world (95% of total cases), mostly in countries least able to afford care for infected people.

THE GLOBAL SUMMARY OF THE HIV/AIDS EPIDEMIC AS OF DECEMBER 2001

Number of people living with HIV/AIDS	Total	40 million
	Adults	37.2 million
	<i>Women</i>	<i>17.7 million</i>
	Children under 15 years	2.7 million
People newly infected with HIV in 2001	Total	5 million
	Adults	4.3 million
	<i>Women</i>	<i>1.8 million</i>
	Children under 15 years	800,000
AIDS deaths	Total	3 million
	Adults	2.4 million
	<i>Women</i>	<i>1.1 million</i>
	Children under 15 years	580,000



THE EVOLVING PICTURE OF AIDS IN THE DIFFERENT REGIONS OF THE WORLD

In Eastern Europe and Central Asia

Eastern Europe - especially the Russian Federation - continues to experience the fastest growing epidemic in the world. In 2001, there were an estimated 250 000 new infections, bringing to 1 million the number of people living with HIV. Given the high levels of other STIs and the high rate of injecting drug use among young people, the epidemic looks set to grow considerably.

Sub-Saharan Africa

AIDS killed 2.3 million African people in 2001. The estimated 3.4 million new HIV infections in the sub-Saharan Africa in the past year mean that 28.1 million Africans now live with the virus. Without adequate treatment and care, most of them will not survive the next decade. Recent antenatal clinic data show that several parts of southern Africa have now joined Botswana with prevalence rates among pregnant women exceeding 30%. In West Africa, at least five countries are experiencing serious epidemics, with adult HIV prevalence exceeding 5%.

Middle East and North Africa

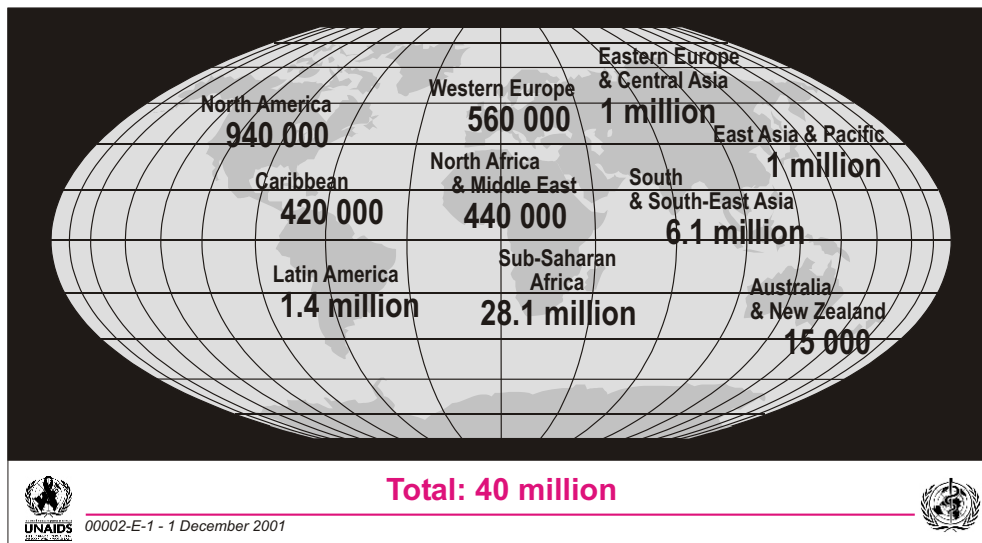
In the Middle East and North Africa, the number of people living with HIV now totals 440 000. The advance of the epidemic is most marked in countries (such as Djibouti, Somalia and Sudan) that are already experiencing complex emergencies.

High-income Countries

A larger epidemic also threatens to develop in the high-income countries, where over 75 000 people acquired HIV in 2001, bringing to 1.5 million the total number of people living with HIV/AIDS. Recent advances in treatment and care in these countries are not being consistently matched with enough progress on the prevention front. New evidence of rising HIV infection rates in North America, parts of Europe and Australia is emerging. Unsafe sex, reflected in outbreaks of STIs and widespread injecting drug use are propelling these epidemics, which at the same time are shifting more towards deprived communities.



Adults and children estimated to be living with HIV/AIDS as of end 2001



Latin America and the Caribbean

An estimated 1.8 million adults and children are living with HIV in Latin America and the Caribbean a region that is experiencing diverse epidemics. With an average adult HIV prevalence of approximately 2%, the Caribbean is the second-most affected region in the world. Relatively low national HIV prevalence rates in most South and Central American countries mask the fact that the epidemic is already firmly lodged among specific population groups.

South-East Asia

HIV/AIDS came late to Asia compared to the rest of the world. Until the late 1980s, no country in the region had experienced a major epidemic. Now it is the second most affected region in the world after sub-Saharan Africa. As of 1 November 2001, 215 474 cases of AIDS have been reported from the Member Countries of this Region. The number of AIDS cases may be much higher than reported due to underreporting and under-diagnosing. So far, more than 95% of the reported AIDS cases were from Thailand, India and Myanmar. At the end of 2000, the national adult HIV prevalence rate for India was under 1%, yet in terms of numbers it means an estimated 3.86 million Indians were living with HIV/AIDS more than in any other country besides South Africa.



AIDS AND HIV INFECTION IN SOUTH-EAST ASIA AS OF 1 NOVEMBER 2001

Country	Reported AIDS cases	Estimated Infections	Rate per 100,000 population*
Bangladesh	17	13,000	10
Bhutan	3	<100	<5
DPR Korea	0	<100	<1
India	29,007	3,860,000	386
Indonesia	635	52,000	25
Maldives	11	<100	<35
Myanmar	3,817	510,000	1130
Nepal	383	33,000	143
Sri Lanka		7,300	40
Thailand	181,484	740,000	1,216
Total	215,474	~ 5,215,000	346

Due to the slowly emerging nature of the disease and lack of adequate surveillance and partly out of denial and partly due to competing national and political priorities, no country in Asia responded quickly to the HIV/AIDS epidemic. Though all countries today have established national AIDS control programmes and national committees, the degree of activities and true political mobilization varies considerably across the Region. Many areas of the Region are still facing poorly developed primary health care infrastructure and vast segments of the population do not have access to quality health services. As increasing numbers of people with HIV develop opportunistic infections, existing health systems will be further strained.

Behaviours that bring the highest risk of HIV transmission in the Region are unprotected sex between clients and sex workers, needle sharing among drug injectors and unprotected sex between men. Commercial sex provides the virus with considerable scope for spread. The limited national behavioural data collected in the region to date show that, over the past decade, the percentage of surveyed adult men who reported having visited a sex worker in a given year ranged from 5% in some countries to 20% in others. India and Vietnam are countries where levels of infection among clients and sex workers are rising. Few countries are acting vigorously enough to protect sex workers and their clients from HIV. Yet, it is from the comparatively small pool of sex workers first infected by their clients that HIV steadily enters the larger pool of still uninfected clients who eventually transmits the virus to their wives and partners. Although recent behaviour studies show that, in 11 out of 15 Asian countries and Indian states, when interviewed, over two-thirds of sex workers report using a condom with their last client, the need to boost condom use



remains. In Bangladesh, Indonesia, Nepal and the Philippines, for instance, fewer than half of sex workers report using condoms with every client.

As sharing injecting equipment is a very efficient way of spreading HIV, prevention programmes among injecting drug users is a top priority. In Myanmar, Nepal, Thailand and Manipur in India, more than 50% of injecting drug users have acquired HIV. Recent surveys reveal that 55% of male injecting drug users in northern Bangladesh shared their injecting equipment in the week prior to being questioned.

Indonesia - the world's fourth-most populous country - offers an example of how suddenly a HIV/AIDS epidemic can emerge. After more than a decade of negligible rates of HIV, the country is now seeing infection rates increase rapidly among injecting drug users and sex workers, in some places, along with an exponential rise in infection among blood donors (an indication of HIV spread in the population at large). HIV infection in injecting drug users was not considered worth measuring until 1999/2000, when it had already reached 15%. Within another year, 40% of injectors in treatment in Jakarta were already infected.

Thailand, the first country in Asia to report HIV infection and then experience an explosive epidemic, is now seeing a decline in the number of new infections due to an aggressive multisectoral national AIDS programme.

THE SPREAD OF HIV

There are no simple explanations as to why some countries are more affected by HIV than others. Poverty, illiteracy and engaging in identified risk behaviours account for much of the epidemic; in this context, given their role in society, women are especially vulnerable in South-East Asia Region. While women are estimated to constitute 40% of all persons infected with HIV worldwide, recent evidence points to a faster rate of infection among women than men. People who are infected with HIV often have no symptoms of disease (see Fact Sheet 1) for many years and can infect others without realizing that they themselves are infected. Much still needs to be done to ensure better tracking of the epidemic and to find better prevention strategies and care for people living with HIV/AIDS.

USING EPIDEMIOLOGY

It is important that nurses and midwives understand the epidemiological statistics for HIV and AIDS at the local, national and global levels. Understanding these figures helps to persuade decision-makers about the magnitude of the problem while also enabling them to make informed decisions about the allocation of resources for the care and prevention of HIV.

Incidence: refers to the number of *new cases during a given time period*, e.g. *the number of new AIDS cases presenting each month or year, or the number of new HIV infections being detected during a specified period of time.*



Prevalence: means the total number of specific conditions in existence in a defined population at a precise point in time, e.g. the number of AIDS cases or number of HIV infections *at the end of the year*.

Surveys to find out HIV prevalence are not cost-effective. WHO recommends sentinel surveillance as the principal methodology for collecting information. Sentinel surveillance is the systematic collection and testing of blood from selected populations at specific sites for identifying trends in HIV prevalence over time and place.

The other sources of data collection include the national HIV/AIDS control programme, visiting health centres involved in testing and counselling people. Visiting hospitals (to assess the number of in-patients who are HIV-positive), visiting STI services, blood transfusion services and other facilities where people go to access HIV-related care also would provide further epidemiological information.

QUESTIONS FOR REFLECTION AND DISCUSSION

- How many people in your state/country are now estimated to be infected with HIV? (prevalence)
- How many new infections have been reported in your country last year? (incidence)
- What is the ***commonest mode of HIV transmission in your country?***
- How many AIDS cases have been reported in your country so far?
- How might you begin to collect this information if local and national statistics are not available?
- How would you use this information?
- How would you collaborate with others to utilize this information to develop and manage prevention and care initiatives?

Additional Reading

AIDS epidemic update, December 2001,
UNAIDS/01.74E WHO/CDS/CSR/NC/2001.2 [Internet: <http://www.unaids.org>]

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Beyond 2000: Responding to HIV/AIDS in the new millennium (2001) WHO-SEARO

Women of South-East Asia - A Health Profile (2000) WHO SEARO

HIV/AIDS in Asia and the Pacific Region, (2001) ISBN 929061 158 8



FACT SHEET 3: STRATEGIES FOR PREVENTION OF HIV

- **Introduction**
- **Sexual transmission**
- **Prevention of sexually transmitted HIV**
- **Blood transfusions**
- **Minimizing the risk of HIV infected blood transfusions**
- **Injecting drug users and other skin piercing practices**
- **Other mood altering drugs**
- **Principles and strategies for prevention**
- **Questions for reflection and discussion**

INTRODUCTION

There are three major routes of transmission of HIV infection:

- Sexual transmission
- Blood: transfusions of blood or of blood products, using skin-piercing instruments or injecting equipment that are contaminated with HIV (including needle sharing for IDUs) (Fact Sheet 1)
- Transmission from mother to child during pregnancy, labour, or following birth through breastfeeding (Fact Sheet 10).

This Fact Sheet will attend to prevention through sexual transmission, blood transfusions and injecting drug use.

There is ample evidence globally that well-designed prevention programmes can reduce the incidence of HIV. In societies where services and programmes were in place before the epidemic, the creation of new initiatives and the reorientation of existing initiatives led to a gradual decline in the incidence of HIV by the mid-1990s. A similar trend is observed in some countries of our Region, as a result of rigorous prevention efforts supported by high level of commitment, leadership and resources availability.

However, prevention is a very complex challenge. Some prevention strategies need to be addressed at the greater society (or macro) level, such as strengthening or changing government policies, modifying laws, and enforcing new laws or human rights policies. Other prevention strategies must address the behavioural, social and cultural context (the micro level) of the individual. At both the macro and micro level, policies, programmes and practices should address both harm reduction and prevention of HIV.



At the macro level, governments and governing bodies have to be aware of the magnitude of the HIV epidemic in their country, and be mobilized to face this challenge. Nurses and midwives can play an important role in promoting such awareness. However, it is at the micro level, where behavioural, social and cultural influences have the most affect on communities, families, and individuals, that nurses and midwives can make the greatest contribution to HIV prevention. Although HIV prevention and harm reduction have been separated into challenges at the macro and micro level, in practice, they are interdependent and closely related

Thailand's 100 % Condom Programme

The government introduced this innovative programme in 1989, realizing that information alone, while important, would not have been sufficient to prevent the rapid spread of HIV. It was observed that sex workers knew about AIDS and wanted their clients to use condoms, but were unable to enforce this. In addition, brothel and bar owners often pressured sex workers to meet their clients' demands even if it meant not using a condom.

The authorities sought the cooperation of the brothel owners, trying to persuade them to have their workers use condoms in all encounters, and if the customer refused, then to withhold services from them. An important part of the programme was to ensure that all owners of sex establishments in a particular area implemented the policy at the same time, so that customers could not threaten to go elsewhere.

Meetings were arranged in each province between health officers, police and local authorities and all sex establishment owners. The owners were educated about the severity of AIDS and the current situation in their province, and were urged to instruct their workers to use condoms, which would have been provided by the Ministry of Public Health free of charge. They were also told that condom use would be monitored and that penalties for not complying include temporary or permanent closure of their establishments.



Condom use was monitored through interviews with male clients at STI clinics, collecting information from STI clinics outside the area, monitoring STI among sex workers, and monitoring the number of condoms provided to each establishment. The results have been highly encouraging. From an average 14% condom use among sex workers in 1989, the percentage increased to over 90% in 1995 and has remained stable since.

According to Dr Wiwat Rojanapithayakorn of the department of Communicable Diseases Control, Ministry of Public Health, the 100 % condom programme has succeeded because it concentrated on a limited goal - the use of condoms in commercial sex with the exclusion of questions on morality or the elimination of prostitution. "Other countries would do well to consider this aspect when drawing up their own programmes" says Dr Wiwat. "However, some particularly Thai conditions also contributed to the success, such as the existing strong infrastructure for STI services and the policy of tolerance and monitoring of prostitution". The programme was accompanied by a mass awareness campaign during a period of strong commitment from the Royal Thai Government, both of which were integral to the success of the 100 % condom programme.

From AIDS Watch, News from WHO South-East Asia Region on STIs and AIDS

SEXUAL TRANSMISSION

The most common form of HIV transmission (as well as other STI transmission) is through sexual intercourse or contact with body fluids such as blood, semen, or cervical and vaginal fluids transmitted from any infected person to his/her sexual partner, whether it be man to woman, man to man or woman to man. HIV transmission through sexual contact can occur vaginally, anally or orally.

Man to Woman Transmission

Man to woman transmission, usually from a single partner, is now the most common form of HIV sexual transmission. Women (and to a lesser extent men) who remain faithful in their partnership, contract HIV when their partner has sexual contact with an HIV-infected person outside (or before) their relationship. Although this is the most common form of transmission, women still suffer more stigma, discrimination, and isolation (Fact Sheet 7) than their male partners. As a result, there is often denial or a "conspiracy of silence." Acts of violence may also be directed toward the woman (Fact Sheet 10). In addition, other STIs, which often go undiagnosed in women, contribute to a higher rate of HIV transmission.



Man to Man Transmission (Men who have sex with men: MSM)

Unprotected penetrative anal sex carries a high risk of HIV transmission, especially in the receptive partner. This risk is several times higher than vaginal intercourse because the lining of the rectum is thin and can easily tear, and even small lesions can allow the virus easy access. Worldwide, a large percentage of MSM are married, or have sex with women as well. These men often do not identify themselves as homosexual or “gay.” In addition, MSM is often stigmatized or criminalized, and therefore there is difficulty in reaching these men. The results are inadequate or inappropriate health care, and health promotion/preventive programmes.

Woman to Woman Transmission

Although theoretically possible, no case of HIV transmission from woman to woman has been reported so far.

PREVENTION OF SEXUALLY TRANSMITTED HIV

The safest form of prevention of sexually transmitted HIV is abstinence. However, in most instances, such practises are often not realistic. Barrier methods that prevent semen and other body fluids from passing from one partner to another are the next most effective preventive methods. These barrier methods also reduce the risk of STIs, however, they also act as a contraceptive. Such barrier methods include the male and female condom.

Male Condom

In every instance, the contact of STI patients with the health facility should be utilized to promote safer sexual behaviour and to educate patients on how to minimize or eliminate the risk of STI/HIV infection to others. They should be taught how to correctly use condoms.

The male condom is placed over the erect penis before penetration occurs. The condom then remains on the penis until after ejaculation when it should be immediately removed, knotted and discarded in a safe place such as a toilet, latrine, or in a safe disposal unit. It is vitally important that people are given accurate information and an opportunity to practise using condoms (individuals may practise using condoms on a model or other appropriate object). A new condom must be used for each sexual act. Condoms should be easily accessible for both men and women, and best distributed in places where a sense of privacy is increased and embarrassment is reduced. Wherever possible, free condoms should be available.

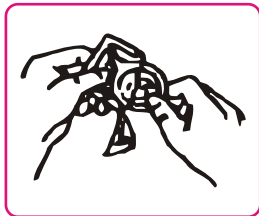
Information should include:

- How to place the condom on the erect penis, leaving space at the top to receive the ejaculate.

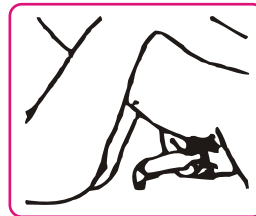


- How to unroll the condom down to the base of the penis,
- How to ensure that the condom remains in place throughout intercourse.
- How to remove the condom before the penis loses its erection.
- How to dispose used condom safely.

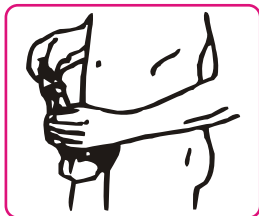
Proper Condom Use



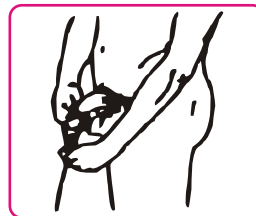
Carefully open the package so the condom does not tear. Do not unroll condom before putting it on.



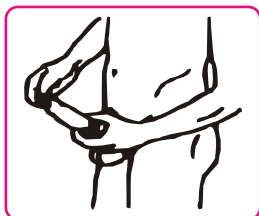
After ejaculation hold rim of condom and pull penis out before penis gets soft.



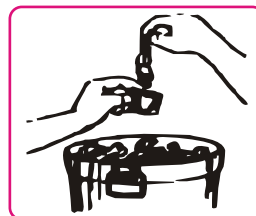
If not circumcised, pull foreskin back. Squeeze tip of condom and put it on end of hard penis.



Slide condom off without spitting liquid (semen) inside.



Continue squeezing tip while unrolling condom until it covers all of penis.



Tie and wrap the condom (in paper, if available) then throw in dust bin.



Always put on a condom before entering partner.



Burn or bury the condom with other trash. Wash hands.

It is important to emphasize that individuals may practice using condoms on a model or other suitable objects. A new condom must be used for each sexual act. Condoms should be easily accessible for both men and women, and best distributed in places where a sense of privacy is assured. Wherever possible, free condoms should be available.

The female condom is a soft yet strong polyurethane sheath, about the same length



as the male condom, only wider. A plastic ring at the closed end helps keep the condom fixed within the vagina during sex. A larger ring at the opening stays outside the vagina, spreading over the woman's external genitalia.

The female condom provides extra protection to men and women because it covers both the entrance to the vagina and the base of the penis, both of which are areas where STI sores make it easy for HIV to enter. Female condoms should only be used once and do not require a prescription. However, they are more expensive than male condoms and not as easily acceptable or accessible. Because the external ring is visible outside the vagina, using a female condom might require the agreement of both partners. However, because it can be inserted hours before intercourse, it can provide protection in situations where consumption of alcohol or drugs may reduce the chances that a male condom will be used. Less is known by the public about the female condom than about the male condom, and use of the female condom is less widespread. Therefore, there needs to be education for both health care workers and women in general.

The condom is inserted with the finger, making sure no damage is done to the polyurethane by finger nails or other sharp objects. The condom should then fit snugly against the cervix. During intercourse, it is necessary to guide the penis in or check that the penis has entered the condom and not entered the vagina outside the condom wall. The condom should be removed as soon as possible after male ejaculation, and disposed of in the same ways as the male condom.

Other Barrier Methods

Other barrier methods exist to help reduce the sexual transmission of HIV, but these are less reliable, and often not as readily available. The female diaphragm prevents semen from entering the cervix. However, it does not protect the vagina or the external genitalia from exposure to HIV. Special mouth condoms are available for oral sex. However, these are not readily available and are rarely used. Scientists are working on microbicides that would kill the HIV virus, but they are not yet available.

BLOOD TRANSFUSIONS

There is more than 95% chance that someone receiving blood from an HIV-infected donor will become infected with HIV. Millions of lives are saved each year through blood transfusions, even in countries where a safe blood supply is not guaranteed. The increased risk of HIV-infection among recipients of blood can be virtually prevented by a safe blood supply and by using blood transfusions appropriately. Difficulties hindering a safe blood supply include:

- Lack of national blood transfusion policy and plan
- Lack of an organized blood transfusion service
- Lack of safe donors or the presence of unsafe donors or paid donors
- Use of poor quality kits



- Lack of blood screening, and
- Unnecessary or inappropriate use of blood.

