

Preventing AIDS

by Shah Md Mahfuzur Rahman



Every year thousands of people are infected with HIV through blood or blood products

ALTHOUGH the first AIDS patient was detected in the USA in 1981, earlier cases were found by retrospective analysis to have occurred in 1978 in the USA, and in the late 1970s, in equatorial Africa. Causative organism was first discovered by the French scientist Prof Montaigner in 1983 and it was called Lymphadenotropic Virus (LAV) and in 1984 Dr Robert Gallo discovered it and named Human T cell Lymphotropic Virus III (HTLV-III). These two viruses were found to be the same and in May 1986, the International Committee on the Taxonomy gave it a new name: Human Immunodeficiency Virus (HIV). It was also realised that there are two types of HIVs and denoted HIV-1 and HIV-2 (in West Africa) both of which cause AIDS.

It may be mentioned here, the human blood consists of three types of cells such as red blood cell, white blood cell and platelets. Lymphocytes of White Blood cells are three types: T cells (70 per cent), B cells (20 per cent) and Null cells (10 per cent). The T cells and the B cells cooperate, and in fact, T cells control or stimulate the B cells to fight against the disease-carrying organisms. The HIVs are cytopathic virus. T cells being their main target and having unique ability to destroy the T cells. The viruses are able to spread throughout the body and can pass the blood-brain-barrier and destroy some brain cells. Thus the HIV erodes the body's defence system, exposing the infected person to opportunistic infections resulting over time a range of lung diseases, fungal infections, rashes, sores, wasting, cancers and other painful and debilitating conditions. Eventually, these AIDS-related illness overpower the body's ability to fight back, causing physical — and sometimes, mental — ruin and death. There is as yet no cure; the only therapies available are for the treatment of opportunistic infections.

Until recently, it was believed that HIV infection goes through a slow process, destroying the body's immune over time. New studies in the USA show that the process occurs much faster, with the body beginning its battle against HIV right from the time of infection. The studies also show that the virus can reproduce rapidly making between 100 million and a billion new copies each day. The body fights back, turning out a billion new T cells — also known as CD4 Lymphocytes — each day and destroying up to 99 per cent of the invaders within two days. Unfortunately, the surviving HIVs are often mutants, that is, organisms bearing slight genetic variations. These variations allow the virus to escape immediate detection by the body's T cells. These mutants are thus able to multiply, and in two weeks, almost all the new viruses are these mutants. By then, the T cells are able to identify these organisms and to fight them. The cycles are repeated: mutants survive T cells learn to fight them. Eventually however, the body's immune system is not able to replace all its losses. The T cell counts drop and AIDS develops.

The new findings are important because they give clues as to why existing treatments have not been working. The researcher Dr David Ho believes that it is more appropriate to find ways to attack the virus, rather than to find ways to strengthen the immune system.

Global Situation

In total, the World Health Organisation (WHO) estimates that over 18 million people, 1.5 million of them children and 50 per cent of all are under 25 years of age have become infected with HIV. In Asia, one in four new infection occurs and by the end of the decade, more Asians will be infected than that of Africans each year. If current trends continue, by the year 2000, the global total will be more than double of estimated 30-40 million people. It is estimated by the

World Bank that the share of AIDS in the developing countries has been increasing from 50 per cent in 1985 and is expected to be 75 per cent by the end of this century. The most painful situation is that 10 million babies worldwide would be the carriers of AIDS and more than five million children will have lost their mothers or both parents to AIDS by next five years.

Transmission of HIV

It is transmitted through three routes — sexual, parenteral and materno-foetal routes. Fundamental condition of transmission is that HIV must reach the blood of the recipients. Sexual transmission: It is the commonest means of infection. Any vaginal, anal or oral sex can spread HIV. Homosexual and bisexual men who have many sexual partners who have been infected

Parenteral transmission

The HIV is also transmitted by the contaminated blood or blood products transfusion, syringes, needles, surgical and dental instruments. Any skin piercing including injections, ear piercing, tattooing, acupuncture or scarification can transmit the virus if the instruments used have not been sterilised and have previously been used on an infected person.

Materno-foetal transmission

HIV infected mother can transmit the virus to her child during pregnancy, during child birth or during breast-feeding. It is also important to remember that most babies breast-fed by mothers who are infected with HIV do not become infected through breastmilk. However, the virus has been found in the breastmilk of women with HIV.

