

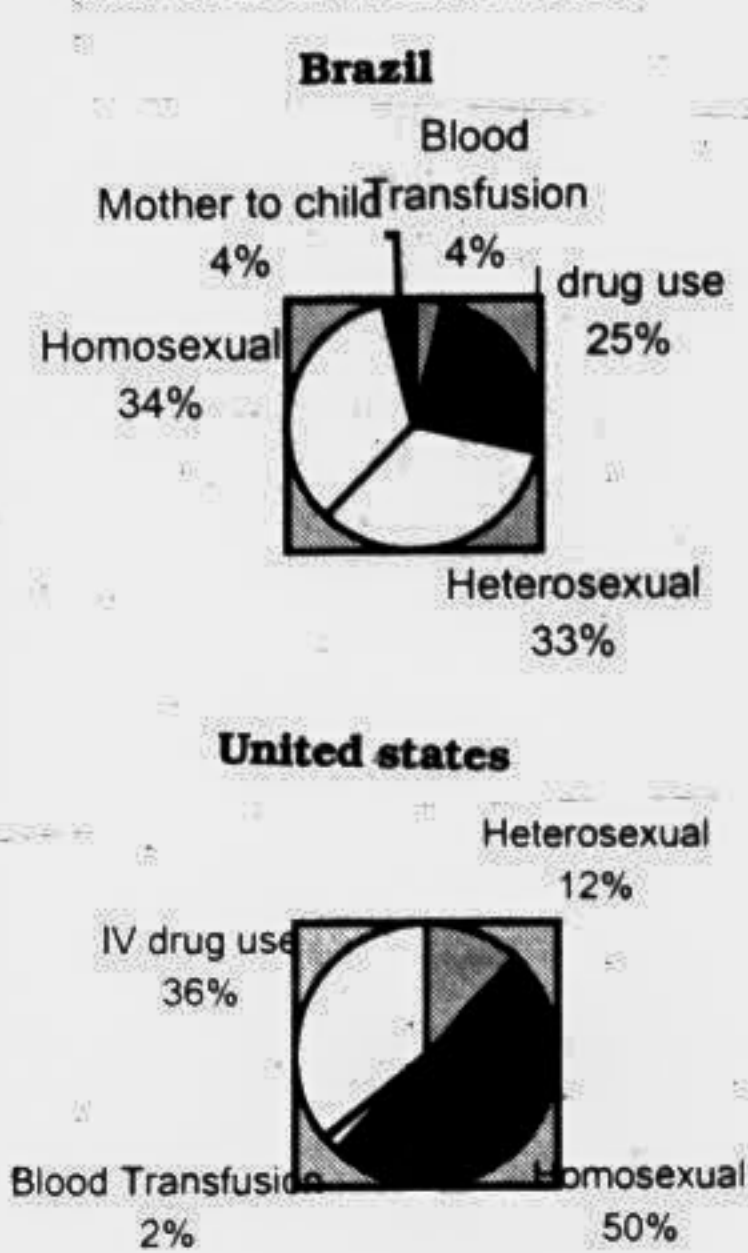
# Progress in Developing AIDS Vaccine Gains Momentum

by Md Asadullah Khan

**World wide public leaders, and researchers have started vigorous campaigns to stop this veritable scourge. True, campaigns against needle sharing and unsafe sex can help, but they won't stop the spread of AIDS at least not in countries like Zimbabwe, Uganda and Botswana where one in four adults is already HIV positive. Our only real hope, experts now agree, is to create a preventive vaccine. Scientist are making some real head way.**

## And Where It's Growing Fastest

### Methods of Transmission



### Improvement in Treatment:

Despite the reduction in mortality, infection rates are still rising. But what has definitely improved is the treatment. When AIDS was first identified, people exhibiting its symptoms could just die within about 11 months. But now they can survive for 20 months or longer. This is in part due to the advent of drugs that slow the virus down, and in part to better treatment of the opportunistic infections that take advantage of the weakened immune system. It is the hall mark of AIDS.

