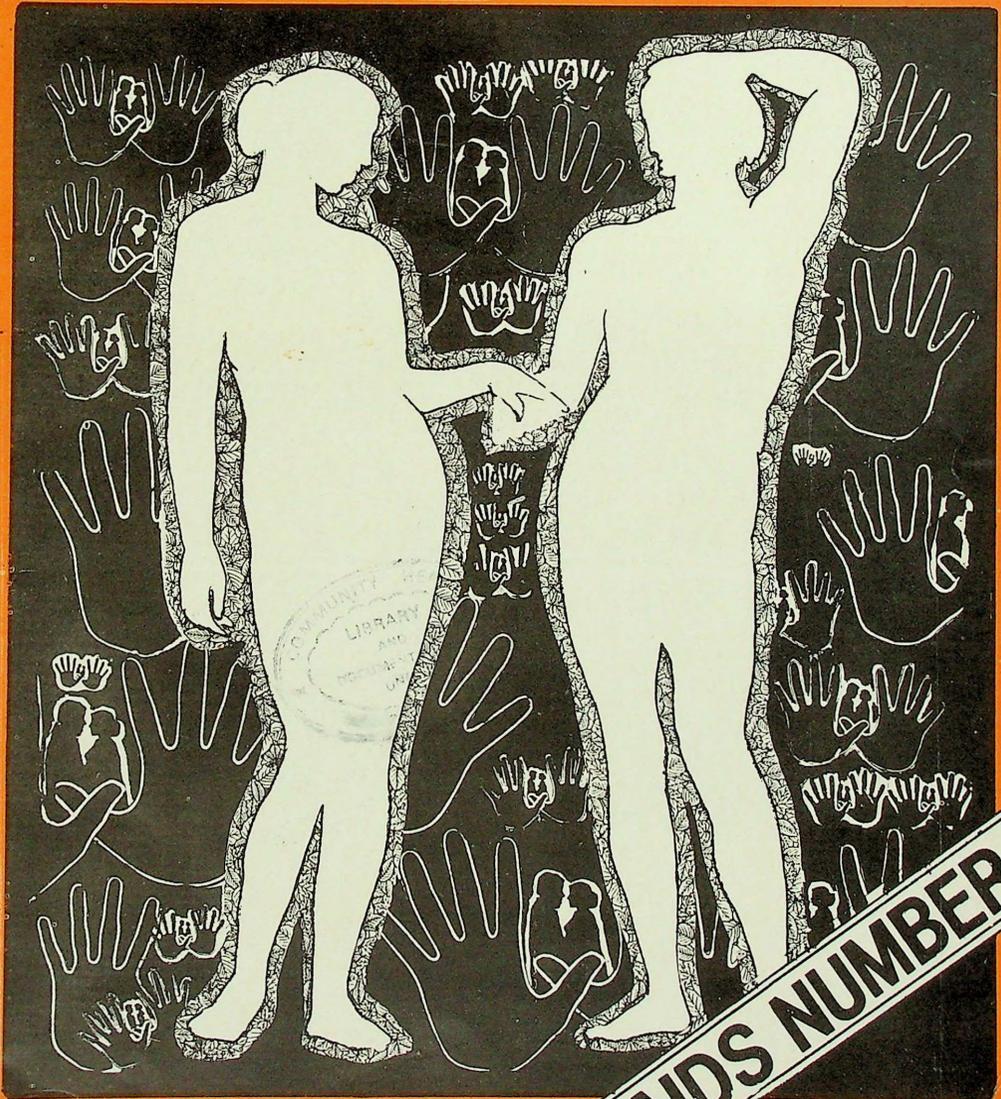


SWASTH HIND

Nov - Dec 1994



AIDS NUMBER

Swasth hind

Kartika-Pausa
Saka 1916

Nov.-Dec. 1994
Vol. XXXVIII, No. 11-12

OBJECTIVES

Swasth Hind (Healthy India) is a monthly journal published by the Central Health Education Bureau, Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India, New Delhi. Some of its important objectives and aims are to:

REPORT and interpret the policies, plans, programmes and achievements of the Union Ministry of Health and Family Welfare.

ACT as a medium of exchange of information on health activities of the Central and State Health Organisations.

FOCUS Attention on the major public health problems in India and to report on the latest trends in public health.

KEEP in touch with health and welfare workers and agencies in India and abroad.

REPORT on important seminars, conferences, discussions, etc. on health topics.

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(Directorate General of Health Services)
Kotla Marg, New Delhi-110 002

Articles on health topics are invited for publication in this Journal. State Health Directorates are requested to send in reports of their activities for publication. The contents of this Journal are freely reproducible. Due acknowledgement is requested. The opinions expressed by the contributors are not necessarily those of the Government of India. SWASTH HIND reserves the right to edit the articles sent for publications.

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SUBSCRIPTION RATES

Single Copy	50 Paise
Annual	Rs. 6.00
This Issue	Re. 1.00

Cover Design Madan Mohan

(Postage Free)

AIDS and the Family

M.L. MEHTA
DR V.S. SINGHAL

In 1994, being the International Year of the Family, the World Health Organization has chosen "AIDS and the Family" as its theme for the World AIDS Day. The emphasis is on how families can contribute to the comprehensive global response to the disease.

ACQUIRED Immuno Deficiency Syndrome, known by the acronym, AIDS, as you all know, is silently becoming an epidemic. AIDS is, indeed, an enigma which has defied all the efforts of health professionals and scientists to find any effective cure or vaccine against it. Consequently, the victim of AIDS becomes defenceless. With a view to raise public awareness of HIV/AIDS and spur new and more effective action WHO has set apart December 1 as the World AIDS Day. Each year, since 1988, WHO has chosen a different theme for events and activities leading to World AIDS Day and beyond.

In 1994, being the International Year of the Family, the World Health Organisation has chosen "AIDS and Family" as its theme for World AIDS Day. Many events have taken place in the months leading to 1st December, 1994, the World AIDS Day, focussing on AIDS and its relation to the family. The emphasis is on how families can contribute to the comprehensive global response to the disease.

Situation in India

HIV came to India later as compared to other parts of the World.

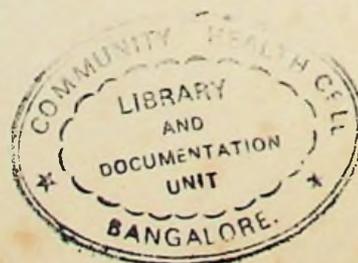
But it has spread quite rapidly in many parts of the country. Since the detection of the first AIDS case in Bombay in 1986, a total of 885 cases of AIDS have been reported from the different States of the country. So far, among 2.36 lakh samples screened for HIV, 16051 samples have been found to be positive. Since the spread of virus is determined by a multitude of factors like the extent of prevalence of risk behaviours, socio-economic conditions and other socio-cultural factors, the problem in our country has, by and large, taken a varied course in different States depending on the extent of presence of such factors. Therefore, if there are States like Maharashtra, Manipur and Tamil Nadu where epidemic in certain cities is in its advanced phases, there are still many States where the problem is in its early stage. The major concentration of infection remains in cities like Bombay, Imphal and Madras.

High-risk groups

Surveys conducted among commercial sex workers in Bombay have generated figures as high as 52% HIV prevalence among commercial sex workers. In the same city the prevalence of HIV among STD clinic attendees has been

reported to be 23%. The prevalence among low risk groups like ANC attendees have also been found to be 2.5% in Bombay and 0.8% in Manipur. In addition, new areas are being identified where the prevalence among high-risk groups is escalating sharply. Visakhapatnam, Tirupati, Nagpur and Hubli are such new places where HIV prevalence has been found among STD clinic attendees being in the range of 5 to 20%.

According to WHO, over 17 million men, women and children have been infected with HIV globally by late 1994. Besides those who are affected in a direct way, millions face social, economic and emotional repercussions of the disease, indirectly. While health services face an additional burden, families are increasingly being forced to deal with situations arising out of HIV infection and AIDS. This year's theme aims to create awareness among people as to how families are affected by AIDS, how to become more effective in both AIDS prevention and care through education and adoption of an attitude based on compassion and empathy.



Message from Dr Utton Muchtar Rafei, Regional Director, WHO South-East Asia Region

SOUTH-East Asia is a region where family ties are traditionally cohesive and strong. It is these human bonds that have very often helped people to tide over major calamities—natural, socio-economic or political.

Now, confronted with the most serious threat ever known to man—AIDS, family ties have assumed an even greater importance. In a variety of ways, family support is crucial for the successful prevention and control of this dreaded disease. A family not only provides economic assistance if a breadwinner becomes ill, it also provides the much-needed care, understanding and support to those suffering from HIV/AIDS.

In its relentless march, AIDS has already affected many millions across the globe. By July 1994, over 17 million men, women and children had been infected with HIV, and many more had been affected emotionally, economically and in a variety of other ways. While the burden on the health services, already stretched to the limit in many developing countries, is very difficult to estimate, the negative impact on the economy in terms of man-hours productivity loss because of increased illnesses and premature deaths could be estimated at several billion dollars.

In this context, AIDS prevention and control measures need to be strengthened urgently. Here, the role of health and reproductive health education cannot be emphasized strongly enough, and should be accorded top priority among 'families'. Awareness of the importance of using safe blood and blood products, as well as sterile injection equipment will lead to a major disruption in the chain of transmission of AIDS. Children from stable and loving homes are less likely to grow up to be injecting drug users thereby severely restricting the spread of this dreaded disease.

This year's theme for World AIDS Day, 'AIDS and the Family'; highlights the pivotal role of the family—in prevention and control of AIDS and in providing support and understanding, especially to persons with AIDS. Only when all members of humankind join hands as one family will this dreadful scourge be wiped out from the surface of the earth. I am confident that our joint efforts will lead us closer to achieving this goal.

Family Support

India traditionally has had strong family ties and support systems, which needs to be harnessed effectively to generate awareness and positive attitudes and behaviours. We can build on our traditional strength to minimise adverse impact of AIDS, as in the absence of a cure or vaccine, the role of the family and social environment in preventing infection is enormous. There is an increasing evidence that HIV infection in this country is being detected in general population and in

the places previously not known to be affected. As the epidemic develops, proportion of women and children infected will also increase, thereby affecting families directly and in a very visible manner. It is in this context that family support becomes crucial in the prevention and control of AIDS.

This year's theme for the World AIDS Day, "AIDS and the Family" does not define family in a limited sense in term of blood relations or marriage. The term, family, in this context also includes informal groups like street children, sex

worker associations, religious and social organisations, governmental and non-governmental networks among others. A care and support pilot programme in Manipur has been initiated to strengthen the capability of the community and families to manage those affected by HIV/AIDS. The thrust is on all those who intend joining hands as one family to unitedly work towards the control of this disease.

Keeping this in view *Swasth Hind* devotes this issue to the theme of the World AIDS Day: **AIDS and the Family.** □

AIDS and the Family: Families take care

IN 1994, the International Year of the Family, the World Health Organization's Global Programme on AIDS (GPA) is marking World AIDS Day under the banner *AIDS and the Family*. Traditional and non-traditional families have a crucial role to play in addressing the HIV/AIDS pandemic.

In the run-up to World AIDS Day—and on 1 December itself—GPA urges the world to focus on how families of all kinds are affected by AIDS, on how they can be more effective in prevention and care, and on how they can contribute to global efforts against the disease.

For GPA, any group of people linked by feelings of trust, mutual support and a common destiny may be seen as a family. The concept need not be limited to ties of blood, marriage, sexual partnership or adoption. In this light, religious congregations, workers' associations, support groups of people with HIV/AIDS, gangs of street children, circles of drug injectors, collectives of sex workers and networks of governmental, non-governmental and intergovernmental organizations may all be regarded as families within the over-arching family of humankind.

Every kind of family should *take care* to protect its members from HIV. And all families should *take care* of those among them who fall ill with AIDS. *Families take care.*

"Families whose bonds are based on love, trust, nurturing and openness are best placed to protect their

members from infection and give compassionate care and support to those affected by HIV or AIDS," says Dr Hiroshi Nakajima, Director-General of the World Health Organization.

Families and AIDS

In the mid-1990s, many families worldwide are already disrupted by political upheaval, civil unrest, migration, and other factors. For millions of them, the human immunodeficiency virus is an additional burden and growing threat.

By mid-1994, according to GPA estimates, approaching 14 million women, men and children were living with HIV and AIDS worldwide. The problem would be devastating enough if limited to these people alone, but it also has enormous repercussions on their families. Apart from the huge emotional loss of people dear to them, the families will also face loss of income as breadwinners sicken and die; a loss of care, nurturing and stability; and in rural areas—as AIDS takes its toll on the labour available to till family plots—even a loss of food supply.

Increasingly, it is children who are paying the price of AIDS: not only in the loss of their parents, but also by becoming infected themselves. In Africa, where the pandemic has hit hardest so far, about 700,000 children were born to HIV-positive women just in 1993.

Children born infected face an early death. Those not infected will soon be orphaned. And if grand-parents or other relatives cannot or will not step in with the family support needed, the children may have to leave home and fend for themselves. Such family disintegration *caused* by AIDS can in turn lead to further infections. For children with no family support may find that selling sex on the streets, regardless of its high risk of HIV, is the only way to survive.

Not all families have a positive influence on the HIV/AIDS pandemic. Many women and men have been rejected by their families because of their HIV infection. Children have been driven on to the streets by abuse within the family home. But well-functioning families, who care for their own welfare and communicate openly are the first line of defence against HIV and among the best sources of care for AIDS.

"It is in families that young people can learn about the importance of safe behaviour and nondiscrimination," says Dr Michael H. Merson, Executive Director of GPA. "If we all do our utmost within our families of choice—whether they are the people who share our home or those who share our planet—we shall help immeasurably to defeat AIDS in every family". □

People Living with HIV/AIDS talk about their families

At their best, families offer love and support to family members living with HIV/AIDS. Unfortunately, other reactions are also common. The stories on this page illustrate both positive and negative experiences of families dealing with AIDS.

Imrat (Malaysia)

I had very good support from my family. They said, 'You are part of the family, you are the son in the family, why should you be treated as a different person?' They make me feel that it's OK to have what I have, there's nothing wrong in it. It makes me feel wanted, appreciated, even though I had the infection. To know that your family's not rejecting you, but they're supporting you in every way they can.

Prudence (Botswana)

My husband died in 1988 and left me with five children, six months to 10 years. With him dead and me infected, life was surely not on my side. My parents-in-law wanted me to divide every little asset in the house, from plates and pans to the bed. A few days after the burial, my father-in-law was looking to sell my sewing-machine.

Eric (Sweden)

My friends are my family. I would rather call my best friend if I'm taken ill. There's a guy, he's older than I am and he's also HIV-positive. We have known each other for many years now and we have become best friends. When I was in hospital, I would not have survived without him, because he was always there for me....If relationships changed in any way, they became closer.

Mary (Zimbabwe)

After the positive result, I spent about three weeks without even talking to my husband. And then I asked him where he got HIV from. He said he didn't know. I blamed him, because sometimes he slept outside with some girlfriend. We quarrelled for a long time, and then we just

forgot about it. I explained to him that we were a wife and husband. We must endure things together. We must tell each other the disease we are suffering from rather than hide it. And then he said, 'I am so sorry, because I was afraid of telling you that I am HIV-positive.' He had known for some two years. Now my husband I are loving each other very much. We are closer, we are coming together, sorting out our problems together, talking to each other.

Juan (Colombia)

I am 32 years old and the father of a very beautiful daughter, aged 17 months. I found out that I had AIDS when she was only three months old. Even though I was discreet about being gay, my wife was furious and threw me out, saying 'I can't go on living with a homosexual'. It seemed to be more traumatic for her to know that I was gay than to know I had AIDS and would by all accounts soon be dead. The only person I got help from was my sister.

