

The international newsletter on HIV/AIDS prevention and care

# AIDS action

Asia-Pacific edition

Issue 31  
April-June  
1996

## HIV, drugs and diet



BMC/HAIN

Eating well is important for maintaining good health and is an essential part of care for people with HIV.

Articles in this issue of *AIDS Action* highlight two areas of interest for people living with HIV or AIDS and those involved in caring for them — nutrition and anti-HIV treatments.

The article on pages 2 and 3 summarises new developments in treatments for tackling HIV. The author emphasises that, although researchers are making some progress, fully effective and affordable drugs against HIV have not been developed yet. Prevention and treatment for common opportunistic illnesses are still the most important strategies against HIV, especially now that TB causes more deaths in HIV-positive people than any other infection.

Good nutrition also plays a major role in maintaining health (see pages 4 and 5). It is often possible to make low-cost meals that are more nutritious, tastier and easier to eat for people who are unwell.

The article on pages 9 and 10 looks into the essential drugs for HIV infection, while page 8 explains how these drugs work. This issue also features an educational game which is popular in Chile, and which could be adapted for use in other languages and situations.

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Published by

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### Contribute to AIDS Action

Future topics include practical strategies for promoting people's rights; blood safety and infection control; ideas for integrating HIV into community development and education; planning, monitoring and evaluation tech-

niques; traditional medicine; working with young people and children; and counselling.

*Please send articles describing successful activities and approaches to HAIN.*



# Slow progress against HIV

*We are still a long way from discovering a 'cure' for HIV infection. AIDS Action highlights problems in developing new treatments.*

**T**here are three types of treatment for people with HIV. These aim to:

- prevent the virus from reproducing
- strengthen or 'boost' the immune system
- cure opportunistic infections.

## Anti-HIV treatments

One type of anti-viral drug aims to prevent or slow down viral reproduction in human cells (see box below). The drugs have a similar chemical structure to human DNA. This means that the virus bonds with the drug rather than the DNA, and so cannot use the DNA to reproduce itself.

### How HIV works

After someone has been infected by HIV the virus begins to multiply rapidly in the body. The virus attaches itself to the surface of special white blood cells involved in fighting infections (CD4 cells). Then, after entering a CD4 cell, the virus bonds with the cell's DNA. DNA is the human genetic material which enables cells to reproduce. This means that when the cell tries to reproduce itself, it is forced to produce more virus instead of another human cell, and is also destroyed in the process.

At first, the person's immune system is able to kill many of the CD4 cells which become infected with HIV. However, the virus is never totally destroyed. It continues to reproduce and eventually the immune system becomes unable to destroy the large numbers of HIV-infected cells. As the number of uninfected CD4 cells declines, the immune system becomes less able to fight illnesses.

The most widely used anti-viral drug is still AZT, or zidovudine. AZT has been in use since 1985 and is manufactured by Wellcome, under the brand name of Retrovir. Its benefits are limited when taken alone. The 1993 Concorde trial showed that AZT does not benefit people who are still healthy.

A number of other anti-viral drugs have been licensed in different countries for use alone (monotherapy) or in combination with AZT (combination therapy). They include ddI (didanosine), ddC (zalcitabine) and d4T (stavudine).

In September 1995 an international drug trial called Delta proved that a combination of anti-viral drugs is much better at delaying the development of HIV-related infections and death than AZT alone. The two-year trial compared the health status of people with HIV taking 'combination therapy' (AZT plus ddI or AZT plus ddC) with another group taking AZT alone. Ten per cent of participants were women.

Results show that, compared with taking AZT alone, the likelihood of dying for people taking combination therapy was reduced by almost 40 per cent. The benefits were greatest for participants who had never taken an anti-viral treatment before. However, disease progression was not affected for those starting combination therapy after taking AZT alone for several months.

### Pregnancy and AZT

Two recent studies show that AZT treatment for HIV-positive pregnant women before and during delivery, and for their newborns, can reduce HIV transmission to the baby. A study in the USA called ACTG 076 showed that the

chance of mother-to-baby HIV transmission was reduced by two-thirds when AZT was given during the last 20 weeks of pregnancy, intravenously during childbirth and to the newborn child.

However, there are many unanswered questions. The studies, in Europe and North America, involved only a small number of infants. The results may not apply to all HIV-positive women. AZT is toxic, and its long term effects on women and newborn infants are not known. Only one-third of infants born to women with HIV are HIV-infected themselves, therefore many uninfected babies could be exposed needlessly to AZT.

Although some pregnant women with HIV in Europe and North America are taking it, more follow-up is necessary. Following the Delta trial it seems likely that women who choose to take anti-viral treatment during pregnancy will be recommended combination therapy rather than AZT on its own.

### Problems

There are several disadvantages to anti-viral drugs. It is now clear, for example, that the virus quickly becomes resistant to AZT. All these drugs are toxic and cause side effects such as nausea, anaemia and muscle wasting, and sometimes other serious illnesses. These side effects are more severe at higher doses and more likely to appear in people with advanced HIV infection. For people without symptoms there are fewer side effects but the long-term impact on their health has not been studied.

People taking anti-viral drugs need access to regular and expensive monitoring tests which require laboratory facilities and trained staff. For example, blood tests are needed to detect anaemia, as well as high enzyme levels in the blood which can lead to serious illnesses such as pancreatitis. Taking the drugs without medical supervision can do more harm than good.