The latest results confirmed in a series of scientific papers suggest that of the new class of anti-HIV drugs introduced over the past two years, the so-called protease inhibitors are going to fulfil their early promise. In addition, the discovery over the last one year of two quite different mechanisms of natural immunity to HIV opens up the possibility of further new drugs or even of vaccines for those unfortunate victims who lack immunity. But studies have shown that when the new medications were combined with older ones such as AZT (Azidothymidine), they could paralyse HIV within the body. Triple drug cocktails have since become standard treatment for HIV infection and the effects, researchers indicate, have been stunning. For two years in a row, U.S. death rate from AIDS has fallen by half. And some experts reasoned that if newly infected people could arrest the virus early, their infected cells could die off completely within a few years.

However, the complete cure of the scourge is still miles apart. Tests have shown that HIV lingers in the immune cells of patients on the drugs, ready to flourish as soon as the drugs are withdrawn. The challenge as such now is not to eradicate the virus but to stay a step ahead of it. But that does not seem to be so easy. Experts have seen that if the cocktail works less than perfectly, the virus adapts to the new drugs and their effect soon fades. In one recent study, researchers at the University of California, San Francisco, examined the records of 136 patients who had started triple-drug regimens since 1996. More than half had suffered treatment failure. And when one protease inhibitor lost its effect, adding or subtracting others made little difference.

The new treatments have another shortcoming. Combination therapy is grudgingly difficult to follow since it involves taking numerous pills on different time schedules as experts indicate — some alone and others in tandem, some on a full stomach and others on an empty one. Strict adherence is necessary but few patients manage it. One recent survey

found that 74 per cent had skipped a medication within six months.

**Side Effects:** Even when the patients can master the rules, they can't always tolerate the drug's side effects. The common ones range from diarrhoea to fatigue and anaemia. Other problems include kidney stones and a bizarre redistribution of body fat, usually accumulating more on the trunk or back of the neck. The condition may faster high blood pressure and cholesterol raising the risk of heart attack and stroke. But all this means little to the developing world, home to more than 10 per cent of the 30 million people who have been infected with the virus. Because they need affordable version of the drug and not this costly drug that at the present market price costs \$16,000 a year even in the U.S. per patient.

In case of HIV virus, mutations happen most frequently when the virus is rapidly multiplying. During the course of a day, experts assert, a single HIV particle can make thousands of copies of itself in an individual. Their wild propagation starts in organs like lymph nodes and then spills into blood stream. What triple drug therapy does is to dampen this viral celebration and reduce the number of viruses in the bloodstream. According to Roy Gulick of New York University Medical School, the number of virus particles — a figure known as virus load — can fall from tens of thousands per millilitre of blood at the height of infection to undetectable levels within few weeks of the beginning of the treatment.

More importantly, this benefit lasts as long as treatment lasts. After 68 weeks of triple drug treatment in Dr. Gulick's trial — the longest to date so far known from available records — 85 per cent of his patients (people who entered the treatment with mild to advanced AIDS) have blood that is free of the virus.

Experts are still uncertain if cleaning up the blood by means of Dr. Gulick's regime is possible. Plugging the virus out of its lymphoid lairs is essential to a complete cure. Assuringly, a paper published in May, 1997 in *Science* by Ashley Haase and his colleagues at the University of Minnesota Medical School in Minneapolis, suggests such possibility. Dr. Haase's team has shown that a triple drug therapy using "ritonavir" (another protease inhibitor), alongside AZT and 3TC, can sweep HIV out of the tonsils, one of its favourite haunts. After six months of continuous treatment — dozens of pills a day, precisely timed, there is almost no sign of HIV in the cells (immune system cells called T lymphocytes and white blood cells called macrophages) it normally inhabits.

Experts believe that the virus may still take refuge in other sanctuaries, such as the brain. This makes it difficult to know when or whether, it is safe for a patient to come off a triple drug therapy. New research findings published in the "Nature" magazine by Alan Perelson at Los Alamos National Laboratory at New Mexico and David Ho at the Aaron Diamond Research Centre in New York suggests some indications of complete purge of the virus in the next one or two years.

But however promising the outcome might be, even for those who can stay the course of triple drug therapy at \$16,000 a year in the US, it is for now a rich man's solution to a disease that largely affects poor people. Nine out of ten people with HIV live in the tropics, and if they are to be treated a different approach will be needed. A hint as to what that might consist of has come from the discovery of people who seem to be immune to the attentions of HIV in the first place.