(Excerpted from Wise before their time, a book of testimonies from people living with HIV/AIDS compiled by Ann Richardson & Dietmar Bolle, Fount paperbacks, Harper Collins Publishers, 77-85 Fulham Palace Road London W6 8JB, UK. ISBN 0 00 627648 2. Price: £4.99.)

Information, Education and Communication in AIDS Prevention

P.N. GARG
DR S.S. KUSHWAHA
DR C.B. SHUKLA &
SHASHI DHAR GARG

In the absence of a vaccine or cure for AIDS, the single most important component of National AIDS Programme is information and education. The overall goal of IEC is to prevent the transmission of HIV infection to people by informing them about the risk and encouraging, facilitating and supporting effective and sustained behaviour change.

THE world is facing an epidemic of a disease, for which there is presently no cure and no early prospect of a vaccine. It thrives on human ignorance, fear and resistance to change. The disease is known as AIDS and infection as HIV. Until we find a vaccine or cure, the only way to stop the

spread of AIDS is through education.

On the basis of available information, by the mid 1992 at the global level 501361 AIDS cases from the 168 countries have been reported. The World Health Organization estimated true figure of AIDS cases as 10-12 million.

Most of the cases do not know that they are infected. An estimated 13 million men, women and children have already been infected with HIV. Every day, an estimated 5000 people are newly infected. Without urgent action, the current total may rise to 30-40 million by the end of the century (WHO 93).

Available reported and estimated AIDS cases and estimated cases of HIV infection world-wide.

Country	By Mid 1992		By 2000 estimated cases of HIV infection	Remarks
	Reported AIDS cases	Estimated figure of AIDS cases		
Global 168 countries	501,361	10-12 million	30-40 million	5000 cases every day estimated
Asia	1250 by Nov. 1992	NA	1 million by 1992	
India	308 by Feb. 1993	179000 by 1996	2-3 million by 1996	Seropositive rate 7-09/1000
Madhya Pradesh	N.A.	N.A.	323 by April 1993	7-6/1000

Source: ICMR 1992, WHO Press release 1993, AHRTAG 1991, ICMR 93.

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The well known main obstacles in AIDS prevention are—

- Lack of awareness and healthy lifestyles (Sexual behaviour).
- Lack of appropriate health technologies *i.e.* vaccines and drugs.
- Lack of supportive environment. The individual health is dependent upon his environment, lifestyle and health care system.

The environment—be they social or ecological—are important factors in shaping positive (healthy) sexual behaviour and attitudes. Thus creating environments that support and enhance sexual behaviour is an essential step in AIDS prevention.

Major components of AIDS programme

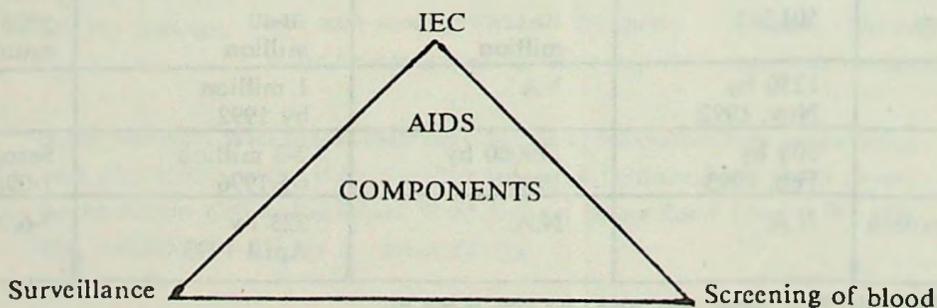
In view of the obstacles, the government of India has launched

the National AIDS Control Programme (NACP) since 1987. The major components of the programme are—

1. Surveillance, which includes sero-surveillance, clinical and sentinel.
2. Screening of blood and blood products to ensure blood safety.
3. Information, Education and communication (IEC).

A FRAME WORK FOR IEC IN AIDS PREVENTION

Goals of IEC in AIDS	"Encouraging, facilitating and supporting effective and behaviour change"		
Obstacle's in AIDS prevention	Lack of awareness	Appropriate health technologies	Supportive environment.
Challenges in AIDS	Raising awareness	Behavioural change	Social Support
Places of IEC	Hospital	Community/Home	Working place
Key change Agents	Peer group & school teachers	PWAs & IDUs	Traditional health healers
Targets	Professional	Non-Professional	Community & high risk group
Principles of IEC	Social marketing	Empowerment	Commitment—3 P
	Coordinating healthy policy	Accurate, honest consistent & realistic	Scientifically and ethically based
Approaches of IEC	Community based	Multidisciplinary	Social mobilization



In the absence of a drug or vaccine, "education" offers the only ray of hope of slowing the spread of HIV infection. Just as much as "information" is "wealth" in the hands of businessmen and investors in the stock market, "knowledge" is the "life-blood" for many who engage in high risk behaviour or activities or who may expose themselves to high risk situations conducive to the spread of HIV. It is therefore, not surprising that "AIDS education" (IEC) is high on the agenda of actions for National AIDS Committees in more than 150 WHO Member States (UNESCO-1990).

Approaches of AIDS Prevention

The five basic mechanisms for prevention of infectious diseases include—

1. Immuno prophylaxis (vaccine)
2. Chemo prophylaxis (Drugs)
3. Sanitation (Environment)
4. Lifestyle modification (Behaviour)
5. Vector control.

There is no evidence to suggest that the HIV virus is transmitted through insect or other vectors. The first two of the four mechanisms, vaccines and prophylactic/therapeutic drugs, are under development (Walter R. Dowdle 1987). In the absence of a vaccine or drug, we have to rely on remaining two mechanisms, to prevent the spread of HIV infection: lifestyle modification and sanitation (environment). The former is aimed at modifying the sexual behaviour of individuals, while the latter protects society as a whole through modifying the social environment, Anti-discrimination, etc. The public must be reassured that the general environment does not present a threat. As HIV virus is not transmitted through casual social contact or food and water.

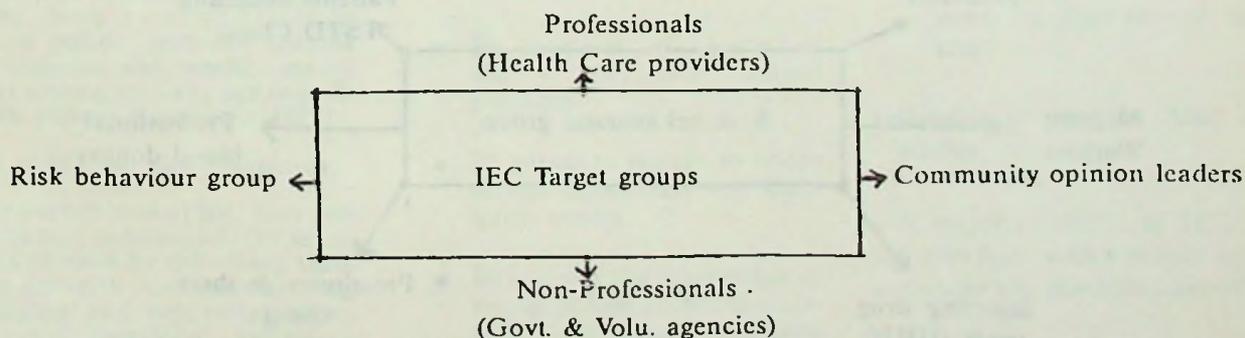
The specific mechanism for modifying behaviour includes modification of sexual practices of infected persons, routinely offering testing and counselling to persons at high-risk, treating injecting-drug users to preclude

transmission of virus through the use of contaminated needles, and information and education programmes (Walter R. Dowdle 1987).

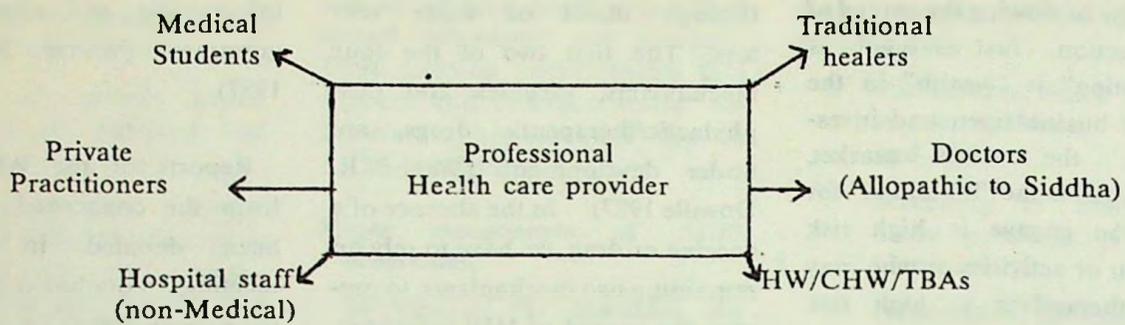
Reports of the WHO experts from the concerned fields, have been debated in world-wide meetings, concluded that respect for human rights *i.e.* antidiscrimination is more than a humane approach, it is the only approach capable of effectively combating AIDS (Susan Scholle Connor 1989).

Targets of IEC in Aids Prevention

The professionals, non-professionals and community members, working in Medical and associated disciplines are directly or indirectly faced with some kind of contact with HIV infection/AIDS cases. There is a need for orientation in education and counselling on their specific roles and responsibilities towards AIDS prevention. The target personnel can be grouped as follows:



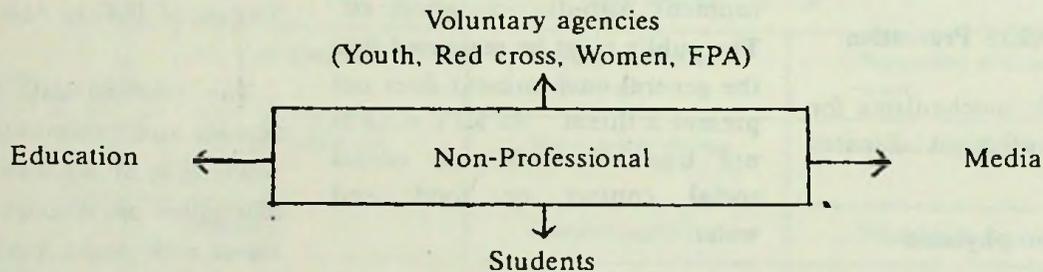
Professional groups can be again categorised as under:



Besides the medical practitioners from Allopathic to Siddha system, a similar number of para medical and traditional healers are working at different levels. These band of workers also have to be recognised

and trained in basic facts of HIV/AIDS disease. This is vital to the containment of the disease as very often these people may be the first line of health workers to be approached by the patient in the

peripheral areas of the country. The medical students, being well informed about the nature of HIV virus and its modes of transmission, are ideal peer group communicators. (IPPF-Medical Bulletin 1989).

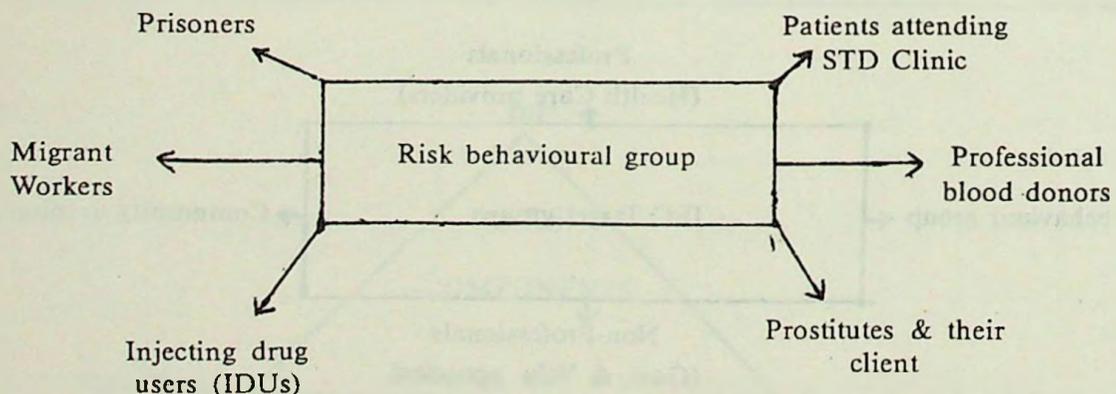


The above group of individuals need to be trained as "change agents" for the specific groups and community at large. Teachers and other voluntary workers occupy key roles for the success of AIDS educational programme. They also act as formal leaders in the community. They are educated

and committed groups, who if given scientific knowledge about the natural history of AIDS, can spread the information to a large group of individuals and can act as beneficial "change agents" (Kapoor Indira 1990).

The community leaders, such as opinion, religious, influensive

pensioners (retired from service), powerful and even defeated political leaders have a pivotal roles in creating supportive environment *i.e.* social support against discrimination activities and facilitating human rights in the community.



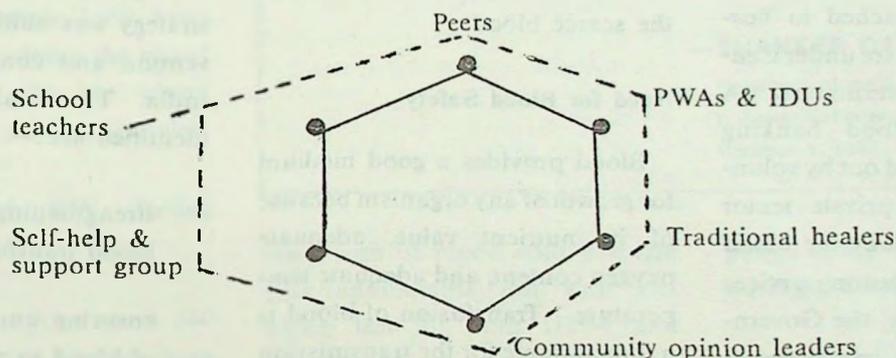
These groups of individuals need education and counselling on the different components of disease *i.e.* knowledge, mode of transmission of the HIV virus and the safer sex practices with their partner. The health care leaders must use every opportunity to educate the public or risk group personnel regarding the preventability of this disease.

Places of IEC in AIDS Prevention

Opportunities of IEC in AIDS prevention are mainly at three tier

The key change agents

The following group of personnel have a key roles in AIDS prevention.



People with AIDS (PWAs) and peer group educators are an invaluable resource for breaking down the myriad subtle barriers to understanding and acceptance of the facts about HIV/AIDS. The self-help and support groups provide practical and emotional support for individual and their families such as one to one counselling, home care, child care, income generating schemes and mutual financial help.

The opinion leaders being respected and trusted by the community, have a valuable role in shaping public attitudes towards the epidemic and modify sexual norms among sexually active individuals (Siegal Karolynn—1987).

Roles of IEC in Aids Prevention

The overall goal of IEC is to prevent the transmission of HIV infection to peoples by informing them about the risk and encouraging, facilitating and supporting effective and sustained behaviour change.

level—

- * Hospital
- * Community/home
- * Working place

Hospitals have an increasing responsibility for communicating scientific facts regarding AIDS prevention to the patients with AIDS (PWAs), then families, risk behaviour groups and to the community at large. Hospital offers a

number of opportunities where the visiting PWAs and their relatives and friends can be educated to bring about the "Safer Sex" practices through the counselling approach in different clinics such as FP, STD, ANC and MTP etc.

Effective community based IEC programme can help to increase people's understanding of HIV/AIDS and to reduce the social stigma.

The specific roles of IEC are:—

- It leads to self-imposed, willing meaningful and sustained changes in behaviour with the recognition that every one must assume self responsibility for his own health.
- To eliminate irritational fears, ignorance and prejudice about transmission through casual contact and to reduce the spread of infection.
- To motivate all levels of society in safe sexual practices.
- To persuade people to adopt certain behaviours and relinquish others.
- To increase the knowledge of young people in AIDS aetiology, prevention strategies and risk factors.