MINIMIZING THE RISK OF HIV INFECTED BLOOD TRANSFUSIONS

In many countries, regulations on blood donations, screening and transfusions exist, but are not adhered to. It is vitally important that regulations be established and rigorously enforced.

Three essential elements must be in place to ensure a safe blood supply:

1. There must be a national blood transfusion service run on non-profit lines which is accountable to the Ministry of Health.
2. Wherever possible, there should be a policy of excluding all paid or professional donors, but at the same time, encouraging voluntary (non-paid) donors to come back regularly. People are suitable donors only if they are considered to have a low risk of infection.
3. All donated blood must be screened for HIV, as well as for hepatitis B and syphilis (and hepatitis C where possible).

Screening

The majority of tests done for detection of HIV detect the presence of antibodies to HIV, not the virus (Fact Sheet 1). However, there is a window period (with the most sensitive tests about three weeks, and longer with less sensitive tests) when the test may provide a false negative result and the blood may be infected with HIV. Tests also exist (called HIV antigen tests), that detect the virus in the blood, but these are more expensive and of limited value. In many countries, correct screening of blood is still applied to some but not all blood donations. For example, in many developing countries, blood is screened in the capital city, and perhaps in one or two other larger towns, but not in rural districts. Lack of screening is most often due to lack of funding, and it is expensive to set up a national system to test all donated blood. Good organization, planning, and management as well as trained staff at all levels and the availability of good quality test kits are necessary.

Selecting Blood Donors

Paid donors very often come from the poorest sectors of society. They may be in poor health, undernourished and at risk of having infections that can be passed on through transfusions. In some places, paid donors sell blood in order to buy drugs to inject themselves, often using shared, unsterile equipment. In addition, paid donors are more likely to give blood too frequently, making their blood substandard, and increasing the possibility of damage to their own health. The practice of paying



donors usually goes hand-in-hand with the practice of selling blood to people who need it. Under such a system, poor families may not be able to afford vitally needed blood.

Replacement donors have also been found to be problematic. In the replacement donor system, families of people needing a transfusion are asked to donate the same quantity as that given to their relation. This blood may be used directly for the relative, or placed in the general pool. This practice is strongly discouraged because the “relation” is often a paid donor, and even if the person is a relative, there are doubts about the safety of the blood, as normal criteria for selecting donors cannot be applied.

Therefore, the safest type of blood donor is the voluntary, unpaid donor. Such donors give their blood for humanitarian reasons and are more likely to meet national criteria for low-risk donors. Every effort should be made to educate, motivate, recruit and retain low-risk, unpaid donors.

Avoiding Unnecessary or Inappropriate Transfusions

Unnecessary transfusions increase the risk of transmitting HIV, especially in places where there is no adequate screening programme. Additionally, unnecessary or inappropriate transfusions can create a shortage of the blood supply, which in turn encourages professional donors to become more active, thus reducing the safety of the supply.

Doctors and other health care workers should be educated to avoid prescribing inappropriate transfusions. Blood substitutes should be given where appropriate. In addition, the underlying cause for the blood transfusion should be considered. For example, blood transfusions are often given for anaemia. Instead, the underlying cause of the anaemia should be investigated. Anaemia may be due to malnutrition, slow blood loss, and to infections such as malaria. Blood is often needed during complications accompanying childbirth. However, providing proper care for women before, during and after delivery can decrease the need for blood transfusions.

Creating a National Blood Transfusion Service

A national blood transfusion service means making all transfusion centres and blood banks part of a national network accountable to the Ministry of Health. This service must be developed within the framework of the country's health service, and must have an adequate budget and trained staff. There must be a national system of regulations, and regular, independent monitoring of the blood transfusion service. There is no guarantee that blood can be 100% free of HIV. However, with political commitment, good organization, sufficient funding and donation of blood from low-risk, voluntary, non-paid donors, the risks can be minimized.



Body Organs and Tissue Transplantation

HIV transmission can also occur through transplantation of body tissue or organs from an HIV-infected donor, hence donors have to be tested for HIV antibodies.

INJECTING DRUG USERS AND OTHER SKIN PIERCING PRACTICES

This section focuses on HIV prevention in IDUs. Prevention of HIV infection through other skin piercing practices such as accidents at work, surgical interventions, tattooing, female and male circumcision, and scarification is described later (see Fact Sheet 11).

Injecting Drug Users

HIV can spread very rapidly among IDUs, and from them to their sex partners. However, this spread can be prevented or slowed significantly if interventions are designed which take into account specific local characteristics of the IDUs. IDUs are usually a hidden and stigmatized group, because their drug-usage behaviour is illegal. Often caught in a cycle of poverty and faced with the cost of the drugs, IDUs frequently engage in criminal activities such as theft and in high-risk behaviours for HIV infection such as commercial sex work and paid blood donation. The only effective responses to HIV transmission among IDUs to date are based on the philosophy of harm reduction. Harm reduction is compatible with proven public health principles, and need not conflict with demand and supply reduction (law enforcement) programmes. Harm reduction approaches view drug use primarily as a public health rather than a law and order issue. Such programmes take into account:

Promoting Use of Sterile Equipment

The most common pathway for HIV transmission among IDUs is the sharing of non-sterile injecting equipment. Scarcity, or lack of access to safe injecting equipment, and legal sanctions against possessing injecting equipment, are the two main reasons for reusing or sharing needles and syringes. Other reasons include ignorance of the risks of HIV infection and prevention methods.

The two strategies that have proven effective are:

- The sale of needles and syringes at minimum prices through pharmacies or other outlets
- Needle and syringe exchange programmes.

These exchange programmes ensure that dirty syringes and needles are exchanged for sterile ones. In addition, if community acceptance of these programmes is to occur, then needles and syringes must be safely and discreetly disposed of after use, and must not pose a threat to the non-IDU community. A hierarchy of decision-making related to the prevention of HIV through intravenous drug use is recommended:



- Abstaining from all drug use
- Changing from the injection of illicit drugs to use of non-injecting drugs
- Using sterile needles and syringes
- Cleaning injecting equipment with bleach
- Not sharing injecting equipment
- Reducing the frequency of sharing, and the number of sharing partners
- Cleaning injecting equipment with bleach
- Reducing the frequency of injecting drug use

This hierarchy of decision-making can be a useful framework to consider HIV prevention programmes. However, it should be noted that people do not fall neatly into any one of these categories. For example, a person may regularly engage in a needle and syringe exchange programme, but, because of unforeseen circumstances, find him/herself sharing used injecting equipment. This hierarchy also assumes that there is collaboration between the principles of public health (i.e. safe injection practices) and law enforcement. This is often not the case. In order for HIV prevention programmes addressing IDUs to be effective, national and local policies must achieve a balance between their attempts to reduce the supply and use of illicit drugs and their efforts to decrease unsafe injection practices. The principles of harm reduction that have been proven effective in reducing HIV transmission in IDUs include:

- Education, especially peer education (Fact Sheet 13) and counselling (Fact Sheet 8);
- Promotion of the use of sterile injecting equipment for every injection; increasing the availability of equipment; removing barriers that prevent access to the use of sterile equipment (especially policing and legal barriers);
- Increasing drug treatment availability, accessibility and options;
- Increasing access to primary health care, particularly through services designed to be “friendly” to, and appropriate for, the IDU community;
- Research and education performed in collaboration with the affected community.



OTHER MOOD ALTERING DRUGS

It is important to note that although IDUs carry the greatest risk of HIV transmission, taking other mood altering drugs can also promote risky behaviours. Alcohol and other legal and illegal drugs taken orally or as an inhalant can affect a person's decision-making abilities. In such circumstances, the use of condoms is less likely, and other behaviours and sexual practices that increase the risk of transmission of HIV/AIDS might occur.

POPULATIONS AT RISK

The vast majority of people who become infected with HIV are from vulnerable segments of the population. Children and youth (including street youth), women (Fact Sheet 10), prisoners, refugees, migrant workers, ethnic minorities, the military and people who live in poverty are some of the most vulnerable populations.

Youth

Over 50% of new infections with HIV are now occurring in young people ages 10-24. That is, 7 000 young people are infected with HIV every day with young women being infected and affected more frequently than young men (Fact Sheet 10).

The reasons for these alarming figures are very complex. The life situations of many young people may contribute to infection. They may be gay or bisexual youth, use alcohol or drugs, have been sexually abused, or live on the margins of society. Many live on the streets, where violence, abuse, and drug use (particularly intravenous drug use) are common. In addition, young people often feel invincible, and do not consider themselves to be at risk for HIV or any other life threatening situations. Peer pressure is another factor leading to increased risky behaviour.

Women

Women are biologically more susceptible to HIV infection than men. Male to female transmission of HIV is 2-4 times more efficient than female to male, as semen has much higher concentration of HIV than vaginal fluids have. Adolescent and young women are especially vulnerable to HIV infection and other STIs, physiologically and socially. Physiologically, they are more prone to infection due to the vulnerability of the reproductive tract (lower production of vaginal mucus that can act as a barrier to infective agents). Socially, young girls are more vulnerable to violence, abuse and increasingly sought after by older men as they are perceived to be less "risky" and unlikely to carry HIV. The patterns of early marriage and initiation into sexual activity common in some countries of the South-East Asia Region expose women to the risk of HIV infection at a time when they are particularly vulnerable. Women's limited access to education and income earning, unequal status between women and men and double standards in norms governing sexual behaviour combine with biological factors to increase women's risk of HIV infection (see Fact Sheet 10).



Infants

Mother-to-child transmission accounts for most HIV infections in infants (Fact Sheet 10).

Prisoners

Prisoners are often injecting drug users before they enter prison. They continue (or begin) this practice while in prison, often with shared unsterilized needles and syringes. They may also be tattooed with shared, unsterilized equipment. In addition, they may have unprotected penetrative sex with other men.

Refugees and Migrant Workers

Poverty, drought, flood, earthquakes, and war or civil strife cause many people to leave their homes and communities. These people end up in special camps where there is increased danger of HIV transmission. Blood transfusions are often required in large numbers, especially during times of war. Social systems and ties disintegrate and unprotected sexual contact and prostitution are common. Refugees, particularly women and children, are highly vulnerable to sexual violence, rape and drug trafficking. Where drug injecting occurred before the emergency, it is likely to continue in the camps where the frequent sharing of injecting equipment increases the risk of HIV infection.

Military Personnel

People in the military (mostly men) are separated from their homes, communities and social support networks and are often placed in positions where they can exert considerable control over others. This situation often leads to violence and abuse (physical and sexual) of the people they are charged with protecting. In such circumstances, HIV transmission is common.

Ethnic Minorities

Like women, youth and children, people who are part of a visible minority are particularly at risk of HIV infection. These people often have limited social support, live on the margins of society, are poor, less educated, with little or no political representation. Such people have limited power or control, and are vulnerable to abuse, violence, and sexual exploitation. In addition, injecting drug use is common, often involving the use of unsterilized shared equipment.

Poverty

Poverty is the single common factor related to the transmission of HIV. People who are economically deprived usually have little access to education, social and health care services, and other forms of social and financial support. As a result, these



people are often forced into becoming sex workers or in exchanging sex for food and supplies. Drug trafficking and injecting drugs with shared, unsterilized equipment is also common. Also, poverty often leads people to sell their blood, which can be infected with HIV, for transfusion.

Principles and Strategies for Prevention

Prevention programmes have to take into account strategies that must be addressed at the macro (national/regional) level, and those requiring change at the micro (community) level. At the macro level, public health policies and law enforcement must focus on harm reduction. National and local policies must be developed and enforced that promote the reduction in HIV transmission. Where there is potential for law enforcement and public health policy to conflict (for example, prevention programmes for IDUs), then partnerships must be forged to overcome these difficulties. At the micro level, the behavioural, social and cultural context within which people live must be taken into account. Strategies to promote the prevention of HIV transmission include:

Peer Support and Education

It has been widely documented that behavioural change is most likely to occur if peers educate and support each other (See Fact Sheet 13). Youth programmes that are run by youth, women's associations, groups involving street children, refugees, and IDUs, are all effective in promoting practices and behaviours that lead to reduction in HIV transmission. Frank discussions about sexual practices, drug taking, and other risky behaviours are more likely to be explored and understood within these safe environments. It is important to note that these groups should be run by and for their particular populations. There are many powerful examples throughout the world of peer involvement in prevention strategies. Nurses and midwives can play an important role in facilitating the formation of these groups and providing expert knowledge where necessary. See Fact Sheet 9 for effective educational strategies.

Involving PLHA

People living with HIV/AIDS are often the best advocates and activists for social and behavioural change. The personal story of someone living with HIV presents a powerful message. These messages can mobilize people and resources, and thus initiate successful prevention programmes. In addition, involving PLHAs in various prevention programs helps to ensure that they are relevant and meaningful to the different population groups.

Combining Resources

The combination of counselling, education, support, care services, and resources is necessary to provide a holistic continuum of prevention and care (Fact Sheet 4). For example, STI, antenatal, family planning, home care, hospital care, and community



care, as well as other resources and services, can be combined to provide a comprehensive programme. In this way, programmes and services can be combined that address the various modes of HIV transmission without the stigma and discrimination often associated with HIV specific programmes.

Forging Partnerships

Governments, policy makers, law enforcement agencies, health and social service agency personnel, NGOs, religious leaders and religious groups should join together in preventing HIV transmission. Nurses and midwives can play a central role in advocating for, and creating and participating in, such partnerships.

Cultural/Religious/Social Sensitivity

There is no single programme that will be relevant, meaningful, and effective for all people. Prevention programmes must be sensitive to the local customs, cultural practices, religious beliefs and values, as well as to other traditional norms and practices. However, where such beliefs, values and practices conflict with the prevention of HIV (e.g. circumcision, scarification, sexual abuse of children), then these must be challenged. Nurses/midwives can play an important role in supporting local practices and traditions while also challenging those practices that cause HIV transmission.

Facilitating Empowerment

Involving individuals, groups, and communities in addressing their own health concerns and finding solutions to their problems promotes empowerment. People who are empowered are more likely to implement effective HIV prevention programmes.

Challenging Denial

HIV is surrounded by a conspiracy of silence and denial. People are afraid to be tested for HIV or admit their HIV status because they fear discrimination, violence, stigma and isolation (Fact Sheet 7). Nurses and midwives can help support and counsel people to be HIV tested (Fact Sheet 8) and to be open about their HIV status. Only when HIV becomes a public concern, prevention strategies that address the complex and diverse issues related to HIV transmission can be addressed.

Combating Stigma, Isolation and Marginalization

Nurses and midwives have a responsibility to care for all people, regardless of their health or social status (Fact Sheet 7). They can act as role models to others in helping combat stigma, discrimination and isolation of PLHAs. Prevention strategies will be more successful if HIV is treated like any other chronic illness.



Ensuring the Use of Universal Precautions

Nurses and midwives should play a central role in monitoring and ensuring that universal precautions are practised in their workplace (Fact Sheet 11). Maintaining quality assurance programmes and ensuring the availability of adequate supplies and human resources help promote a safe work environment. In addition, adequate care for the care provider is an important consideration.

Building on Success

Many groups, communities and individuals have been successful in improving their quality of life. The strategies they developed for this improvement can also be applied to prevention programmes. For example, if communities have been successful in lobbying for improved housing, these same lobbying tactics can be applied to HIV prevention programmes. In addition, people can learn from one another. Stories of successful HIV prevention programmes throughout the world should be shared with others so that they too may initiate similar programmes.

Respect for Human Rights

Nurses/midwives should advocate for vulnerable populations to ensure that their human rights are respected and not violated (Fact Sheet 6). Prevention programmes will only succeed where human rights are respected and maintained.

QUESTIONS FOR REFLECTION AND DISCUSSION

- What are the most common ways that HIV can be transmitted?
- Which populations are most at risk for HIV transmission? Why is this the case?
- What role could nurses/midwives play in HIV prevention within your local community?
- What role might nurses/midwives play in promoting behavioural changes in the society?
- What strategies and policies do you consider to be essential before effective HIV prevention programmes could be implemented?
- What role might you play in ensuring these strategies and policies are considered?



Additional Reading

HIV Prevention and Care: Teaching Modules for Nurses and Midwives, (1993)
WHO/GPA/CNP/TMD/93.3

The Public Health Approach to STD control. UNAIDS Technical Update, (1998)
UNAIDS Best Practices Collection

Flow-Charts on the Management of Sexually Transmitted Diseases, (2000)
WHO SEARO



FACT SHEET 4: CONTINUUM OF CARE

- **Introduction: Comprehensive care across a continuum**
- **Components related to comprehensive care**
- **Sites in the continuum of care**
- **Optimal professional service allocation for HIV/AIDS care**
- **Basic principles in continuum of care**
- **Integrating HIV prevention and care**
- **Linking services across the continuum**
- **Continuum of care checklist**
- **Questions for reflection and discussion**

INTRODUCTION: COMPREHENSIVE CARE ACROSS A CONTINUUM

Comprehensive care involves a network of resources and services providing holistic, comprehensive, wide ranging support PLHAs and their families. A continuum of care includes care between hospital and home over the course of the illness. Many issues need to be addressed before continuous care can be provided. There is a need for adequate resources (financial, supplies, services, staff, volunteers, government and community support) and to establish a network among them. Care must incorporate clinical management, direct patient care, education, prevention, counselling, palliative care and social support.

COMPONENTS RELATED TO COMPREHENSIVE CARE

The concept of comprehensive HIV/AIDS care across the continuum builds on HIV/AIDS care services in a team spirit and should include the following components:

- Voluntary counselling and testing (VCT) to facilitate an entry point in the continuum of comprehensive care.
- Establishing a site where, in privacy, people can come to learn and accept their HIV status which allows access to effective care and prevention interventions (Fact Sheet 8).
- Clinical management of symptomatic infection with early and appropriate diagnosis and rational treatment, nutritional support, discharge planning and referral to other service providers.



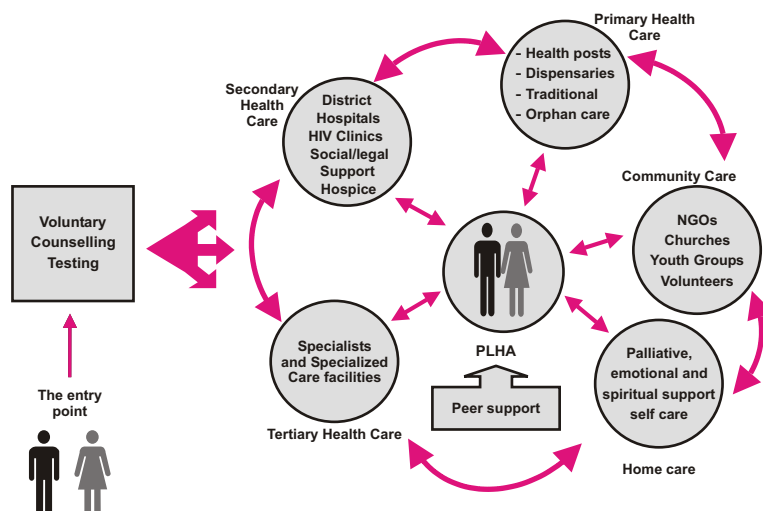
- Nursing care to relieve the physical discomfort of illness, hygiene and infection control promotion, palliative and terminal care, training of family members in home care and preventive education and condom promotion (Fact Sheets 5 & 6).
- Care at home and in the community, including the training of relatives and volunteers in the provision of care, treatment of common symptoms and palliative care.
- Promotion of good nutrition, psychological and emotional support, spiritual support and counselling.
- Formation of community support groups to provide emotional support to PLHAs and their care providers; Opportunities for developing income-generating projects could be explored in these groups.
- Eliminating the stigma of HIV/AIDS and developing positive attitudes in the community towards persons and families living with HIV/AIDS, including health care workers in both private and public health institutions and at work (Fact Sheet7).
- Social support or referral to appropriate social welfare services to meet the needs for housing, employment, legal support, and to monitor and prevent discrimination.
- Care for the caregivers and support of orphans and widows after the death of the primary breadwinner.
- Education on HIV/AIDS care and prevention for caregivers (for health workers, family members, neighbours and volunteers).
- Partnership-building among various providers (clinical, social, support groups) in order to be accessible through mutual referrals.

Some countries in the South-East Asia Region may not have adequate resources and systems in place to address all the above components. Nevertheless, we can try our best to work towards the goal of providing holistic and comprehensive care for the PLHAs.



The Figure below provides a visual representation of a conceptual framework of comprehensive care across the continuum.

The HIV/AIDS Continuum of Care



(From: WHO Geneva)

SITES IN THE CONTINUUM OF CARE

Home

Home care is the care given to sick people in their homes. This may include people caring for themselves, or care given by family, friends, neighbours, nurses, midwives, health and social services workers and others. Such care can be physical, psychosocial, spiritual and palliative.

Community

Community care is the care given by people within the community. This care may be given by nurses, midwives, trained volunteers, community health or TB workers, traditional healers, NGOs, local leaders, teachers, youth groups, community-based organizations (CBO) lay or religious leaders. By involving communities, the quality of life for people living with HIV/AIDS can be substantially improved. Nurses and social workers play a vital role in getting the communities involved in accepting and providing support for PLHA.

Primary Health Centre

Care for PLHA at primary health care facilities such as health centres or posts and dispensaries are usually provided by primary health care workers like auxiliary nurse midwives, community health and TB workers.



District Hospital

Secondary care for PLHAs is provided at district hospitals by doctors, nurses, counsellors, social workers and education services. Legal aid may also be provided.

National/Referral Hospitals

Tertiary care facilities provide specialized services in addition to those available at the district hospitals.