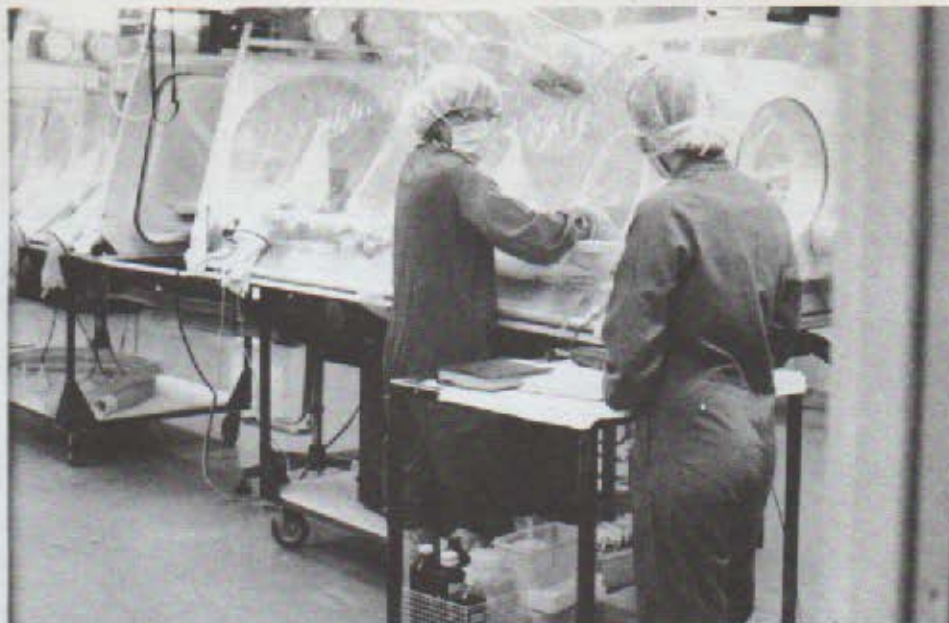
Other types of anti-viral drugs are still in very early stages of development. Studies are taking place to investigate drugs called 'protease inhibitors' such as saquinavir. Protease inhibitors aim to deactivate the special HIV enzyme which enables attachment to the white blood cells. Scientists hope that they will be less toxic than drugs such as AZT and ddI. Trials are in preliminary phases and there is no evidence at present to suggest that they prolong life or delay the development of HIV-related illnesses.

### **Immune system boosting**

Another area of research focuses on strengthening or 'boosting' the immune systems of people with HIV. It is hoped that strengthening certain components of the immune system could protect HIV-positive individuals from developing illnesses. For example, treatments to increase the number of white blood cells could help the body to fight HIV for longer.

There is debate among scientists about the value of these treatments. Increasing the number of white blood cells could also increase the number of these cells that are infected with HIV. The only large trial, carried out with 'imuthiol' or DTC, found no clear evidence of benefit and even a possibility that it hastened development of HIV-related illnesses. Another drug called 'interleukin 2', already used for kidney cancer, is about to be tested for its effect on the number of CD4 cells. Experimental trials with drugs used for other illnesses are also under way.

The immune system may also be suppressed when someone is poorly nourished or under stress. Many people living with AIDS can feel healthier and stronger if they are able to change their lifestyle and diet and reduce stress. Alternative approaches to strengthening the immune system involve using Chinese medicine and acupuncture, herbal medicines and forms of relaxation. Some herbal medicines are being studied although no scientific research has yet been completed. Traditional and herbal remedies will be looked at in future issues of *AIDS Action*.



WHO photo by T. Farkas

*Laboratory testing is only one part of the long process of developing new drugs.*

### **Affordable and effective?**

The results of recent studies are encouraging. However, therapies are extremely costly and many have side effects. Even people in North America and Europe, who have access to these treatments, are deciding not to take them. Unless effective and low cost therapies can be developed, the prevention and treatment of opportunistic infections such

as TB and diarrhoea continue to be the best strategies for most people with HIV. Appropriate care and 'positive living' can reduce stress and improve quality of life.

*Keith Alcorn, National AIDS Manual, 52 Eurolink Centre, 49 Effra Road, London SW2 1BZ, UK. (See p12 for NAM publications.)*

### **Developing new drugs**

New treatments need to be tested for safety and effectiveness in several stages, before they can be licensed for commercial manufacture. The research process can take many years and involves:

- laboratory studies to assess the impact of the drug on the virus itself
- research on animals to study effects on health and the immune system
- small scale studies/trials with volunteers to test for side effects and impact on health and immune system
- large scale studies with many people for at least a year to prove safety and effectiveness.

Reports in the media about the discovery of a cure often raise false hopes because all the trial stages have not been completed. There is much debate about whether drugs should be made available before the final stage is completed, because the need for treatments is so great. Some drug companies have run lotteries to select trial participants, because so many people volunteer to take part.



# Eat healthily, stay healthy

Good nutrition is essential for health. AIDS Action looks at nutritional needs of people with HIV.

It is extremely important for a person living with HIV to eat a nutritious diet. A well nourished person is less vulnerable to illness whether or not they have HIV infection. Both HIV and poor nutrition can damage the immune system.

It is important to have reserves of energy to combat infections such as TB which use up the body's energy, or diarrhoea and vomiting which result in loss of nutrients. Both emotional stress and opportunistic infections can reduce a person's appetite. Infections in the mouth and throat, such as thrush or open sores, can make eating difficult and painful.