- To develop that climate of tolerance, compassion and understanding in the community at large, without which any campaign to contain the spread of disease is deemed to failure (IPPF Medical Bulletin 1989).
- To remove social stigma and discrimination against the disease so that risk behaviour groups voluntarily come forward for detection at early stage.

Principles of IEC in Aids Prevention

A major principle of IEC is— "to start from where people are at, not where you think they are at" An

(Contd. on page 259)

BLOOD SAFETY : Role of National AIDS Control Organisation

IN India blood collection, storage and issue takes place mainly in blood banks attached to hospitals most of which are under Central and State Governments. A portion of the blood banking activity is also carried out by voluntary agencies and private sector blood banks. To study the blood banking and transfusion services status in the country, the Government engaged a professional agency to conduct an all India study in the year 1989-90. The study revealed that there were an estimated 1018 blood banks in the country handling about 2.00 million units (of 350 ml including anticoagulant) per annum. As per WHO norms of 7 units per annum per (hospital) bed, the present collection is a little less than half of our total requirement. Out of this, 29% blood comes from professional donors. The study also reported that the blood transfusion services infrastructure was highly decentralised and lacked many critical resources viz., trained manpower, facilities, equipment, supplies, and financial assistance. It was also observed that the testing facilities for HIV and Hepatitis-B was

limited and erratic and that there was need for optimal utilisation of the scarce blood.

Need for Blood Safety

Blood provides a good medium for growth of any organism because of its nutrient value, adequate oxygen content, and adequate temperature. Transfusion of blood is a direct source for the transmission of diseases like Hepatitis, Syphilis and Malaria. HIV/AIDS is the latest addition to the list of blood transmissible diseases. Infusion of blood and blood products is one of the most efficient means of transmission of HIV infection (Estimated rates : blood transfusion-90%; Perinatal transmission-30-50%; Sexual intercourse transmission-0.1%). It is for this reason blood is mandatorily screened for HIV, Hepatitis-B, Syphilis and Malaria.

Strategy

Based on the national policy frame work on blood transfusion services developed by the Central Council of Health in the year 1982,

objectives were formulated in the strategic plan and appropriate strategy was outlined for the prevention and control of AIDS in India. The main thrust areas identified are :—

- strengthening the national blood transfusion services;
- ensuring an adequate supply of blood to all blood centres;
- developing facilities for the production of blood components;
- developing and strengthening facilities for plasma fractionation;
- strengthening external quality control of blood and blood products;
- undertaking research on blood transfusion service operations to improve safety, efficacy and supply; and
- developing and strengthening of effective management, monitoring, and evaluation of blood transfusion services.

Blood Safety is an integral part of the functions assigned to the National AIDS Control Organisation (NACO). The work relating to blood safety involves coordination of activities of many organisations including state governments, local bodies, voluntary and private agencies. Like NACO at the Centre, State AIDS Cells set up in the States and Union Territories under the National AIDS Control Programme are responsible for blood safety. The State Food and Drug Administrations have been strengthened to enforce the blood safety standards by the blood banks and other related agencies.

Establishment of HIV Testing Facilities

During the past three years, 180 Zonal Blood Testing Centres have been established in 112 cities for providing HIV testing facilities. These zonal blood testing centres have established linkages with the blood banks affiliated to public, voluntary and private sectors. They work on the mechanism of hub and spoke. The zonal centres receive samples of blood from the blood banks linked to them for testing and the results of HIV testing is communicated telephonically on the same day. Based on the results, the blood banks are advised to discard HIV positive blood by heat treatment followed by incineration. The strategy adopted for blood safety is to carry out *unlinked anonymous testing* of

"....Blood is a gift for life which all of us can, and must, share with others. Each healthy individual should regularly donate blood so that those who need blood may get it at a time of need. There can be no recipients of blood if there are no donors. Blood donation poses no risk to the person donating the blood. Blood loss at the time of donation is compensated quickly by the human body.

I, therefore, appeal to the Public to come forward in large numbers and donate blood to authorised blood banks. Let us also acknowledge those who have voluntarily donated blood in the past and contributed to the life, recovery and health of their fellow beings."

—SHANKER DAYAL SHARMA,

President of India in a Message on the
National Voluntary Blood Donation Day,
October 1, 1994

every unit of blood with a single elisa/rapid/simple test with kits which test for both HIV-I and HIV-II.

Modernisation of Blood Banks

The National AIDS Control Organisation has launched a central scheme of assistance to states for providing minimum facilities to all blood banks in the public sector. This assistance includes blood bank equipment, contingency grant for consumables, chemicals and reagents. In the seventh plan, 146 major blood banks had been modernised. Ninety more major blood banks were taken up for modernisation during 1992-93. A further 372 remaining blood banks in the

public sector would be modernised during the next three years.

Training and Manpower Development

The Government have formulated a short term and long term strategy for training and manpower development under the blood safety programme. Under the short term strategy, 10 training institutions in different regions of the country which are imparting short training courses have been augmented. Training modules are being prepared. The target is to train doctors, technicians and donor motivators working in the blood banks. It is also proposed to train drug inspectors through short orientation training courses. As a long term strategy, it is

"Voluntary Blood Donation is a social and individual responsibility which calls for constant attention by the community. The need for blood by patients can only be met by the perpetual willingness of people to help their fellow beings in need. The Voluntary Blood Donation Day is a useful reminder of this social responsibility and helps to renew our motivation to contribute to this noble cause.

I appeal to all, in particular to the youth to come forward and donate blood frequently. I convey my best wishes to them and to the voluntary and governmental organisations engaged in this philanthropic work."

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proposed to start post graduate diploma and degree courses in blood transfusion services, which would pave the way for career prospects for those engaged in this field.

Promoting Rational Use of Blood

It is essential that most of the blood banks deviate from their original concept of just deposition of one unit of blood and withdrawal of the same for one patient.

The role of blood bank has expanded aiming to provide total transfusion services to the hospitals rather than handling the logistics of units of blood. While there is a need to build up blood collection to meet the demand and ensure a sustained supply from voluntary donors, we also have to utilise the available blood optimally. It is with this in view that NACO has planned to set up 30 components separation units all over the country in a phased manner. Blood banks handling more than 10,000 units of blood per annum have been identified for providing this facility. It would not only optimise the use of blood but also take care of therapeutic needs of patients in various hospitals in the country.

A plasma fractionation unit has been set up in Bombay. Government of India is fully supporting this unit. After consolidating the optimal utilisation of this plant's capacity, it is proposed to establish more such units in other metropolitan cities.

Legal Framework

The Schedule F XII-B of the (Central) Drug and Cosmetics Act provides the necessary legal framework for blood safety. The existing rules specify licensing for physical facilities of equipments, staff, accommodation, labelling etc. The recently introduced amendment to the above Act has added the following provisions:—

- (a) Testing procedures of blood and blood products, quality control of reagents; specified qualification and experience requirements for blood bank personnel;
- (b) Preservation of specimen samples of each unit of blood in pilot tube for 72 hours after transfusion;
- (c) Maintenance of complete and accurate records;
- (d) Mandatory testing to ensure the freedom of blood and blood products from HIV antibodies;

(e) Approval of licence by Central Licence Approving Authority (which means the Drug Controller of India) prior to the granting of a licence;

(f) Whole human blood and components shall conform to standards as prescribed under the Indian Pharmacopoeia.

The major changes brought about by this amendment enable the Central Government to exercise simultaneous jurisdiction in the approval of blood banks licences in order to ensure a better control over the inspection and licensing of blood banks.

Promotion of Voluntary Blood Donation

As stated above, the total quantity of blood generated in the country is less than half of our estimated requirement. Out of this about 29% comes from professional donors. Thus, the availability is much less than the requirement and much of the available supply would be of doubtful or inferior quality. Although there are stringent rules to regulate functioning of blood banks yet this cannot remedy a situation arising out of poor availability of blood. We have therefore to improve supply of blood. The source of supply is most important and the augmentation of voluntary blood donation is the key approach. Blood 'donated' means a life 'saved'. Blood donation is the most precious gift one human being can give to another. Any healthy adult of age 18 to 60 can donate blood every three months without any detriment to his or her health. In the case of adult women, they can donate blood at any time with the same interval except during pregnancy and first six months of lactation period. These facts need to be made known to everyone and a sense of service to humanity be cultivated. Therefore, the main objective

SWASTH HIND

of NACO is to launch a massive drive through health education and innovative approaches to generate adequate supply of blood from voluntary donors. With this objective in view the IEC (Information, Education and Communication) component of the National AIDS Control Organisation provides substantial inputs for motivation to voluntary donors involving mass media, government institutions and NGOs. The State Governments have also to take on this activity in a big way.

Quality Control

The quality control of blood and blood products in all its facets of collection, testing, handling and distribution assumes greater importance as we have to ensure safety of blood transfusion. National Institution of Biological will lay down standards and also monitor various aspects of quality control. NACO has also set up a sub-committee to advise on this matter.

While the Government of India is engaged in improving and streamlining blood transfusion services in the country, the task ahead is stupendous. A large number of blood banks operating in voluntary and private sectors too need to be modernised and the quality of services be improved.

—National AIDS Control Organisation,
Ministry of Health and Family Welfare,
1 Red Cross Road, New Delhi-110 001.

NOV-DEC. 1994

4-24 DGHIS/94

".....The donating of blood is indeed giving a new lease of life for those in need. Blood knows no distinction of sex, language, caste, creed or religion.

The need for safe blood, free from disease is a necessity. It can be met only by the active participation of the society. The overall health status of the society, especially those of women who suffer from acute anaemia, often necessitates blood transfusion. With the increasing number of accidents and emergencies it is very critical that adequate blood is available at our blood banks.

While the Government is taking all necessary steps to ensure that safe blood is available by upgrading the blood banking system to international standards, the task would be greatly facilitated when the pool of voluntary blood donors in the country is increased significantly. Efforts should be made for rational use of blood avoiding unnecessary transfusions and optimum utilisation of blood by providing for component separation facilities.

On this occasion I would like to congratulate all involved in providing blood transfusion services for the excellent work that they have been doing, especially the blood donors, without whom many homes would be deprived of individuals whom they care and love.

—B. SANKARANAND

Minister of Health & Family Welfare
in a Message on the National Voluntary
Blood Donation Day—Oct. 1, 1994



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SAVE A LIFE**

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Acquired Immuno Deficiency Syndrome (AIDS)

N. NEELAKANTAN

AIDS has caused a widespread concern amongst the medical profession and also has brought in unprecedented alarm amongst the public in general. The disease was brought to the attention of the medical community in 1981. Twentysix previously healthy homosexuals in New York and California got a new disease which has become known as Acquired Immuno Deficiency Syndrome. There is no cure for AIDS. If any one has full blown AIDS, he is sure to die after a prolonged illness.

AIDS is a new complicated disorder of the defence system of the body. It is caused by a retrovirus called 'Human Immuno deficiency Virus' (HIV). It is a small micro-organism which attacks the specialised group of cells in the body known as T4 or T-helper cells. These cells normally play a vital role in the prevention of infection. When these T4 cells are attacked by the HIV the body's immune system collapses, leaving the individual suspect to a wide variety of infections, especially pneumonia and certain forms of cancer. The AIDS virus may also directly attack brain cells and produce neurological syndrome and a variety of psychiatric illness marked by personality change, intellectual impairment and dementia. Dementia is characterised by organic deterioration of intelligence, memory and orientation. The incubation period of the disease is two to six years with an average of 28 months. So if one got the infection the actual symptoms of the disease appear after a prolonged period.

Transmission of AIDS

Infection occurs whenever blood from an infected person enters the body of an uninfected person. Sexual practice, injecting of drugs who share needles, syringes or other equipments, blood transfusion or treatment with blood products contaminated

with HIV may transmit the disease. Passive anal intercourse and contact with a large number of sexual partners are the greatest risk.

All those individuals who become infected with HIV do not develop AIDS. Most probably the majority may not develop the disease though their blood contains HIV. Others who do not develop AIDS or AIDS related lymphadenopathy (PGL) carry the virus throughout their lives with no signs or symptoms of the disease. Those who do not develop the disease might be healthier and their natural defence control the invading microbe to a greater or lesser degree. So it can be presumed that whatever be our genetic inheritance, we can make ourselves healthier by proper diet and a healthful living thereby dramatically reducing the risk of diseases. But those who have the virus in their blood or semen and who look healthier are dangerous since they can readily transmit the disease to other individuals.

The virus is transmitted by: (1) Sexual contact Casual, homosexual or heterosexual men. Anal sex involves the highest risk. (2) Illicit use of narcotic drugs and prostitution. Injection by using needles and syringes shared with an infected person which generally happens in case of drug addicts. (3) From transfusion of

blood from infected persons. (4) Use of infected factor VIII and concentrate made from pooled blood. (5) Any instrument that becomes contaminated with blood of an infected person is used without proper sterilisation to pierce the skin of another person. (6) By transplacental and perinatal transfer from mother to child.

The virus is not spread through food or water. It does not spread through insects or toilet seats, swimming pools or telephones. Shaking hands, hugging, coughing or sneezing or sharing a bus or waiting room or talking to or visiting a hair dresser, or optician who has HIV infection does not spread the virus. In order to confirm the presence of HIV in one's blood, two tests are undertaken. First test called 'Elisa' test to find out the presence of AIDS virus and a second test called 'the western blot test' to reconfirm the presence of the virus.

Clinical symptoms

About one week after getting infection there may be a brief flu-like illness after which the individual enters the dormant period during which time he looks perfectly well and leads a normal life. This may continue during the incubation period ranging from two years to six years. Symptoms of the disease appear after the incubation period. But

between six and twelve weeks after infection or in some cases as long as eight months the antibodies usually appear in his blood. As already mentioned any one who has the virus in his blood or semen can pass it on to others even if he feels and looks completely well.

The signs and symptoms which may suggest AIDS are:

(1) Profound fatigue which lasts for several weeks with no obvious cause. (2) Unexpected weight loss of more than 4.5 kg in less than two months. (3) As a result of a profound cellular Immune-deficiency opportunistic infections and tumours like Kaposi's sarcoma may appear. (4) Unexplained fever, shaking chills or drenching night sweats lasting for several weeks. (5) Swollen glands especially in the neck or armpits. (6) Persistent shortness of breath and non-productive cough of several weeks duration. (7) Tumours, skin diseases of new pink-to-purple blotches, flat or raised bruise or blood blister which are usually painless. Kaposi's sarcoma is a form of skin cancer characterised by large areas of discoloration over the skin. This cancer is seen in some cases in severe stages of HIV infection. Blood blisters can be seen in the mouth and eyelids as well. Initially they may look like bruises, but do not pale when pressed and do not disappear. (8) A number of other skin complaints are common among AIDS patients including fungal infections and eczema. (9) A Thrush-whitish coating in the mouth or throat. This may appear as white spots or as white discharge from the rectum. (10) Diarrhoea, usually profuse and chronic. (11) Lethargy, depression and in late stages dementia.

The clinical expression of HIV infection includes manifestations due to opportunistic diseases, as well as illness directly caused by HIV itself. The spectrum of opportunistic infections include attacks of protozoans, viruses, bacteria and fungal agents. One third of AIDS patients develop encephalitis (inflammation of the brain). Sudden changes in the

ability to function with a clear mind, confusion, forgetfulness, slow thinking and concentration, loss of balance, weakness of leg muscles and difficulty in writing are the signs of this disease. Headache will be in both the sides.