OPTIMAL PROFESSIONAL SERVICE ALLOCATION FOR HIV/AIDS CARE

Human resources	Health facility-based care	Community care
Doctor	XXXX	X
Nurse	XXXX	XX
Counselor/ social worker	XX	XX
Traditional practitioner/ community worker	X	XXX
Family	X	XXXX

BASIC PRINCIPLES IN CONTINUUM OF CARE

1. Integration of care with prevention for the provision of comprehensive, holistic system of HIV management (Fact Sheet 3).
2. Provision of non-discriminatory/judgmental care and prevention (Fact Sheet 7).
3. Maintaining confidentiality and respect for basic rights (Fact Sheets 1 & 8).
4. Provision of clinical and nursing care to alleviate symptoms of HIV and AIDS and prevention of opportunistic infections (Fact Sheets 5 & 6).
5. Provision of counselling and psychosocial support services. Active listening to PLHA and his/her family, and enable them to plan for their future (Fact Sheet 8).
6. Provision of support for home care (Fact Sheet 9).



7. Community mobilization of resources for cost-effective comprehensive and holistic care.
8. Provision of education, supervision and support for staff (Fact Sheet 8).

INTEGRATING HIV PREVENTION AND CARE

It is important to combine care with education and prevention strategies. Listening to and learning from the affected person/family is a vital component of care (Fact Sheet 8). Counselling services, STI clinics, maternal child health clinics and other health and social services can play an important role. In this way, voluntary testing and counselling, education about risk behaviours, and the distribution of condoms is possible. Such activities should be combined with counselling, clinical management and physical care. It is important to build on the care that people already provide for themselves within their communities.

LINKING SERVICES ACROSS THE CONTINUUM

Linking services is most crucial to provide comprehensive care that meets the needs of PHLAs in hospitals, health centres, in the community and at home. It is essential to focus on the benefits that collaboration with other partners can bring. This can help develop a pool of skills in a particular group of service providers who can then be available to provide training and support. Some groups may focus only on one aspect of comprehensive care, following which an effective referral network should be developed to make their services available to others.

The delivery of comprehensive care across the continuum assumes that the following support systems are developed and made operational for care provision to be effective and efficient in an integrated fashion:

- Appropriate IEC materials to promote care seeking and de-stigmatize the disease;
- Community mobilization to develop community care programmes;
- Partnership between government agencies and NGOs interacting with health, social and community-based health care activities;
- Referral procedures between hospitals and peripheral health care centres;
- Referral procedures between patients and their families and social support institutions or NGOs;
- Procedures for supervision of staff in health facilities and at peripheral levels including volunteers. Training of staff and volunteers is also essential.



The following are some of the steps that can be taken to develop and implement specific HIV/AIDS care services:

Planning

Step 1 - Obtain an estimate of the extent of HIV illness and AIDS

This information can be obtained from several sources e.g. the national HIV/AIDS control programme, hospitals, STI clinics, antenatal clinics and community interviews. Getting an estimate of the extent of HIV/AIDS will give an indication of the number of people who need care and will also help identify the area the care programme should cover.

Step 2 Conduct needs assessment

This involves assessing the needs of persons affected by HIV/AIDS. In order to plan comprehensive care across the continuum, it is important to know what people expect in communities where HIV/AIDS is a problem, whether there is demand for voluntary counselling and testing and how PLHAs are coping.

Step 3 - Identify existing services and resources

The health and social care services existing in the area and those that have the capacity to provide elements of comprehensive care should be identified. This will help in planning the referral possibilities and form the basis for future partnership and collaboration. Existing training materials have to be assessed as to their relevance. Supply systems of drugs, test kits and laboratory supplies need to be reviewed as to their adequacy and regularity. Staff willing to be involved in AIDS care need to be identified. Other programmes for chronic care and or community-based care need to be explored for collaboration mechanism in order to ensure an integrated approach. For example, many TB patients will be HIV-positive and many people with HIV who are seeking care will either be having or will be developing TB. Therefore, close coordination with TB programme staff will be necessary for joint training, easy referral mechanism and common drug supply lines. Similarly, the existing community-based care programmes may consider including AIDS home care activities instead of setting up separate vertical programmes.

Step 4 - Mobilize resources

Depending on the overall objectives of the care programme, the resources required need to be mobilized. These include financial, personnel, supplies and materials. The possible sources of these include the government, (national HIV/AIDS control programmes and others), donors, charitable NGOs and the community. The interested collaborators can also be approached to share the burden of caring and to develop referral systems that are workable. Appropriate materials for training health staff and volunteers will need to be developed if none are available.



Step 5 - Define objectives, set priorities and prepare workplan

Setting up realistic objectives and targets for HIV/AIDS care activities will depend on the results of the four steps mentioned above .

At the planning stage, operational procedures with regard to discharge, referrals and networking mechanisms need to be formulated. As different staff members such as doctors, nurses, counsellors, social workers, pharmacists and different organizations such as community-based NGOs, organizations for PHLA, religious groups and others are involved in care, procedures relating to when and where to refer patients need to be clarified. This information needs to be accessible to all involved. Job descriptions need to be updated to reflect AIDS care activities such as counselling and to be approved by institutional authorities.

Deciding upon activities that require immediate attention or what needs to be carried out first is important. The order in which these are carried out will depend on the availability of personnel and resources. These can be started independently or integrated into the existing health care programmes or social services.

For selecting priority activities, consider the following criteria:

- The number of people with HIV infection and their families who will benefit from the activity;
- The feasibility of carrying out the activity;
- The relative ease with which an activity can be integrated into the existing health programme ;
- The availability of financial, human and material resources, and
- The extent of commitment from community leaders, decision-makers and health staff to carry out the activities.

It must be kept in mind that prioritization of activities across the continuum will ultimately help improve the extent and quality of health and social care for individuals living with HIV/AIDS.

Implementation

Step 1 Train staff

The current staff may not have the knowledge and skills to implement AIDS care activities in addition to their ongoing duties. Understandably, their attitudes may be affected by fear. Training through small workshops where all the staff are together as a team and regular updates of information on “what is new in HIV care” are essential. National HIV/AIDS control programmes, academic institutions and NGOs



active in this field need to be contacted to assist in these workshops.

One particular area of attention is refresher training on universal precautions and restoring confidence in caring for patients independent of their HIV status.

Step 2 Establish and ensure supply lines

Care for HIV/AIDS puts an additional burden on necessary supplies. Drugs for the prevention and treatment of opportunistic infections, test kits, condoms, and protective materials need to be made available through strengthening of existing supply lines. Close collaboration with staff responsible for supplies and involving them in a team approach need to be ensured.

Step 3 Follow the workplan

The workplan containing the following essential elements should be followed closely:

- Activity to be carried out
- Time frame within which the activity is to be performed
- Targets that are to be reached within the time frame
- Individuals made responsible for carrying out the activity

Wherever possible, these elements should be agreed upon by all the parties involved in the provision of these services so there are no delays or lapses in implementation.

Monitoring the Care Programme

Indicators for measuring the success of the continuum of care efforts need to be established at the start, and team members need to keep accurate records in order to assess the quality of care.

Indicators should specify:

- Defined target groups to be reached, e.g. people attending health clinics and hospitals; drug-using communities;
- Quantity (how much), e.g. how many patients, after being discharged, are cared for properly at home; how many demand VCT;
- Quality (how well) e.g. are people satisfied with the treatment provided for the relief of symptomatic illnesses at home;
- Time (by when), e.g. when is it appropriate to refer a patient to community-based volunteers;



- Staff satisfaction
- Laboratory procedures (quality control)

Appropriate indicators of improvement in care and social support services might include the following examples at various levels across the continuum:

Health institutions:

- Proportion of health staff trained to provide clinical/nursing management and counselling for HIV/AIDS.
- The number of condoms distributed to clients in the out-patient departments.
- Proportion of patients being referred to other social welfare services.

Home and community:

- Number of community volunteers who are trained to provide basic care and counselling in the home.
- Number of caregivers in the home who are trained in caring for the sick at home.
- Proportion of patients who are receiving appropriate care and support services at home

QUESTIONS FOR REFLECTION AND DISCUSSION

- How can a continuum of care be implemented in such a way that services are provided for the PLHA and his/her family where and when they are most needed?
- How can prevention and care be integrated across the continuum?
- How can the PLHA, the family or caregivers be directly involved in planning care?
- How can stigma and fear of HIV be addressed? What can you do to help change people's attitudes?
- What strategies do you consider to be necessary to sustain a continuum of care model?
- How can you ensure that patients are linked with other services and referred to other care options when necessary?



- If you are working in a situation where you have little support, how can you contribute to the continuum of care?

Additional Reading

Handbook on AIDS Home Care, (1996) WHO, SEARO,

Key Elements in HIV/AIDS Care and Support WHO/UNAIDS

Planning and implementing HIV/AIDS Care Programmes: A step-by-step approach, (1998) WHO, SEARO, SEA/AIDS/106.



FACT SHEET 5: NURSING CARE OF ADULTS WITH HIV-RELATED ILLNESS

- **Introduction**
- **Making a diagnosis of AIDS when HIV testing is unavailable**
- **HIV and TB: the dual epidemic**
- **Opportunistic infections and common treatments**
- **Antiretroviral therapy (ARV)**
- **Basic nursing care for PLHA with opportunistic infections**
- **Questions for reflection and discussion**

INTRODUCTION

Nursing care of the person with HIV-related illness is the same as the nursing care for any person who is ill. Consequently, all trained nurses/midwives are competent to care for patients with HIV-related illness, as the same principles of nursing practice apply. In addition, many of the health care problems PLHAs will present as a result of HIV infection will be familiar to nurses, because of their knowledge and experience of caring for people with other chronic, progressive diseases.

Almost all (if not all) HIV-infected people will ultimately develop HIV-related disease and AIDS. This progression depends on the type and strain of the virus and on certain host characteristics. HIV infects both the central and the peripheral nervous system early in the course of infection, often causing a variety of neurological and psychiatric problems. As HIV infections progresses and immunity declines, people become more prone to opportunistic infections and other pathological conditions. Opportunistic infections and AIDS-related cancers are those that can invade the body when the immune system is not working adequately.

Opportunistic conditions include:

1. Tuberculosis (see Fact Sheet 12)
2. Pneumonia (usually *Pneumocystis carinii*)
3. Recurrent fungal infections of the skin, mouth and throat
4. Gastrointestinal infections (Cryptosporidiosis)
5. Chronic diarrhoea with weight loss (often known as “slim disease”)
6. Neurological infections (Cryptococcal or tubercular infection may present as sub-acute meningitis)
7. Kaposi's Sarcoma
8. Pyrexia of Unknown Origin (PUO)
9. Neurological impairment



Many adults presenting with HIV-related illnesses may not be aware of their HIV status. In many cases, testing is not done. Reasons for not testing include: fear, stigma, other psychosocial factors, lack of resources to provide testing, or non-availability of HIV counselling and testing services.

MAKING A DIAGNOSIS OF AIDS IN ADULTS WHEN HIV TESTING IS NOT AVAILABLE

A case definition for AIDS is made in the presence of at least two major signs and at least one minor sign.

Major signs

- Weight loss greater than 10% of body weight over a short period of time
- Chronic diarrhoea for more than one month
- Prolonged fever for more than one month

Minor signs

- Persistent cough for more than one month (for people with TB, this cough would not be considered a minor sign of AIDS)
- Generalized itchy skin rash
- History of herpes zoster in the last two years
- Fungal infection of mouth and throat
- Chronic progressive or generalized herpes simplex infection
- Generalized enlarged lymph nodes

Please note: The presence of either generalized Kaposi's Sarcoma or Cryptococcal meningitis is sufficient for a case definition of AIDS.

HIV AND TB: THE DUAL EPIDEMIC

Studies are increasingly showing a close association between HIV and TB, each potentiating the effect on the other. Notifications of TB cases are increasing in areas having the highest prevalence of HIV infection. HIV infection is the single strongest risk factor for TB infection to become active disease. It is estimated that individuals co-infected with TB and HIV are 10-30 times more likely to develop clinical TB than those without HIV. Fortunately, anti-TB drugs are just as effective in HIV-infected individuals as in those not infected with HIV, and are considered cost effective, even in the poorest countries. The DOTS strategy provides cost effective treatment for TB. (See Fact Sheet 12) This programme, available in most countries throughout the world, claims to cure 95% of TB cases. In addition to treating TB, health workers should consider offering preventive therapy with isoniazid (INH) to people living with HIV according to national policy.



OPPORTUNISTIC INFECTIONS AND COMMON TREATMENTS

In most circumstances, a doctor will make the diagnosis of an opportunistic illness and prescribe treatment, but there may also be cases where nurses/midwives and other primary health care workers may have to work independently, particularly in rural settings. Therefore, it is useful for nurses and midwives to be familiar with the most common medical



treatments for HIV-related infections. Drugs prescribed for HIV-related illnesses must be considered in relation to those used for other health problems, especially problems likely to occur because of HIV, such as TB, other respiratory ailments and chronic diarrhoea. For example, an HIV-positive patient who is receiving TB treatment should not be prescribed thiacetazone (a TB drug still being used in some countries), because this can cause severe reaction in people with HIV. Antiretroviral therapy (if available) may have interaction with other drugs. It is important to check that any drugs prescribed for the patient will not interact with other drugs the person is taking.

The list of common medical treatments presented here is very superficial and reference to other resources on pharmaceutical treatments including the handbook “Standard treatments and essential drugs for HIV-related conditions” (WHO DAP/97.9) would be helpful. Other useful resources might include the national guidelines for the treatment of opportunistic infections developed by the national HIV/ AIDS control programme and or the ministry of health.

Tuberculosis: Isoniazid, rifampicin, pyrazinamide, streptomycin, ethambutol (See DOTS programme, Fact Sheet 12)

Septicaemia: Antibiotics

Pneumonia (usually caused by *Pneumocystis carinii*): This requires complex treatment. The first line of treatment is usually sulfamethoxazole and trimethoprim (which can also be used as prophylaxis). Later treatments might include pentamidine, prednisolone, dapsone, eflornithine and methylprednisolone. Simple pneumonia is treated with antibiotics.

Recurrent fungal infections of the skin, mouth and throat: Gentian violet application, polyvidone iodine and chlorhexidine mouth wash, and antifungal tablets and lozenges.

Other skin diseases: Calamine, topical steroids, antibiotics orally or topically



Unexplained fever: Aspirin, paracetamol

Chronic diarrhoea: Loperamide, diphenoxylate

Meningitis: Antibiotics depending on the type of meningitis.

Antiretroviral therapy (ARV)

Treatment of HIV infection includes the use of drugs specifically active on the virus itself. These drugs are called antiretroviral (ARVs) and they interfere at different levels of virus production. They belong to different classes depending on their mechanism of action. The presently available ARVs are designed to be active against two key viral enzymes: Reverse Transcriptase and Protease. The four classes of ARVs are: Nucleoside Reverse Transcriptase Inhibitors (NRTI) e.g. Zidovudine (AZT or ZDV), Nucleotide Reverse Transcriptase Inhibitors (NtRTI) e.g. Tenofovir (TFV), Non-Nucleoside Reverse Transcriptase Inhibitors (NNRTI) e.g. Nevirapine (NVP) and Protease Inhibitors (PI). e.g. Ritonavir (RTV)

The goals of antiretroviral therapy are:

- To suppress viral replication;
- To preserve or restore the immunologic function;
- To improve the quality of life, and
- To reduce HIV-related morbidity and mortality.

Antiretroviral therapy is a combination treatment, i.e. patients have to take at least two different anti-HIV drugs. The best combination is considered an association of three drugs usually belonging to two different classes.

Unfortunately, presently available ARVs are not yet the perfect solution for HIV infection. Patients have to take the treatment life long without interruption, from 4 to over 20 pills per day (divided in 2 to 5 administrations per day). Interactions with food can be present, i.e. some drugs need to be taken on empty stomach, while others need to be taken with food. Furthermore, these drugs can cause a wide array of side effects, some of which can be serious or life-threatening, therefore ARV treatment requires regular monitoring with laboratory tests and clinical examination for early detection of side effects.

The decision on when to start ARVs is mainly based on the clinical conditions of the patient, on the status of his/her immune system and on the level of viral replication. However, both the choice to start and the choice of the drugs with which to start will depend on factors such as the availability of ARVs, sustainability of the treatment, patients' willingness to start and to regularly continue the treatment, and on the national guidelines (if available). ARV is very expensive and unavailable to many PLHA worldwide.



A WHO publication “Scaling up antiretroviral therapy in resource-limited settings: Guidelines for a public health approach” (reference provided in the section on Additional Reading) provides comprehensive guidelines.

BASIC NURSING CARE FOR PLHA WITH OPPORTUNISTIC INFECTIONS

Nursing care of PLHA is the same as the nursing care for any ill person. Consequently, all trained nurses are competent to care for patients with HIV-related illness, as the same principles of nursing practice apply. In addition, many of the health care problems people will have as a result of HIV infection will be familiar to nurses because of their knowledge and experience of caring for people with other chronic, progressive diseases.

Common Nursing Interventions Required for HIV-related Illnesses

Problem	Nursing intervention
Diarrhoea	Prevent dehydration, encourage fluids and easily digestible food and ensure perianal skin care.
Fever and pain	Encourage more fluids, administer prescribed medicines for fever and pain.
Skin problems	Apply emollients, massage to improve circulation, local remedies and regular skin care to prevent sores.
Sore mouth and throat	Dyspnoea and cough
Mouth care	Teach relaxation techniques to reduce anxiety, use oxygen and medication as required and position the patient to make breathing easier.
Neurological impairment	Assess physical and cognitive status and provide appropriate care, e.g. if the patient is confused, speak in calm manner and repeat information/instruction.
Malnutrition	Ensure easily digestible foods, encourage high fat and protein diet.

Infection Control

With regard to infection control, the strict implementation of universal precautions is crucial since it is neither practical nor desirable to identify everyone who is infected with HIV or other infections such as hepatitis B. Universal precautions must be included in the current nursing practice as recommended by both the ICN and WHO. Adequate supplies, supervision and monitoring are required to ensure practice of universal precautions.

At the personal level, nurses must maintain good hygiene, always washing hands



before and after caring for the PLHA. They must ensure that linen and other supplies are well washed with soap and water. Rubbish should be burned or disposed of in leak proof containers. Contact with blood and other body fluids should be avoided and hands washed immediately after handling soiled articles (See Fact Sheet 11 on Universal Precautions).

Local Remedies

There are often local remedies that alleviate fevers, pains, coughs, cleanse sores and abscesses. These local remedies can be very helpful in alleviating many of the symptoms associated with opportunistic infections. In many countries, traditional healers and women's associations or home care programmes are collecting information about remedies that help alleviate symptoms and discomfort.

QUESTIONS FOR REFLECTION AND DISCUSSION

- What are some common symptoms which might lead you to consider the person could have HIV (where HIV testing is unavailable, or not accepted by the person)?
- What are some of the important reasons to treat active TB in an HIV-positive patient?
- What are some of the basic nursing care treatments for common opportunistic infections?
- What skills should nurses acquire for the management of PLHAs?

Additional Reading

Scaling up antiretroviral therapy in resource-limited settings: Guidelines for a public health approach. Executive Summary. WHO/HIV/2002.01

Scaling up antiretroviral therapy in resource-limited settings: Guidelines for a public health approach. WHO/HIV/2002.02

Guidelines for the Use of Antiretroviral Treatment in Adults and Adolescents with HIV/AIDS in the South-East Asia Region. SEA/AIDS/133

Standard treatments and essential drugs for HIV-related conditions, (1997) WHO DAP/97.9

Understanding and Living with AIDS: (1992) WHO, SEARO SEA/AIDS/110.



HIV Prevention and Care: Teaching Modules for Nurses and Midwives (1993)
WHO/GPA/CNP/TMD/93.3

Clinical Management of HIV/AIDS at District Level: (1993) WHO, SEARO,
SEA/AIDS/65

Guidelines for Preventing HIV, HBV and Other Infections in the Health Care Setting,
(1999) WHO, SEARO,

Handbook on AIDS Home Care: (1996) WHO, SEARO



FACT SHEET 6: CARE OF HIV INFECTED AND AFFECTED CHILDREN

- **Introduction**
- **Common symptoms of HIV infection in infants and children**
- **The course of HIV infection in infants and children**
- **Making a diagnosis of HIV/AIDS in infants and children**
- **Care for infants and children with HIV-related illness**
- **Basic nursing care for children with opportunistic infections**
- **Problems of children with HIV infection and their families**
- **Assessing the family's ability to care for a child with HIV and HIV-related illness**
- **Care of children affected by AIDS**
- **Questions for reflection and discussion**

INTRODUCTION

The United Nations Convention on the Rights of the Child in the context of HIV/AIDS has outlined the principles for reducing children's vulnerability to infection and for protecting them from discrimination because of their real or perceived HIV/AIDS status. This human rights framework can be used by governments to promote and address the best interests of children with regard to HIV/AIDS.

WHO/UNAIDS estimated that at the end of 2001, there were 2.7 million children under 15 years of age, worldwide, living with HIV/AIDS. More than 800 000 were newly infected in 2001, while 580 000 would have died due to HIV/AIDS.



Routes of Transmission in Infants and Children

Mother-to-child transmission (MTCT)

- Mother to the unborn child (*in utero infection*)
- Neonates during labour and delivery (intrapartum infection)
- Neonates, when exposed to infected maternal birth fluids
- Infants, after birth, through breastmilk (post-partum infection)



Blood transmission

- Transfusion with HIV-contaminated blood or blood products
- Use of non-sterile equipment in health care facilities
- Use of non-sterile equipment by traditional healers (surgeries, male and female circumcisions, scarification)
- Injecting drugs

Sexual transmission

- Sexual abuse
- Sexual initiation practices involving sex workers
- Child prostitution

THE COURSE OF HIV IN INFANTS AND CHILDREN

The majority of infected infants develop disease during the first year of life and have a high mortality rate. With recent research and new therapies (ARVs), there has been a significant improvement in child survival in countries where these treatments are available and accessible.