Some studies have shown that HIV itself can cause severe weight loss. This can take the form of muscle wasting where muscle and other protein stores are used up, in addition to fat reserves. Healthy people with HIV infection are advised to eat as much as possible of a balanced diet. Some people like to take special vitamin and 'energy-rich' supplements. However, these are costly and are not necessary.

It is especially important for people with HIV to have enough proteins and micronutrients such as vitamin A and iron. Vitamin A plays a key role in keeping the immune system healthy. Studies show that children who lack vitamin A have more frequent diarrhoea and respiratory infections.

## Nutritious and easy to eat

Some foods can be made more nutritious and easy to digest. Porridge can be made more energy-rich by adding nuts or oil, by replacing some of the water with fresh milk or coconut milk, or by adding mashed fish, dark green or orange fruits and vegetables or fruit juice.

Traditional weaning foods can be adapted for people who are sick or having difficulty in eating. Porridge can be made thinner, easier to swallow and more nutritious by 'fermenting' or 'malting'.

**Fermentation** turns some of the starch in the flour into acidic products. This sours the porridge, making it thinner with

a higher concentration of nutrients, and also increases the absorption of some nutrients such as iron and zinc. Bacteria which cause diarrhoea are less likely to grow in soured than in ordinary porridge. One way to make soured porridge is to mix flour with water so the mixture is liquid, leave it to ferment overnight, and then cook as normal. The flour and water mixture becomes more sour the longer it is left. Cooked porridge can also be soured by adding a spoonful of previously fermented porridge.

**Malting** means allowing cereal grains to germinate (start sprouting) by soaking them in water for two days, spreading them out on sacks and covering them with a damp cloth. They are then left in the dark and kept damp for two to four days. After malting, the grains should be washed and dried before they are roasted, fermented, or pounded into flour. It is important not to use grains which have developed mould because this can become toxic.

## Helping with difficulties

What is good for a healthy person is good for a sick person. However, people who are sick with HIV-related infections may need a diet that helps them to:

- increase their appetite and take in enough nutrients
- help the digestive system cope with and recover from diarrhoea
- recover weight and strength lost during illness.

## During illness

It is important for the person to continue to eat as much as possible. The food should be easy to eat and easily absorbed.

**Mouth sores:** the person may prefer to eat food that does not need to be chewed, for example milk, porridge, soup, or mashed fruit or vegetables. It is important not to make the food too watery because this reduces the amount of nutrients. Cool food can be more soothing than hot food. Avoid using spicy and peppery foods.

## The World Health Organisation Golden Rules for Safe Food Preparation

### 1. Choose foods processed for safety

While many foods, such as fruits and vegetables, are best in their natural state, others simply are not safe unless they have been processed. For example, always buy pasteurized as opposed to raw milk. Certain foods eaten raw, such as lettuce, need thorough washing.

### 2. Cook food thoroughly

Many raw foods, most notably poultry, meats and unpasteurized milk, are very often contaminated with disease-causing pathogens. Thorough cooking will kill the pathogens, but remember that the temperature of all parts of the food must reach at least 70°C. If cooked chicken is still raw near the bone, cook it again until it's done — all the way through. Frozen meat, fish, and poultry must be thoroughly thawed before cooking.

### 3. Eat cooked foods immediately

When cooked foods cool to room temperature, microbes begin to proliferate. The longer the wait, the greater the risk. To be on the safe side, eat cooked food just as soon as they come off the heat.

### 4. Store cooked foods carefully

If you must prepare foods in advance or want to keep leftovers, be sure to store them under either hot (near or above 60°C) or cool (near or below 10°C) conditions. This rule is of vital importance if you plan to store foods for more than four or five hours. Foods for infants should not be stored at all.

A common error, responsible for countless cases of foodborne disease, is putting too large a quantity of warm food in the refrigerator. In an overburdened refrigerator, cooked foods cannot cool to the core as quickly as they must. When the centre of the food remains warm (above 10°C) for too long, microbes thrive, quickly proliferating to disease-producing levels.

*continued on the next page*



**Poor appetite:** it is best for the person to eat small amounts more often than usual. Use a variety of foods that the person likes. If they feel nauseous, avoid strong smelling foods and cooking smells that linger.

**Diarrhoea:** this damages the gut so fewer nutrients are absorbed. Damaged intestines need easily digestible foods such as porridge or soups. In some cases fatty or oily foods can worsen diarrhoea because the gut cannot absorb them. Milk can also cause poor absorption in a few people. Damaged intestines are sometimes intolerant to lactose, the sugar found in milk. If the diarrhoea persists the person can consider excluding milk from their diet to see whether the diarrhoea lessens. Other nutritious foods should be taken instead. Antibiotics can also worsen diarrhoea.

During illness, especially diarrhoea and vomiting, make sure the person drinks extra fluids to prevent dehydration, such as thin porridge, coconut water, fruit juices, thin vegetable soups or yoghurt-based drinks. Oral rehydration salts solution can be taken if available.

#### Quick recovery

When an acute infection passes it is important for the sick person to have extra food in order to repair the gut, rebuild muscles and replace the body's store of nutrients that has been used up during the illness. This extra food is needed until the body has regained weight. The person should try to eat one extra meal each day, and it is good to have extra food at each meal.

#### Staying well

When the person is feeling stronger, they should try to continue eating well, including foods that have not been eaten during illness.

