

IN FOCUS

Who is the 'REAL Man'?

RAVI K VERMA

The Yaari-Dosti study in Mumbai examines perceptions of masculinity as an entry point for addressing HIV

In India, as in other countries, norms that influence how young males are socialised to become 'men' are particularly relevant to HIV prevention efforts. Both men and women pay a price for inequitable gender norms that keep women's status low and foster men's greater control over decision making and resources. This includes decisions that affect sexual behaviour and HIV risk, such as whether to be monogamous or use a condom.

Is it possible to change these deeply rooted social norms to promote equitable gender relationships among young men who already yield greater power than young women? And if so, to what extent would this protect them and their partners from HIV infection? Can these changes in attitudes toward gender norms be measured? And what lessons can be drawn for large scale implementation and cross-cultural comparisons? The Population Council, in collaboration with Instituto PROMUNDO, Brazil, CORO for Literacy in Mumbai and MAMTA Institute of Health in New Delhi, explored these questions.

Positive changes in attitudes towards gender, sexuality and intimate relationships are possible through participation in a gender-focused intervention

Construction of masculinity

The process began by determining how constructions of masculinity and gender-related issues influence young men's identities and risk behaviors. A wide range of physical traits and psychological attributes were used by youth to describe a 'real' man. For example, "he (real man) should not be 'Gud' (feminine; homosexual)"; "he should be able to have sex with women"; "he must lead physical fighting"; "he should be in control and responsible" and more importantly, "he needs to 'prove' his manliness". Physical and sexual violence were the most common characteristics listed by young men for a Real Man. Peer influence played a major role in the construction and maintenance of these ideas.

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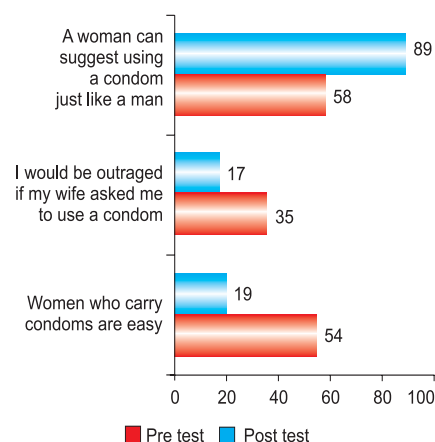
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Spotlight

HIV and TB - The Deadly Nexus

Figure 1: Indications of shifts in gender attitudes towards condom use



◀ In Focus

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In Brazil, Instituto PROMUNDO, a nongovernmental organisation based in Rio de Janeiro, and the Horizons Program, successfully evaluated an operations research study to promote equitable gender relationships. The study evaluated the impact of Program H (referring to *homens*, or men, in Portuguese), a new, multi-faceted intervention that aims to change how young men think and act with regard to their interpersonal relationships.

From research to intervention

Using the findings and adapting the intervention strategies used in Brazil, the programme *Yaari-Dosti* (bonding among men) was developed. It targeted 125 young men in the age group 18 to 29 years and combined peer education with lifestyle campaign.

The facilitators were chosen from the community itself and educational modules covered issues around sexuality, violence, reproductive health and HIV/STI. Weekly group sessions using participatory methods were led by peers and included role play, videos and films. Gender experts were involved in the initial sessions.

The life style campaign reinforced lessons from peer education through street plays, comics, posters, hats and T-shirts. The campaign was called *Soch sabi mard vahi* (The Real Man is one who thinks right).

The Gender Equitable Men (GEM) Scale was used as part of a pre and post test instrument to assess the



Peer leaders explore perceptions of masculinity among youth

Weekly group sessions using participatory methods were led by peers and included role play, videos and films

changes in attitude and behaviour. GEMS measures traditional and egalitarian attitudes towards gender relations and behaviour. The results revealed that *Yaari-Dosti* has demonstrated success in changing gender attitude among men and had also

resulted in increasing condom use (Fig. 1 and 2¹).

There were also indications of shift in attitudes towards violence and harassment behaviour. The young men changed their

attitudes in stages, initially completely denying the existence of gender-based inequity to acknowledging the inequity and finally trying to change themselves.