**Natural Immunity:** This immediately brings to our attention the case of Pumwani, a

slum on the outskirts of Nairobi that is known to be one of the most AIDS-ridden places in the world. Researchers look for natural resistance to the disease in such places. Frank Plummer and his colleagues from the University of Manitoba in Winnipeg believe they have found it. Although 90 per cent of the area's prostitutes are HIV positive, Dr. Plummer has discovered that the rest are remarkably and persistently virus free. Nor is it that the virus lacks opportunity. Rather the women run a daily risk of infection, since more than a quarter of their clients are HIV positive.

And yet Dr. Plummer's report in the early part of 1998 revealed that these prostitutes have no signs of infection. Neither HIV nor antibodies to it can be found in their blood. Most curiously, the longer they ply their trade, the more immune they seem to become. Dr. Plummer has monitored more than 1500 prostitutes during the course of 12-year study. For those who are resistant each year of prostitution reduces their risk of HIV infection by 20 per cent. This has confounded all expectations since one of the usual risk factors for infection with HIV is the length of prostitution.

On the basis of this observation, Plummer and his team suggest that exposure to the virus is actually 'priming' a reaction against it — in essence the basis of vaccination. And the secret of the women's success seems to be their unusual immune cells, in particular their T lymphocytes. Dr. Plummer concluded: Other than the T lymphocytes attacked by HIV known as CD4 cells, there is a second class of T cell not attacked by HIV with a different surface protein known as CD8.

These CD8 cells are known as "killer" lymphocytes. Their job is to assassinate cells infected with viruses, thus preventing the infection from spreading. Andrew McMichael and Sarah Rowland-Jones who work at the Institute of Molecular Medicine at Oxford University reckon that there is something about the CD8 cells from Pumwani's 'ladies of the night' that is nipping HIV infections in the bud. They have been prodding CD8 cells from these women with a variety of proteins from HIV looking for a killer response in the test tube.

World wide public leaders, and researchers have started vigorous campaigns to stop this veritable scourge. True, campaigns against needle sharing and unsafe sex can help, but they won't stop the spread of AIDS at least not in countries like Zimbabwe, Uganda and Botswana where one in four adults is already HIV positive. Our only real hope, experts now agree, is to create a preventive vaccine. Scientist are making some real head way. There's a lot of cautious optimism, says Dr. Anthony Fauci, director of National Institute of Allergy and Infectious Diseases: "that we'll have a vaccine within next 10 years". A number of research teams are now testing experimental vaccines in humans. In July last a California firm called VaxGen launched a trial that will involve 7,000 volunteers in the United States and Thailand. The test subjects — mainly gay men and IV drug users who test negative for HIV — will receive serial injections of either placebo or a formulation called AIDSVAX. Researchers will then advise both groups to avoid risky behaviour and follow their subsequent infection rates. If the vaccine works as intended, it will trigger the production of antibodies that will stick to critical regions of gp 129, the appendage that HIV uses to bind with target cells, preventing HIV from infecting susceptible cells. Other companies in the race are Virginia based Cell-Sci Corp. and French company Pasteur Merieux Connaught.

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# Is It Too Difficult to Stand by Women?

by Ekram Kabir

**When a woman speaks up in the home, will we, the men around, listen, as carefully and respectfully as if she were a man? And will we finally respect their choices, as women? Will we admit that we are the elements who often make their lives a living hell?**

SARAH, 23, and seven-month pregnant, has to look after the mother and father of her architect husband. But there's no-one in the house to look after Sarah's pregnancy-related needs, neglecting which she may even run the risk of an immature death. "I am denied of going to my parents' house where I can get proper rest and diet for me and the baby inside me," says a sobbing Sarah, adding: "I'm trying to get used to the verbal abuses of my husband and father-in-law, who is a former Dhaka University Professor. I have never heard those words from anyone before."

These sad words of Sarah may appear like a mundane monologue from a "coping-with" drama of every-day life of majority of Bengali women: there's apparently nothing wrong with it... Rightly so?

No. Why? Simple: if you listen to how women like Sarah are suffering within while living with their "certificate-holder" husbands, you are supposed to find there are melodramatic elements in their existence which are known to all. They are physically beaten and mentally wounded beyond any limits.