#### For women and children

All pregnant women need extra nutrients, especially if they are anaemic (iron deficiency). It is important for all pregnant women to have enough vitamin A through eating dark green leaves or orange fruits and vegetables, and, if available, liver or egg yolk. A study in Malawi has indicated that babies born to HIV-positive women with vitamin A deficiency are three or four times more likely to have HIV than those born to HIV-positive women with normal levels of vitamin A. It is thought that this is because vitamin A is important for the immune protection provided by the mother

*continuation of "WHO Golden Rules..."*

#### 5. Reheat cooked foods thoroughly

This is your best protection against microbes that may have developed during storage (proper storage slows down microbial growth but does not kill the organisms). Once again, thorough reheating means that all parts of the food must reach at least 70 °C.

#### 6. Avoid contact between raw foods and cooked foods

Safely cooked food can become contaminated through even the slightest contact with raw food. This cross-contamination can be direct, as when raw poultry meat comes into contact with cooked foods. It can also be more subtle. For example, don't prepare a raw chicken and then use the same unwashed cutting board and knife to carve the cooked bird. Doing so can reintroduce all the potential risks for microbial growth and subsequent illness prior to cooking.

#### 7. Wash hands repeatedly

Wash hands thoroughly before you start preparing food and after every interruption — especially if you have been to the toilet. After preparing raw foods such as fish, meat, or poultry, wash again before you start handling other foods. And if you have an infection on your hand, be sure to bandage or cover it before preparing food. Remember, too, that household pets often harbour dangerous pathogens that can pass from your hand into food.

#### 8. Keep all kitchen surfaces meticulously clean

Since foods are so easily contaminated, any surface used for food preparation must be kept absolutely clean. Think of every food scrap, crumb or spot as a potential reservoir of germs. Cloths that come into contact with dishes and utensils should be changed every day and boiled before re-use. Separate cloths for cleaning the floors also require frequent washing.

#### 9. Protect foods from insects, rodents and other animals

Animals frequently carry pathogenic microorganisms which cause foodborne disease. Storing foods in tightly sealed containers is your best protection.

#### 10. Use clean water

Clean water is just as important for food preparation as for drinking. If you have any doubts about the water supply, boil the water before adding it to food or making ice for drinks. Be especially careful with any water used to prepare an infant's meal.

and prevents HIV from passing across the placenta from mother to child. This finding is being investigated further.

Breastmilk is the best form of nutrition for every infant, especially during diarrhoea. If the mother has decided not to breastfeed, for example due to severe HIV-related illnesses, ensure that the child is fed adequately using a cup and spoon (see AIDS Action 27). After an attack of illness give older children an extra meal until they are at least the same weight as before the illness.

#### Community coping

It is often difficult for people living with HIV and their carers to eat well. Illness in a family is often linked with poverty, because, for example, adults may be too sick to cultivate land or to earn income.

**Food aid** Some NGOs provide food aid to families. However, many people in poor communities are badly nourished or sick, not just those with HIV. Providing food only to people known to have HIV draws attention to them when they may prefer to keep their HIV status confidential. Some NGOs have chosen to provide food through schools and mother and child health or TB clinics. One NGO in Tanzania provides food to families where the

household has an orphan or is headed by a child, elderly person or woman with no land. Decisions about who receives food are made by local committees.

**Maintaining food production** It is important to work with local people and agricultural programmes to avoid food shortages caused by a decline in farming. Providing technical support, such as training on crop diversification and livestock management, transport, storage and marketing, or providing credit can lessen food shortages and increase income. Some organisations work with legal associations to ensure land inheritance for widows and children who would otherwise lose their land on the death of a partner or parent.

**Home care** Home care and counselling should include information about nutrition. Some organisations are running courses for people with HIV and their carers about improving nutrition with locally available products.

Sources: Semba R, 1994, 'Maternal vitamin A deficiency and mother-to-child transmission of HIV-1', *The Lancet*, vol. 343, no 8913, p1593-1597.

'Malnutrition and chronic diarrhoea - nutrition guidelines' (draft), 1995, City Health Department, Mutare, Zimbabwe.



# AIDS: everyone's task

Organisations working in community health development have a key role in AIDS education. EPES, a community health group working in Chile, describes how they developed the game on page 7.

When we started talking about AIDS we realised that we did not have any teaching materials to share knowledge with people in a participative way. So in 1989 we developed a board game called Learning about AIDS: everyone's task. The game is based on local people's experiences and aims to:

- provide basic information on HIV/AIDS
- encourage discussion about ideas, beliefs and myths about AIDS
- give opportunities for open exchange of opinions and views about sexuality and AIDS
- promote awareness of how AIDS affects the community and the need for HIV prevention.

Everyone is affected by AIDS and has a role to play in fighting the epidemic. Every community is able to respond in a supportive, caring and effective way. But people need opportunities to discuss the issues and think about their attitudes and feelings.

The game uses two sets of cards: 72 'Everyone's task' cards with questions on HIV transmission and prevention; and 35 'Community' cards describing possible situations in the community where problems and issues about HIV and AIDS could arise (see examples). The issues are discussed in a booklet which accompanies the game. It is essential to have a skilled facilitator who is aware of the issues that arise when talking about HIV and sexual health.

People play the game in pairs using dice. Each player in turn moves their counter forward the number of squares on the board shown on the dice. If the counter lands on a square marked with 'Everyone's task' the person picks up a card and answers it. When a counter lands on a 'Community' card square the group discuss the issue. These cards do not have 'right' or 'wrong' answers.

The game was designed with a group of people involved in education or living with AIDS and is based on real life experiences. Each group who uses the game can change it for local use. For example, a group of students at the local university played the game during a special event. They made a large-scale version on a football pitch, built life-size models of the community buildings and made a giant dice. Groups in other countries could develop a new set of issues and questions for the players to consider.