COMMON SYMPTOMS OF HIV INFECTION IN INFANTS AND CHILDREN

The signs and symptoms most commonly found in HIV-infected children are:

- Weight loss
- Chronic diarrhoea
- Failure to thrive
- Oral thrush (often recurs after treatment and can be the first indication of HIV infection.)
- Fever

HIV-infected children have an increased frequency of common childhood infections. In HIV-infected infants, the symptoms common to many treatable conditions, such as recurrent fever, diarrhoea and generalized dermatitis, tend to be more persistent and severe. Moreover, HIV-infected infants do not respond as well to treatment and are likely to suffer life-threatening complications. Enlarged lymph nodes and an enlarged liver are common in children infected with HIV. Opportunistic infections occur as the immune system becomes more affected, and most of these children have some type of neurological involvement, such as developmental delay or infection in the brain.

MAKING A DIAGNOSIS OF AIDS IN INFANTS AND CHILDREN

In infected women, the maternal HIV antibodies are passively transmitted across the placenta to the foetus during pregnancy (Fact Sheet 10). These



antibodies can persist in the infant for as long as 18 months. Consequently, during this period, the detection of HIV antibodies in infants does not necessarily mean that an infant is infected. A diagnosis of AIDS can be made in the presence of at least two major, and two minor signs from those listed below.

Major Signs:

- ✓ Weight loss or abnormally slow growth
- ✓ Chronic diarrhoea for more than one month
- ✓ Prolonged fever for more than one month

Minor Signs:

- ✓ Generalized lymph node enlargement
- ✓ Fungal infections of mouth and/or throat
- ✓ Recurrent common infections (e.g. ear, throat)
- ✓ Persistent cough
- ✓ Generalized rash

Please note: Confirmed HIV infection in the mother counts as a minor criterion.

CARE FOR INFANTS AND CHILDREN WITH HIV-RELATED ILLNESS

Most HIV-related illnesses are caused by common infections, which can be prevented or treated at home or in a health centre. However, the illnesses often last longer in HIV-infected children, and are slower to respond to standard treatments. The standard treatments are nevertheless the most appropriate treatments. The following general recommendations should be used in the management of HIV-infected infants/children and in teaching/counselling mothers and other caregivers.

Maintain Good Nutritional Status

In most countries of the developing world, HIV-infected mothers are still breastfeeding their infants. However, with the knowledge that HIV can be passed through breast milk, this practice might be changing. (Fact Sheet 10). In some countries, substitutes for breast milk may be recommended for infants of HIV-infected mothers. However, there needs to be safe and adequate supply of affordable breast milk substitutes, access to a clean water supply and adequate means to boil water and to sterilize feeding equipment. In some communities, where supplies and equipment are limited or unavailable, the risk of babies dying if not breastfed will be greater than the risk of passing on HIV. In countries where ARV is available, breast milk substitutes will probably be recommended. (Fact Sheet 10) Nurses and midwives are encouraged to refer to local policies and practices on nutritional counselling and breastfeeding. Regular growth monitoring (preferably every month) should be done



to monitor nutritional status. If growth falters, additional investigations should be done to determine the cause.

Immunization

All infants and children should be immunized according to standard schedules. The only exception is that infants with clinical symptoms of HIV infection should not be given tuberculosis vaccine (BCG). It is important that correct sterilization procedures for immunization equipment be strictly followed (See Fact Sheet 11 on Universal Precautions).

TB is one of the most common and deadly opportunistic infections and the HIV positive child is very susceptible to contracting this disease. Every effort should be made to ensure that TB prevention and treatment is available to family members.

Early Management of Infections

All infants with HIV antibodies should be treated vigorously for common paediatric infections (See Table below). The immune systems of children with HIV infection are often impaired, so these diseases may be more persistent and severe, and the children may respond poorly to therapy and develop severe complications. Consequently, the mothers of all HIV-positive infants should be encouraged to take their infants for examination and treatment as soon as possible whenever symptoms of common paediatric infections develop.

Paediatric infection	Treatment
Oral thrush (often recurs after treatment and can be the first indication of HIV infection)	Treat with gentian violet application; polyvidone iodine or chlorhexidine mouthwash; antifungal lozenges/tablets (depending on child's age)
Skin problems	Calamine, topical steroids, antibiotics orally or topically
Fevers	Paracetamol or aspirin for older children
Otitis media	Broad spectrum antibiotics
Sexually transmitted infections in the new born	Antibiotics such as benzylpenicillin, kanamycin, erythromycin and others have been found to be effective in treatment of syphilis, gonorrhea and <i>Chlamydia</i> infection in the newborn.



BASIC NURSING CARE FOR CHILDREN WITH OPPORTUNISTIC INFECTIONS

Nursing care for the HIV-infected child who has opportunistic infection is the same as the nursing care for any ill child.

Common nursing interventions required for HIV related illnesses

Problem	Nursing intervention
Diarrhoea	Prevent dehydration, encourage fluids and easily digestible food and ensure perianal skin care
Skin problems	Apply emollients, massage to improve circulation, local remedies and regular skin care to prevent sores
Fever and pain	Encourage more fluids, administer prescribed medicines for fever and pain
Sore mouth and throat	Mouthcare
Dyspnoea and cough	Position head and upper body to facilitate breathing, allow fresh air, use humidifier or vapouriser for symptomatic relief
Malnutrition	Ensure easily digestible foods, encourage high fat and protein diet

Local Remedies

There are often local remedies that alleviate fevers, pains, coughs, and cleanse sores and abscesses. These local remedies can be very helpful in relieving many of the symptoms associated with opportunistic infections. In many countries, traditional healers and women's associations or home care programmes compile information on local remedies which alleviate symptoms and discomfort.

Ensure the Child has Good Quality of Life

Most infants of HIV-infected mothers are not infected with HIV (Fact Sheet 10). In addition, many of those who are infected will have months of asymptomatic life. Some will live for years without developing symptoms. Every effort should be made by the members of the child's family and by the health care professional to help the HIV-infected child to lead as normal a life as possible.



Infection control

Good hygiene should be maintained. Hands must always be washed before and after care. It must be ensured that linen, nappies and other supplies are well washed with soap and water. Rubbish should be burned or disposed of in containers. Contact with blood and other body fluids should be avoided, and hands washed immediately after handling soiled articles. (See Fact Sheet 11 on Universal Precautions)

PROBLEMS OF CHILDREN WITH HIV INFECTION AND THEIR FAMILIES

After a child is diagnosed with HIV infection, the family goes through intense emotional trauma. Parents may have to face the problem of bonding with the child, so compromising child's care, love and affection, possibly resulting in developmental problems. Parents may require considerable time to resolve their grief and often go through the usual emotional reactions of shock, denial, guilt, anger, fear, loss, shame and self-sacrifice.

ASSESSING THE FAMILY'S ABILITY TO CARE FOR A CHILD HIV AND HIV-RELATED ILLNESS

The ability of a family to care for a child with HIV infection or related illness is affected by their socioeconomic status, parental status of health and their knowledge and attitudes about HIV infection. The following questions will help the health care worker to determine what care can be expected from family members and what care must be obtained from other sources:

- What does the family know about HIV infection? Do they know how HIV is transmitted (Fact Sheet 1) and how to prevent transmission? (Fact Sheet 3)
- Can the family acknowledge that the child is HIV-infected, in order to access appropriate services?
- What is the parents' state of health, including their emotional condition? Are they physically able to care for the child?
- Which individuals can offer support to this family? What is their state of health?
- Are they able and willing to help care for the child?
- What is the social service system like to support this family?
- What is the family's economic situation?



- What is the condition of their living space?
- What does the child eat? Is there a food shortage?
- Is clean drinking water freely available?

CARE OF CHILDREN AFFECTED BY AIDS

Children who do not have HIV themselves are affected when family members have HIV/AIDS. Families face increased poverty and stress because adults have to leave their paid employment, or are too sick to farm their land. Girls in particular often become the care providers for sick relatives and for their brothers and sisters. Children have to leave school to look for work or to care for other family members.

AIDS orphans, defined as children who have lost their mother or both parents to AIDS before reaching the age of 15, are predicted to number 41 million worldwide by 2010. Nine out of ten (90%) maternal orphans are presently living in sub Saharan Africa.

Children orphaned by AIDS can lose their rights to the family land or house. Without education, work skills or family support, children may end up living on the streets and become especially vulnerable, often being sexually exploited, and therefore at risk from HIV exposure. (Fact Sheet 10) They do not have information about how to protect themselves, and have poor access to health care. The magnitude of this problem will have to be addressed at the international, national, local, and community levels. Government, NGOs and other institutions and organizations will have to combine their efforts to provide effective programmes and strategies to care for children affected by AIDS.

Nurses can facilitate the care of orphan children by using strategies such as identifying NGOs and orphanages and advocating on behalf of the child, and help to influence policy changes to respect the rights and dignity of children.

QUESTIONS FOR REFLECTION AND DISCUSSION

- What are the most common symptoms in HIV-infected children? How can you treat these symptoms?
- What might lead you to suspect a child may be infected with HIV (without HIV testing)?
- Why is the blood test for HIV in infants not reliable prior to 18 months?
- What are some of the important nursing care practices to consider when caring for an HIV-infected infant/child? What are some of the important



nursing care practices to consider when caring for an HIV-infected infant/child?

- What kind of strategies might you consider as you work with a family who has an HIV-infected child?
- What role might you be willing to play in addressing the problems of orphan care?

Additional Reading

Clinical Management of HIV/AIDS at District Level (1998) WHO, SEARO, SEA/AIDS/65

Understanding and Living with AIDS (1992) WHO, SEARO

HIV Prevention and Care: Teaching Modules for Nurses and Midwives(1993)
World Health Organization, WHO/GPA/CNP/TMD/93.3

Handbook on AIDS Home Care, (1996) WHO, SEARO



FACT SHEET 7: HIV/AIDS: FEAR, STIGMA AND ISOLATION

- **Introduction**
- **Emotional, cultural, sexual, religious, and legal issues facing nurses and caregivers**
- **Compromised care**
- **Nurses' and midwives' moral and ethical responsibilities**
- **Strategies to improve care**
- **Questions for reflection and discussion**

INTRODUCTION

HIV/AIDS is a condition that continues to generate fear, misunderstanding, misinformation, and discrimination, and there are few nurses and caregivers in the world who have not been affected in some way by the disease. In addition, a few nurses and caregivers are also living with HIV. As one nurse commented, “We continue to hear stories of people with AIDS being shunned and isolated, forced out of their jobs or homes, refused medical and nursing treatment, stripped of their human and civic rights. And all for a disease that doesn't even spread through casual contact. That people already suffering should be subjected to such indignity is intolerable and even more so when it occurs in health care institutions by health care professionals who should know better.” (Report of the ICN Conference on HIV/AIDS, 1994 p.17).

Research throughout Asia reveals disturbing levels of discrimination in health care settings, workplace and schools as well as in the neighbourhoods and communities of those living with or affected by HIV/AIDS. In a study conducted in India, 100 % of respondents said that they experienced discrimination in healthcare facilities once the diagnosis was confirmed. A study in Thailand revealed that households with a HIV-positive family member faced discrimination at many levels. Family businesses were not patronized, children were avoided and discrimination persisted beyond the death of the affected family member. It is, therefore most important for nurses and midwives to set a good example to fellow workers and community members by being non-judgmental and compassionate while providing care for PLHA.

An HIV-positive woman took her sick child, also HIV-positive, to the hospital. She sat isolated in the corner from 3.00 pm in the afternoon of one day to 11.00 pm the next day. Her baby died in her arms because nobody would help her. “Nobody came to help, nobody”.

*Source: “She can cope” Gender and AIDS
NACO/UNAIDS, 1998*



EMOTIONAL, CULTURAL, SEXUAL, RELIGIOUS, AND LEGAL ISSUES FACING NURSES AND CAREGIVERS

Emotional Issues

- Fear of contracting HIV and becoming sick and dying from the disease.
- Nurses and midwives witness not only their patients, but also their friends and loved ones dying from AIDS.
- Nurses and midwives witness the fear, stigma, isolation, marginalization and discrimination that many PLHAs experience. Witnessing such attitudes leads some nurses/midwives to treat PLHAs in similar ways.
- Nurses/midwives who are infected with HIV may withhold this information from their colleagues for fear of discrimination, isolation and neglect.
- Many nurses and caregivers find it difficult to talk about sexuality, death, drug use, prejudices, morals and religious beliefs.

Cultural, Sexual, Religious, and Legal Issues

Cultural, sexual, religious, and legal influences often make it difficult to freely discuss sexual practices, preferences, sexual desires, the number and type of sexual partners, and the use of birth control. In addition there is often a “cloak of silence” related to sexual practices and illicit drug use. Such subjects are often taboo and associated with embarrassment, shame, guilt and rejection. Nurses and other caregivers may also experience these same feelings of embarrassment, shame, and guilt as they practise certain risk behaviours in their own personal lives.

The additional fear of HIV/AIDS as a fatal illness compounds the problem of discussing these difficult subjects. In some societies, the use of condoms is not sanctioned by the religious leaders. Finally, the cultural norms of silence regarding sexual practices, preferences and desires can be problematic. These sexual practices might include men having sex with men, sexual abuse, child abuse, and heterosexual intercourse.

Thus many dimensions of culture challenge HIV/AIDS prevention and care. Dr Uton Muchtar Rafei, Regional Director, WHO SEA Region appeals, “It is most important that we find ways and means of dealing with these issues within the framework of each country.”



In conclusion, experiences of fear, stigma, isolation, discrimination and marginalization related to HIV/AIDS come from:

- Misinformation and lack of information about HIV transmission (Fact Sheet 1); fear of contracting HIV;
- Fear of caring for PLHA when the nurse/midwife fears that she/he too may have the illness;
- Some religious teachings and social influences related to sexuality and birth control;
- Cultural norms of silence regarding sexual practices, preferences and desires;
- Legal issues related to the misuse of legal and illegal substances, particularly intravenous drug use.

COMPROMISED CARE

Negative attitudes, beliefs and values, or misinformation about HIV, significantly limit a caregiver's ability to provide effective, respectful and dignified care for PLHAs and their families.

Some documented negative behaviours of health care workers include:

- Condemning the PLHA (referring to or considering the PLHA as a “bad person” or “careless person”);
- Isolating or avoiding the PLHA because of embarrassment or not knowing how to handle the situation;
- Refusing to treat or care for the PLHA or his/her family;
- Reluctance to disclose one's own HIV-positive status to other health care workers for fear of discrimination, isolation, and condemnation;
- The inability to discuss sexual practices, preferences and desires because of embarrassment, shame or guilt;
- Ignoring or avoiding discussion and counselling about risky behaviours and HIV prevention and care;



- Inability or unwillingness to approach the PLHA and family in a non-judgmental, caring and supportive manner.

NURSES' AND MIDWIVES' MORAL AND ETHICAL RESPONSIBILITIES

In 1996, the ICN produced a document on **Reducing the Impact of HIV/AIDS on Nursing and Midwifery Personnel**. As part of this document, ICN stressed that nurses and midwives have a moral and ethical responsibility to care for all people, including those with HIV/AIDS. The ICN Code for Nurses affirms that “the nurse's primary responsibility is to those people who require nursing care”.

The ethical issues in HIV/AIDS prevention and care include:

- The ethical duty of nursing/midwifery personnel to provide care, and
- The responsibility of HIV-positive nursing/midwifery personnel to protect their patients.

In situations where HIV/AIDS and human sexuality cannot be discussed openly, nurses and midwives often feel embarrassed and uncomfortable about discussing sexual issues or may totally ignore topics during health education sessions. This behaviour perpetuates the conspiracy of silence.

In view of the serious consequences of HIV/AIDS, nurses and caregivers should be prepared to break with tradition and to accept and provide counselling and education about these topics. Nurses and mid-wives must be perceived as competent professionals, capable of discussing issues openly and confidently, and of acting fairly and compassionately. If nurses could become the role models for such open and compassionate behaviour, others may follow their example.

An important first step in attending to the care needs of PLHA would be to advocate for compassionate, dignified and competent care for our own HIV-infected colleagues.

STRATEGIES TO IMPROVE CARE

Looking Inward

Nurses and caregivers must examine their own beliefs, values, assumptions and attitudes toward HIV/AIDS. Recent documentation suggests that health care workers are some of the worst offenders in discriminating against, and refusing to care for, PLHA. Such behaviours are unacceptable. However, change will come about



through examining long-standing negative thoughts, feelings and behaviours. This can be done individually or with peer groups support. The questions posed at the end of this Fact Sheet provide a starting point for this personal and group exploration.

Education

The irrational and often exaggerated fears associated with HIV/AIDS (even by nurses and midwives) can be directly addressed through educational programmes based on sound medical, social and psychological knowledge. To be successful, such programmes must be sustained and supported over a period of time (See Fact Sheet 13). Knowledge about HIV/AIDS is constantly expanding, and nurses and caregivers must be continually updated through continuing education programmes and Fact Sheets such as these. They can then take on the important role of educating others. That is, they can advocate, not only for Universal Precautions (Fact Sheet 11), but also for universal tolerance and knowledge about HIV/AIDS.

Prevention

Prevention strategies will continue to be compromised if fear, ignorance, intolerance and discrimination against HIV-infected persons persist. Nurses and midwives have a responsibility to help to “normalize” HIV; this will facilitate open dialogue about AIDS, modes of HIV transmission and prevention without the negative emotions and attitudes.

Care

Respect and compassion for others is a prerequisite for effective and dignified care. Looking inward to examine and challenge long-held beliefs, values, assumptions and attitudes will go a long way to providing compassionate and respectful care. Health care provided with knowledge and compassion, in a setting of dignity and respect, helps to provide comfort with less misery and isolation.

QUESTIONS FOR REFLECTION AND DISCUSSION

- What fears related to HIV/AIDS do health workers have?
- How might these fears or misunderstandings affect a nurses's practice?
- How might nurses/midwives overcome these fears/misunderstandings in order to provide care, support, counselling, education, and advice in the prevention, control and care of HIV?
- How might a nurse influence others in their care of PLHAs and their families?



- How do you see the nurses' role in providing and promoting safe, moral and ethical care to PLHAs and caregivers/ families/ communities?

Additional Reading

On the Continuum of HIV/AIDS Care: Nursing Research and Practice Initiatives (Report of the ICN Conference on HIV/AIDS, 1994)

HIV Prevention and Care: Teaching Modules for Nurses and midwives, World Health Organization (1993). WHO/GPA/CNP/TMD/93.3

An Orientation to HIV/AIDS Counselling A Guide for Trainers (1994)
WHO, SEARO.



FACT SHEET 8: COUNSELLING AND HIV/AIDS

- **Introduction**
- **Pre-test counselling**
- **Issues of pre-test counselling**
- **Post-test counselling**
- **Continued counselling and support**
- **Care for the caregiver**
- **Steps to establish counselling services**
- **Questions for reflection and discussion**

INTRODUCTION

Although numerous studies suggest that good counselling assists people to make informed decisions, cope better with their health conditions, lead more positive lives, and prevents further transmission of HIV, there is little value placed on counselling in many communities. Consequently, counselling receives little, if any financial support. As a result, counselling services are often fragmented, with no designated time or place for counselling sessions. HIV/AIDS counselling is ideally provided by trained counsellors, but nurses and caregivers are often in the ideal position to provide counselling, advice, and support. However, when nurses and caregivers are busy, emotional caring and support are often overlooked, despite evidence that providing emotional support does not take any longer than not providing such care. Frequently, nurses and others indicate that they do not know how to provide counselling and emotional support, and therefore avoid this aspect of care.

If counselling is not valued by policy-makers and governments, it will be difficult for nurses, midwives and other health care professionals to value their roles as counsellors.

Counselling is defined as “a helping process where one person, explicitly and purposefully, gives his/her time, attention and skills to assist a client to explore their situations, identify and act upon solutions within the limitations of their given environments”.

Counselling is concerned with individuals, couples, families and groups. Counselling provides psychosocial support and strengthens the sense of individual responsibility needed if people are to build on new information and modify their lifestyles. This involves helping people to define for themselves the nature of the problem they are facing and then make realistic decisions about what they can do to reduce the impact of these problems on themselves, their family and friends. Therefore, helping people to achieve the confidence to make lifestyle changes is an integral part of the



counselling relationship.

This involves helping people to define for themselves the nature of the problem they are facing and then make realistic decisions about what they can do to reduce the impact of these problems on themselves, their family and friends. Therefore, helping people to achieve the confidence to make lifestyle changes is an integral part of the counselling relationship.



Counselling as a process can:

- Ensure passing-on of correct information
- Provide support at times of crisis
- Encourage change when change is needed for the prevention and control of infection
- Help clients focus and identify for themselves their immediate and long-term needs
- Propose realistic action suitably adapted to the different clients and circumstances
- Assist clients to accept and act on information on health and well-being
- Help clients to be well-informed and appreciate the technical, social, ethical and legal implications of HIV testing

Effective counselling requires:

- ✓ Self-awareness of one's beliefs, values, and assumptions;
- ✓ A respectful, non-judgmental attitude;
- ✓ Active listening, including accurate reflection of the issues or concerns;



- ✓ Asking supportive questions that raise important issues, in caring, non-judgmental ways;
- ✓ Awareness of one's verbal and non-verbal behaviours;
- ✓ Providing practical support, advice and information;
- ✓ Discussing options for care, prevention, and support;
- ✓ Encouraging patient and the family to make their own decisions;
- ✓ Creating a quiet, private atmosphere, and
- ✓ Assuring privacy and confidentiality.

Remember that good counselling skills are best learned through practice.

Active listening involves entering into the experience of the patient and trying to understand their circumstances. Accurate reflection means responding to the person, restating their concerns and highlighting the feelings expressed. Such practices lead the person to a deeper exploration of his/her fears, misunderstandings and experiences. Active listening and reflection on the part of the nurse or caregiver can often be sufficient for the PLHA to feel cared for and supported, and can lead to improvements in their ability to cope, make informed decisions, and in their overall quality of life.