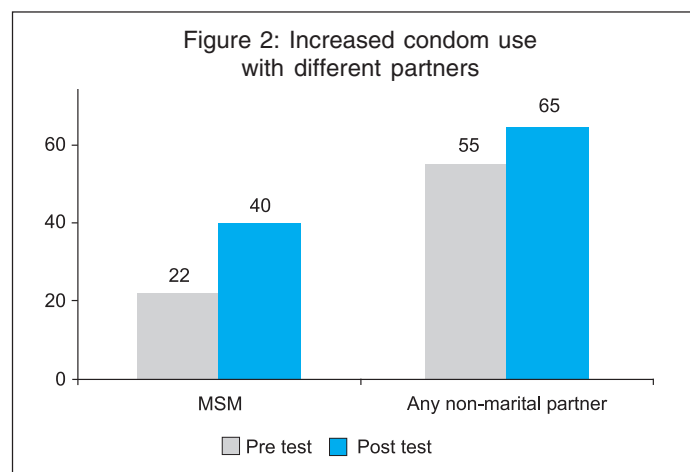
There were quite a few voices of resistance and anxiety as well. "I have lost friends (because of the change in my attitude)... Losing friends makes me unhappy." "In my relationship with my girlfriend the question, 'Am I dominating?', is always at the top of my mind now. This is very irritating sometimes. Admittedly, however, the quality of our relationship has improved."

There were also profound voices suggesting a shift in both attitudes and behaviours: "Boys tease girls because they think its natural and rightful. I know this because I was one of them". "I was about to divorce my wife due to misunderstanding. These sessions restrained me from doing that..."

The *Yaari-Dosti* experiment showed positive changes in attitudes towards gender, sexuality and intimate relationships are possible through participation in a gender-focused intervention.

Encouraged by the successful pilot, the *Yaari-Dosti* programme has been scaled up to cover three large urban communities in Mumbai and 28 villages in Gorakhpur, Uttar Pradesh. In the scaled up phase, a component on women (*Sakbi-Sabeli*) has also been added. ■

Ravi K Verma is working with Population Council, India.



¹ For detailed analysis, please see Verma, RK et al "Challenging and Changing Gender Attitudes among Young Men in India", *Reproductive Health Matters*, 2006, 14(28); 1-10 and "Shifting support for inequitable gender norms among young Indian men to reduce HIV risk and partner violence," *Horizons Research Summary*. New Delhi: Population Council. April 2006. www.popcouncil.org/horizons.

In Conversation

“We have to acknowledge that male-to-male sex is a reality in India”



Brinelle D'souza, Assistant Professor at the Centre for Health and Mental Health, School of Social Work, Tata Institute of Social Sciences, has been involved in research, capacity building, policy and advocacy work in HIV/AIDS for the past decade. Brinelle is also the Director, Cell for AIDS Research, Action and Training. She speaks to Sankalp about working with men having sex with men and transgender populations.

What are the greatest challenges faced by those tackling HIV/AIDS among men having sex with men and transgender communities in India?

The challenges are many — social, legal, political, economic, and even, academic. A law that criminalises male-to-male sex in India is the biggest hurdle. Programmes for men having sex with men (MSM) are also challenged by the social and religious stigma associated with male-male sex.

The lack of recognition of male-to-male sex as a factor in the spread of HIV in the country has also led to poor engagement with this issue by the national programme, the donor community and NGOs. Consequently, the number of interventions for MSM in India is extremely limited. Denial and discrimination against them feed the secrecy in which MSM live, increasing their risk taking and making it difficult to reach them. Transgender (TG) communities sadly face even greater marginalisation and neglect in terms of access to services. They are among the most disenfranchised groups in society. Reaching out to these communities is further challenged due to the way they are organised.

MSM populations in India have many identities. Unfortunately, all male-to-

male sexual activity is represented by a single uniform MSM identity. Non-community based organisations running targeted interventions for MSM and TG groups have a poor understanding of the complex gender and sexual identities at play.

The lack of ethnographic, psychological, sociological and behavioural knowledge relating to issues of male – male sex is also a big challenge. Things are now beginning to change....

What steps can be taken to overcome these challenges?