The game can be a useful part of an HIV prevention strategy which includes three key elements: relevant information and education; access to services; changing social attitudes to enable every individual to develop their own sexuality healthily and safely. The game both provides information and challenges the players to think about all the issues in their community.

Sonia Covarrubias, EPES, Casilla 360-11, Nuñoa, Santiago, Chile.

## Sample 'Everyone's task' cards:

- What is AIDS?
- What is an 'immune system'?
- Are HIV symptoms the same in men and women?
- Name three ways in which someone can become infected with HIV.
- Name various ways of reducing the risk of HIV transmission.
- Does everyone with AIDS die because of this illness?
- Should someone with HIV continue in his or her job?
- True or false: married people do not get HIV.
- Can using drugs or alcohol contribute to risk of HIV transmission?
- Do birth control methods prevent HIV transmission?

## Sample 'Community' cards:

**Clinic:** Free condoms are available at the clinic for HIV prevention. Should condoms be given out free? What do you think?

**Pharmacy:** The pharmacy on the corner sells condoms. In a role-play show how you would ask for a condom, with your partner playing the part of the pharmacist.

**Home:** Your husband is going away for a football match at the weekend. You are worried about AIDS and afraid that your husband will have an affair while he is away. How do you talk with him about this?

**School:** A teacher says 'if we teach children in school about sexuality and AIDS we will encourage them to be more sexually active.' What is your opinion?

**Neighbourhood centre:** In a community meeting a neighbour asks why there is no compulsory HIV testing. She is afraid and thinks that we should know who has HIV to be able to help them. What do you think about mass compulsory HIV testing?

**Bar:** A friend is applying for a job as a cashier at a bar in town. They insist that he has an 'AIDS test' before getting the job. Should people have HIV tests before getting jobs?

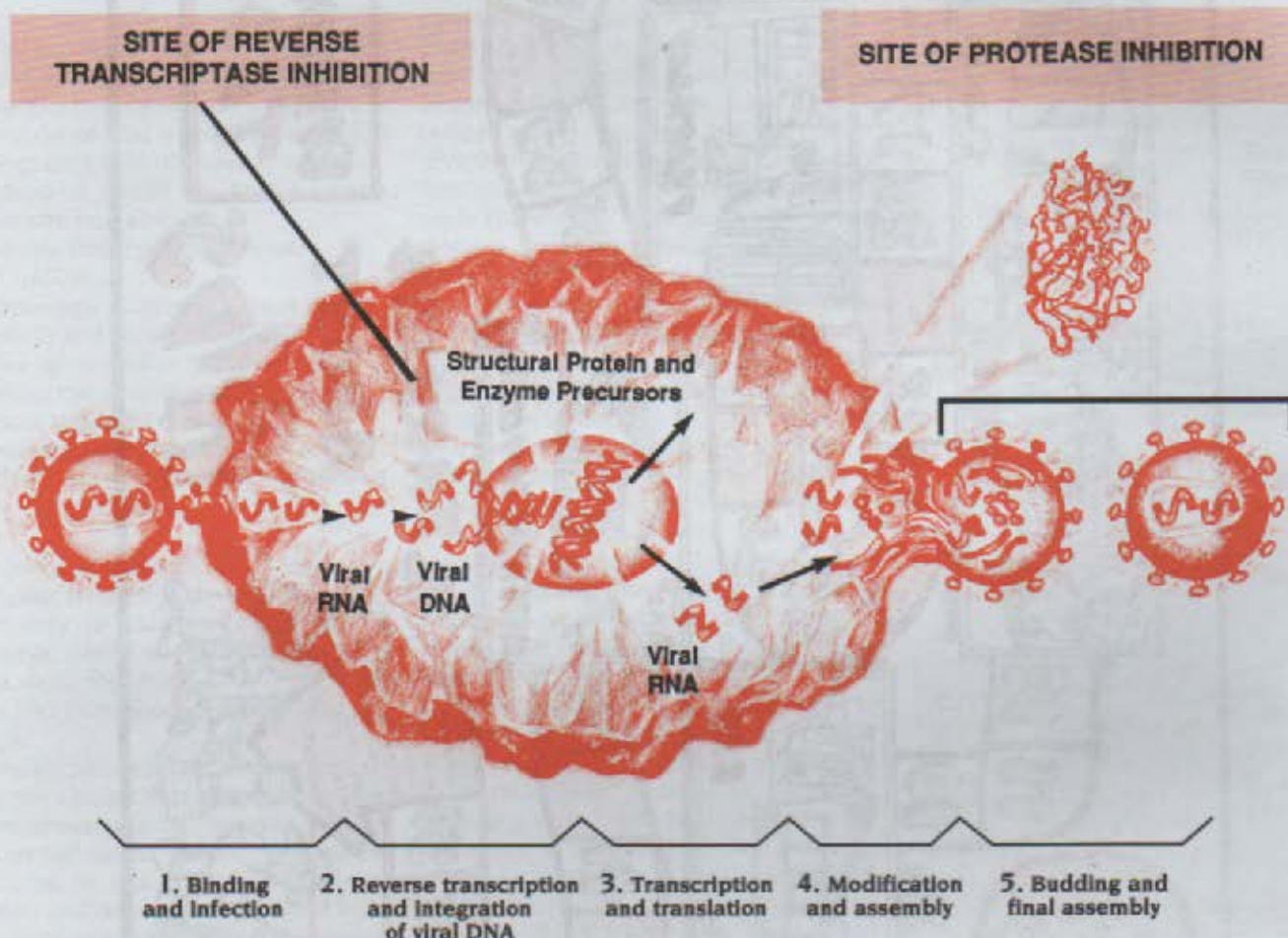
**Church:** A group of young people in a local congregation ask for teaching about how to prevent HIV and insist that the issues be discussed directly and frankly. How can the Church respond to a direct request such as this?