There is however no doubt we make these days have become more responsive to the hazards of women's existence as human-beings. But still, 26,000 women, the would-be mothers, die every year due to scantiness of "care" during pregnancy which become more complicated during childbirth. As males (and as husbands), we have always failed to air our conviction that progress would

be an abstraction without women asserting their rightful place alongside us. Wives, mothers, sisters and daughters are mere a few household names. But, having seen their lives in distress by violence, both emotionally and physically, how much have we done — especially around kitchen tables?

To us — husbands, fathers, brothers and sons — are they valued as much they deserve? Do they have the food, healthcare, education, safe shelter and, above all else, the support they need to survive and flourish? Do they have access to the opportunities to help them reach their inherent potentials?

No, there won't be many to say that "I do care for my partner." If everyone is found saying so, many must be lying.

Why do we have to lie, anyway? Well, it is probably one of the riddles about civilisation reeking with regression and that at a time when enlightened mankind elsewhere is planning human settlement on other planets, we are still forced to air our voice and concern for our women. In one way or the other — like Sarah's husband, although educated, and in-laws — we keep on torturing them, suppressing them as our slavish attendants.

Now, can there be a more shameful, regrettable realisation if we view it as it is, indeed the whole march of civilisation since creation as a composite act of the labour and intellect of both woman and man? Definitely not... But the tragedy is, that is exactly our societal truth in the nineties. If we care to listen, we can

hear the voices of women like Sarah, who withstood — and still do — jeers and threats, prejudice and violence to make themselves heard in a sharing-and-caring atmosphere once reserved primarily for men. If we have the right education to hear the voices of women who instead of burrowing into their sorrow, used their power of breaking all the traditional taboos, we wouldn't be in a position to blame them. But unfortunately, many of us always do.

Creating a future for our women, standing by them, in which they can believe, is not very difficult. It's hardly a radical agenda. We can easily do it for them, if we are truly sensible. But we really do not, and when women themselves come forward to do it on their own, we call them "troublemakers" — often a "family feminist". Why? It is because saving families is all women want to do? Even at worst of times, there are women who stand up and say: "Stop for a minute please, think about what is really important for us and our children."

And they send a clear message: real progress depends on women's progress, democratic progress depends on women's progress. Human rights are women's rights, and women's rights are human rights.

What better time to recommit ourselves to these basic truths than in this year of the 50th anniversary of the Universal Declaration of Human Rights? Let's not talk about paying lip-service to rights written down on a piece of paper. Rather, truly talking about how we treat each other at home and work. Many of the women here know absolutely nothing of this Declaration of Rights. But they

know in their hearts and souls that, in spite of all they are told by culture and tradition, they were endowed with equal rights, as surely as they were born into the human family. And the reason we want those rights fulfilled is not merely to make a statement, or to be part of a political movement, but because we want to help create a better world, a world in which we can live peacefully together, because it's all about dignity and honour.

If this is to be fulfilled, then women must be safe from violence — whether it happens at their homes or on the streets. Domestic violence, which breeds the conditions of violence and aggressiveness, setting one person against another, must be seen for what it is: a crime, not a family affair.

If we think just about women and girls, what are some of those lessons we want women and girls here to be learning? Do we teach our girls that we value them, not for what they look like, but for what they think, feel, do and dream? Will the "male doctrine" do more to help women get childcare and other tools they need [and want] for a better life — so that no women ever have to shed painfully, forlorn tears? When a woman speaks up in the home, will we, the men around, listen, as carefully and respectfully as if she were a man? And will we finally respect their choices, as women? Will we admit that we are the elements who often make their lives a living hell?

Failing this, our so-called "women's rights campaign" will be an insane hype. The tears of Sarahs will never dry.

# Why Accept Beatings in Silence?

Clarinha Glock writes from Rio De Janeiro

**Many of the victims of domestic violence are not prepared to report the abuse, and they are even less prepared to leave their partners.**

BRUISES on her body and a frightened look in her eyes indicate why the 19-year-old woman, four months pregnant and with two children, joined a group of women battered by their husbands, partners or relatives.

An inhabitant of Vila Nova Brasilia, a poor neighbourhood of Porto Alegre in southern Brazil, "Vera" (not her real name) broke ranks with the millions of women who accept beatings in silence due to economic dependence or fear.