The first step to scaling up MSM and transgender interventions would be to acknowledge that male-to-male sex is a reality in India, contributing significantly to the spread of HIV in the country. Secondly, we need to strengthen and expand surveillance and research to understand better the dynamics of HIV transmission and the role of male-male sex in India. Thirdly, it is important to integrate male-male sex in all education, prevention and clinical efforts to stem the epidemic. Fourthly, political and legal advocacy is absolutely necessary for an effective, rights based response. And lastly, it is crucial to ensure that MSM and transgender communities are central to the design and implementation of policy and programmes.

What strategies have you used to reach people who identify as MSM as well as partners and clients who may not identify themselves as MSM?

We made a deliberate attempt to break away from the heterosexist orientation of the Voluntary Counselling Testing (VCT) programme in the country. Our VCT programme was made more inclusive to reach out to different populations, especially those who are marginalised and invisible. Every client who comes to us is assessed for anal sex, besides vaginal and oral sex, and every male, irrespective of class and marital status, is assessed for male-to-male sex in a sensitive and non-judgmental manner.

Many outreach activities have been undertaken to reach different populations. A major breakthrough was our ability to reach out to young men and boys working in the *jari* industry. We conducted sexuality workshops for working and out-of-school boys in the surrounding slum communities too.

How do you ensure access to VCT for MSM and TG populations?

We focused on building the capacities of staff and social work students on gender, sexual identities and issues affecting MSM and TG communities. The staff was trained to be sensitive when taking their sexual history, especially in the language used. A good referral network was also set up of appropriate services for their other needs at timings convenient to them. We undertook advocacy on behalf individuals who experienced discrimination. All these initiatives have helped set up a client-centred service.

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2006 – The Year That Was

As 2006 comes to a close, it's time to draw up those end-of-the-year lists. So here are ten reasons why the IAVI family will never forget the year we marked our Tenth birthday.

I Chennai Moment

On a quiet morning in January, the clinical trials for the Modified Vaccinia Ankara (MVA) vaccine candidate began at the Tuberculosis Research Centre (TRC) in Chennai. The first Phase of the trial will test the safety and immunogenicity of the vaccine candidate. All the volunteers were recruited by July.

On February 26, Union Minister of Health and Family Welfare Anbumani Ramadoss formally dedicated to the nation the Indian Council of Medical Research – National AIDS Control Organization – International AIDS Vaccine Initiative AIDS Vaccine Trial Centre at the TRC. India's second Phase I AIDS vaccine trials are being conducted at this state-of-the-art facility. In 2005, ICMR, NACO and IAVI had begun trials for the tgAAC09 AAV (Adeno-Associated Virus) vaccine candidate at the National AIDS Research Institute, Pune.

II Partners in Research

IAVI's commitment to facilitate vaccine research in India was realised in February. IAVI got together a team of national and international experts for an interactive meeting with scientists at the Ministry of Science and Technology.

Under the Memorandum of Understanding with the Ministry of Science and Technology, Government of India, IAVI is collaborating with the Department of Biotechnology (DBT) and Council of Scientific and Industrial Research (CSIR) to capitalise on opportunities of world-class applied research on AIDS vaccines in India. Partnerships for research in India are being explored to help in the development of next generation AIDS vaccines. A subcommittee has been formed, comprising nominees of both DBT and IAVI. Its brief is to put the collaborative framework into action and try and give the world a "Made in India" vaccine!

III Our Fellow Stakeholders

Prior to engaging vulnerable communities in clinical research, it is imperative to understand their needs and draw up guidelines for the care and treatment of those who participate in such research. Preparatory meetings were held in Chennai in May with health-care providers and community members from the men who have sex with men (MSM) and transgender communities.

Next, a consultation was held in November in New Delhi to identify the critical elements for providing Voluntary Counselling and Testing sensitive to the specific needs of these communities. This was in collaboration with the Indian Council of Medical Research and the National AIDS Control Organisation. Participants included representatives of MSM and transgender groups, counselors, researchers, and specialist trainers.

IV Meeting the Media

A workshop was organised by IAVI in Chennai on May 27 – in partnership with the TRC and NGO partner YRG Care – to orient the media to issues related to AIDS vaccine trials and seek their support to boost recruitment of volunteers for the Phase I trials. The coverage was very positive in both Tamil and English publications and television. This helped create awareness among the civil society and brought many possible volunteers. By July, 16 of them were recruited.