# Anti-HIV drugs: how do they work?



**T**here are now two groups of drugs that have been approved for use in HIV infection. These drugs do not cure HIV infection. What they do is to inhibit the reproduction of HIV. There are two groups of anti-HIV drugs that do this: reverse transcriptase inhibitors and protease inhibitors.

For HIV to reproduce, it needs to have its genetic material "transcribed" in the host cell. Reverse transcriptase inhibitors affect this transcription process. The other group of drugs are called protease inhibitors. These affect another stage in HIV reproduction, when the virus needs to be "assembled."

Protease inhibitors block this assembly process and therefore new HIV is not produced. All of this takes place within the CD4 or helper T cell, the host for HIV. The following illustration shows the sites where the drugs work.

Reverse transcriptase inhibitors that have been approved in the United States and Europe are zidovudine (ZDV, also known by its old name AZT and its brand name Retrovir); ddI or didanosine (also known as dideoxyinosine and the brand name Videx); ddC or zalcitabine (also known as dideoxycytidine and the brand name Hivid); d4T or stavudine (brand name Zerit) and 3TC or lamivudine (brand

name Epivir). Nevirapine (brand name Viramune) is the latest of these drugs to be approved in the United States. Nevirapine is a non-nucleoside reverse transcriptase inhibitor (NNRTI) while the other drugs approved earlier are nucleoside analogues. The NNRTI have less severe side effects than the nucleoside analogues.

Protease inhibitors are newer drugs that have been approved over the last year. The approved protease inhibitors are: saquinavir (brand name Invirase); ritonavir (trade name Norvir) and indinavir (trade name Crixivan).



# HIV/AIDS and Essential Drugs: Issues of Access and Affordability

## *HIV and essential drugs*

With the increasing numbers of people infected, AIDS researchers and activists are beginning to face the reality that to cure HIV infection may be an unrealistic goal. The retrovirus integrates itself into the host cells where it can remain latent for long periods of time, virtually undetectable and out of range of any therapeutic intervention.

Several antiretroviral drugs — reverse transcriptase inhibitors and protease inhibitors — have been developed at a rapid pace over the last few years. These drugs work mainly by inhibiting the reproduction of HIV but they do not cure HIV infection. While they are now routinely used in developed countries, their high cost precludes their use in developing countries.

The oldest antiretroviral drug being used is zidovudine (also known by its older name AZT and by its brand name Retrovir). In Malaysia, the government still subsidizes patients with HIV under a special budget allocation but the prospects of continuing this subsidy will decline as the number of patients increase. The costs can be substantial if the patient has to shoulder the expenses. The cost of a year's treatment can run up to 9240 ringgit (about US\$3696).

Over 90 per cent of patients who develop advanced HIV infection or AIDS eventually die from opportunistic infections. All these infections are treatable, often with drugs that have been on the market for many years, but many of these drugs are also expensive. In the Philippines, for example, the daily cost of oral treatment with the antifungal ketoconazole (200 mg) would cost P78, which is about US\$3, half a day's wages in the nation's capital. Other drugs used

for opportunistic infections are even more expensive, such as those used for tuberculosis and for pneumonias.

## *Impact of HIV/AIDS on health care services*

From 1983, developing nations have faced strong pressure to reduce their public expenditure on health services and other social sector services. In many developing countries, the last decade saw the proportion of government expenditure on health fall as much as 50 per cent. The structural adjustment programmes (SAPs) of the World Bank (WB) and International Monetary Fund (IMF) further contributed to the worsening income distribution and inefficiency in resource allocation and use. The result has been drastic cutbacks in budgets for social programmes such as health, education, housing, etc. Impoverished developing countries have been advised by WB/IMF to privatise health and charge user fees in public sector health care services. Unfortunately, the AIDS pandemic has hit developing countries during this time of drastic cutbacks on health budgets and worsening income distribution of its peoples.

The costs of HIV/AIDS to the public sector in most developing countries in Asia and the Pacific consists of the direct costs of treatment and the indirect costs arising from loss of productivity and income. The direct costs of treatment include costs of drugs, length of hospitalization, and the number of hospitalizations required per year for each AIDS patient. Direct costs also include the cost of control and prevention measures.

Because a considerable portion of the health budget in most developing countries is spent on drugs, the trend now

in these countries is for the private sector to increasingly take over drug supply. This is either a deliberate state policy, or because finance for the public sector is lacking. As a result, the costs of drugs have become prohibitive particularly for the vast majority of poor.

In these countries also, where the purchasing power of households has decreased in the 1990s, the effect or impact on the HIV infected individual is devastating. The decrease in purchasing power has contributed to an increase in demand on public health care services. With HIV/AIDS, the demand is exacerbated. SAPs, by increasing the price of imported drugs and in reducing public expenditures, has led in many countries to an aggravation of shortages of essential drugs in health facilities. The impact on AIDS patients has been devastating.