Symptoms of AIDS

AIDS is referred as a syndrome, because the range of manifestations may include a number of symptoms, signs and a variety of opportunistic infections, neurological disorders and several types of cancers. Once a person is infected, the virus remains in the body lifelong. The risk of developing AIDS increases with time. Since HIV infection can take to many years (6 months to 12 years) to manifest itself, the symptomless HIV-infected person can infect other people for years. Some people exposed to HIV may never proceed to the final

Prevention of HIV Infection

Considering the route of infection, prevention of transmission can be done easily through international, national and local participation of people from all walks of life. To prevent it the following measures may be taken:

- (a) AIDS education through all possible channels — religious and community organisations, women's groups, the mass media, the health services, schools and colleges, artists and entertainers — to dispel stigma, ignorance and false conceptions and to guide people
- (b) Ensuring the hospital practices, blood and blood products, and hypodermic needles used in preventive health campaigns, and other instruments used in skin piercing are consistently HIV-free.
- (c) HIV infected mothers should be counselled not to have babies.
- (d) Providing care and counsel for more infected by HIV and dying of AIDS, and for family members and partners.
- (e) Research into all aspects of HIV to understand its behaviour and develop curative and preventive therapies.
- (f) Challenging the immense of human capacity for denial about the threat of AIDS, and lifting taboos surrounding the discussion of sexually transmitted disease. The writer is working with Institute of Public Health, Mohakhali, Dhaka

ADMISSION TEST ISSUE

Partial Truth and the Whole Truth

by Galib A Khan

IN The Daily Star of November 1, 1995, I came across a discussion "Admission Test: Is there a Necessity?" by Professor M M Rahman. Professor Rahman referred to a paper published in a local periodical, viz., the Lokayata. In the Lokayata, it is my paper, which Professor Rahman referred to, but the way he made use of the data, published in my paper, was misleading and in a sense rather a distortion of facts.

Professor Rahman said, "Out of 1104 candidates selected for admission in the 'Ka' unit, there were none with double second divisions...". In fact, in my paper in the Lokayata, I presented two tables, one on the 'Ka' unit and the other on the 'Kha' unit of Dhaka University admission test of the academic year 1993-94. Professor Rahman referred to the data of the 'Ka' unit and remained silent about the data of the 'Kha' unit, for, the data of the 'Kha' unit, understandably, seemed contrary to his claim. I therefore present here the two tables (in a shorter form and with a minor change in one column) which were published in my Lokayata paper.

I commenced by investigation long before the present controversy on admission test began. The main incentive of my investigation emerged from a puzzle which hounded me for quite a long time. I wondered: why some of my students, though they were studying at the highest seat of learning, couldn't write correct Bengali? This situation over the years made me think that perhaps I should try to know how my students performed at their pre-University level of education. I thought that if there was any problem at their pre-University education, then this problem should affect the students of the other departments as well. With this perspective in my mind, I began my study in July 1994 and March 1995. I compiled data on 2573 students, among those who were admitted to the First year Honours class of Dhaka University in the academic

year 1993-94. All these 2573 students belonged to the 'Ka' and 'Kha' units of the admission test. I collected the roll numbers, code numbers and the merit scores and merit orders of the admission test of all the 2573 students and as well as the total marks which they obtained at their SSC, HSC examination and the admission test. I analyzed these data.

I found that of the 2573 students, 333 obtained star marks both in the SSC and HSC examinations. But what was shocking was that, of the 333 students with double stars, only one student obtained star grade in the admission test. I found that of the 2573, there was not a single student with a third division at the SSC or HSC level, though 60.32 per cent of them obtained third division in the admission test. Of the 2573 students, 91.18 per cent and 96.19 per cent obtained first division at the SSC and HSC examinations respectively, though only 4.20 per cent obtained first division in the admission test.

With these findings, I concluded that there prevailed an enormous gap of excellence between the points where the pre-University education ends and the University education begins. I suggested that this situation may be harmful for our students and that the higher authorities related to the education system may take note of this situation. This had been my main focus in the paper in question.

However, I would also like to draw attention to a few more types of the above sort of anomalies of the results. First, of the 333 students who secured double stars, 30.54 per cent got third division marks in the admission test. I may say that 30.35 per cent of the double-star holders are not genuine star-holder at all. For, a student with two star-marks should not fall to the category of third division. And of these 333 double star-holders, only 13.81 per cent obtained first division in the admission test. Next, of the 2573 students, there are those who though did not secure double stars but secured double first divi-

sions at SSC and HSC examinations; the number of such students is 1996. Of these 1996 students with two first divisions, only 57, i.e. only 2.85 per cent obtained first division in the admission test. On the basis of all these lapses between the SSC and HSC examination results on the one hand, and the admission test results on the other, I may claim that the qualitative standard which is required of the students in the

admission test is much higher than that of the SSC and HSC examinations. And it is my proposal that we should prefer a standard for our students which is higher in nature. On the basis of all these findings, I suggest that in the admission procedure of the Dhaka University, more emphasis should be given, than it is given at present, on the results of the admission test. If this policy is adopted, then the secondary and higher secondary level students will concentrate more on learning than on securing higher marks. Securing high marks and learning *per se* are not the same; this is why the students with high marks in the SSC and HSC examinations fail to do well in the admission test. I may mention that the Bangladesh University of Engineering and Technology (BUET) authority admits students on the basis of the admission test result. Acceptance of the admission test result as the sole criterion of admission will also eliminate the adverse effects of the qualitative difference of the grades of education and will thereby enable us to treat all the candidates with a single standard of judgment. I would consider it a fair policy. Finally, I shall say that the failure to distinguish between the truth which Professor Rahman depicted with reference to my data and the truth which I have tried to present here is due to the invisible line of demarcation between a partial truth and the whole truth. We can't see such a line but reason can help us understand it. Thanks are due to GWF Hegel who was so nice to make this distinct for us. The writer is an Associate Professor of the Department of Philosophy at Dhaka University.