Preventive measures

(1) Avoiding exposure to the HIV virus is the most effective means to prevention. People should be given education and counselling. People need a basic understanding of the clinical features of AIDS, the mode of transmission and associated risk factors of infection. An awareness campaign should be planned and implemented for persons aged 15 and over studying in high schools and colleges.

(2) From the fact that all those infected with the virus do not develop AIDS, we can presume that some other factors like poor nutrition, high stress levels, drug use and frequent exposure to other diseases especially sexually transmitted diseases may also be involved in developing the disease. So prevention of AIDS has to do with health enhancement of individuals. We have to enhance the general health and immune system in particular.

(3) Since the spread of AIDS virus is most often linked to intimate contact involving the transfer of blood or semen, it is necessary to ensure safety of blood and blood products. Blood and blood products must be tested for AIDS virus before transfusion. Much care is necessary in organ transplantation. Re-use of needles, syringes and other skin piercing invasive equipments must be done with proper sterilisation. Sex with strangers should be discouraged. The use of condoms may decrease the risk of transmission, but does not guarantee full protection. Disposable plastic syringes may be used as far as possible.

(4) The blood donors as well as organ and sperm donors should be tested for antibodies before their donation is used.

(5) Women suffering from AIDS or who are at risk should avoid becoming pregnant since the infection can be transmitted to the unborn or new born baby.

(6) It would be advisable to medically examine all prostitutes and segregate those who are having HIV infection.

Precautions to be taken if one has AIDS or HIV infection

(1) Do not give blood or an organ. (2) Do not share needles or other equipments for injecting drugs. (3) If you have sex with some one, follow the risk reduction guidelines. (4) Avoid breast feed to your child. (5) Avoid sharing of tooth brushes or razors or anything likely to be contaminated with blood. (6) Cover any acute cuts or grazes with water proof plaster. (7) Eat a properly balanced nutrition. (8) Reduce the amount of stress. (9) Get enough rest and sleep. (10) Clean any split blood or other body fluid immediately and wash the surface with household bleach, diluted with 10 parts of water. (11) Cut down drugs which may damage your immune system. (12) Take care of physical and mental health. (13) Certain live vaccines might cause problems for certain persons with immune deficiency. So, as far as possible vaccinations should be done only after consulting your doctor.

A world wide effort will only stop AIDS. The World Health Organization started a Special Programme on AIDS, on 1st of February 1987 which is now called 'Global Programme on AIDS' (GPA). In a remarkably short time, the programme has designed the Global AIDS Strategy, raised funds and rapidly started to implement the strategy, and marshalled the support of all nations. Most of the countries have now entered into collaboration with WHO to support and strengthen their national programmes. These national AIDS programmes are being rapidly established throughout the world with technical and financial support of WHO's Global Programme on AIDS. The global challenge which lies ahead will truly demand the effort of every one of us. □

A SUBSTITUTE VACCINE TO FIGHT AIDS

DR H.S. CHOCHAN

DR A.S. PADDA

AIDS has entered the South East Asian Countries. It is trying to get a firm foothold to destroy the fabric of society. Till such time "A vaccine & a drug" make their appearance we are at the mercy of AIDS. But there is a substitute vaccine to fight this scourge and that is "Education." The protection provided by this vaccine is much more lasting.

AIDS—a spine chilling acronym for Acquired Immuno Deficiency Syndrome—is now a familiar term. AIDS threatens the very fabric of the society. It affects people in the most-productive age. It incapacitates people of ages when they are most needed for the support of the growing and the elderly.

The first major challenge that AIDS has posed is that it makes AIDS work as a partnership between biomedical sciences, the behavioural/social sciences and the humanities. Nothing less will equip mankind to deal with the AIDS phenomenon effectively. An attempt has been made to review briefly the AIDS scenario and the role of health educators; the health care workers and other related functionaries in prevention and control of this epidemic. The emphasis is on the *Educational aspects* because of its vital role to bring about the desired behavioural changes.

Educational Intervention

All the South East Asian member countries of WHO have established NATIONAL AIDS CONTROL PROGRAMMES (NACP). They have also set up NATIONAL AIDS COMMIT-

TEES (NAC) to provide policy and advisory support to the programme. It is reported that:

- about 50% infected with HIV become ill in about ten years.
- approximately one out of three children born to HIV positive mother, is HIV infected and dies before the fifth birthday.

Despite this dismal picture, the good news is that nobody wants to get infected. In the absence of a protective vaccine and drug for treatment, *Education* seems to be the only substitute for both to bring about the desired changes in the attitude and life style of the communities. Education plays a pivotal role in the fight against AIDS. Workplaces, hospitals, schools, colleges, jails, army and police are ideally suited for educational intervention since a large number of people will be available at any point of time. Teachers may feel shy to talk about condoms. But, we have a large army of well trained work force such as—Village Health Guides (VHG), Auxillary Nurse Midwife (ANMS); Anganwadi workers (AWW); Block health Educators (BHE); Lady Health visitors (LHV) besides the func-

tionaries of other related departments. There are also the student nurses doing mid-wifery. This work force, the grassroot Level technical support group, will be more appropriate for this task since they will be at ease in talking about *Safe sex, family planning* (FP) and sexually transmitted diseases (STD's) to the people of their own age group in a languages in which the community can understand.

Education of the target population is the single most powerful weapon we possess against AIDS at the moment. Experience elsewhere has shown that:

- AIDS education can be effective and meet the challenge. It can control the spread of HIV and also STD's.
- Denial of the existence of a grave situation is followed by a tendency to put the blame on others e.g. visitors.
- Seropositivity studies of a specific segment of population should not be construed as representing the whole situation.

SWASTH HIND

"Human behaviour and Education"

The behaviour involved in AIDS transmission is *personal, private*, often hidden and even disapproved by the society. The educators have to be familiar with the sex behaviour of the target population to *modify or change* their behaviour pattern through educational intervention. This is no doubt a very sensitive issue, yet it is of immense practical value for prevention and control of AIDS. This should be kept in view during training sessions of the grass-root level workers for promoting the use of condoms by sexually active population. At present, there is perhaps little information on:—

- * what actually motivates the people to engage in risky practices? (Unprotected sex, intravenous drug pushing).
- * Identifying the effective means of convincing them to avoid risks, and
- * what educational & other activities are needed for sustaining the changed behaviours in the long run.

It is in this context, the assistance of the medico-social worker, the *behavioural scientist*, the Communication specialist and sexually expert will be required to plan, design and implement effective educational programmes. Six patterns could be identified to prevent disease transmission. They are:

- Knowledge of the disease and Prevention attitude
- Perceived susceptibility to a given disease
- Perceived benefits & costs of engaging in preventing behaviour
- A cue to action that triggers preventive behaviour e.g. illness of a relative, etc.
- Peer & Social norms perceived as supporting or discouraging preventive behaviours, and
- A sense of self efficiency or seeing oneself as capable of engaging in preventive behaviour.

"We must know that there is good news about HIV infection, and there is bad news too. The good news is that nobody needs to get it; the bad news is that nobody knows who's got it. We shall concentrate on good news."

Indicators in AIDS prevention measures

The positive action taken by the health care workers; health educators and medical officers are discussed below:

- use of handgloves by the health care workers in specific situations and use of condoms by sexually active population should be promoted urgently.
- In India HIV infection in Hospital patients is 0.25% with appropriate precautions, such as use of sterile needles, syringes and in routine blood smear collections for malaria, filaria, national surveys etc., time honoured naked flame to sterilise the needle tip in the field, hospital & laboratory should not be forgotten. In case of India the information worth noting is:
 - Only 4.5% couples are effectively protected by conventional contraceptives.
 - from 1968-69 to 1988-89, there has been geometric rise of condom use.
 - the ratio of commercial purchase & free supply has also shown a rise from 0.33 to 0.66.
 - condom usage instructions should be printed on the package, as is done in Nepal and Bangladesh.

AIDS prevention priorities

1. Education among individual, group and community should receive top priority in Health education especially in health centres, clinics, hospitals, schools, colleges, offices, factories transport-companies, youth & women clubs. The MCH care including Family Planning and school Health care to be provided to all whether in PHC areas or in urban slums.

2. Provide appropriate contraceptive care to eligible women. The health functionaries should review their performance periodically.
3. To follow all aseptic precautions meticulously during AN & PN care.
4. Wherever there is school health education, family life education, population education, sex education and in related educational activities, the subject of AIDS prevention and control should receive high priority.
5. Wherever there is adult education, either for illiteracy or for occupation, the component of prevention and control of AIDS should be included especially. The adult women should insist upon the use of condoms by their promiscuous partners.
6. The use of sterile needles for pricking, ear and nose, acupuncture, tonsure ceremonies and even tattooing, will avoid accidental infections.
7. It is relatively easy to achieve and maintain minimum health care with health education. This is only possible with active participation of individuals and families with health care workers and health functionaries.
8. The myths and misconceptions created around AIDS has generated scare among the people, doctors and health care workers. So the health care providers should educate themselves about AIDS and then educate the community to bring about the desired behavioural changes which should be a fitting reply to AIDS.

SOCIOPOLITICAL DISTURBANCES ALERT INDIA ABOUT AIDS —Red Light Areas in Bombay—A Study

DR SINDHU I. GILADA

THE communal riots in Bombay have pushed AIDS into oblivion. This was highlighted by what one of the *Hijras* in the red-light area, remarked about the communal violence, "Yeh to bada AIDS hai" (this is bigger AIDS), implying that the Communal virus is far worse than the AIDS virus. We would like to focus attention on this previously unrecognised group of victims important in the epidemic of AIDS: the Sex Workers, who became secondary victims of violence. These, usually silently suffering, innocent bystanders show no physical sign of harm and are commonly overlooked. While a good deal of attention has been focused on the direct victims of violence, no attention has been paid to sex workers who suffer the worst. Continuous neglect by the society even during such times, may connote detrimental viewpoints to the sex workers that the world is an essentially hostile and unpredictable place, which expects a lot of cooperation from them in the larger interest of society, but does not reciprocate in their crises.

The IHO Relief Story

December 6, 1992: popularly described as the 'Black Day' in the history of India's 'Secularism' recorded large scale violence in some parts of the country including Bombay. As a result of curfew

clamped in sensitive areas of Bombay the Red light areas were affected. After a week long gap the irate mob of Sex Workers were approached for 'peer education', they refused to cooperate. Their argument was, "We may die of AIDS after many years, but we are dying of hunger today". January 6, 1993, witnessed another spurt of fresh violence. This was a repetition of the previous month, this time more severe.

The IHO Relief Story

The Indian Health Organisation (IHO) distributed food from its own resources and received help also from the Salvation Army. Later, responding to the IHO appeal philanthropists and other organisations donated cooked and raw food. This relief operation carried on for 21 days reached about 2500 sex workers in Kamath-puka, Folkland road and Ghatkoper.

Problems Peculiar to Prostitution

1. For the sex workers no clients means no food. They are daily wage earners entirely dependent on the number of clients entertained.
2. Majority of the brothels are on daily rent basis. If they fail to pay rent for a week, they are evicted or charged heavy inter-

est by the landlords/money lenders (15% per month).

Following this many Sex Workers and their clients migrated from Central Bombay to other places taking HIV with them. Hence it is imperative to put the rural parts of India, especially that of Maharashtra and Karnataka on 'AIDS-Alert'. HIV will surely and certainly travel faster now, as the virus is now travelling with both the infected clients as well as the sex workers, as against the erstwhile vector 'Clients'.

Forty-five per cent of the sex workers resorted to short-term loans at exorbitant interest (10-15% p.m.) to avoid starvation. Decreased number of clientele, increased levels of financial extortion and fatalistic orientation to the future leads sex workers to increased risk-taking behaviours, besides migration. This will obviously force many of them to compromise on 'Safer Sex', a lesson which they have learnt the hard way. More chances of such compromise will be among the migrated sex workers, as they will find it very difficult to convince new clients in new settings hitherto considered as low HIV endemic areas.

Guidelines for Distribution of Riot Relief

Looking at the city profile in the present situation, it is necessary to

(Contd. on page 259)

PLAGUE IS CURABLE

What is Plague?

Plague is an acute infectious disease. If not treated early, it may prove fatal. The disease is characterised by high fever, inflammation of lymph glands, forming buboes and sometimes by pneumonia or septicaemia (Blood infection). The onset is sudden.

It is a primarily disease of rodents (rats and others) which can be passed on by fleas to man.

Causative Agent

It is caused by a bacteria called *Yersinia Pestis*. It is a gram negative, non-motile, cocco-bacillus that exhibits bi-polar staining with special stains (Wayson's stain).

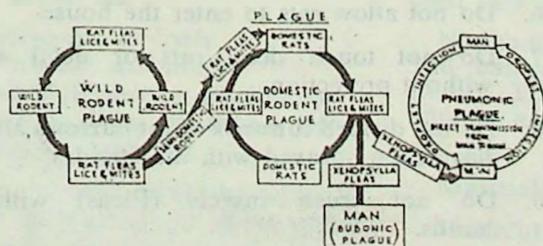
Reservoir of Infection

Wild rats are the natural reservoir of plague. In India the wild rat, *Tatera indica*, has been identified as the main reservoir and not the domestic rat, *Rattus rattus*, as once thought. Generally, the disease is maintained and spread by the resistance species of wild rodents, i.e. rodents which have become immune to plague. The susceptible rodents die of the disease.

How does plague spread in man?

Plague is a disease of wild rodents (host) and its occurrence in man is dependent on indirect contact with the rodents. Man gets infected after the bite of rat flea. Some rat fleas also feed on men, if hungry, and they are chiefly responsible for transferring the infection to man. Sometimes infection may also result from the bite of an infected animal, or through skin abrasion by infected dust and crushed flea. Man to man transmission is most unlikely to occur, except in pneumonic plague.

Plague is like any other communicable disease. It spreads readily when an individual comes in close and frequent contact with rat-flea and rats. It occurs in epidemic form in congested areas in towns and villages. Poor housing, over-crowding and insanitary conditions are contributory factors in the spread of plague.



What are the clinical forms of Plague?

There are three clinical varieties of plague. These are:

(1) Bubonic plague; (2) Pneumonic plague; and (3) Septicaemic plague. It has an incubation period of two to seven days. The bubonic plague has an incubation period between 3 and 6 days while it is lesser in other varieties of plague.

1. Bubonic Plague

It is the most common form of plague in man. The symptoms of Bubonic Plague are high fever, swelling of lymph nodes in neck, arm-pits and groin. The lymph glands draining the area of the flea bite get enlarged on about third day and are painful (Buboes). If the rat flea bites on face, arms or legs, bubo formation is common. Bacilli can be obtained by puncture of glands.

2. Pneumonic Plague

It is transmitted by droplet infection during coughing and not by rat fleas. The symptoms are high fever, breathlessness, chest pain and blood stain sputum. Sputum contains large number of bacilli. The constitutional derangement is out of all proportion to any physical signs in the chest. Delirium is common. Sputum contains large number of bacilli. The case mortality rate is high, if untreated.

3. Septicaemic Plague

It is diagnosed by blood smear or blood-culture. In this case the blood gets infected without the formation of buboes. It is characterised by high fever, constitutional derangement out of proportion to any physical signs, delirium shock. It is rare and invariably fatal.

How do you control Plague?

Warning of an outbreak of plague epidemic may be in the form of clinical cases or dead rats. In such a situation following preventive and control measures to be started immediately.

Notification

Prompt and compulsory notification of suspected cases as well as death of rats (rat-fall) be enforce.

Isolation

Although bubonic plague is not infectious even then they should be isolated wherever possible. However, all cases of pneumonic and septicaemic plague should be invariably isolated.

Treatment

Treatment should be started without waiting for information of diagnosis. Delay in treatment increases the case fatality rate substantially. Drugs like tetracycline and sulphonamide may be used.