PRE-TEST COUNSELLING

The aim of pre-test counselling

Counselling before the test should provide individuals who are considering being tested with the information on the technical aspects of screening, and on the possible personal, medical, social, psychological and legal implications of being found either HIV-positive or HIV-negative. The information should be given in a manner that is easy to understand and should be up to date. Testing should be seen as a positive act that is linked to changes in risk behaviour.

A decision to test should be an informed decision. Informed consent implies awareness of the possible implications of a test. In some countries, the law requires explicit informed consent before testing can take place; in others, implicit consent is assumed whenever people seek health care. There must be a clear understanding of the policy on consent in every instance, and anyone considering being tested should understand the limits and potential consequences of testing.



Testing for HIV infection should be organized in such a way that minimizes the possibility of information disclosure or of discrimination. In screening, the rights of the individual must be recognized and respected. Counselling should actively endorse and encourage those rights, both for those being tested and for those with access to records and results. Confidentiality should be ensured in every instance.

Issues of Pre-test Counselling

Pre-test counselling should be centred on two main topics: first, the person's personal history and risk of being or having been exposed to HIV (Box 1), and secondly the client's understanding of HIV/AIDS and previous experience in dealing with crises (Box 2).

Box 1: Assessment of risk

- Frequency and type of sexual practices, in particular, high risk practices such as vaginal and anal intercourse without a condom, or unprotected sex with commercial sex workers, and drug injecting;
- Being part of a group with known high prevalence or with known high-risk life styles e.g. IDUs, male and female commercial sex workers and their clients, prisoners, homosexual and bisexual men, and health care workers whose use of Universal Precautions (Fact Sheet 11) is erratic or incomplete;
- History of blood transfusion, organ transplant or administration of blood or body products, and
- Exposure to non-sterile invasive procedures, such as tattooing, scarification, female and male circumcision.

Box 2: Assessment of psychosocial factors and knowledge

- Why is the test being requested?
- What are the behaviour patterns or symptoms of concern?
- What does the person know about the test and its uses?



- What are the person's beliefs and knowledge about HIV transmission and its relationship to risky behaviours?
- Who could provide emotional and social support (eg. family, friends, etc)?
- Has the person sought VCT before? If so, when, from whom, for what reason and what was the result?
- Has the person considered what to do or how he/she would react if the result is positive, or if it is negative?

Preparation for Pre-test Counselling

Effective pre-test counselling will prepare the person for the test by:

- Discussing confidentiality and informed consent for the HIV test including providing an understanding of the policies governing consent.
- Explaining the implications of knowing one is or is not infected.
- Exploring the implications for marriage, pregnancy, finances, work, and stigma.
- Facilitating discussion about ways to cope with knowing one's HIV status (For example, has the person considered what to do or how she/he would react if the test is positive, or if the test is negative?).
- Promoting discussion on sexuality and sexual practices.
- Promoting discussion on relationships, with emphasis on the benefits of shared confidentiality between the person and his/her loved ones.
- Promoting discussion on sexual and drug related risk behaviours, as appropriate.



- Exploring emotional coping mechanisms and the availability of social support.
- Explaining how to prevent HIV transmission.
- Correcting myths, misinformation and misunderstandings related to HIV/AIDS

Benefits of pre-test counselling

In addition to facilitating informed decisions, pre-test counselling also provides opportunities in providing available services. Specific benefits of pre-test counselling include:

- Improved acceptance of HIV status and improved ability to cope.
- Empowerment, including greater involvement of PLHA.
- Facilitation of behavioural change.
- Reducing the risk of MTCT (Fact Sheet 10)
- Early management of opportunistic infections (Fact Sheets 5 and 6) and preventive therapy (Fact Sheet 9)
- Contraceptive advice, and other information and education (Fact Sheet 9)
- Early social and peer support
- “Normalizing” HIV/AIDS
- Instilling hope and addressing the quality of life
- Planning for future care (Fact Sheet 4), making a will (Fact Sheet 9) and orphan care (Fact Sheet 6)



In summary pre-test counselling should:

- Determine what the client understands about HIV and AIDS;
- Provide factual information as needed;
- Discuss potential implications of a positive and negative test result;
- Explain and obtain informed consent;
- Review the test procedures;
- Assess the clients ability to cope with positive results, and
- Establish a relationship as a basis for post-test counseling.

Once a decision has been made to take the test for HIV antibodies, arrangements should be made to prepare for post-test counselling.

POST-TEST COUNSELLING

It is important to put the client at ease and provide privacy. The result should then be discussed, including how the person feels about the result. Further information can be provided, though the person may be shocked, and may not fully understand all the information. In some circumstances, the post-test setting might provide the only chance to counsel this person. Thus, asking them to repeat the information just presented, or to have some basic facts written down might be helpful. It is important for the person to have time to reflect on the result and understand the next course of action. Ideally, couple and/or family counselling should be started at this time and further counselling follow-up arranged.

HIV-negative Test Result Counselling

It is very important to carefully discuss the meaning of a negative result (whether this was expected or not). The news that the result was negative is likely to produce a feeling of relief or euphoria, but the following points must be emphasized:

- Following possible exposure to HIV, the “window period” must have elapsed before the test results can be considered reliable. This means that, in most cases, a minimum of at least three months must have elapsed from the time of possible exposure before a negative test can be considered to mean that infection did not occur. A negative test result carries greatest certainty if at least six months have elapsed since the last possible exposure.



- Further exposure to HIV infection can be prevented only by avoiding high-risk behaviours. Safer sex and avoidance of needle sharing must be fully explained in a way that is understood and permit appropriate choices to be made.
- Other information on control and avoidance of HIV infection, including the development of positive health behaviours, must be provided. It may be necessary to repeat such explanations and for the counselor and the client to practise together methods of negotiating these with others, in order to assist the client in introducing and maintaining the new behaviour.

HIV-positive Test Result Counselling

When the test result is positive, the client should be told as soon as possible and as gently as possible. While giving this information, privacy and confidentiality must be assured. The client must be given time to absorb the news. After a period of preliminary adjustment, the client should be given a clear, factual explanation of what the news means. This is **not** a time for speculation about prognosis or estimates of time left to live, but for acknowledging the shock of the diagnosis and for offering and providing support. It is also a time for encouraging hope that achievable solutions can be found to the resulting personal and practical problems. Where resources are available, it may also be justifiable to talk about possible treatment for some symptoms of HIV infection and about the efficacy of new antiretroviral drugs. Important practical information for people with HIV infection must be provided.

After a positive result, the counselling relationship may enter a new phase. Crisis counselling as well as problem-solving counseling will be necessary. The pre-test assessment can be used to determine the best way to tell the client about the test result. How the news is accepted will depend on the client's personality, psychosocial circumstances, previous knowledge of HIV and cultural attitudes towards AIDS. The client must be told how to contact the counsellor during periods of severe stress. There should be some discussion of what happens if the employer or others learn that the client is HIV infected. All information previously given about safer sex, prevention of transmission and maintaining health must be repeated. Follow-up visits must be arranged, often on a routine basis.

How the news of HIV infection is accepted often depends on the following:

- The person's physical health. People who are already ill often have a delayed response, and can only absorb information when they grow stronger.
- How well the person has been prepared for the news (pre-test counselling).



- How well supported the person is, both in the community and by family and friends.
- The pre-test psychological condition of the person. Where psychological distress existed before the result, learning the result could make the distress greater.
- The cultural and spiritual values attached to AIDS, illness, and death. In some communities people might take a fatalistic attitude, whereas in other communities, AIDS is sometimes seen as evidence of antisocial or blasphemous behaviour.

Counselling and support activities need to address feelings of shock, fear, loss, grief, guilt, depression, anxiety, denial, anger, suicidal activity or thinking, reduced self-esteem, and spiritual concerns. In addition, social issues such as loss of income, discrimination, social stigma, relationship changes, and changing requirements for sexual expression need to be explored.

Stages a person goes through after positive result:



Shock



Denial



Anger



Bargaining



Fear



Loneliness



**Self
Consciousness**



Depression



Acceptance



Hope

CONTINUED COUNSELLING AND SUPPORT

The HIV-infected person and his/her family require further counselling and support following the initial meeting. Such support helps to improve their quality of life as well as enhance their ability to cope and make informed decisions about ongoing care. Such counselling and support might include encouraging the PLHA to join a peer support group to learn where and how to access services, to find educational



after the person's death. Where services exist, further individual counselling might also be beneficial. Such counselling might include discussions on safer sex practices, birth control counselling (Fact Sheet 3), and counselling and support during the antenatal, intra-partum and post-natal periods (Fact Sheet 10).

CARE FOR THE CAREGIVER

There is considerable evidence to suggest that nurses, midwives and other counsellors themselves need ongoing support and care, since caring for the sick and the dying is very stressful. Unless there is adequate education, supervision, counselling and other support services available for caregivers, the result can be “caregiver burnout”. What follows are some strategies to address these concerns.

STEPS TO ESTABLISH COUNSELLING SERVICES

The decision-makers should be convinced of the need and value of counselling services.

- Counsellors and counselling trainees should be selected appropriately. These people should have warm and caring personalities, be good listeners, be respected by others, and be motivated and resilient.
- Training workshops should be conducted, followed by supervised practice and ongoing training for the counsellors.
- Logistical support should be provided to counsellors
- Sensitivity to the location and time (privacy and confidentiality) of services should be shown. The time of services should address accessibility for women, men, youths, and couples. In addition, the sites where services are provided could be expanded to include maternal and child health clinics, hospital out-patient clinics, community based programs, and STI and TB clinics. These locations could help reduce the stigma attached to an exclusive HIV or STI clinic.
- Awareness of counselling services should be increased.
- Referral services should be established for follow up. This includes referrals to other counsellors, support services, treatment management, laboratory testing, antenatal care/breast feeding /family planning services, and orphan care.
- Clear counselling standards and protocols should be set up.



QUESTIONS FOR REFLECTION AND DISCUSSION

- What are the essential qualities of a good counsellor?
- What are the important elements to consider in pre test counselling?
- What are the important elements of pre and post-test counselling?
- What role might you play in setting up relevant, accessible, and acceptable VCT?
- How would you consider maintaining this service?
- What barriers might you encounter, and how would you consider overcoming these barriers?

Additional Reading

An Orientation to HIV/AIDS Counselling A Guide for Trainers, (1994)
World Health Organization, SEARO

HIV Prevention and Care: Teaching Modules for Nurses and Midwives, (1993)
World Health Organization, WHO/GPA/CNP/TMD/93.3



FACT SHEET 9: HIV PALLIATIVE AND TERMINAL CARE

- **Introduction**
- **Palliative care philosophy**
- **Challenges in palliative and terminal care of PLHA**
- **Palliative/terminal care for PLHA**
- **Caring for the caregivers**
- **Bereavement counselling**
- **Questions for reflection and discussion**

INTRODUCTION

This Fact Sheet includes information about palliative and terminal care. It addresses the principles and practices of caring for people living with an illness for which there is no cure. Palliative care is the combination of active and compassionate therapies to comfort and support individuals and families living with a life-threatening illness. During periods of illness and bereavement, palliative care strives to meet physical, psychological, social and spiritual needs, while remaining sensitive to personal, cultural, and religious values, beliefs and practices. Palliative care should start at the time of diagnosis and can be combined with therapies for treating opportunistic illnesses; or it may be the total focus of care.

Palliative care requires a team approach including the PLHA, the family, caregivers and other health and social service providers, and it considers the holistic needs of the PLHA. It includes medical and nursing care, social and emotional support, counselling and spiritual care. It emphasizes living, encourages hope, and helps people to make the most of each day. The palliative caregiver must treat the PLHA with respect and acceptance, acknowledge their right to privacy and confidentiality, and respond caringly to their individual needs.

Terminal care aims to improve the quality of life at the end of life, by relieving symptoms and enabling a person to die in comfort, with dignity and in keeping with their wishes.

PALLIATIVE CARE PHILOSOPHY

- Affirms the right of the individual and family to participate in informed discussions and make treatment choices
- Affirms life and regards dying as a normal process
- Neither hastens nor postpones death



- Affirms the right of the individual and family to participate in informed discussions and make treatment choices
- Affirms life and regards dying as a normal process
- Neither hastens nor postpones death
- Provides relief from pain and other distressing symptoms
- Integrates psychological and spiritual aspects of care
- Provides a support system to help PLHA live as actively as possible until death
- Provides a support system to help the family and loved ones cope during the person's illness and/or bereavement

With HIV/AIDS, there is a growing realization that comprehensive care must include care associated with death and dying. Caring for the PLHA in the terminal stages of AIDS puts a great strain on everyone involved. For individuals who choose to die at home, where resources are scarce, care for the dying has traditionally been provided by the community and family.

One of the most difficult aspects of caring for PLHA is deciding when to stop active treatment and to begin to prepare the person and his/her family for dying. In practice, the boundary between the two activities is often indistinct, with both terminal and interventional care continuing in tandem. The decision to stop treatment requires considerable skill and sensitivity. Whenever possible, the decision should be taken by health care professionals, the PLHA, family members and loved ones.

It is often difficult to decide when medical treatment should end and when palliative care might begin. Palliative care would begin when:

- Medical treatment is no longer effective, or the side-effects outweigh the benefits
- The PLHA says she/he does not want to continue aggressive therapy
- The body's vital organs begin to fail



The Principles of Palliative and Terminal Care

- Enhance patient/family control and the quality of life
- Provide practical support/advice for the PLHAs and their loved ones
- Provide adequate pain relief and symptom control
- Maintain the comfort and dignity of the individual
- Provide spiritual and emotional/grieving support for the PLHAs and their loved ones
- Prepare the PLHAs, their families and caregivers for death; this includes advice concerning avoiding any traditional death rites which could spread infection
- Ensure that appropriate provision is made for the children involved and their rights are respected
- Provide bereavement support to the family and loved ones following death

CHALLENGES IN PALLIATIVE AND TERMINAL CARE OF PLHA

HIV poses a unique set of challenges to the caregivers, the PLHA, the families, the communities and health and social service workers. These challenges include the following factors:

- AIDS may affect whole families when parents and children become infected.
- People who die of AIDS usually die at a young age
- The stigma and fear associated with HIV/AIDS often means that the illness and death are not openly discussed and that adequate preparations for death might not be made.
- Estrangement of family and friends often occurs. Sometimes the PLHA loses contact with family and friends due to conflicting values related to sexuality or lifestyle choices.
- Community and family support might be lacking because of the stigma, fear and isolation associated with HIV.
- The care of the terminally ill person is often left to the family (and to



women in particular), who are often both unprepared and untrained.

- The course of terminal care for the PLHA is unpredictable. Opportunistic infections and illnesses are often unpleasant and difficult to manage. Challenges can include: foul odour, chronic diarrhoea, vomiting, skin lesions, seeing the person in pain, dementia, confusion, aggression, and depression.
- Caring for someone who is dying at home is expensive. The caregiver must consider the loss of income, the cost of medical and pharmaceutical supplies, and the expense of a funeral.
- Problems or complications with inheritance can further increase the poverty of women and children.
- The physical and psychological burden of caring for PLHA may include feelings of powerlessness, helplessness, frustration, sleeplessness and exhaustion.
- The emotional burden for the caregivers of seeing a loved one dying is heavy.

Remember: An essential part of effective palliative care is the provision of support for caregivers and service providers. Such support will enable them to work through their own emotions and grief related to the care they are providing.

PALLIATIVE/TERMINAL CARE FOR PLHA

Care for the PLHA at the end stage of the illness might occur in a hospice or a special terminal care facility. In most cases, however, the PLHA will die at home. In some resource poor countries, dying at home is the only option. The primary concern in terminal and palliative care is to make the PLHA as comfortable as possible by providing medical, spiritual, emotional, practical, and psychosocial support both to the individual and to his/her loved ones. Even where resources are severely limited, good palliative care can be given. The decision to stop medical treatment must be made by the PLHA (if this is possible) and the family or loved ones, and in conjunction with the health workers. Care then shifts to make the dying person as comfortable as possible, and to prepare him/her emotionally and spiritually for death. Such care includes both practical and nursing care issues, as discussed below.

Practical Issues

The PLHA (if able) should make the choice about a suitable place to die. This choice



might include a hospice or terminal care facility, or his/her own home. In most instances, the person will remain at home to die. Hospice and terminal care centres usually have specially trained staff to care for both the person who is dying and their loved ones. If the PLHA remains at home, then the family, and other caregivers will require special training to provide appropriate terminal care for him/her.

The following considerations for providing good palliative/terminal home care will be dependent upon adequate resources. However, whenever possible, care should include:

- Providing health service support. The local health centre should be briefed about the person's condition, so that staff can provide the people caring for the PLHA with advice and appropriate medical supplies.
- Ensuring adequate community and family support. This will help reduce the pressure on the caregivers, who are usually the women in the family. It will mobilize relatives and friends to help in household or other work, and will provide companionship for the sick person. The health worker should discuss how to mobilize the support of local community leaders, NGOs, neighbours, and members of community or religious associations. This might be an important time to facilitate reconciliation with estranged family and/or friends.
- Placing the PLHA in a well lit and ventilated room that is quiet, comfortable, and yet close enough to the rest of the family to remain involved in family life.

Nursing Care Issues

Providing effective pain relief

The nurse can help the PLHA and the caregiver by providing the appropriate medications to control pain. Where adequate resources are available, even in the terminal stages of AIDS, the PLHA should be able to remain pain-free. Being pain free involves giving routine doses of a suitable analgesic.

Pain relief is a three-stage approach:

1. Simple medication e.g. aspirin or paracetamol may be given.
2. If pain relief is not maintained, codeine or dihydrocodeine (with or without non-steroidal anti-inflammatory drugs such as ibuprofen or diclofenac) may be given.
3. If the pain persists, morphine (with or without a co-analgesic) or synthetic



pethidine and fentanyl could be given. Some form of sedation such as diazepam might also be considered.

It is essential to maintain pain control. This means that the person might require more than the usually prescribed 3-4 hours regimen. Nurses and midwives should consult their local treatment protocols for pain relief for the terminally ill PLHA. Many AIDS patients have more than one pain related to different opportunistic illnesses; each needs to be diagnosed and treated. At this stage of the illness, there is no fear of patient addiction to medications; the overall concern is for patient comfort. Psychological and spiritual concerns related to HIV may make physical pain worse. These psychological and spiritual concerns should be addressed at the same time as treating the physical pain. Other nursing care measures might include placing a cool, clean, moist cloth over the painful site, or applying heat if necessary. Massage, local remedies, and deep breathing exercises might also help the patient to relax.

Keeping the patient nourished and hydrated

Diarrhoea can be a major problem, sometimes persisting for several months, with stools that may be mucoid and foul smelling with pus. Nourishment should be light and given at frequent intervals. Dehydration can be prevented by administering fluids such as water, unsweetened fruit juices, soup, rice water, and weak tea. If the person is vomiting, sips of water should be given frequently. In some circumstances, intravenous rehydration may be necessary. Medicines (see Fact Sheets 5 & 6) might also be prescribed. Universal Precautions (Fact Sheet 11) should always be followed when handling faecally contaminated articles.

Maintain basic physical care

This includes keeping the PLHA clean, dry, and comfortable. It is important to change the person's position frequently, and to keep the room well ventilated. Air freshener sprays, although expensive, are useful, as is the burning of incense or other herbal mixes. See Fact Sheets 5 & 6 for other suggestions for providing physical care for the PLHA.

Mental confusion or dementia

These affect many people with HIV-related illness. The individual may move clumsily and become unaware of what is happening around him/her. He/she may be forgetful and unable to think clearly. Their status of confusion may come and go, which can be very upsetting for the caregivers.

Those who are confused need constant attention and reassurance, and might also need to be restrained from hurting themselves. Dangerous objects (and medications) should be removed from their reach. Severe dementia may require sedation (consult local drug protocols).



Looking after a confused person is exhausting and distressing. Caregivers need to be encouraged to take turns in caring for the PLHA. Nurses and midwives should help the family understand that the individual's behaviour is not intentional. They must also ensure that adequate care for the PLHA is available. Medication lists should be reviewed regularly in order to assess whether some medication might be compounding the problem.

Severe skin abscesses or ulcers can become infected

Nursing care should include dressing the skin lesions, lancing boils, and keeping the area clean (See Fact Sheet 11 on Universal Precautions). In addition medications given locally, orally or by injection might be necessary (see Fact Sheet 5 & 6 for further treatment regimens). Nurses are advised to consult their local drug protocols.

Emotional distress is a common experience

Emotional distress can be experienced by the PLHA, the family members or other caregivers frequently, particularly, at the first disclosure of the individual's HIV status. Counselling can help in these situations.

Issues that might need to be addressed during counselling include:

Fear of death

Fear is a normal reaction and can make people angry, depressed, or aggressive. Caregivers should not give false reassurances, but should encourage the person to talk about their fears. Spiritual support might also be helpful.

Loneliness and depression

Sometimes when someone is dying, people stop coming to visit because they fear death, or do not know how to react. Such isolation can lead to a sense of loneliness and depression. People should be encouraged to visit (if the PLHA wishes). In some cultures, people will also need an opportunity to discuss their feelings about being with someone who is dying.

Feelings of guilt and regret

The PLHA may feel responsible for exposing his/her partner to infection, or may feel guilty for having brought shame to their family or friends. Failure to settle debts, fulfil ambitions, or attend to their responsibilities to children can all cause feelings of guilt, sorrow, and regret. A person may seek forgiveness or wish to discuss ways of resolving problems for which he/she feels responsible.



Spiritual support

This support can either come through an organized religion, or through the exploration of the PLHA's own spirituality, beliefs and values. The PLHA might have been cut off (whether by him/herself or by their community) from his/her religion. Caregivers should acknowledge a person's spiritual needs, respect their religious beliefs (or lack of them), identify an appropriate person who can provide spiritual support, and discuss whether the person wants any religious observances to be performed, including funeral arrangements, in the event of their death.