The Union Minister for Communications and Information Technology, Dayanidhi Maran, the Union Minister for Health, Dr Anbumani Ramadoss, and the Director of Tuberculosis Research Centre, Dr Narayanan, lighting the lamp to inaugurate the Patient Care and Clinical Research Facility in Chennai

V ABC of R&D

The scholarship of Indrani Gupta and the Institute of Economic Growth, Delhi, was tapped by IAVI when it sponsored a study called *Accelerating AIDS Vaccine R&D in India: Assessing Policy Obstacles and Opportunities*. The resultant report identified advocacy and policy measures needed to trigger greater private sector involvement and investment in the research and development of the AIDS vaccine. The report was released on September 27-28 at a workshop hosted by IAVI and PATH. Many health experts and NGO leaders examined the way vaccines had been introduced in the past, what had worked and what was needed to take the process forward.

VI Vaccine Planner

IAVI is hoping to be a catalyst in the development and adoption of a national AIDS vaccine plan (NAVVP) for India. As a first step, in 2006, IAVI reviewed the national AIDS vaccine plans of other countries and prepared a draft framework for India.

The NAVVP will be a comprehensive policy document, defining parameters of vaccine R&D and providing guidelines for the participation of private and public, domestic and global institutions. It will delineate rules, regulations, rights and requirements for future vaccines. The drafting of the plan and giving it final shape are, of course, the government's prerogative.

VII Three Continents, One Idea

The India-Brazil-South Africa (IBSA) heads of government summit held in Brasilia from September 13 to 15 was a landmark event for IAVI. The three leaders agreed to enhance trilateral cooperation in a host of public health areas, "including vaccines to prevent HIV and AIDS". In the build-up to the IBSA summit, Jayanthi Natarajan, who became IAVI India's Country Director in 2006, was invited to Brazil to speak at a social sector issues seminar. The seminar highlighted the crucial link between an AIDS vaccine and the attainment of the Millennium Development Goals.



The Director of SOS Foundation, Ramesh Goud, IAVI India's Director, Programme Operations, Sweta Das and the Executive Director, Naz Foundation, Anjali Gopalan at a meeting with NGOs of Maharashtra

VIII Reaching the Community

In 2003, five large NGOs came together to guide and support IAVI's community mobilisation and recruitment activities. In 2006, this group was formally registered as the National Coalition on Health Initiatives (NCHI). It will also be working with UNAIDS and the Global Campaign for Microbicides.

NCHI and IAVI hosted a workshop for NGOs working in Manipur, Assam and Nagaland in August. The objective was to raise awareness on the AIDS vaccine development process. NGO consultative meetings were also held in Chennai for Tamil Nadu and in Mumbai for Maharashtra. The objective was to address concerns of grassroots NGOs and garner their support for the AIDS vaccine programme.

IX Screen Test

On May 18, to commemorate World AIDS Vaccine Day, IAVI India screened the film, *Ending AIDS: The Search for a Vaccine* in New Delhi and at the Phase I trial site in Pune. An audience of distinguished representatives from partner government institutions, donors, NGOs, the scientific and medical fraternity and the media appreciated the film. It is being translated into regional languages – beginning with Marathi and Tamil – to reach a wider audience.

X Winning Mindspace

Sankalp, IAVI India newsletter, was redesigned and repackaged with new editorial innovations, as well as better quality paper. In addition to Marathi and English, the Tamil edition was launched in 2006. A special issue, commemorating 10 years of IAVI, was published in November.

The IAVI India website has done one better. It is now available in *four* languages – English, Marathi, Tamil and Hindi. ■

SPOTLIGHT

HIV and TB – the Deadly Nexus

DR SOUMYA SWAMINATHAN

“Do you know he has tuberculosis?” A few decades ago, this revelation was shared by friends and acquaintances with deep foreboding, almost with an air of resignation. The disease, simply known as TB, evoked fear and brought visions of prolonged treatment and expensive visits to sanatoriums on hill-stations.

Simply put.... A **macrophage** is a large, versatile immune cell that acts as a scavenger, engulfing dead cells, foreign substances and other debris. However, it is not always able to completely kill and eliminate the TB bacteria that it engulfs.