Disposal

Soiled articles by patients, sputum discharge and dead bodies should be handled with aseptic care and properly dis-infected.

Control of fleas

The effective method to break the chain of transmission (rodent-flea-men) is destruction of rat flea. Flea control measures should be before or along with rat control measures. BHC is an effective insecticide. It is advisable for the residents to vacate the area during flea control measures.

Control of rodents

Continuous mass destruction of rodents is an important plague preventive measure. It may be done by poisonous bait and/or rat trapping. In endemic areas houses should have rat protection barrier.

Chemoprophylaxis

Chemoprophylaxis is an important control measure. The drug of choice is tetracycline, a cheaper alternative is sulphonamide.

Vaccination

Vaccine against plague is also an important method of prevention. However, to be effective, vaccination should be carried out atleast one week before an anticipated outbreak. Immunity develops only after 5 to 7 days of vaccination. Booster dose is recommended every six months for persons at continuous risk. Medical Public Health Worker and Laboratory Technician who are directly involved in plague control measures are at risk.

Surveillance

Plague has a potential for spread to susceptible area. Hence, a surveillance is essential in plague susceptible areas especially after flood and earthquake. It is an overall aspect of rodent and human plague which should be covered.

Health Education

Community should be educated on all aspects of plague to ensure their cooperation in prompt control and prevention.

PLAGUE IS PREVENTABLE AND CURABLE

You can prevent plague. Plague is an infectious disease. If treated early it can be cured.

DO's

1. Report to the nearest health facility if you develop high fever, breathlessness, blood stained sputum or swelling in groin and armpits.
2. Notify suspected cases of plague to the health authorities.
3. Isolate the patients.
4. Spray BHC to kill rat fleas. This should precede rat destruction.
5. Use protective covers such as gown, masks, gloves, socks and shoes upto knees while spraying insecticides.
6. Keep your surroundings clean.
7. Make your house rat proof by putting wire mesh on drain and plugging the rat holes.
8. Inform the health authorities of rat fall (dead rats).
9. Take chemoprophylaxis (preventive drugs), if you come in contact with persons coming from plague hit areas or individuals suspected of plague.
10. All soiled clothes or handkerchiefs with sputum of the patients should be boiled for at least 10 minutes or burnt.

Don'ts

1. Plague is curable. Do not panic.
2. Do not allow garbage to accumulate around your house.
3. Do not throw leftovers or spilled food in open. These attract rats.
4. Do not eat stale food or food kept unhygienically.
5. Do not sleep on floors. Use cot atleast 1.5 feet high from the ground.
6. Do not allow rats to enter the house.
7. Do not touch dead rats or dead animals without protection.
8. Do not disturb runways of rat burrows after they have been sprayed with insecticides.
9. Do not crush insects (Fleas) with bare hands. □

—C.H.E.B.

SWASTH HIND

PLAGUE PREVENTION AND TREATMENT—THE AYURVEDIC WAY

VAID S.K. SHARMA

PLAGUE is an infectious disease, which spreads in an epidemic form and kills large number of patients if not treated cautiously. The disease can be identified by symptoms like high fever, body ache, cough with phlegm associated with blood in sputum, chest infection and difficulty in breathing etc. This disease also results in swelling of lymph glands along with fever.

Ayurvedic texts Sushruta Samhita (3000 years back) in Kalp Sathan Chapter 7 had elaborately described about the diseases which spread through excreta, and bites of poisonous mouse and infects the human blood. The symptoms of this are described as swelling of the lymph glands, acute body ache, high fever, respiratory distress which are similar to the bubonic plague and pneumonic plague. Ayurvedic treatment for plague is also available.

Ayurvedic Herbs :

Preventive and Curative

For Internal Use :

- a. *Neem-Ke-Patte* (Neem leaves)
- Adrak* (Ginger fresh)
- Tulsi-Ke-Patte* (Basil leaves)
- Long* (Clove)

All these could be taken by boiling as a herbal tea.

- b. *Ashvagandha* roots (Withania somnifera)
- Ambla* (Embelica officinalis)
- Pushkar Mool or Pokhar Mool* (Innula recimosa)

Any of these could be taken in the form of powder, half tea spoon full morning and evening for 7 to 10 days.

- c. *Nimbadi-Vati* :
Neem-Ke-Patte-1 part
Kali Mirch (Black pepper)-1 part
Shrish-Ka-Beej (Seeds of Albizia lebbeck)-1 part
Adrak (Fresh Ginger)-1 part

Mix these herbs and grind in the fresh ginger juice. If available grind the medicines in the juice of jaldhania (Renonculus sclerenatus). Make the pills of 250 mg. each. Two tablets should be taken thrice a day for 7 days to protect a person for three months from plague. For children one tablet can be given thrice a day for seven days.

- d. *Ark-Pushpadi Vati* (Pills made in the flowers of Aak-Madar)

Flowers of Aak (calotropus)-1 part

Kali mirch (black pepper)-1 part

Long (clove)-1 part

Peppel (long pepper)-1 part

Salts (rock salt, black salt etc.)-3 parts

Adrak (fresh ginger juice) sufficient to mix all the ingredients.

Mix all the powders and grind in fresh ginger juice. Make pills of 250 mg each. Two tablets should be taken thrice a day for 7 days. For children one tablet could be given twice for seven days. This medicine cures the toxins of the plague and can also be used as a preventive.

Nimbadi Vati and Ark Pushpadi Vati can easily be prepared at home. These medicines are safe without any side effects.

Dhupan Samagri (Fumigation Material)

Harmful germs can be killed and houses fumigated by using the following common herbs :

- * *Gugul* (Bhensa Gugul)-black
- * *Neem-ke-Patte*
- * *Shirish-ke-Beej* (seeds of Albezzia labbick)
- * *Haldi*
- * *Vaya Vidang*-fruits
- * *Loban Dhop*
- * *Panwand-ke-Beej* (seeds of the Cassia tora).
- * *Safede-ke-Patte* (Eucalyptus leaves)
- * *Aak-ke-Patte* (leaves of Calotropus)
- * *Dev-daru-ka-burada* (wood)
- * *Peeli-sarson*
- * *Kanchnar-ki-Chhal*
- * *Swet-ral*
- * *Manjeeth* (Rubia cardifolia)
- * *Giloya-gurch* (Tinospora cardifolia)
- * *Pure-ghee*
- * *Heeng* (Asafoetida)
- * *Kapoor* (Camphor)
- * *Gandhak Amlesar* (Sulphur)
- * *Palash-ke-Beej* (Seeds of Butea memospermum)
- * *Agar*
- * *Apamarg-Latjira* (Achyranthus aspera)
- * *Biroja* (Resin) Turpentine oil
- * *Lehsun*-Garlic

About 20 gms of these herbs, single or in combination, are enough to fumigate the house once. Fumigation should be done in morning and evening by burning the coal or wood in an earthen pot and pouring the Dhupan Samagri on it. The pot should be circulated in the entire house. It is more useful if doors are closed for ten minutes. However, fumigation should not be done while sleeping.

Dhupan should be done for public places also for four to five days.

—PIB

W. H. O. International Team on Plague calls for an end to Restrictions

THE International Team of Experts established by the WHO Director-General, Dr Hiroshi Nakajima, in pursuance of Article 11 of the International Health Regulations, called on 25 Oct. 1994 for an end to restrictions on passengers departing from India as well as a relaxation of medical examination of travellers arriving from India. The team which will submit its report to the WHO Director-General, stated that despite indications of only limited endemicity, continued precautions while travelling to Surat in Gujarat and Beed in Maharashtra were recommended.

On the basis of their extensive studies the team indicated that there was no evidence that transmission of plague had occurred in Bombay, Calcutta, Madras or Delhi and that these cities could be considered to be plague-free. The team appreciated the measures taken by the Government to mobilize material resources and personnel to respond in a timely and efficient manner to the demands for human case patient surveillance, active case detection, case containment and treatment and contact tracing and prophylaxis.

The team which included experts from the United States of America and the Russian Federation as well as staff from the WHO Regional

Office for South-East Asia in New Delhi stressed the importance of maintaining the necessary infrastructure to deal with outbreaks of new and re-emerging diseases and the need to have a programme of continued training and strengthening of surveillance, laboratory facilities and epidemiological capacities to deal with emergent situations.

In its briefing the team stated that results of epidemiological studies in Surat were compatible with a limited outbreak of pneumonic plague resulting from person-to-person respiratory exposures. This outbreak occurred in a setting of a high frequency of occurrence of severe fevers from multiple causes including dengue fever, malaria, enteric fever etc.

It was found that 75% of the suspected plague cases in Surat were young males. While they were widely distributed in the city, the main cluster was among those in the low socio-economic groups living in the Ved Road and Katargan areas of the city. The team stated that there was no confirmation of bubonic plague in Surat and that bubonic plague cases from rural areas of Maharashtra outside of Beed district were poorly defined. Referring to preliminary environmental studies, the team stated that the possibility of transmission of the plague bacteria among rats in Surat required further study.

Considering the wide geographical distribution of reported cases in Maharashtra, there is a need for epidemiological studies particularly pertaining to Maharashtra, east of the western ghats. This would help to identify specific populations in which was some evidence of continued transmission.

Regarding the safety of food and other products, the team felt that the precautions taken by the concerned authorities were appropriate and there was no evidence of any health risk involved in the export of such products.

As for laboratory diagnostic facilities, an evaluation of reference laboratories and procedures used indicate that routine blood testing is reliable. It is, however, recommended that emphasis be given to bacterial isolation and characterisation as a first step in confirming cases of plague as they may arise. Research studies are needed to determine the genetic character of strains connected with the recent outbreaks which could be conducted jointly through WHO collaborating centres, the team added.

The establishment of the international team of experts to investigate the outbreak of plague in India was in accordance with the International Health Regulations and was concurred to and endorsed by the Government of India.

—W.H.O.

(Contd. from Page 254)

define 'riot-affected' properly, so that the relief measures could reach the worst affected and needy persons in an organised manner.

1. the relief should go to the persons affected without any discrimination. Indirect victims important in AIDS prevention should also be included in this.
2. Blood collection should be regulated through Medical organisations along with a pro-

per assessment of their need. It is also important even to monitor the blood supply system during such difficult times: when the mandatory pre-transfusion screening is likely to be compromised owing to several factors. An appeal was issued and circulated in one of the blood banks for self deferral of the voluntary blood donors in such emergency situations. Quite a few of them exercised self deferral.

Disaster management protocols must focus on changing migration patterns and their impact on prevalent public health problems. During such catastrophe, an ASO must undertake situational analysis and take a calculated decision to diversify temporarily. IHO riot-relief experience warrants an in-depth operational research to assess the impact of riots and CSW migration on the spread of HIV in rural India! □

(Contd. from Page 245)

increasingly popular way of ensuring this, the Peer group educators—members of a homogenous group, who know better than any "outsider" are to be involved.

Other principles are—

- Scientifically based and ethically acceptable participatory communication.
- Accurate, honest, consistent and realistic messages.
- Reassuring rather than alarming.
- Care should be taken to choose and train leaders who can communicate effectively in sensitive topic areas. Regular inservice education should provide leaders with the latest information about HIV infection and the effectiveness of various educational approaches.
- Coordinated and integrated community based programmes with the involvement of Media teachers, opinion leaders and voluntary workers in every steps. (Cooper Frances—1989).

- Last but not least, IEC activities must be focused on the theme of Self-responsibility—"it is my duty not to run the risk of infecting others" is probably a more effective one than the theme of Self-Protection—"it is my duty not to become infected". (Blaxter Mildred—1991).

Suggestions

- Formation of IEC group/Committee with the involvement of multi-disciplinary agencies i.e. media, education, women & child development, private practitioners and voluntary agencies.
- Community based multidisciplinary research.
- Strengthening AIDS health promotion IEC activities in the hospital.
- Orientation of health care providers and coordinating agencies.
- Special AIDS awareness campaign through Media, NSS, Voluntary agencies and medical students.

- Quarterly assessment and publication of AIDS health promotion research activities.

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Precautions in relation to injections and skin piercing procedures

Restrict injections and other skin piercing procedures to situations in which they are indicated. In many situations drug is given parenterally while they could be equally effective if given orally.

Disposable instruments should be used once only. To avoid re-use they should be destroyed under careful supervision. Multiple use instruments should always be appropriately disinfected and sterilised as per instructions/guidelines.

Precautions in relation to Laboratory Specimens

— Nurses should always wear gloves when handling and processing specimens of blood and other body fluids.

— Specimens should be placed in containers with a secure lid to prevent leakage during transport.

— Any spillage of blood at the working place to be immediately decontaminated with a disinfectant such as Sodium hypochlorite 0.5% before cleaning.

— Hands must be carefully washed after laboratory activities.

Laundry: Linen soiled with blood or other body fluids should be placed and transported in leak proof bags when handling soiled linen gloves and protective apron should be worn.

Special conditions: Nurses with open skin lesions should cover the lesions with an watertight occlusive dressing to prevent direct exposures to blood and other body fluids. Nurses who have draining skin lesions should not take part in direct patient care.

(Contd. to page 275)

Ten points for World AIDS Day 1994

AIDS and the Family

1. HIV and AIDS

AIDS (acquired immunodeficiency syndrome) is the late stage of infection with the human immunodeficiency virus (HIV). AIDS can take more than ten years to develop, and most people die within three years of it being diagnosed.

2. Modes of transmission

The vast majority of all HIV infections occur through sexual intercourse. HIV can also be transmitted by infected blood or blood products, by the sharing of contaminated needles, and from an infected woman to her baby before birth, during delivery, or through breast-feeding. It is *not* spread through ordinary social contact.

3. A worldwide problem

More than 16 million adults and one million children had been infected with HIV by mid-1994 since the start of the pandemic, according to estimates by the World Health Organization. Around four million adults and children had developed AIDS. Although Africa has borne the brunt, no continent has been spared. HIV is now spreading fast in Asia and Latin America.

4. Sexual transmission can be prevented

Sexual transmission of HIV can be prevented by abstinence, fidelity between uninfected partners and safer sex, which includes non-penetrative sex and sex with condoms. Children need education about AIDS prevention *before* they become sexually active. Everyone needs easy access to condoms in case of need.

5. The family

The concept of family need not be limited to ties of blood, marriage, sexual partnership or adoption. Any group whose bonds are based on trust, mutual support and a common destiny may be regarded as a family. So religious congregations, workers' associations, support groups of people with HIV/AIDS, gangs of street children, circles of drug injectors, collectives of sex workers and networks of governmental, nongovernmental and intergovernmental organizations may all be seen as families within the over-arching family of humankind.

6. The ripple effect on families

Every day, around 6000 people are newly infected with HIV. But several times this number will be newly *affected* by HIV every day through the impact on each infected individual's family and community.

7. An extra threat in the 1990s

Many families in the 1990s are disrupted by political upheaval, civil unrest, migration, and other factors. For millions of them, HIV is an extra threat. If a breadwinner falls ill with AIDS, they face losses of income and sometimes food supply.

8. An additional burden for women

Nearly half of all newly infected adults are women. But as women are the traditional care-givers, even *uninfected* women are affected by HIV when it enters a family. Women widowed by AIDS are often rejected and stripped of their belongings.

9. Children pay a growing price

Increasingly, children are paying the price of AIDS—either by being infected themselves or through the effect of AIDS on other family members. They may lose their parents and have to live on the streets if other relatives cannot or do not step in with support.

10. Families take care

All families, traditional or non-traditional, can help stop AIDS spreading by making sure that their members understand—and act on—the facts about HIV and safer behaviour. And if one of their members *does* fall ill with AIDS, families are often the best source of compassionate care and support.

—W.H.O.