Making a will

A will helps to make possible what a person wishes to happen after his/her death. The surviving women and children are often left impoverished and unprovided for unless a will is made. The will must be made in accordance with local law.

Preparation for death

When death comes, it is important not to leave the dying person alone. Many people are very afraid of dying alone. Respect should be given to rituals, observances, and customs related to laying out the body. Preparation for dealing with the body after death is important (see Fact Sheet 11 on Universal Precautions).

CARING FOR THE CAREGIVERS

Family members, loved ones, caregivers and health care workers all need to be supported and cared for as they provide terminal care to the PLHA. Support groups, counselling (both individual and group), and logistical support are all helpful strategies to support the caregivers. The latter includes the provision of adequate resources (medical supplies, medicines, and personnel) to make effective terminal care possible. Emotional and spiritual support should also be available. The kind of support that caregivers need will vary. Acknowledging the need for such support and providing ways to access such support are essential. If such support is not available, the burden of care can become too great and caregiver exhaustion may follow.

BEREAVEMENT COUNSELLING

Families and friends often have little social support, or may have become isolated while caring for the PLHA. Bereavement support should be made available before the person dies, and for as long afterwards as people need it. People react to death in different ways, and need different types of support. For some, it can take months or years to come to terms with loss. Additionally, people's responses may be affected by the way the person died: for example, whether the PLHA died alone and in pain, or died peacefully, surrounded by loved ones. Those left behind often blame themselves if they think they could have done more.



Bereavement counselling should:

- Give people an opportunity to talk about events leading up to the death, about the death itself, and the observances and rituals immediately after the death;
- Reassure people that feelings of disbelief, denial, sadness, pain and anger are normal;

Allow people to express their feelings and concerns, especially if it is difficult for them to do this with friends and family, and

- Enable people to accept their loss and start to look to the future.

QUESTIONS FOR REFLECTION AND DISCUSSION

- What are some of the major issues that might get in the way of effective palliative care?
- How can these issues be overcome?
- What is the basic philosophy of palliative care?
- How can good palliative care be provided without the benefits of adequate financial and other practical resources?
- Why is making a will important?
- How can you help provide emotional support to PLHA, the caregivers and others (including yourself). Why is such support important?
- What are the essential characteristics of bereavement counselling? Do you think you could help conduct bereavement counselling sessions?

Additional Reading

HIV Prevention and Care: Teaching Modules for Nurses and Midwives (1993)
World Health Organization WHO/GPA/CNP/TMD/93.3

Handbook on AIDS Home Care, (1996) World Health Organization SEARO



FACT SHEET 10: WOMEN AND HIV AND MOTHER TO CHILD TRANSMISSION

- **Introduction**
- **The vulnerability of women**
- **Fostering empowerment**
- **Mother-to-child transmission of HIV**
- **Antenatal care**
- **Labour and delivery**
- **Infant feeding**
- **Post-natal care of the HIV-infected mother and her infant**
- **Questions for reflection and discussion**

INTRODUCTION

As of December 2001, over 17.6 million women worldwide have been infected with HIV since the start of the epidemic. Women account for 44% of the 40 million adults now living with HIV. Because of the particular vulnerability of women, the risk of women contracting HIV is rising worldwide. The sex ratio of AIDS cases in the South-East Asia Region is reported to be four males to one female.



AIDS prevention campaigns often fail women by assuming that they are at low risk, or by urging prevention methods that women have little or no power to enforce, such as condom use, abstinence and mutual faithfulness within a relationship (Fact Sheet 3).

Women continue to make strides towards equality with men. However, for millions of women, this is far from reality. These women are the most vulnerable to HIV infection.

THE VULNERABILITY OF WOMEN

Biological Vulnerability

Research shows that the risk of becoming infected with HIV during unprotected vaginal intercourse is as much as 2-4 times higher for women than for men. Women are also more vulnerable to other STIs that increase the risk of contracting HIV ten-fold. One major reason for this is that women have a larger surface area of mucosa (the thin lining of the vagina and cervix) exposed to their partner's secretions during



sexual intercourse. Additionally, semen infected with HIV typically contains a higher concentration of virus than a woman's sexual secretions. Younger women are even more at risk because their immature cervix and scant vaginal secretions put up less of a barrier to HIV, and they are prone to vaginal mucosa lacerations. There is also evidence that women again become more vulnerable to HIV infection after menopause. In addition, tearing and bleeding during intercourse, whether from rough sex, rape, or prior genital mutilation (female circumcision), multiply the risk of HIV infection, as does anal intercourse, which is sometimes preferred to vaginal intercourse because it is thought to preserve virginity and avoid the risk of pregnancy. Anal intercourse often tears the delicate anal tissues and provides easy access to the virus.

Social and Economic Vulnerability

Prevention messages urging abstinence, fidelity (faithfulness to one partner), condom use, needle exchange programmes for IDUs and encouraging and enabling people to get prompt STI treatments have all helped avoid HIV (Fact Sheet 9). However, for millions of women, their ability to make these decisions and to act upon them is crippled by their socioeconomic circumstances. The majority of women in the world lack economic resources, and are fearful of abandonment or of violence from their male partner. Thus they have little or no control over how and when they have sex, and hence have little or no control over their risk of becoming infected with HIV.

This vulnerability is compounded by:

Lack of Education

Millions of young girls are brought up with little knowledge of their reproductive system or how HIV and STIs are transmitted and can be prevented.

Sexual Customs and Norms

Typically, women are expected to leave the initiative and decision-making in sex to males whose needs and demands are expected to dominate. There is often a tolerance of predatory, violent sex, as well as a double standard where women are blamed or thrown out for infidelity (real or suspected), while men are expected or allowed to have multiple partners.

Lack of Economic Opportunities

There is a failure to respect women's right to equal access to education and employment opportunities, thus reinforcing their dependence upon men. Their reliance may be on a husband, a stable partner, a partner who may give gifts in return for sex or a few steady male partners who have fathered their children, or, for prostitutes, a succession of clients.



Lack of Control in Relationships

Even when a woman suspects her partner has HIV, she often cannot risk losing his support by refusing sex, or insisting on condom use. She would be breaking the “conspiracy of silence” that surrounds extramarital sex by either partner. Although some men agree to use condoms, many react with anger, violence and abandonment.

Condom Use and Pregnancy

Couples wanting children need to know their HIV status. However, couples are often unwilling to openly discuss issues of sexuality, and voluntary HIV testing and counselling services are not always available (Fact Sheet 8).

STIs and HIV

Because STIs carry an especially heavy social stigma for women, they tend to avoid STI clinics and treatment. In addition, health care workers are often unsympathetic, judgmental, and unprepared to diagnose and treat STIs (Fact Sheet 7). Women are often conditioned to accept ill health and women's troubles as their lot in life.

HIV and Prostitution

Prostitutes have little power to protect themselves from HIV. Many sex workers risk violence or loss of income if they request the use of condoms. However, in some brothels, sex workers have banded together to insist on condom use. Women are sometimes forced into or turn to prostitution as an alternative to poverty, or because their lives have been disrupted by war, divorce or widowhood where, because of inequitable laws and customs, they have lost their property and their husband's earnings. In some countries, young girls are forced into sex work, even before puberty. Such young girls are often unaware of the AIDS risk and they are unable to take protective action, or run away.

FOSTERING EMPOWERMENT

Women's vulnerability comes from lack of power and control over their risk of HIV. Gender inequality, condoned both culturally and socially in many parts of Asia, heightens the vulnerability of women and girls at many levels. Unequal access to education means that girls often have less access to information to protect their health and well being.

Create opportunities to foster empowerment:

Combating ignorance

Education for women, including education about their bodies, STIs and AIDS, should be improved and the skills to say no to unwanted or unsafe sex imparted. See Fact



Sheets on prevention (Fact Sheet 3) and education (Fact Sheet 13).

Providing women-friendly services

Access to appropriate health and HIV/STI prevention and care services at places and times that are convenient and acceptable to girls and women should be ensured. Voluntary testing and counselling should be expanded (Fact Sheet 8); they should be taught about condom use and condoms should be made easily available without embarrassment.

Development of female-controlled prevention methods

Barrier methods that prevent HIV infection without the knowledge and cooperation of the male partner are urgently needed. Such methods might include the female condom and vaginal microbicides (a virus-killing cream or foam) that women can insert vaginally before intercourse.

Building safer norms

Women's groups and community organizations should be supported in questioning behavioural traditions such as child abuse, rape, sexual domination and mutilation. Boys and men (Fact Sheet 13) should be educated to respect girls and women, and to engage in responsible sexual behaviour (Fact Sheet 3).

Reinforcing women's economic independence

Existing training opportunities for women, credit programmes, saving schemes and women's cooperatives should be encouraged and strengthened, and linked to AIDS prevention activities.

Reducing women's vulnerability through policy change

At community and national levels (as well as through international initiatives), the rights and freedoms of women must be respected and protected. This will only be achieved when women have a greater participation and political voice.

Providing life skill education for adolescent girls

It should be ensure that young girls have access to information and education on HIV/AIDS and STIs. Opportunities to learn skills to say no to unwanted and unsafe sex must be provided.

MOTHER-TO-CHILD-TRANSMISSION OF HIV

Mother-to-child-transmission (MTCT) of HIV is the major means of HIV infection in children below the age of 15 years. Since the beginning of the pandemic, an estimated 5.1 million children worldwide have been infected, almost all through



MTCT. In 2001 alone, more than 800 000 children became infected.

HIV can be transmitted from an infected mother to her child during pregnancy, labour and delivery, or through breastfeeding. In the absence of breastfeeding, most infections occur during labour and delivery. Reported transmission rates ranged from 13 to 32% in industrialized countries, and from 25 to 48% in developing countries.

In breastfeeding populations, up to 20% of infants born to HIV-infected mothers may acquire HIV through breastfeeding, depending on the duration of breastfeeding and other risk factors such as the presence of mastitis, breast abscess and other local factors.

Estimated Risk and Timing of Mother-to-Child Transmission of HIV

Transmission rate (%)			
Timing	No breastfeeding	Breastfeeding through 6 months	Breastfeeding through 18 to 24 months
During pregnancy	5 to 10	5 to 10	5 to 10
During labour	10 to 20	10 to 20	10 to 20
Through breastfeeding			
Early (first 2 months)		5 to 10	5 to 10
Late (after 2 months)		1 to 5	5 to 10
Overall	15 to 30	25 to 35	30 to 45

Source: De Cock KM, Fowler MG, Mercier E, et al. *Jama* 2000

ANTENATAL CARE

Voluntary counselling and testing (VCT) for HIV (Fact Sheet 8) should be available in antenatal clinics. Many HIV-positive women will be diagnosed for the first time during pregnancy, therefore, this service is critical to the ongoing treatment, care and support for the new born child, the mother and the family.

The benefits of VCT in antenatal care include:

- Knowledge of a negative result can reinforce safer sex practices.



- Women diagnosed with HIV can encourage their partners to be counselled and tested.
- Knowing their HIV status enables women and their partners to make more informed choices related to breastfeeding and future pregnancies.
- A woman (and her family) who knows she is HIV-infected can be encouraged to enter into the continuum of care in order to seek early medical treatment and care of opportunistic infections for herself and her child (Fact Sheet 5 & 6), as well as be linked to other health and social services and resources (see Fact Sheet 4).
- Widespread access to VCT in ANC services can help “normalize” the negative perception of HIV.
- Knowledge of their HIV-positive status can enable women to access peer support.
- Early treatment of STIs can be initiated.

Prevention of mother-to-child transmission is dependent upon the identification of the HIV-positive woman. In fact, access to VCT is important in ANC clinics because they provide opportunities to prevent transmission, such as:

- Termination of pregnancy
- Counselling on breastfeeding
- Antiretroviral therapy (ARV)
- Early diagnosis of STIs in pregnancy
- Modifying midwifery and obstetrical practices
- Modifying on infant feeding

Termination of pregnancy

Where termination of pregnancy is both legal and acceptable, the HIV-positive woman can be offered this option. However, many women learn of their HIV status during pregnancy, and will not be diagnosed in time to be offered termination. If termination is an option, the woman, or preferably the couple, should be counselled to make an informed decision. Following termination of a pregnancy, the couple should be counselled on contraceptive use to avoid further pregnancies if this is desired by the couple.

Antiretroviral therapy (ARV)

The use of antiretroviral drugs during pregnancy and delivery has shown to be effective in reducing the transmission from mothers to infants. These regimens



reduce the risk of MTCT by decreasing viral replication in the mother and through prophylaxis of the infant during and after exposure to the virus.

Studies show that the administration of zidovudine (AZT) to the mother (from 14th week) during pregnancy, labour and delivery, and to the newborn reduces the risk of MTCT by 67%. This regimen has become standard practice for HIV-positive women in most industrialized countries. This long-course regimen is often not available for women in developing countries because of cost and/or lack of adequate infrastructure. However, there is a concerted effort to provide at least a short-course AZT regimen to all HIV-positive pregnant women. Short-course AZT is taken orally from 36 weeks of pregnancy through labour and delivery. This treatment also has been found to be effective in reducing transmission of HIV to the infant.

Nevirapine-containing regimen is much cheaper than AZT-containing ones, costing about USD 4 per mother and baby treated. Recent studies have shown it to be effective in reducing MTCT even if a single dose is given to mothers just prior to delivery and to newborns immediately afterwards. In terms of both cost and infrastructure requirements, nevirapine offers an affordable and realistic alternative to AZT for the prevention of MTCT in developing countries.

Counselling on Breastfeeding

Infant feeding counselling has been shown to be more effective than simple advice for promoting exclusive breastfeeding in a general setting. Good counselling may also assist HIV-infected women to select and adhere to safer infant feeding options. Some breast health problems increase the risk of HIV transmission, and effective counselling may reduce the risk.

Skilled counselling can provide guidance to help HIV-infected women make a choice appropriate to their situation, to which they are more likely to adhere. The options discussed during counselling need to be selected according to local feasibility and acceptability.

The level of understanding of infant feeding in the context of MTCT in the general population is very limited, thus complicating efforts to counsel women effectively. The number of people trained in infant feeding counselling is relatively few to meet the need and expected demand for this information and support. Adequate numbers of people who can counsel HIV-infected women on infant feeding should be trained, deployed, supervised and supported. Such support should include updated training as new information and recommendations emerge.



Issues in Breastfeeding Counselling

- All HIV-infected mothers should receive counselling, which includes provision of general information about the risks and benefits of various infant feeding options, and specific guidance in selecting the option most likely to be suitable for their situation. Whatever a mother decides, she should be supported in her choice.
- Assessments should be conducted locally to identify the range of feeding options that are acceptable, feasible, affordable, sustainable and safe in a particular context.
- Information and education on MTCT of HIV should be urgently directed to the general public, affected communities and families.

LABOUR AND DELIVERY

About 60% of HIV transmission from mother-to-child is thought to occur around the time of labour and delivery. Several factors have been associated with an increased risk of MTCT at the time of labour and delivery. These include:

Mode of delivery

Vaginal deliveries are more likely to increase the risk of MTCT while elective Caesarian sections have been shown to reduce MTCT. However, the potential benefits have to be balanced against the risk to the mother. Higher rates of post-operative death in HIV-positive women have been reported, especially from infective complications. In addition, elective Caesarian sections are not available to the vast majority of women worldwide.

Prolonged rupture of membranes

Rupture of membranes for longer than four hours has been associated with an increased risk of transmission. Artificial rupture of membranes is practised routinely in many countries; this should be discouraged unless indicated for fetal distress or abnormal progress in labour.

Episiotomy

Routine episiotomy is not recommended. This procedure should only be used where there are specific obstetric indications. Forceps deliveries and vacuum extractions do not necessarily require an episiotomy.



Intrapartum haemorrhage

This has been associated with increased MTCT transmission in some studies. Should a blood transfusion be required, there is the added risk of receiving HIV contaminated blood (Fact Sheet 1).

Invasive foetal monitoring

Penetrating scalp electrodes may be associated with increased risk of transmission.

Multiple births

The first baby delivered of a multiple pregnancy has a higher rate of HIV infection than the subsequent births.

Other areas for consideration during labour and delivery include:

Universal Precautions

Fact Sheet 11 provides a detailed overview of Universal Precautions that should be followed by nurses/midwives in all aspects of care regardless of the HIV status of the woman or the nurse/midwife at the time of labour and delivery. Frequent hand washing and glove use are critical practices in precaution.

Vaginal cleansing

The 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 transmission.

Disposal of placenta and soiled linen

Placenta should be collected in a plastic bag placed in a separate bucket and incinerated. Soiled linen should be soaked in 10% hypochlorite solution for 30 minutes before sending for washing. Floor soiled with blood/amniotic spill should be cleaned with antiseptic/bleach solution immediately.

Education of traditional birth attendants

Traditional birth attendants (TBAs) play an important role in the labour and delivery of many women worldwide. Educating TBAs about HIV prevention (Fact Sheet 3) and care, and the use of Universal Precautions (Fact Sheet 11) is often the responsibility of nurses/midwives. Where regular latex gloves are not available, kitchen gloves or clean plastic cover should be used while conducting the delivery to avoid skin contact with blood and fluids. Use of plastic aprons must also be advised. They should also be encouraged to avoid traditional practices that may increase the risk of HIV transmission such as the use of vaginal herbal potions and scarification.



INFANT FEEDING

Approximately one-third of infants who are infected through MTCT are infected through breast milk. Where alternatives such as replacement feeding exist, HIV-positive mothers should avoid or limit breastfeeding their infants. Where resources are limited, the option of using replacement feeding may be unavailable. Many communities do not have a safe water supply, have limited resources to provide sterile feeding equipment, and no methods of refrigeration. Replacement feeding is also expensive and many families cannot afford this added expense. In addition, where breastfeeding is the cultural norm, seeing a mother artificially feed her infant can lead people to suspect she has AIDS. One must also consider additional problems associated with gastrointestinal infections, malnutrition, stigma and discrimination (Fact Sheet 7). Decisions about whether to breastfeed or to provide replacement feeding must be made in light of the above considerations. If replacement feeding is an option, breast milk substitutes include: commercial infant formula, or home-prepared formulas made from animal milk, dried milk or evaporated milk with additional ingredients. Once the decision has been made about whether or not to breastfeed, then other considerations must be taken into account. HIV-infected women should have access to information, follow-up clinical care and support, including family planning services and nutritional support.

Currently recommended policies on breastfeeding by HIV-infected women

- Exclusive breastfeeding should be protected, promoted and supported for six months. This applies to women who are known not to be infected with HIV and for women whose infection status is unknown.
- When replacement feeding is acceptable, feasible, affordable, sustainable and safe, avoidance of all breastfeeding by HIV-infected mothers is recommended; otherwise, exclusive breastfeeding is recommended during the first months of life.
- To minimize HIV transmission risk, breastfeeding 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).

For the non breastfed infant:

- Access to an adequate supply of replacement milk substitutes, with adequate funds to pay for them, adequate utensils for feeding, and fuel for sterilizing equipment and heating the milk substitute must be ensured.



- The mother should be educated about safe preparation of replacement feeds, correct cleaning of utensils, and methods of sterilization.
- The safe preparation of replacement feeds should be monitored.
- The growth and development of the child should be monitored to ensure adequate infant feeding and nutrition.
- Appropriate management should be undertaken to prevent breast engorgement.

For the breastfed infant:

- The mother should be taught to inspect her child's mouth for thrush and breakages in the mucous membrane (an added risk for HIV transmission) (See Fact Sheet 6).
- The mother should be taught about the increased risk of HIV transmission, should she suffer from mastitis, breast abscesses, and bleeding or cracked nipples.
- Replacement feeding after three months (to reduce some risk of transmission) should be discussed.
- After six months when the baby can be safely weaned, breastfeeding should be stopped.
- Expressed milk should be used after boiling and cooling. (Boiling for 20 minutes kills the virus).
- The breast milk of other women who are HIV-negative (wet-nursing) should be used.

POST-NATAL CARE OF THE HIV-INFECTED MOTHER AND HER INFANT

In many instances, the basic post-natal care of the HIV-infected woman and her infant will be no different from routine post-natal care. However, the mother (and possibly partner/family) might need additional counselling and support (See Fact Sheet 8). Such counselling might include decisions on infant feeding (although this decision should have been made in the antenatal period), and advice on birth control. It is important that the woman and her family are involved in a continuum of care (Fact Sheet 4), so that comprehensive linking of resources and services can be provided where and when they are most necessary and effective. HIV-infected women are more prone to medical complications such as urinary tract infections, chest infections, episiotomy infection, uterine and Caesarian section wound infection. Nurses/midwives should be alert for signs of infection such as fever, rapid



pulse, episiotomy or lower abdominal pain, and foul smelling vaginal discharge. HIV-infected women should be taught about perineal care and safe handling of blood and vaginal discharge.

Post-natal Counselling

Don't forget that the woman's family - close and extended - and her community must be educated so that they support the woman in her choices.

Specific counselling for the HIV-infected mother might include:

- Contraceptive advice to prevent future pregnancy and transmission. The only contraceptive methods that will prevent the spread of HIV are barrier methods, such as the male and the female condom (Fact Sheet 3);
- Support for her infant feeding choice and further education as appropriate;
- Information about the possibility of infection in the child and details of how and where the child can be checked and treated (Fact Sheet 6);
- Discussion about disclosure of her HIV status to her partner, family, and trusted friends;
- Exploration of feelings, particularly guilt, grief, fear, and denial. It is also important to address the possibility of her having infected her infant (Fact Sheet 8);
- Encouragement to access peer support, and
- Discussion on how to cope with possible stigmatization, particularly if not breast feeding (Fact Sheet 7).

QUESTIONS FOR REFLECTION AND DISCUSSION

- How can nurses/midwives help reduce vulnerability in women?
- Have you ever experienced of feeling vulnerable in your work or personal life? If so, what effect did this experience have on your ability to control the outcome of events?
- What are the important considerations in caring for HIV-positive women in the antenatal period; during labour and delivery, and during the post-partum period?