The problems are further compounded by a powerful pharmaceutical industry. For example, expensive branded drugs are favoured over generic substitutes of equal if not better quality. The recent Uruguay Round of the General Agreement on Trade and Tariff (GATT) has resulted in a globalization of patents for pharmaceuticals, which will put many important drugs beyond reach. Countries such as India have in the past been able to produce low-cost drugs because the treatment of HIV/AIDS related infections becomes a deterrent for the vast majority of poor who are infected with the virus and who cannot afford the costs. This situation also encourages the practice of self-medication which is far from rational, the use of traditional medicines and substandard but cheaper drugs which have not been tested for efficacy, quality and safety. In these countries, training on rational drug use is still insufficient.



information reaching the prescriber and consumers is far from satisfactory, drug management remains weak and drug promotional practices continue to give cause for concern. The inappropriate use of medicines, even if not HIV-related, can in the long term affect HIV as well. Consider, for example, self-medication with antibiotics for sexually transmitted diseases. Incomplete treatment means these diseases remain widespread, and actually increases vulnerability for HIV infection.

### Conclusion

In the Asia Pacific region and other parts of the developing world where almost one billion people live below the poverty line and where the impact of the epidemic will be the hardest, a major portion of health care costs for the treatment of HIV/AIDS are being borne by the people themselves and not by the governments. Drug treatment of HIV/AIDS is very expensive. It is imperative that a strategy for containing costs must be found particularly in the pharmaceutical supply systems as this accounts for majority spending of the health budget.

One way to do this is for governments to formulate and implement an integrated national drug policy (NDP) based on the concept of essential drugs and their rational use. The objective of a NDP is to enable governments to maximise resources and ensure the appropriate use of drugs. Some of the major components of a NDP include:

- i. Selection of a list of essential drugs to meet the health needs of the people;
- ii. Use of generic drugs;
- iii. Criteria of drug registration to be based on safety, efficacy, quality, health needs and costs;
- iv. Centralised bulk purchase of drugs using international tenders;
- v. Regulation, control and monitoring of:

drug prices and drug promotion;

- vi. Provision of objective information to prescribers;
- vii. Local production of drugs;
- viii. National legislation on patents to exclude pharmaceutical products from patent protection;
- ix. Comprehensive drug legislation empowering the Minister of Health or his/her representative to formulate rules and regulations to effectively implement the various components of the NDP, which should be applicable to both the public and private pharmaceutical sectors in a country; and
- x. Finally, governments must draw up a public health and drug policy specifically for HIV/AIDS. This is extremely urgent considering the rapid spread of the disease particularly in Asia. This policy should be made part of the National Health Policy of the country.

- *Shila Rani Kaur*  
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## ANNOUNCEMENT

### Asian AIDS IEC Resource Center

The Population and Community Development Authority of Thailand (PDA) in collaboration with the Asian Regional Office of the AIDS Control and Prevention Project (AIDSCAP) has established an HIV/AIDS Information, education and communication (IEC) resource collection for the Asian region. The resource collection is based at the PDA's headquarters in Bangkok, Thailand.

The objective of the collection is to promote sharing of experiences and effective approaches to IEC-based HIV interventions by increasing awareness on and availability of IEC materials produced in English and Asian languages. The materials collected will be reproduced and disseminated in response to request from organizations in the region. The IEC materials will be described in a printed catalog and electronic data base, both of which will be made widely available. Using these resources, materials can be identified using search criteria such as target group, message themes, organization, types of materials available, and language. PDA will have a computer system available which will allow visitors using the center to search for materials.

PDA and AIDSCAP are inviting organisations in Asia to take part in this initiative by incorporating their IEC materials in the collection. Expenses incurred in the reproduction and shipping of materials will be reimbursed. PDA is equipped with the resources to photocopy representative samples of posters, pamphlets, books, magazines, and stickers, as well as reproduce all types of audio-visual materials. All organisations which have contributed their materials will be provided with a copy of the collection catalogue and details on how to access or obtain these materials.

The Asian AIDS IEC Resource Center operates for the benefit of all those working to prevent the spread of HIV infection in Asia. For more information contact the Resource Center at:

8 Sukhumvit 12  
Bangkok 10110 Thailand  
Tel: 229-4611-28  
Fax: 2294632  
E-mail: IEC@PDA@mazart.inet.co.th





## Durex global survey : sexual olympics?

**H**IV/AIDS discussions can become dull and routine. Durex, a condom manufacturer, recently made headlines with the release of the results of a global survey on sexual attitudes and practices, with subtle messages on safer sex. Conducted in 15 countries with 10,000 respondents of both sexes, the global survey provides some interesting figures for comparing different countries, including two in Asia: Hong Kong and Thailand. Note that the Durex report only states that they used "appropriate research methods for the survey: we do not know if the research methods (sampling; questionnaires; interview methods) were "scientific" enough. Nevertheless, we present some of the research findings as food for thought.

The age for first sex varies from a low of 16.2 years in the United States to a high of 18.9 years in Hong Kong. Thailand, with a figure of 17.3, is quite close to the global average of 17.6 years. Unfortunately, there was no break down for males and for females.

The survey asked respondents how often they currently have sex. The global average was 2.1 times per week or 109 times a year. The United States had the highest frequency with 135 per year. Hong Kong had a frequency of 80 and Thailand scored the lowest among the 15 countries, with 64.

There were significant differences in the motivations for sex. The United States came out as the most "selfish," with 61 percent rating their personal satisfaction as top priority. Only 23

percent of the Americans mentioned "satisfying my sexual partner" as a priority and 16 percent said "not having an unwanted child." None of the Americans mentioned "not catching or spreading HIV/AIDS" or "not catching or spreading sexually transmitted diseases" as a priority.