EDUCATION OF ADOLESCENTS TO CONTROL THREAT OF AIDS

DR BRIJ MOHAN SINGH

&

DR (MRS) SATINDER VASHISHT

ACQUIRED Immuno-deficiency Syndrome (AIDS) has become a major public health challenge in India as it poses a devastating threat to health and survival of the people. It would also be detrimental to economic development of the country as the chief age group affected would be the most productive one; the young adults.

There is no treatment or vaccine currently available, and there is little hope of any success in the near future. Education is a strong measure to prevent AIDS. The generation that is teen-age today and the one expected to arrive the scene in the next century, would be facing the menacing disease in its worst form.

One of the prime activities of AIDS control programme is to make young people aware about AIDS before they fall prey to it.

In the present scenario, healthy behaviour is vital to prevent AIDS for which requisite knowledge and positive attitude is vital. Role of education in changing behaviour has been well documented in preventive strategies. In case of AIDS control programme. It has to begin early in life and school education can be the most practical, feasible and timely intervention for the generations to come. Sex education and behavioural programmes are to be urgently undertaken to curb AIDS in its infancy in India.

Sex education is hardly existing in India. Now is the time that it is undertaken in a very cautious but needful manner so as to impart vital cognitive clues to the population for safe behaviour. This should be supplemented by clear messages through mass media. Besides, teachers in schools can take leadership roles in changing concepts of their pupils. Attitudes cannot change overnight and are not likely to be affected by mass media. Misconceptions related to sex behaviour are widely prevalent. It is not the doctor-patient relationship but teacher-pupil relationship that could clear misconceived ideas amongst growing students.

Curriculum

The contents of school education programme should be a combination of awareness about the threat that AIDS poses, various methods of transmission and ways and means of preventing exposure to it. The contents should be such as to evoke an element of fear in the students. Broad topics that should be covered in planning educational activities are:

1. What is AIDS.
2. Existing prevalence and projected magnitude of AIDS.
3. Modes of transmission; sexual, parenteral and trans-placental (mother to foetus).
4. Misconception of modes which cannot transmit AIDS.

5. Consequences of AIDS including the information that ultimately all infected persons would be full blown cases and death is certain.
6. Prevention of AIDS. Steps that an individual can take to lead a life that can minimise threat of exposure to AIDS virus. Steps needed at community setting should also be briefly covered so that students become aware about these.

Media

The programme should not end by adding one chapter in a text book. A multi-pronged attack on the sensorium of students has to be undertaken continuously to make them aware about dangers that AIDS poses to survival of humanity. Some of the media could be:

1. Messages very carefully selected for transmission through television and radio at prime time.
2. Introduction of detailed chapter in relevant subjects.
3. Organizing debates on AIDS in which students should participate.
4. Coverage in newspaper and popular magazines.
5. Messages should be highlighted at public places where students gather; cinema halls, libraries, hostels restaurants, etc. □

AIDS and Dental Care

DR PANNA LAL & DR NEENA GULATI

AQUIRED Immuno-Deficiency Syndrome (AIDS) epidemic in India is growing fast in extent and complexity. This will pose a big challenge for health care professionals. The health workers coming in contact with blood, blood components, blood mixed saliva and other body fluids are considered as occupational risk of contracting HIV infection. Since there is no effective and safe vaccine or cure available for HIV infection or AIDS. This will be a matter of serious concern amongst health care workers including dentists. Therefore, it is essential to make them familiar with some important features of HIV infection as follow:

HIV has been isolated from almost all body fluids, secretions and excretions but epidemiologic evidence has implicated only blood, semen, vaginal secretions and possibly breast milk, in transmission. Although HIV has also been isolated from saliva, no case of transmission via this route has been documented in casual or household contact. Even in a case in which an HIV infected child had bitten several relatives, no contact became seropositive. Thus the potential for transmission of HIV through human bite is considered to be extremely limited possibly due to low concentration of HIV in saliva or presence of some factor in saliva that inhibits HIV infection of lymphocytes.

Risk of HIV Transmission in Health Care Setting:

(i) *Risk to the health care provider*: The risk of HIV transmission to the dental care worker may be due to needle stick, sharp exposures, extensive contact with HIV infected blood or other body fluids and direct skin and/or mucous membrane exposure to body fluids in the absence of

No environmentally mediated transmission has been documented till now. But concern regarding survival of HIV on environmental surfaces persists due to recovery of the virus after drying under laboratory conditions. Though the laboratory conditions are different from those encountered clinically, saliva has been removed from the list of body fluids regarding universal precautions for safety in most health care settings but not the dental setting or any situation in which saliva can be assumed to be mixed with blood. Therefore it is considered as potential risk for transmission, say the authors.

adequate protective measures. The risk is very low ranging from 0.29% to 0.30% only. Amongst 6235 dentists studied, only two were found HIV positive after professional exposure without other risk factor (JADA Suppl. 1991). The risk of occupationally acquired hepatitis B in health workers is much greater than that of HIV infection. The data for risk in the Indian dentists is not available so far. However, due to rapidly increasing seroconversion rates they may assume high risk of contracting AIDS due to frequent involvement in procedures on HIV positive patients in future.

(ii) *Risk of transmission to the patient*: HIV can be transmitted in any circumstance in which exchange of body fluids is possible. Theoretically there is risk, though significantly smaller, that HIV infected dentists could transmit HIV infection to their patients. Very few cases have been reported to develop full blown disease following dental procedures by HIV positive dentist. Though precise mechanism of transmission remains unknown. This may be due to open wound contamination or contact of mucous membrane by dentist's blood in case of injury, or use of contaminated instruments.

(iii) *Risk of transmission through physical environment*: No environmentally mediated transmission has been documented till now. But concern regarding survival of HIV on environmental surfaces persists due to recovery of the virus after drying under laboratory conditions. Though the laboratory conditions are different from those encountered clinically, saliva has been removed from the list of body fluids requiring universal precautions for safety in most health care settings but not the dental setting or any situation in which saliva can be assumed to be mixed with blood. Therefore, it is considered as potential risk of transmission.

Prevention of HIV Transmission in dental care setting:

In case of suspicion, the patient should be motivated for HIV testing. If patient is confirmed HIV positive, the appropriate treatment for associated oral manifestations should be instituted immediately after consultation with AIDS specialist.

- Every precaution to avoid contact with body fluids of HIV infected person should be taken. The use of barrier technique such as wearing

face mask, gloves and glasses is a prudent course of action.

- If dentist is HIV positive, preferably he should refrain from performing invasive procedures on the patient. If not possible he should take all precautions to avoid transmission of infection to the patient.
- Universal precautions like sterilisation of instruments, use of disposable syringes and needles, disinfection of articles used by patient or in dental procedures and working place will significantly reduce the risk of occupational exposure to HIV infection.
- The health care workers receiving percutaneous injury or that involving mucous membrane, or non-intact skin exposure to body fluids of HIV infected patients should be evaluated clinically and serologically for HIV infection in time. If worker is found HIV positive, testing of source patient for HIV should be done soon after consent is obtained. Health care workers should be tested immediately and again at 6 weeks, 12 weeks and 36 weeks. They should be informed, counselled and reported to the authorities.

- Post exposure prophylaxis with AZT or Zidovudine have not been proved very useful in preventing development of disease. Rather they may give rise to severe complications; moreover these drugs are too costly.

Confidentiality, legal and ethical considerations

- The current scientific and epidemiologic evidence indicate that there is a little risk of a HIV transmission through dental procedures if recommended universal infection controlling procedures are routinely followed. Therefore, patient should be treated with compassion and dignity.
- Dentists should be alert and able to identify the cardinal features of HIV infection while providing dental care. In case of even little doubt patient should be referred to confirm diagnosis, medical treatment, counselling and regular follow ups.
- If patient is found HIV positive, he should be informed but dental staff must scrupulously preserve the confidentiality of patient's HIV status unless patient has given written consent to disclose it. The status should be disclosed to other health care

providers for their safety. Patient's records should be kept strictly confidential to prevent inadvertent disclosure.

- Proper education regarding low risk of transmission, infection control training and importance of maintaining confidentiality and procedures for protection of records from unauthorised access should be available to the staff.
- The specific information of AIDS related to dentistry, its control, the appropriate infection controlling measures and regular counselling services should be made available to the staff.
- Infected dentist should make all efforts to ensure that disease is not transmitted to others through dental care.

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Contributions to "Swasth Hind" from health and social welfare workers on public health topics are invited. Articles should be typewritten and suitably illustrated. They ordinarily should contain about 1200 words and sent in triplicate to the Editor, Central Health Education Bureau, Kotla Road, New Delhi-110 002.

Reproduction of contents of "Swasth Hind" is welcome. Due acknowledgement is, however, requested.

AIDS Awareness among Rural Community—a Study

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&
K. V. SOMASUNDARAM

In this study an attempt was made to find out the level of AIDS awareness in rural community so as to provide the guidelines for health education in future. It shows that AIDS awareness among the rural community is not encouraging and hence all the efforts should be made to educate rural people about AIDS.

AQUIRED Immunodeficiency Syndrome (AIDS) has assumed pandemic proportions during the past decade. The disease has enormous social, economic and behavioural impact on individuals, families, communities and the whole world. Around 2.5 million people have developed AIDS till 1st July 1993 and around 13 million adults have been infected by Human immunodeficiency virus (HIV), with an additional one million or more HIV infected children. Between 12 to 18 million people are likely to have fallen ill with AIDS by the year 2000 AD and 10 million or more children world-wide will be orphaned.

In India alone there are as many as 444 reported AIDS cases and 10 lakh are estimated to have HIV infection; these figures are increasing day by day. It is the duty of every Human being to involve themselves in fighting the AIDS problem. In this study, we had made an attempt to find out the level of awareness in rural community so as to provide the guidelines for health education in future.

Material and methods

This study was conducted at Pravara Medical Trust, Loni, Ahmednagar (M.S.), with the help of USAID project in 20 villages of field practice area of the project. Fifty houses in each village were selected for this study by simple random sampling, where in either an adult male or female who-soever was available and willing to respond 10-12 basic Question on AIDS were asked in local language and noted on a predesigned proforma. A total of 1000 respondents were interviewed.

Observations and discussion

A total of 712 males (71.2%) and 288 females (28.8%) above 15 years of age were interviewed for AIDS awareness in a rural community (Table I). As we know that females are shy and do not come forward to respond on any sex related topic due to lack of sex educa-

tion and moreover culture is so that it does not permit to talk freely on sex, hence we could not interviewed more females.

Table II revealed that majority (79.86%) were married and only (5.8%)

females belonged to unmarried group. Majority (40.1%) were farmers by occupation followed by Labourers (20.2%), service class (11.8%) and artisans (4.6%) as many as (23.3%) were not engaged in any work. Table III.

Table I: Age and sex-wise distribution of respondents

Age in years	Male		Female	
	No.	%	No.	%
15-20	253	35.53	88	30.56
26-35	196	27.53	95	32.99
36-45	136	19.10	56	19.44
46-55	83	11.66	14	04.86
56 and above	44	06.18	35	12.15
Total	712 (71.2%)	100.00	288 (28.8%)	100.00

Table II: Marital Status of Respondents

Marital Status	Male		Female	
	No.	%	No.	%
Married (736)	506	71.07	230	79.86
Unmarried (264)	206	28.93	58	20.14
Total	712	100.00	288	100.00

Table III: Occupation-wise distribution respondents

Occupation	No.	Percentage
Farmers	401	40.1
Labourers	202	20.2
Artisans	046	04.6
Service	118	11.8
Not doing any work	233	23.3
Total	1000	100.00

34.50% of the respondents were illiterate and awareness was only 17.39% among illiterate. Awareness was more (52.21%) among the literates. Awareness increased with increasing educational level. (Table IV(a) + IV(b)). There was significant association between education and awareness about AIDS.

Table V revealed that maximum (29.40%) number of respondents claimed to have the knowledge from television and radio followed by Doctor (6.50%) and Nurses (4.10%).

Tables VI(a) and VI(b) shows the pattern of knowledge on various aspects like mode of transmission, spread through blood, knowledge about signs and symptoms, fate of disease, etc.

Those who claimed to have knowledge, only 144 out of 402 respondents (35.82%) could tell that AIDS is a disease. When asked about modes of transmission, 42 out of 144 (29.17%) told sexual intercourse followed by infected needles and syringes (5.55%) and majority (65.18%) were not knowing. Only 19/144 respondents could tell the various modes by which it does not transmit e.g. hand shaking (10.42%), sharing of clothes (2.08%) and others (0.70%).

When asked about the blood transfusion as a mode of spread, only 32/144 (22.22%) gave affirmative answer.

The only symptom i.e. weakness was noted by respondents 5.56%, remaining (94.44%) were not knowing any signs and symptoms of AIDS.

Only 17/144 (11.80%) told that children may be affected by AIDS.

22.22% of the respondents told that death is the only fate in AIDS patients.

When asked about the Preventive measures, 77.08% could not tell anything while 12.50% replied to avoid multiple sexual partner followed by use of condoms (6.25%), use of sterilised needles and syringes (2.08%) and tracing sources of infection (2.08%).

It seems that AIDS awareness among the rural community is not encouraging and hence all the efforts should be made to educate the rural community about AIDS.

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2. *Swasth Hind*. Nov-Dec 1992.

Table IV(a) : Literacy-wise Awareness

Awareness Education	Aware	Not aware	Total
Illiterate	60	285	345
Literate	342	313	655
Total	402	598	1000

Table IV(b) : Educational Status and Awareness

Educational Status	Aware		Not aware		Total	
	No.	%	No.	%	No.	%
Illiterate	60	17.39	285	82.61	345	34.50
Primary	74	42.04	102	57.96	176	17.60
Middle	109	52.66	98	47.34	207	20.70
High School	94	54.97	77	45.03	171	17.10
College	65	64.36	36	35.64	101	10.10
Total					1000	100.00

Table V : Source of Knowledge

Source	No.	Percentage
Television	165	16.50
Radio	129	12.90
Nurse	041	04.10
Doctor	065	06.50
Other	147	14.70

Multiple Response

Table VI(a) : Knowledge about AIDS

	No.	%
1. <i>What is AIDS</i>		
— Do not know	258	64.18
— A disease	144	35.82
2. <i>Modes of Transmission</i>		
— Do not know	94	35.82
— Sexual Intercourse	42	29.17
— Needles/Syringes	08	05.55
3. <i>Modes by which it does not spread</i>		
— Do not know	125	86.80
— Hand shaking	15	10.42
— Sharing of clothes	03	02.08
— Others	01	00.70
4. <i>Does it spread through Blood Transfusion</i>		
— Yes	32	22.22
— No	112	77.78

Table VI(b) : Knowledge about AIDS

	No.	%
5. <i>Clinical Features</i>		
— Do not know	136	94.44
— Weakness	08	05.56
6. <i>Does it affect children</i>		
— Yes	17	11.80
— No	127	88.20
7. <i>Fate of disease</i>		
— Do not know	112	77.78
— Death	32	22.22
8. <i>Preventive measures</i>		
— Tracing source of infection	03	02.08
— Use of sterilised needles and syringes	03	02.08
— Avoidance of multiple sexual partners	18	12.50
— Use of condoms	09	06.25
— Do not know	111	77.08

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Making Good Connections

Combining family planning and HIV/STD prevention efforts makes sense because both are concerned with sex and sexual health. This article discusses some successful strategies.

MANY sexually active women and men use family planning methods, and they may also be worried about, or perhaps unaware of, the risk of infection with HIV or other STDs. Family planning services can play an effective role in HIV/STD prevention, because:

- most clients are women aged 15 to 50, who (married or single) are among the most vulnerable to HIV/STDs
- these services are sometimes the only type of health care used by women
- workers already have some experience of discussing sexual activity (in relation to vaginal sex), and promoting sexual behaviour change.