James Bond
BY IAN FLEMING
DRAWING BY MORAK



TOM and JERRY



After 50 years of isolation, Albania opened up to Western cash, economic development and HIV



Gold miners, Transvaal: The migrant labour system has destroyed family and community life, creating conditions ripe for the spread of AIDS

Table - 1, Unit - 'Ka' Academic Year: 1993-94

Department	Total Adm No	SSC & HSC Exams													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
Micro Biology	20	14	6	1	1	1	1	1	1	1	1	1	1	1	1
Pharmacy	55	39	15	1	1	1	1	1	1	1	1	1	1	1	1
Applied Physics	55	34	15	1	1	1	1	1	1	1	1	1	1	1	1
Bio-Chemistry	55	31	14	1	1	1	1	1	1	1	1	1	1	1	1
Applied Chemistry	40	18	15	1	1	1	1	1	1	1	1	1	1	1	1
Chemistry	60	19	25	1	1	1	1	1	1	1	1	1	1	1	1
Physics	130	44	42	1	1	1	1	1	1	1	1	1	1	1	1
Statistics	82	20	34	1	1	1	1	1	1	1	1	1	1	1	1
Mathematics	115	17	32	1	1	1	1	1	1	1	1	1	1	1	1
Geology	52	12	18	1	1	1	1	1	1	1	1	1	1	1	1
Zoology	76	17	20	1	1	1	1	1	1	1	1	1	1	1	1
Soil Science	81	15	20	1	1	1	1	1	1	1	1	1	1	1	1
Psychology	67	5	19	1	1	1	1	1	1	1	1	1	1	1	1
Botany	78	9	27	1	1	1	1	1	1	1	1	1	1	1	1
Geography	102	7	29	1	1	1	1	1	1	1	1	1	1	1	1
Industrial Arts	40	4	11	1	1	1	1	1	1	1	1	1	1	1	1
Total	1104	305	342	2	2	2	2	2	2	2	2	2	2	2	2

Table - 2, Unit - 'Kha' Academic Year: 1993-94

Department	Total Adm No	SSC & HSC Exams													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
Economics	87	8	52	1	1	1	1	1	1	1	1	1	1	1	1
English	100	9	44	1	1	1	1	1	1	1	1	1	1	1	1
Law	81	6	28	1	1	1	1	1	1	1	1	1	1	1	1
Social Welfare	62	1	28	1	1	1	1	1	1	1	1	1	1	1	1
Public Adm	91	1	31	1	1	1	1	1	1	1	1	1	1	1	1
International Relations	70	1	16	1	1	1	1	1	1	1	1	1	1	1	1
Journalism	51	1	12	1	1	1	1	1	1	1	1	1	1	1	1
Political Science	156	1	28	1	1	1	1	1	1	1	1	1	1	1	1
Library Science	45	1	5	1	1	1	1	1	1	1	1	1	1	1	1
Philosophy	122	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Islamic History	83	1	1	1	1	1	1	1	1	1	1	1	1	1	1
History	97	1	3	1	1	1	1	1	1	1	1	1	1	1	1
Bengali	122	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Islamic Studies	94	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Sociology	152	2	3	1	1	1	1	1	1	1	1	1	1	1	1
Anthropology	24	1	4	1	1	1	1	1	1	1	1	1	1	1	1
Sanskrit & Pali	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Arabic	28	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total	1469	29	257	6	6	6	6	6	6	6	6	6	6	6	6

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Child Prostitution: Global Concern

by Mark Keenan

THE dilemma of child prostitution is a "concern of almost every country around the world," said Marilyn Rocky, executive director of Childhope International, a non-governmental organisation (NGO) dedicated to protecting street children worldwide. Rocky recently toured Thailand and the Philippines giving lectures for the US Information Agency. Noting that economic disparities pose many problems in resolving the prostitution crisis, she added that a family in Thailand may receive the equivalent of \$775 dollars for

selling a daughter into bondage as a prostitute. On her assignment, Rocky addressed audiences whose makeup varied from Fulbright scholars and law students to members of local Chambers of Commerce, service organisations and the press. All agreed that networks need to be established to keep people informed of the current crisis, she said. The fundamental step to be taken in battling child prostitution is to keep people informed through these contact, or network groups,

Rocky suggested. Child prostitution is covered daily by the newspapers in the areas she visited because of the far-reaching effect it has on so many women and children, she added. Networks, or the "gathering of like-minded people," are consistently used in the United States for mobilising various efforts, Rocky said. She gave examples of the civil rights movement in the 1960s and the women's suffrage movement, and pointed out that many networks take the form of

NGOs. Rocky stressed that "dialogue among different cultures and different countries is very important in terms of sharing relevant information." For example, in 1989 the Southeast Asian Network for Street and Working Children was established to increase the flow of such information. Because of its success, it still exists today. Though there is currently legislation in Thailand on the prohibition of child prostitution, no such legislation exists for child labour, Rocky noted. USIA