She sought out the neighbourhood Health Post in late November and obtained support to escape her husband's attacks. She left home, reported her aggressor, and is now trying to rebuild her identity.

Her children were finally registered and obtained birth certificates, and the office of the public defender is helping her formalise the separation and demand child support from her husband. Vera, who never finished primary school, is now seeking a job to support her family.

Vera's refusal to remain silent is a sign that work against domestic violence in Nova Brasilia is bearing fruit. A few days ago, she brought a pregnant friend to the Health Post. The second woman had also decided to leave her abusive husband.

Celia Medeiros Biehler, the nurse who coordinates the clinic, immediately detected the need for special attention. "I told her it was normal for women to be depressed after the birth, and the girl responded that in her case it was true, because she already felt that way." She then confessed that her husband beat her.

Cases like Vera's are all too frequent, despite growing efforts and international accords designed to promote respect for women's rights.

In Porto Alegre, the Programme of Assistance to Women Victims of Sexual Violence, implemented since May by a network of bodies such as the Vila Nova Brasilia health clinic, is helping prevent abuse and mobilise the support of other public services.

An average of 1,200 cases of rape are reported each year in the state of Rio Grande do Sul, of which Porto Alegre is the capital. The women file formal complaints in police stations, are examined by the Medical Legal Department and are allowed emergency contraception or abortions.

But the ideal would be a prevention programme, said Biehler, who pointed out that most of the victims have no wage-earning jobs and are not

in school. They have many children, starting as adolescents, and become virtual captives of their partners, on whom they depend for survival. Many of the victims of domestic violence are not prepared to report the abuse, and they are even less prepared to leave their partners. "The bruises are, in general, the culmination of a routine of threats and verbal aggression," said Biehler.

The insensitivity of the police is another hurdle. Moreover, the laws on the books are not enough to restrain the aggressor, who "is only arrested when he kills, which is too late," she lamented.

In Porto Alegre, the Casa de Apoio Viva Maria takes in women who report abuse in order to protect them from death threats and possible reprisals. For that reason its address is kept secret. Besides temporary shelter, the women are offered training and help in seeking a job and a safe place to live.

Although not sufficient in themselves, such initiatives are beginning to provide alternatives to women's vulnerability in their homes and prevent fatal outcomes.

Domestic violence is an issue being discussed in most countries around the world, especially since the Interna-

tional Conference on Population and Development (Cairo, 1994) and the 1995 Women's Summit in Beijing and their resolutions in favour of women's rights.

A November gathering of NGOs in Mexico concluded that in spite of the advances, there was a long way to go to achieving full compliance with the resolutions of the Cairo conference.

Brazil has committed itself to implement international agreements on women's rights, through the National Secretariat of Human Rights, one of whose top priorities is the defence of women.

With respect to one of the commitments — improving attention for legal abortion and humane treatment in case of complications some progress has been in Brazil and even more in other countries," according to women's rights advocate Marcia Camargo.

However, "there have been setbacks in others," said Camargo, a member of the Feminist Health and Reproductive Rights Network, which links 110 Brazilian NGOs.

In Brazil, abortion is only legal in case of rape or when the mother-to-be's life is at risk.

— IPS/APB

# Insecure Sanctuaries

A comprehensive report focusing on the reproductive health concerns of refugees, migrants and internally displaced persons in the world was released recently by the prestigious Johns Hopkins University, School of Hygiene and Public Health, Baltimore, USA.

Quoting the Women's Commission on Refugee Women and Children, the report observes that "women in refugee sites throughout the world — many of them in questionable health and with few or no material resources — are having large

numbers of pregnancies at closely spaced intervals." Due to inadequate camp provisions and hospitals being far away, pregnancy and delivery complications are leading causes of illness and death among refugee women of childbearing age.

The report cites many reasons for the phenomenon of elevated fertility. Couples may fear that the children will not survive to adulthood, or they want to replace children who died or became separated from the family during times of crisis. Also, food and other benefits in camps may be based on family size, or refugee leaders may discourage use of contraception because they believe people should have large families.