Many family planning organisations are adding HIV/STD services to their work. They are also reaching adolescents, men and single women, as well as married women, and giving clients more opportunities to talk about sexual activities and relationships, and sexuality. They are trying to deal with issues that contribute to poor sexual health, such as inequalities between men and women, lack of inexpensive STD treatment, limited sexual knowledge, and harmful traditions and practices:

Infection prevention

People are often more concerned about STDs with visible symptoms than they are about HIV, especially if AIDS is, as yet, uncommon. Discussing how to treat and prevent these STDs can provide an opportunity to talk about HIV. Even when family planning clinics and AIDS organisations cannot provide STD services, they can play an important role in STD control, by:

- collaborating with STD clinics in setting up joint training and

reliable follow-up and referral systems

- training staff to examine for STDs and to ask questions sensitively without embarrassment about sexual partners and practice (including same-sex relationships and anal sex), and genital or lower abdominal symptoms
- displaying information about HIV/STDs and giving people enough time and privacy to raise their concerns
- explaining about STD transmission, prevention and treatment, and the importance of tracing and treating all potentially infected sexual partners
- explaining to everyone the benefits of condoms in infection prevention—including people who are using another method of contraception
- demonstrating how to use condoms properly and helping people to practise ways to persuade their partners to use them.

Approaches to integration

The following examples show how different family planning programmes have integrated HIV/STD prevention.

Training in response to needs

- Planned Parenthood of New York City (PPNYC) in the USA serves about 40,000 women, men and adolescents each year, providing pre-natal care, STD and cervical cancer screening, gynaecological services and abortion, as well as family planning. About four years ago, an HIV/AIDS prevention programme was introduced.

The first step was to train staff to deal with HIV/AIDS. They were already experienced in counselling

clients on issues that are hard to talk about, such as sexuality, contraception and abortion. However they needed specific information, including help with overcoming fears about being infected. All staff attended a three-day course on HIV/AIDS, and then were supervised by senior staff until they were ready to begin discussing HIV with their clients.

HIV counselling was difficult for some staff, especially because it was added to an already full caseload. Staff who felt stressed were encouraged to seek support from colleagues, senior staff or a personal counsellor. Overall, integration has been very successful, and HIV/AIDS education and risk assessment are now part of each initial and annual follow-up visit.

- During a recent workshop, staff of The Gambia Family Planning Association listed the problems reported to them. These included lack of sexual satisfaction for men and women, problems in communication between partners, impotence, painful intercourse as a result of female circumcision, concerns about STDs and AIDS, side effects of contraceptives and infertility.

Staff wanted to learn about helping people with these issues, and they have now been trained to include information about HIV/STDs in their counselling and education programmes, and to encourage the use of condoms as contraceptives.

Women at risk

- Some programmes choose to raise the issues of HIV/STDs only with clients believed to be at risk. This often includes single people or women who have problems with becoming pregnant or miscarriage, or who have STD symptoms. However, this approach leaves out other people who may be at risk, such as many married women. It may be better to encourage every client to think

about whether he or she is at risk, especially in areas where HIV or other STDs are common.

- One organisation in Zambia found that most women were at risk because their partners had other lovers. Although the women were worried, they did not feel able to ask their husbands to use condoms. Women who did were often accused of infidelity and threatened with rejection.

The organisation then started a group where women could develop ways of approaching the subject of condoms with their husbands, rehearse what they would say and support each other. The women felt that they were being made responsible for safer sex, and asked staff to talk to men, in workplaces, for example. So, in small groups, men discussed the issues and became more aware of the risk of HIV to themselves and their families. A drama performed by the women for the men brought home the need for action.

- In Ghana, the Planned Parenthood Association established Daddies' Clubs in workplaces, where men could meet to discuss family planning and child rearing. Discussions now include HIV/STDs and options for safer sex, and condoms are distributed. Anyone who wants to talk in more depth is invited to come for one-to-one counselling. This allows people to think about risk privately and to decide if they want to discuss their concerns.

More than sexual health

- Rural women in Mexico often have no access to health care or family planning, so the family planning association, Mexfam, is training community health workers to run groups with female farm labourers. Health education covers a wide range of issues: sex education, family planning, reproductive health and pregnancy, child health, water and sanitation, and energy-saving strategies. Low self-esteem, domestic violence, sexuality and STDs are also discussed. Both barrier and hormonal contraceptive methods are supplied, but demand for condoms is increasing. The women are very enthusiastic, and the men are also showing some interest in discussing the issues.

What is World AIDS Day?

World AIDS Day—December 1—is the focus of annual efforts to raise public awareness of HIV/AIDS and spur new and more effective action against the pandemic. It was conceived six years ago after a world summit of health ministers called for a spirit of social tolerance towards people with HIV/AIDS and a greater exchange of information on the subject as a whole.

Each year since 1988, GPA has chosen a different theme for events and activities leading up to World AIDS Day and beyond. The most recent topics have been "A Community Commitment" (1992) and "Time to Act" (1993).

The number of individuals and organizations involved in World AIDS Day has grown each year, taking GPS's messages of safe sex, compassionate care and anti-discrimination to an ever wider audience. Hundreds of thousands of people around the globe took part in the 1993 World AIDS Day events and activities, which included pop concerts, speeches, marches, seminars, workshops, radio features, street theatre, and special condom promotions. △

*Information: World AIDS Day,
WHO-GPA, 1211 Geneva 27,
Switzerland. Tel: (41 22) 791 4765.
Fax: (41 22) 791 0107.*

Assessing risk

One-to-one confidential counselling can provide a valuable opportunity for a person to understand their own vulnerability to infection, and to make informed choices. If you are counselling someone, ask questions in ways that do not offend, threaten or frighten and check that the person feels able to talk about difficult topics. Ask yourself: *'How would I feel if I were asked that question?'*

Begin with open questions (without a yes or no answer) to allow the person to bring up their concerns. It is best to have a conversation rather than writing down the answers while you are talking.

Examples of helpful questions

- * What do you know about HIV/STDs?
- * How would you know if you had an STD?
- * What questions do you have about HIV/STDs?
- * What are your worries about HIV/STDs?
- * Now that you know about how HIV/STDs are transmitted, do you think you might be at risk in any way?
- * Are you in a stable relationship? How long have you been with that person?
- * Do you ever have any other sexual partners?
- * Have you ever thought or known that your partner has others? Are they men or women?
- * Do you or your partner travel and stay away from home sometimes?
- * Do you use family planning? Have you ever used condoms?
- * Have you ever had an STD before? When was that?
- * Do you have any signs and symptoms of an STD now?
- * Have you ever thought or known that a partner might have an STD?
- * Have you/your partner ever had any problems with getting pregnant when you want to?
- * Have you/your partner(s) ever had a miscarriage or stillborn child?

After the person has explored all the issues, with you providing information when needed, you can talk through ways to reduce their risk. □

Support for Safer Behaviour

Can counselling help people to reduce their risk of HIV/STDs?

—Report on an initiative in India.

A young man who had tested HIV-positive two years before was very distressed because his parents were putting great pressure on him to get married. He came for counselling, and decided to invite his parents to join a session with him. He was able to tell them about being HIV-positive, that he needed their care and support, and that he felt that not marrying was the most responsible way to behave. After talking through the issues, his parents were more willing to accept his decision.'

This man is just one of the many people who have visited our AIDS counselling centre in Pune, India. Counselling is very important way to provide support to people who are HIV-positive. However, there are very few counselling services in India. We know that some people committed suicide once they found out there were HIV-positive, and often they had no access to counselling or other help.

Our centre provides pre-and post-test counselling and follow-up sessions, and runs groups for people who are HIV-positive. Men make up the majority of clients, although we are trying to make our services available to women too. For the sake of privacy, the centre does not advertise its services, but relies on word-of-mouth, and referrals from doctors, STD clinics and other health care institutions.

In the past, blood banks were referring donors whose blood had tested HIV-positive, but who had received no counselling. Confirmatory testing had not been carried out on these samples, and we found that up to 30 per cent

were in fact HIV-negative. We feel that this is an opportunity to counsel people who may be HIV-positive about prevention and offer them an HIV test if they want it.

In cooperation with the blood banks, we now contact all the donors whose blood has tested HIV-positive. We give them pre-test counselling, and carry out a confirmatory test if they agree to this. If people decide that they do not want to know their status, we respect their wishes.

While we do encourage people to tell their partners about their HIV status, we do not put pressure on them. Breaking confidentiality can increase people's distress. For example, it does not help a woman to be told that her husband is HIV-positive without his consent. She may be unable to insist on safe sex or support herself if she leaves home.

We feel that counselling, without HIV testing, can help some people to make changes in their behaviour, and thus protect themselves and others from HIV/STDs. As well as running the centre's services, we also counsel patients—who are mostly male—at the local government STD clinic.

All patients are asked to have a one-on-one session after their diagnosis. After telling them why we are there, and reassuring them of privacy and confidentiality, we ask them about their sexual practices and condom use. We then discuss prevention and ways to reduce risk, and show them how to use condoms. They are invited to come back if necessary, and to bring their friends too.

'A migrant labourer was diagnosed as having syphilis. He had just gotten married, but was living away from his wife and having unprotected sex with other partners. After counselling about HIV and STDs, he became more aware of the risk to his wife and future children. He agreed to try condoms but was concerned about his need to have sex. Various options were discussed, and he decided to arrange for his wife to stay in the city with him. He has kept in touch with the counsellor, and has had no more STDs.'

Discussing sex is not easy in our culture. We always start with discussing neutral topics, such as work or children, before talking about sexual behaviour. During one-on-one sessions we find that men are willing to talk about sex, and the problems they have in changing their lifestyles or sexual practices.

We try to discuss all the reasons why they have unprotected sex or multiple partners. For example, they may be unable to suggest anal or oral sex to their wives, or do not feel they have satisfying sex, or live away from home. After this discussion, addressing the issues becomes easier, and we can talk about practical solutions.

We feel that counselling in STD clinics is an effective way to reach men, and, indirectly, their wives and other sex partners (mostly sex workers) who may have less power to protect themselves.

Dr. Sanjay Pujari, AIDS Counselling Centre, Health Plus, 1730 Sadashiv Peth, Pune 411 030.

Courtesy: Issue 24 July-September 1994 AIDS Action.

SWASTH HIND

Using the MEDIA

TO reach a large audience with information about AIDS (or any other topic), you must know how to use the media. Newspaper, radio or television coverage can generate country-wide discussion of AIDS issues and broad support for your activities. Here are a few points and tips to bear in mind:

- Newspapers, radio stations and TV channels survive by serving a public need. The information they provide must suit their audience in content and style. So choose your outlet carefully. Articles for young people should be passed to youth magazines or school newspapers; information for workers might be best placed in company newsletters. Where many people can't read, use radio, TV or videos instead of the printed word.
- Approach each sector of the media in the appropriate way. Press releases, news conferences, information kits and personal contacts can reach written and electronic media. Newspapers can also be approached through readers' letters and offers of articles for publication. For TV and radio stations, you could provide audio-or-video-cassettes with interviews or images conveying your message.
- Try to present your information attractively. You may be competing for the journalists' attention with a lot of other information and press releases.
- The media may use your news release word for word, not at all, or only as a tip-off for a story. Make sure to include your sources of information and a contact name so that journalists can make their

own enquiries or seek further details.

- Make the media aware of what AIDS prevention has achieved, highlighting local success stories where possible.
- Some media slots have more influence than others. "No-one listens to government information broadcasts, so we pay popular disc jockeys to incorporate the messages we have scripted in their shows," says Dr Surasing of the Provincial Medical Office in Chiang Mai, Thailand.
- Publicize facts that are likely to break down resistance to frank AIDS prevention campaigns. For example: "A review by the World Health Organization of studies on sex education in schools reveals no evidence that it leads to earlier or increased sexual activity in young people. In fact, it often encourages young people to delay sexual activity and to practise safer sex when they are sexually active."
- Try to obtain free advertising space or air time for your messages. In the USA, Population Services International was given 200 minutes each month on TV stations and cable networks for a campaign on AIDS prevention.
- Campaigns based on fear have failed to encourage safer sexual behaviour. A better strategy for the sexually active is to associate condom use with feelings of

independence, responsibility or "being cool".

- Media campaigns are much more effective when reinforced by leaflets, posters, videotapes, slides, audio-cassettes, displays, exhibitions, slogans, T-shirts, stickers and other activities or products.
- Give a human face to the epidemic by interviewing people with personal experience of AIDS. Interviews, or feature articles and programmes about people living with HIV, help break down the belief that "AIDS could never happen to me". □

—W.H.O.



The Need of Sex Education for Adolescents in India

PROF. PRAKASH KOTIARI

Any form of education does not mean just teaching people to know what they do not know, but also involves teaching them to behave as they do not behave. The modifications in behaviour on account of education should be acceptable to the individual and enable him to rightly evaluate, assimilate and use his learning in future interactions. This is particularly true for sex education and conditioning.

SEX education involves the acknowledgement and understanding of the process of sexual development and interaction that starts at conception and affects the individual for the rest of his/her life. It is not merely a discussion on how babies are born but encompasses biological, psychological and sociological aspects of human sexual behaviour that are responsible for the development of a child into a healthy and responsible adult capable of using his/her sex instincts to the maximum without being obsessed by them. The subject includes education about the anatomy and physiology of the human reproductive system, conception, contraception, psycho sexuality, gender sexual differences and the constituents of love as they relate sexual attitudes and behaviour. In other words, sex education enables an individual to recognise and be comfortable with one's sexuality. Therefore the primary goal of sex education is facing and accepting the facts of life and honestly communicating them to our children and adolescents to help

them cultivate a healthy sexual morality, acceptable to both society and themselves without creating any unnecessary conflict between individual expression and social norms.

Need for sex education

The impulses and activities associated with sexuality and reproduction are important for the continuity and welfare of the individual and the society at large. Understanding the behaviour of an individual makes it easier to understand interaction amongst couples, which in turn provides an understanding on how families behave and societies function. Traditions play an integral part in determining the kinds of sexual behaviours and attitudes prevalent in a particular culture.

In the past, specially in India, sexual behaviour was engulfed in a set of rigid standards and moral codes. There were a number of restrictions on free communication.

and interaction with members of the opposite sex. However, the impact of these norms was not felt for long because the period of abstinence from the onset of puberty was for a short duration only as the universally acceptable age for marriage was around thirteen years. But today, on account of rapid urbanisation, there is a growing need for economic independence and as a result of career-oriented approaches, the average age of marriage has risen considerably. Also, the average potential sexual career of an individual is extended as a consequence of the early onset of puberty and an increase in the life span because of the availability of better nutritional and health care facilities.

The acceptable codes of adolescent conduct have not changed much in the last decade or two but the period of abstinence has multiplied enormously on account of the extension in the marriageable age and hence post-pubertal sexual activities without the promise and custom of marriage are prevalent and also on a rising wave. Moreover, the social environment today, though still orthodox and prudish, provides constant sexual stimulation. The rigidity of social mores, in spite of rapid economic growth and urbanisation, creates a lot of mental conflict amongst adolescents. There is always a tremendous discrepancy between sexual drives and acceptable and respectable social norms. One of the by-products of the resultant

guilt due to various conflicting factors is anxiety along with a tremendous amount of sexual frustration. Sooner or later, this frustration is often manifested in the form of deviant sexual behaviours, increasing cases of promiscuity, casual sex relationships, unwanted pregnancies, teenage motherhood and an alarming increase in the percentage of sexual crimes and sexually transmitted diseases. The situation is further aggravated by the rampant prevailing myths and misconceptions regarding sex. Comprehensive sex education is therefore the only solution to resolve this social problem. This is possible only through effective sex education which should be made an integral part of health education programmes. In my professional practice of dealing with more than 35,000 patients, I have found that anxiety is the universal phenomenon whether the problem is situational or constitutional, whether the individual is educated or uneducated, rich or poor or from the urban or rural strata of society. There is a tremendous amount of anxiety over a sexual situation brought about by negative feelings which conflict with the experience of failure; failure recurs, anxiety increases and a vicious cycle is set up in which hostility, shame, guilt and fear become the dominant pattern of sexual problems. Unlike in the West, most of the anxiety amongst people of our country is born out of myths and misconceptions regarding sex and sexuality.