- What elements would you consider as you counsel an HIV-positive woman about whether to breastfeed or not?

Additional Reading

HIV and Infant Feeding: A guide for health care managers and supervisors (1998)
WHO/FRH/NUT/CHD/98.2, UNAIDS/98.4. UNICEF/PD/NUT(J)98-2

HIV and Infant Feeding: A policy statement developed collaboratively by UNAIDS, WHO and UNICEF (UNAIDS)

Women and AIDS: (1997) UNAIDS point of view. UNAIDS Best Practice Collection

HIV Prevention and Care: Teaching Modules for Nurses and Midwives (1993)
World Health Organization WHO/GPA/CNP/TMD/93.3



FACT SHEET 11: HIV IN THE HEALTH CARE SETTING AND UNIVERSAL PRECAUTIONS

- **Introduction**
- **Risk of HIV transmission in the health care setting**
- **Creating a safe work environment**
- **Universal Precautions**
- **Safe decontamination of equipment**
- **Planning and management**

INTRODUCTION

HIV and other blood-borne illnesses such as hepatitis B may be transmitted in the health care setting from patient to health care worker, patient to patient, or from health care worker to patient. HIV has been isolated from: blood, semen, vaginal and cervical secretions, urine and faeces, wound secretions, saliva, tears, breast milk and cerebrospinal, amniotic, synovial and pericardial fluids. HIV is likely to be present in other body fluids, particularly where visible blood is present. However, blood is the only fluid known at this time to be associated with HIV transmission in the health care setting (see Fact Sheet 1). The risk of transmitting HIV and other blood-borne diseases is dependent upon health care practices of personnel, the prevalence of the illness, and the amount and frequency of exposure. The occupational risk of becoming HIV infected from patients in health care settings is low and in most cases is associated with needle-stick injuries from a patient with HIV. Patient-to-patient transmission results primarily from contaminated equipment that has been incorrectly (or inadequately) disinfected, or from blood transfusions.

Most nursing care does not involve any risk of HIV transmission. Therefore, like most population groups, routine HIV testing of all health care workers or patients is NOT recommended. Like most other HIV-infected people, HIV infected health care workers are infected primarily through sexual contact. Occupational exposure is rare. To minimize the risk of occupational transmission of HIV (as well as other infectious diseases), all health care workers should adopt appropriate infection preventive measures, risk assessment and accident prevention procedures.

These include:

- Universal Precautions should be understood and used with all patients, at all times, in all settings, regardless of the diagnosis.
- All unnecessary blood transfusions, injections, suturing, invasive and surgical procedures should be reduced.



- Adequate supplies available should be made available to comply with simple standards of infection control, even in resource poor settings.
- Locally appropriate policies and guidelines for the proper use of supplies, and for the education and supervision of staff should be adopted.
- During regular supervision in health care settings, risks should be assessed and reduced.

RISK OF HIV TRANSMISSION IN THE HEALTH CARE SETTING

HIV can be transmitted in the following ways:

To patients:

- Contaminated instruments that are re-used without adequate disinfection and sterilization;
- Transfusion of HIV-infected blood;
- Skin grafts, organ transplants, donated semen from an HIV-infected person, and
- Contact with blood or other body fluids from an HIV-infected health care worker.

To health care workers:

- Injury with a needle or any other sharp instrument which has been contaminated with blood or other body fluids from an HIV-infected person;
- Exposure of broken skin, open cuts or wounds, to blood or other body fluids from an HIV-infected person, and splashes from infected blood or body fluids onto the mucous membranes (mouth or eyes).

CREATING A SAFE WORK ENVIRONMENT

The context and environment in which health care is provided influence not only the quality of care delivered, but also the safety and well-being of care providers. Measures that promote a safe and supportive work environment include:

- Education of managers about occupational risks and methods of prevention and provision of protective equipment and supplies;



- Education of employees about occupational risks (Fact Sheet 13), methods of prevention of HIV and other infectious diseases (Fact Sheet 3), and procedures for reporting exposure;
- Provision of protective equipment such as gloves, goggles, plastic aprons, gowns, and other protective devices;
- Provision of appropriate disinfectants to clean up spills of blood and other body fluids;
- Increasing the accessibility of puncture resistant “sharps” containers;
- Implementing measures that reduce and prevent stress, isolation and burnout;
- Maintaining appropriate staff levels;
- Controlling shift lengths and providing supervision of inexperienced staff;
- Ensuring that Universal Precautions are implemented, monitored and evaluated;
- Providing post-exposure counselling (Fact Sheet 8), treatment, follow-up and care;
- Addressing the healthcare, compensation and financial needs of HIV-positive health care workers;
- Providing flexible work allocation for HIV-infected personnel and continuing their employment for as long as possible;
- Their participation will be dependent upon their condition, job demands, and the need to protect them from other infections such as tuberculosis, and
- Providing dispute settlement mechanisms for HIV-infected personnel.

In many resource poor situations, it might not be possible to meet all of the above requirements. However, working toward these goals should be the responsibility of nurses and midwives, other health care workers and their employers. Preventive measures are difficult to practice when supplies and protective equipment are not always available. Priorities must be set and low-cost alternatives sought. Yet, even when supplies are available, the use of Universal Precautions may be compromised by management policy, personal practices, attitude and complacency of staff.



Prevention of occupational exposure to HIV also includes risk assessment and risk reduction activities such as:

- Using Universal Precautions;
- Wearing heavy-duty gloves when disposing of “sharps”;
- Assessing and maintaining protective equipment;
- Adopting safe techniques and procedures, such as disposing of needles without recapping, or recapping using the single-handed method, using sterile nasal catheters and other resuscitation equipment, using a separate delivery pack for each delivery, and not using episiotomy scissors to cut the umbilical cord;
- Making appropriate disinfectants and cleaning materials available;
- Sterilizing equipment properly, and
- Eliminating unnecessary injections, episiotomies, and laboratory tests; avoiding, or covering, breaks in the skin, especially on the hands.

UNIVERSAL PRECAUTIONS

Universal Precautions are simple standards of infection control practices to be used in the care of all patients, at all times, to reduce the risk of transmission of blood-borne infections. They include:

- Careful handling and disposal of “sharps”;
- Hand washing with soap and water before and after all procedures;
- Use of protective barriers such as gloves, gowns, aprons, masks, goggles for direct contact with blood and other body fluids;
- Safe disposal of waste contaminated with blood or body fluids;
- Safe disposal of placenta;
- Proper disinfecting of instruments and other contaminated equipment, and
- Proper handling of soiled linen.



Safe Handling and Disposal of “sharps”

The greatest hazard of HIV transmission in health care settings is through skin puncture with contaminated needles or “sharps”. Most “sharps” injuries involving HIV transmission are through deep injuries with hollow-bore needles. Such injuries frequently occur when needles are recapped, cleaned, disposed of, or inappropriately discarded.

Good Practice for the Safe Handling and Disposal of Sharps

- ALWAYS dispose of your own sharps.
- NEVER pass used sharps directly from one person to another.
- During exposure-prone procedures, the risk of injury should be minimized by ensuring that the operator has the best possible visibility, e.g. by positioning the patient, adjusting good light sources and controlling bleeding.
- Fingers should be protected from injury by using forceps instead of fingers for guiding suturing.
- NEVER recap, bend or break disposable needles.
- Directly after use, needles and syringes should be placed in a puncture-resistant disposal container until ready for disposal.
- The sharps disposal container should be located close to the point of use, e.g. in the patient's room, on the medicine trolley and in the treatment room.
- Used sharps should be disposed in a puncture-resistant container.
- NEVER place used sharps in other waste containers.
- All sharps and sharps disposal containers should be kept out of reach of children.
- Overflow should be prevented by sending sharps disposal containers for decontamination or incineration when three-quarters full.

“Sharps” Accidents

A sharps accident or “exposure” that may place a health worker at risk of HIV infection is defined as a percutaneous injury (needle-stick, cut with a sharp



instrument), contact with mucous membrane or non-intact skin (when the exposed skin is chapped, abraded, or afflicted with dermatitis), or contact with intact skin when the duration of contact is prolonged (several minutes or more) with blood or other body fluids.

Each health care facility should develop standards, policies and procedures to be followed in case of “sharps” injury or other exposure. Many health care workers neglect to report such injuries. This can lead to inaccurate data on health care worker exposure and more importantly, to a lack of follow-up counselling, testing, treatment and care (Fact Sheet 8).

Steps to be taken on Exposure to Blood/Body Fluids and Contaminated Sharps

Immediately following an exposure	• Needle-stick and cuts should be washed with soap and water. • Splashes to the nose, mouth or skin should be flushed with water. • Eyes should be irrigated with clean water, saline or sterile water. • Pricked finger should not be put into the mouth reflexive.
Reporting the exposure	The exposure should be reported to appropriate authority and condition must be treated as an emergency. Prompt reporting is essential in case HIV post exposure prophylaxis (PEP) may be recommended and it should be started as soon as possible, preferably within 24 hours. Initiating treatment after 72 hours is not recommended.
Post exposure prophylaxis	Decision to start PEP is made based on the degree of exposure to HIV and HIV status of the source from whom the exposure/infection has occurred. However, PEP should be guided by national policies and is dependent upon the availability of antiretroviral drugs.

Evaluating “sharps” practices

If the same accident occurs more than twice, “sharps” practices must be evaluated. Methods for avoiding “sharps” use should be considered, for example, drugs might be given by methods other than injection; stapling rather than suturing; using adhesive tape or skin closure strips; and avoiding unnecessary incisions such as episiotomies.



SAFE DECONTAMINATION OF EQUIPMENT

Efficient cleaning with soap and hot water removes a high proportion of any microorganism. All equipment should be dismantled before cleaning. Heavy gloves should be worn for cleaning equipment and if splashing with body fluid is likely, then additional protective clothing such as aprons, gowns, goggles and masks should be worn. The following table helps in selecting the method for decontamination:

Level of Risk	Items	Decontamination Method
High risk	Instrument which penetrate the skin/body	Sterilization, or single use of disposable
Moderate risk	Instruments which come in contact with non-intact skin or mucous membrane	Sterilization, boiling, or chemical disinfection
Low risk	Equipment which comes in contact with intact skin	Thorough washing with soap and hot water

Sterilization and Disinfection

All forms of sterilization will destroy HIV. Recommended methods of sterilization include steam under pressure (e.g. autoclave or pressure cooker), or dry heat such as an oven. Disinfection will usually inactivate HIV. Two commonly used disinfection methods are boiling and chemical disinfection. If boiling, equipment should be cleaned and boiled for 20 minutes at sea level, and longer at higher altitudes. Chemical disinfection is not as reliable as sterilizing or boiling. However, chemical disinfection can be used on heat sensitive equipment, or when other methods of decontamination are not available. Equipment should be dismantled, thoroughly cleaned and rinsed after disinfection. Chemicals that have been found to inactivate HIV include chlorine-based agents (for example, bleach), 2% glutaraldehyde, and 70% ethyl and isopropyl alcohol.

Cleaning

Detergents and hot water are adequate for the routine cleaning of floors, beds, toilets, walls, and rubber draw sheets. Following a spillage of body fluids, heavy-duty rubber gloves should be worn and as much body fluid removed with an absorbent material. This can then be discarded in a leak proof container and later incinerated or buried in a deep pit. The area of spillage should be cleaned with a chlorine-based disinfectant and the area thoroughly washed with hot water and soap.



All soiled linen should be handled as little as possible, bagged at the point of collection and not sorted or rinsed in patient care areas. If possible, linen with large amounts of body fluid should be transported in leakproof bags. If leakproof bags are not available, the linen should be folded with the soiled parts inside and handled carefully, with gloves.

Safe Disposal of Waste Contaminated with Body Fluids

Solid waste that is contaminated with blood, body fluids, laboratory specimens or body tissue should be placed in leak-proof containers and incinerated, or buried in a 7 foot deep pit, at least 30 feet away from a water source. Liquid waste such as blood or body fluid should be poured down a drain connected to an adequately treated sewer or pit latrine.

PLANNING AND MANAGEMENT

Proper planning and management of supplies and other resources are essential in reducing the occupational risk of HIV infection. Such measures should include risk assessment, setting of standards and protocols that address safety, risk reduction, post-exposure follow-up and first-aid. In addition, occupational risks can be reduced by introducing measures to prevent or reduce stress, maintain an optimum workload, orientate new staff and provide education and supervision. Staff burnout, characterized by feelings of depletion, loss of vitality, energy, and motivation is a major occupational hazard and can lead to increased risk for occupational exposure to HIV. In addition, fear of occupational exposure to HIV in health care settings may discourage potential recruits from pursuing nursing and midwifery as a career, thus reducing the future supply of trained professionals. Strategies that address these concerns include:

Gaining and Maintaining Adequate Supplies and Resources

Nurses/midwives need to explore different approaches to meet their resource needs, such as:

- Finding out what can be obtained from government and from nongovernmental sources, through regular distribution systems;
- Finding out what is locally available and can be bought. To what extent can patients and their relatives contribute?
- Reviewing the quality of available supplies;
- Developing or improving systems for ordering, transporting, and storing, and ensuring there is not an oversupply that will be wasted;
- Developing a schedule for obtaining and maintaining supplies which



includes taking into consideration travel, delivery time, and weather, and

- Establishing sustainable acquisition and payment procedures.

Developing Creative Strategies

In resource poor settings, some supplies may not be available. In such cases, nurses/midwives must think creatively about how to manage care. Can plastic bags be used instead of gloves; can cooking utensils be used for boiling equipment; are there herbal and traditional alternatives to detergents and soaps?

One way to assign priorities is to classify the commonly performed procedures into low, medium and high risk, and allocate resources accordingly. Consideration should be given to cost effectiveness as opposed to cost containment, noting that the cheapest equipment is not always the safest or most cost-effective in the long run. In home care settings, nurses/midwives will need to be even more creative in finding solutions to infection control. Wherever possible, a home care kit should be available to all health care personnel working in the community and in homes. This kit should include disinfectants, soap, utensils for boiling, gloves, protective garments, and containers for safe disposal of equipment and waste.

Setting and Maintaining Standards

Nurses and midwives should be active in developing and maintaining quality assurance programmes, and in developing and participating in infection control committees. Nurses and midwives must also develop, maintain, and evaluate standards, procedures and protocols for safe, adequate and effective control of infections. In addition, nurse managers should exert pressure upon employers and national and international agencies to provide funds for essential supplies and equipment for providing safe quality care.

Care for the Caregiver

Understandably, many nurses and midwives fear becoming infected with HIV. Stigma, prejudice and discrimination surrounding HIV and its life-threatening effect may compromise their ability to provide quality care, and even their commitment to remain in the profession (Fact Sheet 7). There should be adequate insurance and compensation for HIV-infected health workers. However, such compensation will depend upon the country's ability to pay, the place of employment and the employer. Particular attention should be given to:



Continued Employment

Being HIV-infected is not a cause for termination of employment, regardless of whether HIV was acquired on the job or not. As with any other illness, HIV-infected nurses/midwives should be allowed to work as long as they are fit, provided they practise universal precautions. HIV-infected health care workers can make considerable contributions to care by helping to educate others, reducing the stigma and discrimination associated with HIV. Employers should provide work assignments that both support the HIV infected worker's ability to perform tasks and enable them to avoid infections (particularly TB).

Workplace Issues

Health care workers, like the general population, may feel fear, stigma and discrimination towards HIV-infected individuals (See Fact Sheet 7). In fact, HIV-infected health care workers are often subjected to severe discrimination from their colleagues. As a result, many health care workers are reluctant to be tested and to enter into counselling, treatment and care. This is problematic, because if nurses/midwives do not know their HIV status, they can put themselves and others in the health care setting at risk. Therefore, employers should develop policies that:

- Protect the privacy of the HIV-infected employee;
- Prevent social isolation of the HIV-infected employee by co-workers;
- Keep HIV-positive personnel in a supportive occupational setting as long as possible, and
- Educate all employees, management and union leaders about the rights and care of HIV-infected health care workers.

Initiating a Package of Services

Depending on the stage of the disease and the resources that are available, HIV-positive nursing/midwifery personnel require a package of services that might include:

- Convincing employers, managers and insurance agencies not to discriminate against HIV positive personnel;
- Providing support, legal assistance and referral;
- Fostering networking with other HIV-positive employees;



- Counselling on career change and job retraining opportunities;
- Advising about continued practice and the disclosure of their HIV status;
- Developing and disseminating position statements on issues such as mandatory testing (not supported), ethical obligations and treatment for HIV-positive personnel;
- Providing up-to-date and accurate information about compensation benefits, occupational risks, and follow-up care, and
- Clarifying professional ethical norms and obligations in regard to health care and HIV.

QUESTIONS FOR REFLECTION AND DISCUSSION

- What resources would you consider essential to provide safe care to patients and staff?
- How might you go about making sure these resources are available?
- Reports of needle stick injuries and other accidents that might lead to HIV infection are very low. What might you consider to help improve this situation? Why is this important?
- What creative ideas do you have to improve Universal Precautions in resource poor areas?
- What actions might you consider to make your work environment a safer place?
- What do you think the essential elements are in providing adequate care for the caregiver?
- What role might you play in ensuring adequate care for the caregiver?



Additional Reading

HIV/AIDS and the workplace: Forging Innovative Business Responses (1998).
UNAIDS Technical Update

HIV Prevention and Care: Teaching Modules for Nurses and Midwives (1993).
(WHO/GPA/CNP/TMD/93.3)

Guidelines for Preventing HIV, HBV and Other Infections in the Health Care Setting,
(1999) WHO/SEARO



FACT SHEET 12: TUBERCULOSIS

- **Introduction**
- **Tuberculosis in the South-East Asia Region**
- **The threat of tuberculosis to public health**
- **Signs, symptoms and treatment of tuberculosis**
- **The DOTS strategy**
- **The role of primary health workers in DOTS**

INTRODUCTION

This Fact Sheet on Tuberculosis (TB) and DOTS treatment is included here because HIV dramatically increases a person's susceptibility to infection with *Mycobacterium tuberculosis* and subsequent disease. TB is now the most important, life threatening, opportunistic infection associated with HIV in many parts of the world including our Region. Because HIV affects the immune system, it is estimated that TB carriers who are infected with HIV are 30-50 times more likely to develop active TB than those without HIV. The presence of TB may result in more rapid progression of HIV and AIDS. Pulmonary TB is the most common form in HIV patients, although other manifestations of TB, such as lymphadenopathy and meningitis, are frequently found.

- In 1993, WHO declared TB as a global emergency and called countries to adopt DOTS as a TB control strategy.
- Each day, approximately 2 000 people in the South-East Asia Region die due to TB.
- Each year, nearly 3 million cases and 750 000 deaths due to TB are estimated to occur in the Region; five countries, namely Bangladesh, India, Indonesia, Myanmar and Thailand, account for more than 95% of the total cases in the Region.
- Each year, TB kills at least 250 000 women in the Region.

TUBERCULOSIS IN THE SOUTH-EAST ASIA REGION

The South-East Asia Region accounts for 38% of the world's burden of TB, with 3 million new cases and nearly three-quarter of a million deaths due to the disease reported every year. The incidence of disease is highest in the 20-45 age group, thus seriously affecting economic development; the loss sustained in the Region is estimated at USD 4 billion per year. The spread of HIV in the Region and the emergence in recent years of multi-drug resistant strains of TB pose additional threats.



PROGRESS IN TUBERCULOSIS CONTROL, SEA REGION

Country	Total population in millions	Population coverage by Dec-2001		% Treatment success in DOTS areas	Case Detection in DOTS areas
		Millions	%		
Bangladesh	130	124	95	81.3	27%
Bhutan	0.6	0.6	100	90.2	27%
DPR Korea	24	9	39	96.6	74%
India	1010	424	42	81.6	51%
Indonesia	209	188	90	58*	21%
Maldives	0.27	0.27	100	94.3	78%
Myanmar	45	38	85	82	65%
Nepal	23	20	85	89	68%*
Sri Lanka	19	18	95	76*	80%
Thailand	62	53	85	77.1	71%
Total	1524	875	57.4		

Source: SEARO, November 2001

* The data for these two countries refer to 1998 and 1999 in lieu of 1999 and 2000 respectively.

Considerable progress has been made with the expansion of DOTS by all Member States in the Region. Of the five high-burden countries in the Region, Bangladesh has covered virtually the entire country with DOTS, and India has expanded rapidly to cover 450 million people by December 2001. Indonesia is expanding DOTS and has demonstrated strong political commitment. Myanmar has implemented DOTS in 85% of the country and expects to expand to cover the entire country by 2003.

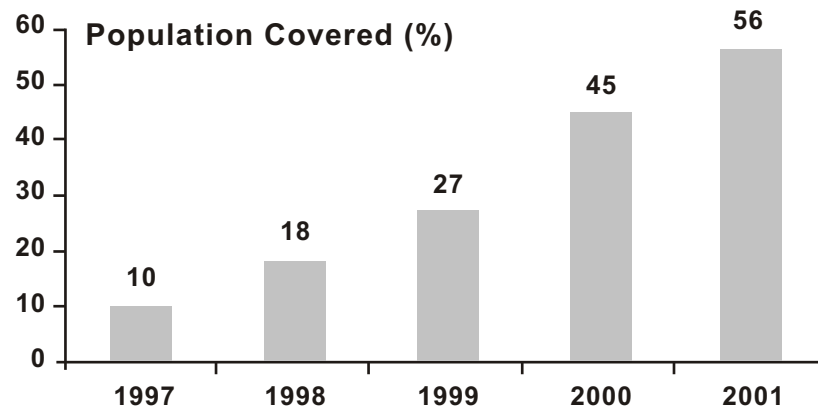
Thailand has achieved 85% population coverage and is currently working on strengthening supervision and reporting in order to improve treatment outcomes in urban areas. Among the low burden countries, Bhutan has achieved complete population coverage. DPR Korea is rapidly expanding DOTS; currently population coverage stands at 39%. Maldives achieved global targets since 1995 and has maintained them since. Nepal has implemented DOTS successfully and is expected to achieve global targets by 2002. Sri Lanka has achieved 95% coverage with DOTS and is expected to achieve global targets between 2003-2004.