The Canadians seem to be the most considerate, with 51 percent mentioning satisfaction of their sexual partner as a priority. However, in terms of preventing HIV/AIDS and sexually transmitted disease, the Thais seem to be the most conscious, with about 51 percent mentioning these as priorities, followed by Brazilians with 36 percent thinking of the prevention of HIV/AIDS and STDs. It is interesting though that the concern is usually over HIV/AIDS rather than STDs. Only in Hong Kong do we find great concern over STDs rather than HIV/AIDS. There, 18 percent of respondents mentioned STD prevention as a concern while 8 percent mentioned HIV/AIDS prevention.

In terms of actual practices, the Thais seem to be the most conscious about safer sex, with 82 percent saying they always use a condom with a casual sex partner. The Thais are followed by the French (69 percent) and the Australians (59 percent). Countries where respondents used condoms most were Hong Kong (27 percent); Canada (25 percent) and Poland (20 percent).

The survey also asked respondents to rank nationalities that they thought would make the best lover. The French and Italians came out on

top. Hong Kong ranked 11th; the Thais ranked 13th. (The Russians were 14th and the Poles, the 15th).

Related findings were those on "national self-confidence" measured by the ratings given by respondents to their own countries in terms of their being the best lovers. The most confident were the Brazilians, with 89 percent voting for themselves, followed by Italians (85 percent) and Americans (83 percent). The Thais were somewhat intermediate, with 56 percent voting for themselves. The least confident nations were Poland and Russia (50 percent); Mexico (46 percent); and Hong Kong (31 percent).

Durex just could not resist the temptation. They decided to come up with a composite score looking at quality of sex (whether or not partner satisfaction is important); safer sex; and quantity of sex to come up with rankings on "which nationality really makes a great lover." The verdict? The French came out first. The British and the Americans tied for second. The Thais came out 12th and poor Hong Kong came in last.

Asian reactions to the survey? We were only able to monitor Filipino newspapers which, as usual, whined and complained... mainly because Filipinos - who think Filipinos are the best lovers in the world - were not included in the survey. Next round, Durex?

Source : Durex Global Survey 1996.



## Feedback on TB issue of *AIDS Action*

Congratulations on your Issue 30 on HIV and TB!

It has so far the most informative and practical communication materials I have read regarding HIV/AIDS and TB. I particularly commend your slant towards community based efforts, the sensitivity to gender issues and to the care for care-givers. Noteworthy as well are the discussions on the current issues ranging on the integration of programs and actions on TB and HIV/AIDS prevention and control.

We have requested all our UNICEF field offices in the East Asia and Pacific Region to subscribe to *AIDS Action*, Asia Pacific edition.

Continue the excellent work that you are doing. All the best and more power!

Very sincerely,

**Jaime Z Galvez Tan**

Regional Adviser - Health and Nutrition  
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## RESOURCES

**Nutrition for Developing Countries** is a practical guide for nutrition workers working in the community and gives basic facts on nutrients and food. Available for £3.95 from TALC, PO Box 49, St. Albans, AL1 4AX, Herts, UK.

**What has AIDS to do with agriculture?** is a booklet for agriculture workers and planners in HIV affected areas. For price and availability, write to Publications Division, FAO, Viale delle Terme di Caracalla, 00100, Rome, Italy.

**WHO model prescribing information: drugs used in sexually transmitted diseases and HIV infection** is addressed to clinicians, particularly those in developing countries, as a guide in the selection and prescribing of drugs, in line with the latest knowledge on efficacy, safety, and costs. Available in English; French and Spanish in preparation. Sw fr 17.50 for developing countries. Write to: WHO Distribution and Sales, 1211 Geneva 27, Switzerland.

### Newsletters

**AIDS Treatment Update** is a monthly newsletter providing information about new clinical trials and treatments that are available mostly in Europe and North America, but can be useful for health

workers and researchers in developing countries. Available for £40 per year from NAM, Unit 52, The Eurolink Centre, 49 Effra Road, London SW2 1BZ, UK. NAM also produce a twice-yearly A-Z of treatments and opportunistic infections, the *HIV & AIDS Treatments Directory*.

**AIDS Treatment News** is published 24 times a year. It provides information on experimental and standard treatments for HIV disease, mostly aimed at North America and Europe. Available for US\$120 per year or US\$60 for six months from *AIDS Treatment News*, P O Box 411256, San Francisco, CA 94141, USA.

**Pacific Islands Nutrition** is a regional newsletter for nutritionists, dieticians, and nutrition educators in the Pacific. Contact South Pacific Commission, B.P. 05. 98848, Noumea Cedex (New Caledonia).

There are many groups set up by people living with HIV and AIDS providing support on treatment issues and care, including nutrition. For more information about local groups contact *Global Network of People Living with HIV and AIDS (GNP+)*, 82B Race Course Road Singapore 218 568, *The Netherlands or International Community of Women living with HIV & AIDS*, PO Box 2338, London W8 4ZG, UK.

*AIDS Action* is published quarterly in seven regional editions in English, French, Portuguese and Spanish. It has a worldwide circulation of 179,000.

The original edition of *AIDS Action* is produced and distributed by AHRTAG in London.

The Asia-Pacific edition is produced by Health Action Information Network (HAIN).

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The Asia-Pacific edition of *AIDS Action* is supported by The Ford Foundation, CAFOD, Christian Aid and Levi Strauss Foundation.

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