In boys, the most common myths relate to masturbation, value of semen, penis size and an ever ready penis. Amongst girls anxiety evoking problems largely relate to breast size, menstruation, virginity, conception and contraception. Health authorities in our country do attempt to offer

guidance and solutions for these problems but adolescents are definitely not convinced merely by elaborate preachings. It is important that they are suitably conditioned to recognise and accept the realities of healthy physiological growth and sexual functioning. Just telling adolescents that "You are normal" is not sufficient, the youngster needs to be convinced that "he is normal". In such situations, examples carry more weight than mere words.

In India, sex education is not lacking just at the primary school and college levels, but is a grossly neglected aspect even in the curriculum of medical institutions. As a result of this, sexual dysfunctions/difficulties are often misinterpreted and the regular treatment of any malfunctioning involves prescribing one of the ever-increasing plethora of drugs, dopes and ayurvedic sex tonics sold over the counter. These sex tonics violate the basic principles of the ayurvedic system of medicine and do more harm than good. Regarding the prescription and the subsequent use of these sex tonics, one can rightly state that "it is nothing but the exploitation of the desperate by the ignorant".

What is the right time to start sex education?

There is no fixed or definite time to start sex education. Informal sex education can be started at any time when the child's curiosity makes him receptive to conceptual inputs. As the child grows, imparting knowledge appropriate for his/her age is the right attitude. Without conscious volition, parents provide sex education to the child from the moment of birth. The ways in which parent hold, touch and car-

ess the child during infancy and the ways in which they interact between themselves and with the child lays the foundation for his/her future sexual conditioning. Making children accept their gender and also giving them love has a profound influence in shaping their attitudes towards sex and sexuality. The everyday communication and interaction patterns of the family influence children's sense of self-esteem, body image, gender role, family roles and will positively shape their capacity for love, intimacy and sharing.

How should one go about imparting sex education?

Sex is one of the most natural expressions of love. Children first learn about sex and morals by observing the attitudes and behaviours of their parents and family. The importance of a caring and loving relationship is often understood by the behaviour patterns of children manifested at different stages of emotional and sexual development. It is important for the parents to be aware of their roles and impart positive sex education to the children. The most appropriate attitude is to let the child know that sex is not a forbidden area and curiosity in these sphere is a common and natural process of growing up. Without this understanding, children are hesitant to ask sex related questions fearing that their parents will be uncomfortable to answer them truthfully. If parents are comfortable about sex, only then will they be able to promote a healthy and understanding parent-child relationship. Parents should avoid associating scary stories with sex. Sex should not be associated with sexually transmitted diseases, AIDS,

teenage pregnancy, rape, pornography and child molestation. Children should, no doubt be warned about the dangers of these problems, but at the same time, parents should not forget to acknowledge and explain that sex, at proper time and place, is a good and wonderful thing. Parents should not panic when children ask questions; neither should they express distress at seeing them exploring their bodies. Sexual activity like masturbation will not make children crazy but feelings of shame and guilt will definitely affect them negatively.

Role of parents in imparting sex education

Parents are usually worried that knowledge about sex and sexuality will harm the child. Though we are products of a conservative society with many primitive norms, scientific knowledge appropriate to the chronological and mental age of the child will not harm him/her as much as ignorance may. It is better to give the child basic information in a simple and factual manner. It can also happen that children may ask questions that are in conflict with the values of their parents, but an understanding explanation positively catering to their needs and curiosities will reduce the risks and responsibilities of sexual ignorance. Even if parents occasionally respond a little more than the child's capacity or level of understanding, it will only leave the door open for further communication and not harm the child in any way. It is the parent's attitude that is important. Sometimes the child's curiosity and concerns may seem irrational, but they are real to him/her and should not be dismissed or discarded by parents. This

will close and snap off healthy communication in the parent-child relationship. Only if the child can trust his parents not to be rigid or hostile in their responses to his curiosities, will he/she be able to look upon them as a source of wisdom and guidance.

Does giving sex education stimulate urges and sexual desires?

Sex education does not stimulate urges and sexual desire. In fact, it satisfies one's curiosity with correct information and guidance enabling the individual to be comfortable with one's own sexuality and have a positive sexual orientation according to his/her gender. Sex is an intimidating topic and parents are often embarrassed to discuss the subject with children. Others fear that putting too much in the child's head too early may be harmful. They feel that once children are told the facts, they will want to try everything out. In fact, it is a proven fact that the opposite is true. Studies show that by offering sex education and information, parents have delayed children's premature involvement in sex, because discussing the subjects satiates curiosity and removes the compulsive motive to experiment. If parents don't discuss sex-related issues, children tend to acquire knowledge from hearsay, pick up bits and pieces from friends and peers, from aping other people's behaviours as in movies, television and explicit books. We still overlook childhood sexuality and suspect that what kids don't know about sex will not hurt them. But, sexually ignorant adolescents may get through the teens safely only to discover later that they have trouble fusing the ideas of sex and love which may interfere with their marital happiness.

What should one tell children about child sexual abuse?

Many parents feel that knowing too much—too early, may lead to sexual misbehaviour, but the fact remains that children are likely to have a greater number of sexual difficulties if they don't know what sex is all about. Ignorant children are more prone to sexual abuse and sex-related crimes. Information regarding sexual molestation and abuse should be given without generating unnecessary anxiety. The child should have adequate knowledge in order to recognise abuse and potential abusers if one encounters them. A trusting parent-child relationship encourages children to report unusual incidents without fear and embarrassment.

Can the incidences of sex-related crimes be reduced by sex education?

To a great extent sex education is helpful in reducing sex-related crimes. If sexual desire becomes intense and a partner is not available the only possible release of sexual tension is by masturbation; but rampant myths about masturbation often discourage individuals from indulging in it. At such times, the intensity of sexual desire outweighs moral bindings, hampers the rational thought process and compels the individual to indulge in deviant and even criminal sexual behaviour. This leads to an increase in sexual crimes. Rapes are also committed due to a common prevalent myth that a man can be cured of venereal diseases if he has intercourse with a virgin. Sex education, by eradicating these myths can guide an individual to direct his sexual impulses in a socially acceptable manner.

An average Indian has the knowledge about sex which is unscientific and incomplete and hence, despite advances in the fields of medical science, quacks and charlatans flourish in our society. **With the influx of AIDS, the need for sex education has multiplied considerably.** As sex is the most common mode of transmission of the AIDS virus, sex education needs to be introduced in the curriculum of educational institutions in India. Sex education is very much a part of AIDS education. As no vaccine or cure yet exists, public education is the only way the AIDS epidemic can be controlled. Sex education is indeed important but it is of greater importance that it is imparted during childhood. Youngsters need

to feel free to talk with parents about sex long before puberty because by then, they are already sexual beings. This is because each person's responses or moral boundaries of right and wrong, good and bad or conventional or unconventional are set prior to puberty as a part of differentiation in the gender identity. It appears as if they are opted for in puberty but in reality they are reflections of sexual mores well established in childhood and do not change much after that period. As Prof. John Money of John Hopkins University, U.S.A. mentions, "the reassuring truth is that it is impossible to influence or train any teenager selected at random to be a sadist, a fetishist, a peeping Tom or whatever else you name".

Frankness about human sexual behaviour should therefore be an integral part of formal sex education for crusaders who lead the fight against false and rigid social norms and sex related illnesses.

It can be rightly said that effective sex education and conditioning is the starting point for meaningful communication for larger and more important values relating to sex and healthy human development. It is indeed far better to undergo the risks of free discussions of sex rather than bear the unhealthy and traumatic consequences of subdued silence with regard to issues related to sex and sexuality!!!

Courtesy: *CARC CALLING*, VOL 6, NO 4, OCT-DEC 1993

(Contd. from Page 262)

HIV infections in a pregnant nurse carries the additional risk of subsequent perinatal transmissions; pregnant nurses should strictly observe the precautions.

An HIV infected nurse does not pose risk to patients and restrictions in work are not needed.

Conclusion

The HIV infection and AIDS epidemic has become a major

threat to the community at large. In the days to come the effect will be devastating in terms of economy, health care and social consequences. Nursing personnel, as front-line health care providers working directly with individuals infected with HIV, are presented with a challenge which requires unprecedented creativity, energy, and resources. The counselling and precautions undertaken during the process of care will go a long way in controlling the epidemics.

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1.5 million New HIV Infections in Africa pushes Global total to over 15 million

WHO figures released in mid-December 1993 have shown that the number of HIV infections since the start of the HIV/AIDS epidemic has crossed 15 million worldwide. The largest number of new infections has been in Africa, where the cumulative total is now close to 10 million—an increase of 1.5 million over the last year.

Speaking during the opening ceremony of the VIII International Conference on AIDS in Africa, Dr Michael Merson, Executive Director of the World Health Organization, Global Programme on AIDS said: "The news on the epidemic is not good. Since the last AIDS in Africa Conference in Yaounde only a year ago, some two million

more men, women and children worldwide have been infected with HIV, most of them in Africa. Although central and east Africa remain hardest hit, the virus continues to spread north, west and south. To the north, Ethiopia reports, with great openness, that it has close to half a million infected people. To the west, prevalence rates in Nigeria have reached as high as 22% amongst men attending STD clinics. And to the south, where we think the epidemic may take its greatest toll, already more than one in three women seeking antenatal care in Francistown, Botswana, are infected."

According to Dr Merson, the spread of HIV is being encouraged by migration, population displacement due to civil strife

and other movements of the people. But the African epidemic is also being driven by a rising tide of infections among adolescents and young adults, especially where the epidemic began early.

"A new WHO analysis of these so-called 'mature' epidemics in such countries shows that 60% of new HIV infections are among 15-24 year olds. This demonstrates the vulnerability of Africa's youth—and shows us where to focus our prevention efforts. At the same time, we urgently need to prevent transmission of HIV to women. By the year 2000, unless we manage to reduce their vulnerability, some 5.5 million African women will have been infected."

—W.H.O.

Promoting HIV/STD prevention via the media : a worthwhile proposition?

SOME people argue that it is better to concentrate on interpersonal interventions to promote HIV/STD prevention rather than on mass-media approaches. Their rationale is that the media offer generalized messages which are not relevant to everyone, usually do not permit two-way communication and can do no more than inform. On the other hand, sole reliance on small-scale and specifically targeted interventions is impossible in most countries, since these have high costs in terms of manpower and time. Strategies involving the media potentially reach large numbers of people, even in areas where no HIV/STD programmes yet exist. They not only can help raise awareness of important issues and promote norms supportive of safer behaviours but also possibly spur on community initiatives. It is therefore best if both interpersonal and media approaches are used so that they can reinforce one another.

A single (mass-media) intervention using only one communication channel with no backup or follow-up has a very short "Shelf-life" because it will soon be forgotten. A campaign on the contrary, is a coherent package of successive interventions using several media channels—a media mix—which reinforce one another over time. Individuals will ideally be exposed several times to different campaign components.

It is useful in this regard to think of the "media" as including a wide variety of materials and communication channels which can reach a large public. A media mix

can include any of the following components :

- newspaper and/or magazine ads
- television and/or radio spots
- press conferences and interviews
- billboard advertising
- advertisements on public transport vehicles
- parades and processions
- touring vehicles which broadcast messages via loudspeakers
- art exhibitions, concerts and other types of performances
- audio and video-cassettes which can be played at sites visited by large numbers of people (shops, eating places, health centres, post offices)
- referrals to telephone hot-lines
- promotional materials such as T-shirts, posters, key-rings, bookmarks, calendars, printed cloths, stickers, caps
- brochures and folders.

Expanding media coverage : the use of free publicity

Both small-scale interventions and media campaigns can expand their coverage if a publicity plan is prepared which envisages garnering and generating free publicity.

It is useful to ask well-known officials and/or celebrities to participate in the launch of an intervention or campaign, for example during a press conference or other meeting, since their presence often attracts extra media attention. If backup materials have been prepared, they should be distributed just before the launch so that they are immediately available. It is a

good idea to inform all actors in the field at that time—if they have not already been involved—about the intervention/campaign objectives and strategies and suggest ways in which they could connect their own activities to the campaign in order to enhance its impact.

Press interviews can be expected after the launch but an organization can also generate free publicity by actively seeking contacts with the press. Establishing good personal contacts with key reporters can be a useful pre-campaign strategy. Other possibilities for expanding media coverage are :

- Negotiating editorial attention in the form a background article in the same issue of a newspaper or magazine in which a paid campaign ad will appear.
- Writing letters to the editor, in which misinformation is corrected or reactions to critical campaign reviews can be written. Plans should be made to systematically collect clippings of campaign coverage for this purpose.
- Distributing ready-to-print copy to publishers and free cassettes with programmes and spots to radio stations.
- Offering to help produce information or discussion programmes together with broadcasting companies at low or no costs on the campaign budget. Phone-in radio shows are an example.

Courtesy : AIDS Health Promotion Exchange, 1993, No. 3

SWASTH HIND

FACTS ABOUT PLAGUE

Plague is a disease of rodents and spreads from rat to rat and from rats to humans mainly by rat fleas biting first a sick rat and then a person, thus transmitting the bacterium of the disease, *Yersinia pestis*. Humans can be infected directly from a plague-infected rodent or other animal while skinning it and cutting up the meat. In this process, the plague agent penetrates through visible or invisible lesions of the skin, or through mucous membranes of the nose or throat.

Plague most commonly has two forms: bubonic and pneumonic, corresponding to the two typical ways in which the plague bacillus invades the body. The commonest form is bubonic in which there is a sudden onset of severe malaise, headache, shaking chills, fever, and pain in the affected regional lymph nodes. The most characteristic symptom is swelling of the lymph nodes nearest the point of the infected bite or skin lesion to produce large hard and painful lumps called buboes.

The most dangerous form of the disease is pneumonic or pulmonary plague, which affects the lungs and which can be transmitted from person to person by droplets in the air containing plague bacilli from sputum discharged by the patient.

During the last decade an average of 1,500 cases a year of plague were officially notified to WHO by between 9 and 12 countries. Provisional figures for 1993 show a total of 1,308 cases including 151 deaths.

The figures, with the number of deaths in brackets, were as follows: in Africa-Madagascar 147 (23); Uganda 167 (18); Zaire-267 (70). In South America-Peru 611 (31). In the United States of America, nine (1). In Asia-Kazakhstan 3 (1); Mongolia 17 (7); Myanmar 87 (0). Some countries in which plague frequently occurs have not yet reported, so the final total for 1993 is likely to be higher by several hundred cases.

The primary requisite in the control of plague is a well-established epidemiological surveillance service, as well as measures for the control of rodents and fleas. Each outbreak of plague among people or rodents should be thoroughly investigated by experts on the epidemiology, bacteriology and entomology of plague, in order to take proper control measures against the disease in its natural reservoir. Only after fleas have been controlled by insecticides should rodent control be undertaken, because infected fleas, which feed on warm blood, quickly leave their dead hosts, spreading the disease to humans.

Through its representatives in individual countries and its network of collaborating centres, WHO provides health authorities with expert guidance on plague surveillance, prevention and control.

—W.H.O.

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