DOTS coverage now extends to 56% of the Region's population; under the DOTS strategy, nearly 2 million patients have so far been treated with a success rate of around 80% under programmatic conditions in areas where the strategy has been applied. The quality of diagnosis has been good; however the number of cases



detected is still low at fewer than 40% of estimated cases. There is however clear commitment from governments within this Region for achieving global targets and nationwide DOTS coverage in each country by 2005. Given the current rate of progress, it is expected that the Region will achieve the set targets by 2006.

DOTS Implementation in the SEA Region



THE THREAT OF TUBERCULOSIS TO PUBLIC HEALTH

Tuberculosis (TB) is a serious public health, social and economic problem, estimated to cause 8 million cases world wide each year. Although the DOTS strategy has been proven to cure more than 85%, only a small fraction of cases (16%) have access to these curative regimens. There are more than 1.9 million deaths due to TB each year. TB kills more youth and adults than any other infectious disease. The disease burden is heaviest in developing countries, where 95% of the cases occur. Even in developed countries, TB is re-emerging as a public health concern.

The main reasons for the increasing global burden of the disease

- Increasing poverty, social upheaval and crowded living conditions in developing countries and inner city populations in developed countries;
- Inadequate health coverage and poor access to health services;
- Inefficient TB control programmes, with low cure rates, because of inadequate and interrupted treatment;
- Reluctance to report TB suspects to poorly administered programmes;
- Impact of the HIV epidemics, mainly in Africa and Asia, and
- Lack of political leadership and commitment to implement, sustain and expand DOTS.



TB is the commonest cause of death in AIDS patients, because it is reactivated by the failing immune system. Children are affected either by being left without care by their parents' illness or children themselves fall ill and die of TB. The tools for controlling TB are in hand, but wider application of the DOTS strategy is desperately needed. This will require a coalition of health workers, policy-makers and the public who have a right to freed from TB.

SIGNS, SYMPTOMS AND THE TREATMENT OF TUBERCULOSIS

The symptoms of TB are persistent cough, unresponsive to antibiotics, fever and weight loss. TB may occur also in lymph nodes, bones, kidneys and the central nervous system. These sites may cause serious illness, but patients are not likely to transmit the disease unless they also have TB of the lung.

How TB is spread?

TB infection is spread by coughing the germ, *Mycobacterium tuberculosis*, into the air where it may be inhaled by persons sharing the same breathing space. Only one in ten infected by the germ actually develops active symptomatic TB. The remainders have a healthy immune system that contains the infection in a dormant state. However, many years or decades later, dormant infections may reactivate and cause disease if the immune system fails.

TB and HIV

HIV is the most powerful factor known to increase the risk of TB.

It is estimated that as much as one-third of the world's 6 billion population (2 billion) has been infected. Most of the new cases of active tuberculosis develop from this pool of infected persons. The chance that any one person will become ill with TB after infection is low (one in ten), but in the HIV-infected person the chance of developing TB is accelerated by the failing immune system, and may be as high as 50% lifetime risk or 10 % per year.

As the HIV infection progresses, TB reactivates. TB accelerates HIV disease and is responsible for 32% of all HIV related deaths. TB treatment is almost as effective in the HIV-infected patient as in the uninfected. DOTS is doubly important to assure curative treatment in those with dual infection.

How to find and cure TB

The primary health care worker is usually the first contact for the sick patient. And it is this worker who must know when to suspect TB and refer for sputum examination. In many countries, nurses represent the main providers of primary health care services, as well as the trainers and supervisors of other health care workers who must be knowledgeable about TB control. Once a laboratory has confirmed the diagnosis, treatment must be provided with the support of the health care worker.



Treatment must continue under direct observation for 6-8 months until the patient is cured, and verified as negative by sputum testing.

Primary health care providers are the ones who find TB suspects, refer them for diagnosis and ensure they complete treatment. These tasks are the backbone of the DOTS strategy. To make sure that DOTS is implemented in every district, the national nurses' associations and individual nurses must lobby their governments for a long term commitment to TB control.

THE DOTS STRATEGY

DOTS is composed of five elements, all of which are essential to a successful TB control programme outcome. These are:

- Government commitment to make TB a priority programme and to provide resources for nationwide coverage;
- Case detection from among persons with persistent cough mainly through sputum smear microscopy in a countrywide laboratory network;
- An uninterrupted drug supply provided to health centres for the treatment of all TB patients;
- Use of standardized short-course chemotherapy and a commitment of the patient and health worker to complete treatment ensuring that each dose of drug is taken, and
- A recording and reporting system for monitoring treatment outcome; cohort analysis to reach targets of 85% cure, and training and supervision to assure that this is accomplished.

Treatment of TB

TB treatment not only cures and saves lives, but also prevents the spread of infection and the development of drug-resistant TB, which is far more difficult and costly to treat. Unfortunately, poor treatment can cause drug resistance. In fact, no treatment at all is better than poor treatment. The recommended treatment for TB requires a 6-8 months of combination drug taken daily to achieve cure. The cost of the drugs has been reduced in some countries to as little as USD13 to cure a patient. Treatment of TB has been declared by the World Bank as one of the most cost-effective health intervention strategies in terms of years of life saved.

Remembering to take the drugs for 6-8 months can be a problem. It is recommended that a health care worker or volunteer help the patient complete treatment by whatever possible means including the direct observation of treatment.



ROLE OF NURSES AND OTHER HEALTH CARE WORKERS IN DOTS

The World Health Organization has worked with country representatives and donors to implement the DOTS strategy within national TB programmes in more than 100 countries. Every element of the strategy depends on trained and committed health care workers and volunteers without whom the strategy cannot work. Behind the workers is a community that wants to be free from tuberculosis. TB control needs community support and involvement. A successful DOTS strategy requires partnership between the primary health care team, other sectors and the community. The nurse or other primary health worker may be the first to suspect TB in patients who have been coughing for more than three weeks, or who have not responded to antibiotics, have lost weight or are feeling tired. The village volunteer, (who extends the primary health care team into the community), helps TB patients complete their treatment by keeping a regular supply of drugs and assuring they are taken correctly.

Patients suspected of TB must be referred to a DOTS centre and laboratory for sputum smear microscopy, for confirmation of diagnosis. The doctor will then prescribe the treatment regimen, but the health worker will be responsible for teaching the patient about the disease and its treatment. Treatment is the best method of preventing the spread of TB, but it is also important to teach the patients to cover their mouths when coughing. The importance of taking drugs every day for 6-8 months under supervision of the treatment-supporter must be made clear. Finally, sputum checks are done at about two-month intervals to monitor the progress towards cure.

Nurses are the patients' best allies in recognizing TB symptoms, referring them for diagnosis and assuring treatment. They must:

- Ensure that correct treatment is started and the treatment card filled out;
- Ensure a regular supply of drugs is sent to the treatment supporter for the duration of the treatment;
- Report and refer drug side effects, and
- Report completion of treatment and outcome.



Nurses also need to work closely with their community, with laboratory staff, doctors and National TB Programme managers to:

- Provide information and education on the DOTS strategy;
- Build community support (through community leaders, schools and the media) for a strong national TB programme;
- Register all TB cases, and
- Train and supervise the primary health workers to find, educate and treat the patients.

Nursing organizations should be vocal advocates for the DOTS strategy for TB control and can help maintain strong national TB control programmes in every country by:

- Increasing community awareness of the right of all to free access to DOTS;
- Making friends, neighbours and colleagues aware of DOTS and how the country's national tuberculosis programme can save lives and prevent the spread of TB, and
- Contacting the National TB Programme, the Nursing Association and the Ministry of Health to find out how they can participate in the STOP-TB initiative.

Stop TB is working to stimulate political movement towards TB control everywhere.

For further information, please contact STOP-TB

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or

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QUESTIONS FOR REFLECTION AND DISCUSSION

- How can nurses enhance their role in preventing, detecting and treating TB in your community?
- Why would you suspect the presence of TB in the community and in individuals?
- What are the elements of the DOTS strategy?
- Would DOTS be a successful strategy in your community? Discuss the reasons for your responses.

Additional Reading

Tuberculosis and HIV Some questions and Answers (1999) WHO/SEARO,

Combating Tuberculosis: principles for Accelerating DOTS Coverage (1999) WHO/SEARO, SEA/TB/211

Stopping Tuberculosis (1999) WHO/SEARO



FACT SHEET 13: TEACHING AND LEARNING ABOUT HIV/AIDS

- **Introduction**
- **HIV/AIDS education for nurses and midwives**
- **The nurse and the midwife as educator**
- **Basic principles of adult education**
- **Preparing educational sessions**
- **Methods of teaching/learning**
- **Questions for reflection and discussion**

INTRODUCTION

Education is the key to change in knowledge, attitudes, and behaviour. Education about HIV/AIDS must be improved in order to reduce gaps between policies and their grass-roots implementation, and to ensure the adoption of effective prevention strategies. This Fact Sheet examines the different methods of teaching and learning and is divided into four major components:



- The importance of continuing education for nurses and midwives;
- Nurses/midwives as health educators;
- Some of the basic principles of adult education, and
- Some teaching and learning strategies.

HIV/AIDS EDUCATION FOR NURSES AND MIDWIVES

The practice and treatment for the prevention and care of HIV/AIDS are changing so rapidly that nurses/midwives need to have continuing education to remain up-to-date in their knowledge, skills and practices. Educational opportunities and access to information are not always easily available to many nurses/midwives in many areas. Good nursing practices are dependent upon adequate, accurate and updated information. Much of the myths, folklore and misinformation, surrounding HIV/AIDS can be corrected with HIV/AIDS education. Such education will reduce the fear, stigma, isolation, and denial of care for people living with HIV/AIDS (Fact Sheet 7). Adequate educational preparation of nurses/midwives (as well as other health care workers) should be viewed as a priority, and advocated by schools of nursing and midwifery, nursing/midwifery associations, and other organizations.



HIV/AIDS Education in Nursing/Midwifery School Curriculum

The provision of skills, attitudes and knowledge for nurses/midwives to deal with care and prevention of HIV/AIDS is a matter of urgency in the South-East Asia Region. There is an urgent need to review existing nursing/midwifery curriculum to integrate a comprehensive HIV/AIDS education in basic nursing/midwifery training. Provision of care in the context of HIV/AIDS has several important facets. First, is the understanding of skills in the management of a chronic HIV disease with a gamut of opportunistic infections. Second is the need to overcome prejudicial attitudes that can impede high quality care, and third is the development of skills in coping with the psychological demands of the care of HIV/AIDS patients. Running right through the curriculum is the serious concern for ethics and the rights of the patient. All these could best be developed in a comprehensive HIV/AIDS education programme.

Continuing HIV/AIDS Education for Nurses and Midwives

In most countries of the Region, the national HIV/AIDS control programmes implement HIV/AIDS education for nurses/midwives through refresher courses. Nursing associations and organizations need to be encouraged to take a more active role in advocating continuing education in HIV/AIDS in order to keep abreast with the rapidly changing practices and treatment for the prevention and care of HIV/AIDS. In addition to formal refresher courses, easy access to information in print and audiovisual formats would be an effective means of continuing HIV/AIDS information.

THE NURSE AND THE MIDWIFE AS EDUCATOR

Nurses and midwives are increasingly required to act as HIV/AIDS health educators. The general public including youth, pregnant women, school children, parent groups, sex workers, and drug users, all need information about HIV/AIDS. In addition, traditional healers, trained birth attendants, other health care workers, volunteers, family members, caregivers, friends, counsellors, religious and civic leaders, community health workers and other health and social service personnel will require continued education from nurses/midwives on issues related to prevention and care of HIV.

BASIC PRINCIPLES OF ADULT EDUCATION

Before starting any educational session, it is important to assess the learning needs of the group and to be familiar with the cultural environment from which the participants come. It is then possible to plan the most relevant educational sessions and materials and to deliver information that is meaningful and useful to the participants. Evaluation of the educational strategies used and the learning outcomes of the participants are also critically important. Most adults learn best by being actively involved in the learning process. It is also important to realize that different people learn through different educational strategies. Consequently, no single learning tool should be used in all situations.



For example, it might be important to provide an opportunity for learners to practise one particular technique, while at other times, a lecture, text book, visuals or other written documents would be more appropriate. Also, learners need time to reflect on their learning and to revisit what they have learned, perhaps through practice, discussion, critical questioning, research, or active participation in teaching others. Educational sessions should be conducted such that learners feel safe to admit when they do not understand something, and feel empowered to seek additional teaching, learning and support. If students fear ridicule, they are less likely to admit their ignorance - a circumstance that could later lead to unsafe and unethical practice.

Timing is also important in the teaching and learning process. Learners learn best when they feel they have a need to know. It is the responsibility of the teacher to foster this “need to know”. In addition, retention of learning should be assessed periodically and supported over time. Rarely is knowledge that is learned only once, through one medium, retained. Therefore, it is helpful to use a variety of teaching and learning techniques and to repeat important information over a period of time, in order to reinforce learning.

Prevention and care of HIV involves consideration of sensitive issues such as sexuality, different sexual practices, drug use, and other risk behaviours. Traditionally, nurses/midwives have not been educated to feel comfortable with openly discussing sensitive, embarrassing, or potentially offensive practices. Practice in discussing these subjects should begin in a safe learning environment. Finally, it is important to teach risk analysis and risk avoidance strategies.

PREPARING EDUCATIONAL SESSIONS

Ask yourself these questions before preparing an educational session:

- Who is the audience? Are they male, female, young or old, educated or less well educated? It is important to know the participants before choosing or producing educational materials. What is the level of their knowledge on the subject?
- What is hoped to be achieved? What is the expected outcome of the educational session? What is your main message? Do the expected outcomes for learning match the learning needs of the group?
- How will the information needed to conduct the educational session be assessed?
- How much will the educational session cost? Are there enough funds available?
- How long will the educational session take? Will the participants be able and willing to stay for the entire session?



- What equipment will be needed? Is the equipment available, or can the session be adopted by using available equipment?
- Is there existing material available? If material is available, this can be used (and adapted if necessary) rather than starting from scratch.
- Is the language appropriate? Is the information being presented at the educational level of the learner? Is the language too complex, or too simple for the participants?
- Are the illustrations culturally sensitive and appropriate? Are they clear so that the participants can understand them? Do the illustrations reflect issues and images with which the participants are familiar?
- Do the educational materials look good and attract people's attention? Are the design and colour attractive? Are they culturally sensitive? Can the participants identify with the materials?
- Does the educational material avoid discrimination? Does the material show people of similar racial origin, age, and sexual orientation? Do the illustrations foster stigma or fear?
- Does the educational material generate feelings of fear? Messages such as "AIDS Kills" might scare people away, and such scare tactics rarely help promote effective behavioural change. Positive messages often promote changes in attitude and behaviour. However, some illustrations that catch people's attention, even negative illustrations, can be effective in raising people's awareness. The key is to know the target group well and choose your messages accordingly.
- Does the educational material avoid moralizing and preaching? People resist listening to someone telling them what they should and should not do. Such practices often lead the learners to become silent and less likely to engage in open and productive discussions. For example, if young people are told that they should not engage in sexual intercourse before marriage, they are then less likely to enter into discussions about safe sexual practices. The best materials provide information in a clear, respectful way and enable people to make their own decision.
- Do the educational strategies build upon already acquired skills and promote confidence? It is important to build on the expertise of the group. What do they already feel confident in doing? How can that confidence be translated to other circumstances?
- Does it help to build a supportive environment? People learn best when they feel cared for and supported. If people work together toward the same ends, much can be achieved. Does the learning session provide an



opportunity for ongoing support for one another? Can this group be supported in promoting effective change in other people, in changing health care practices, and even changing legislation?

- What educational materials work best for the participants? Using attractive posters, local radio, TV or newspaper announcements, leaflets, fact sheets, and training aids such as flip charts, audiovisuals or flash cards should be considered. Open discussions, interviews with PLHA and their families, listening to stories from other care providers, or patients, and advertisements also deliver powerful educational messages.
- How will the educational material be distributed? Sadly, there are often excellent educational materials that are not used simply because the methods of distribution are inadequate.
- Do the learners leave with any materials to help reinforce learning? Learning takes place over a period of time and with reinforcement. What methods of reinforcement of learning have been considered?
- Do you have Fact Sheets available, or are there posters to reinforce learning?
- Do you provide additional educational sessions? Do you test the learners at a later date?
- Do you require supervised practice after a teaching/learning session?
- Is there a library available and a list of recommended reading?
- What other strategies have you considered to reinforce learning?
- Have you considered pre-testing the educational material before it is printed or published? Pre-testing educational material can be a very important step towards ensuring that the message is understood, well received and has the potential to motivate behavioural change, or to promote the best practices.
- What methods of evaluation of the educational sessions have you considered? Evaluation of learning can be done through conducting pre- and post-testing. Observation of practice, and observation or anecdotal reports of behaviour change are other forms of evidence.
- Have the participants been asked to evaluate the teacher, and the educational sessions?
- Has behavioural change been observed over time (i.e. retention of learning)?



- What other forms of evaluation have you considered?
- What will you do with the evaluation information?
- Will you make changes to your educational material and teaching/learning processes if necessary?

METHODS OF TEACHING/LEARNING

There are many teaching methods or strategies to promote learning, including:

Group Discussion

This method is useful if group members feel comfortable with one another and are not hesitant to speak. Group discussion exposes members to the beliefs, values, and practices of the others in the group. One of the best ways to encourage group discussion is through posing and solving problem.

Role Play and Simulation

Students often find it beneficial to practise new learning by acting out, or observing, a role-play or simulated exercise. They are then more able and confident to transfer this learning to the “real world.”

Building on Success

Finding out what the learners have been successful in achieving and using the experience of this success toward teaching other subjects, provide students with a sense of confidence and empowerment.

Visual Aids

Posters, photographs, pictures, overhead projections, slide presentations, videos, and works of art all can be powerful educational tools. Discussion can follow the use of such visual aids. For example, the group can be asked what the visual aid meant to them, what they liked or disliked about it, what was unclear, disturbing, or helpful.

Participatory Group Activities

People learn best when they participate in the learning rather than behave as passive observers. In the past, students were often placed in rows, while the educator lectured to the group. Although this method is sometimes useful to communicate important messages in a short period of time, reinforced learning leading to behavioural change is best accomplished through the active participation of the learners.



Learning Aids

Flip charts, fact sheets, flash cards, wall charts, drawings done by the group or others, diagrams, tables, and graphs provide clear and easy access to information. These visual aids can also be used to promote group discussion. For example, questions such as “What does this graph tell you?”, “What is missing from this information?”, “What does this drawing tell you?”, “How would you have drawn this picture differently?”, all promote discussion. Models of anatomy can be used to help the learners understand how HIV and other STIs are passed from one person to another.

Use of the Media

These can be powerful methods of sharing information. The media can be involved in providing educational messages to the larger community. Nurses and midwives can be interviewed by the media, or students can be encouraged to participate in media presentations. Cartoons and comic strips can reach wide audiences and be useful methods of peer support and education.

Learning through Story-telling and Games

These can be effective methods of learning. People like to hear about the experiences of others, and often find they can relate to their experiences better than trying to grasp facts that seem to have little relevance for themselves. Fictional stories are also helpful in sharing important messages. Although the story might be about a fictional character, the message is one that the listener can easily relate to and understand. Board games and puppets can be used to present important messages. Puppets often help to make the subject matter more playful and less intimidating.

Participating in Drama

Dramatic events can also be a powerful way of expressing important information. Not only do the participants of the drama learn from this method, but the audience can also be brought into the drama. Young people are particularly open to this form of learning.

Community Fairs or Meetings

These events can be used to present important information. Such community gatherings can increase public awareness of the issues and challenges of HIV/AIDS and encourage the wider community to become actively involved in the care and prevention of HIV.



QUESTIONS FOR REFLECTION AND DISCUSSION

- When you think about preparing to teach a session about safe sex practices, what principles of teaching/learning might you consider?
- What methods of teaching/learning have you used? Did you find them helpful?
- What other methods might you now consider?
- What methods of evaluation (both student and teacher) might you consider? Why would it be important to obtain this information?
- What role do you see yourself playing in providing information to a wider audience?
- What methods might you use to encourage learner participation? Why might it be important to actively engage the learner in his/her own learning?
- What preparation do you see yourself needing in order to be an effective educator? How would you go about gaining this knowledge?

Additional Reading

HIV Prevention and Care: Teaching Modules for Nurses and Midwives, (1993) World Health Organization WHO/GPA/CNP/TMD/93.3

Handbook on AIDS Home Care (1996) WHO/SEARO



EVALUATION FORM

FACT SHEETS ON HIV/AIDS FOR NURSES AND MIDWIVES

Please use and adapt this Evaluation Form if you would like to. We would be interested in knowing how these Fact Sheets are used, who uses them and how it is made available to the users.

Q1: How did you get a copy of the Fact Sheets (please tick one)? ☒

- a) Sent to me by the WHO Regional Office or country office ☐
- b) Sent by the Department of Nursing/Nursing Council/Nursing Association ☐
- c) Got it from the national AIDS control programme ☐
- d) Hospital/nursing school library ☐

Q2: How did you use the Fact Sheets? ☒

- a) Read it for personal information ☐
- b) Used for training courses ☐
- c) Copied and distributed for others to read ☐

Q3: How appropriate is the content of the Fact Sheets for use by nurses/ midwives?

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Q4: How can the Fact Sheets be improved?

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Q5: Have the Fact Sheets been adapted to country situation?

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Thank you for filling in this evaluation form. Please send it by e-mail, fax, post or pouch to:

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