# No Men, No AIDS

TWENTY years since the identification of the human immunodeficiency virus (HIV), 14 million deaths and 33 million HIV infected cases later, researchers and prevention workers have reached the conclusion that it is men who drive the global epidemic. Men are involved in almost every case of sexual transmission of HIV; without men there would be no AIDS epidemic. So says a new publication "AIDS and Men: Old Problem, New Angle," edited by Martin Foreman, director Panos AIDS pro-

gramme in London, and published by Panos and Zed Books. But while men drive the AIDS epidemic, on a global scale women are contracting HIV at a faster rate — because they are physiologically more vulnerable and because men have more sexual partners, on an average, than women.

While women have been a target of many HIV/AIDS prevention campaigns, following the pattern set by family prevention programmes and easier accessibility, in many societies women, economically dependent on their male partners, have been unable to persuade them to change their behaviour. Also, men usually dominate women's sexual lives, argues the study. — WFS/News Network

# Women Also Bear the Brunt

As deadly AIDS is fast spreading across the world women and children bear the brunt of the menace. Bangladeshi women are no exception, writes *News Network's* Rehana Parveen Ruma.

THE young woman hates her husband's frequent business trips abroad. Soon after her marriage she was shocked to discover that her husband is not faithful to her, he combines his business tour with commercial sex, mainly in Thailand. The discovery has made her fearful of catching fatal AIDS as the 22-year-old woman is also too timid to discuss the subject with her arrogant husband, who has never asked her to accompany him on tours abroad.

The woman, who would not like to identify herself, has sought help from Confidential Approach to AIDS (CAP), an AIDS counselling group in Dhaka. The agency advised her to ask her husband to use contraceptive. So far, she has not been able to gather courage to do so. "I've been passing sleepless nights since I came to know about it. I am not at all worried about his unfaithfulness to me. I know he does not love me. I feel as if I may catch HIV virus from him," she told the News Network. She even thought of divorcing him. But she can't do

it because her husband is known as a gentleman to her family. "I know my family will not believe me. I guess I'll have to live with him no matter what happens to me," she said in a sad voice.

Like her there are a large number of educated women in the country who endure this sort of silent torture by their unfaithful husbands. They have no say about what is good or bad about them. They hardly determine their conjugal life. Nor are they able to decide on how many children they want. For various reasons the country's women have been the victims of gender inequity over the ages and with the rapid erosion of social and moral values, on part of men in particular, women have become more vulnerable to sexually transmitted diseases (STDs).

Due to biological structure, women are the most assailable section of society. When the deadly disease AIDS started rocking the Western world, it was found that 90 per cent of the patients were men and 70 per cent of them homosexuals. But

the trend rapidly went vice versa as a large number of women, aged between 15 and 24, were affected by the disease passed on by their husbands or partners. In Bangladesh, 48 per cent of women are married off at the age of 15-19 and 10 per cent of them can use contraceptives although 70 per cent are well aware about it while the percentage of condom using couples is only 3, even though the method is considered most effective in preventing STDs.

Besides, the country itself is vulnerable to the fast growing disease due to its geographical location as it has close ties with the supposedly AIDS endemic countries like India, Myanmar, Thailand and Singapore. According to press reports, 50 per cent of prostitutes in India's Bombay are carrying HIV virus and business contacts between the two countries are more frequent than other countries. The country's blood transfusion system has also made women an easy target of AIDS as there is no system in hospitals to detect HIV virus in blood, simultaneously affecting

both the mother and her child.

The rate of HIV infection of children by mothers ranges from 25 to 35 per cent around the world while the rate stands at 85 per cent in Sub-Saharan of Southern Africa. And the trend is similarly higher in developing countries which is said to be around 35 per cent. Until recently, Bangladesh was by and large reluctant to acknowledge the danger from the fatal disease even after feared epidemic in neighbouring countries on the pretext that the country's people harbour conservative family values. But various studies conducted by non-government organisations have helped a lot in melting down the reluctance to face the silently growing menace.

According to figures provided by CAP, 72 people, including 15 women, were found affected with HIV virus in the country until 1996. Of the women AIDS victims, seven were from Sylhet, three from Chittagong, one from Noakhali, two from Khulna, and one each from Faridpur and Rajbari.

TOM & JERRY



By Hanna-Barbera