While TB can now be cured with the availability of effective drugs, its socio-economic impact is huge. Tuberculosis affects people from all backgrounds, but is more common among the poor and economically productive age groups. Consider this: India has a third of the world's burden of TB. The prevalence of TB in the country has recently been estimated at 8.5 million cases! This implies that over nine persons in each tiny hamlet of 1000 are suffering from TB, at any point of time.

When latent TB gets active

Studies have shown that most people get infected as children or adolescents and the prevalence of latent TB infection (LTBI) among adults in India is 50-60 per cent. A high proportion of Indian adults harbour latent TB infection and are prone to re-activation of TB in the presence of any risk factor. In general, about 10 per cent of infected persons develop TB in their lifetime, about half of them in the first two years after infection. The exact

mechanism of latency of this bacterium – *Mycobacterium tuberculosis* – and the immune mechanisms involved are not clearly understood. However, it is accepted that the bacteria can remain dormant within **macrophages** for years and gets re-activated in some infected persons, when the conditions are right.

What triggers the re-empowerment of this bacterium that lies silently, for years? Risk factors for re-activation of latent TB include HIV infection, diabetes mellitus, silicosis, immunosuppressive drugs, corticosteroids and severe malnutrition. Smoking has also been identified as a risk factor. The strongest known risk factor for TB re-activation is HIV.

The facts speak for themselves. The incidence of TB among HIV-infected persons has been estimated to be 6.9 per 100 person-years in India. This implies that over 10 years (the average lifetime of an infected person), about 70 per cent of them will develop TB.

It is obvious that with increasing numbers of HIV-infected people in India, there is likely to be an increase in tuberculosis cases also. The burden of TB in India is therefore likely to increase if the HIV situation worsens.

Diagnosis of TB among HIV+ persons

The clinical and radiographic presentation of TB is different in HIV+ persons, especially among patients with advanced disease, making the diagnosis more difficult. At times, sophisticated investigations like computed tomography (CT scans) maybe required

to diagnose the lesions not visible on plain X-rays. This is especially true for TB of the brain and abdomen. Studies have demonstrated the presence of TB even among asymptomatic high-risk patients despite normal chest X-rays and negative sputum smears, making the detection even more difficult in this high risk population.

HIV co-infection presents us with a challenge on another front. The classical test used to identify TB infection (positive Mantoux or the tuberculin skin test) is not sensitive enough to detect latent TB in HIV+ persons. Moreover, atypical mycobacteria that do not normally produce disease in healthy individuals can do so in immunosuppressed persons. Special diagnostic tests are required for them.

Adverse impact of HIV and TB on each other

HIV and TB have a negative synergy, with each infection having an adverse impact on the other. HIV infection by virtue of reducing the body's cellular immune defenses makes the individual more susceptible to TB. This could be a flaring up of old dormant TB or a new infection picked up from the environment. In either case, the infection tends to spread within the body and produce disease in more than one site. Once active TB occurs, it stimulates or activates the immune system to produce **cytokines**. Some of these

Simply put.... Cytokines are non-antibody proteins released by a group of cells that act as mediators in immune response.

cytokines further increase HIV viral replication within lymphocytes, thereby increasing viral load and the severity of HIV disease. Untreated TB leads to a rapid deterioration in the clinical condition of HIV+ patients, with increasing viral load and reducing CD4 counts. In spite of anti-TB treatment, it has been observed in many studies that about 30-40 per cent of patients die within two years after developing TB. Prevention as well as early diagnosis and treatment of TB therefore are a priority for improving the quality of life and longevity of HIV+ persons.

Picking up the gauntlet – Treatment of TB in HIV+ persons

The bacteriologic response to treatment with short course anti-TB regimens is as good as in HIV-uninfected persons. Studies comparing six-month short course regimens (daily or intermittent) between HIV+ and negative TB patients have shown similar cure rates. However, it is recommended that regimens employing less than three times a week treatment (twice or once weekly) not be used because of the higher risk of developing drug resistance.

At the Tuberculosis Research Centre, a randomised clinical trial is ongoing to compare a six-month vs nine-month intermittent regimen, in order to determine if the Category I regimen used in the Revised National TB Control Program (RNTCP) would be effective in HIV+ persons. A pilot study done at the centre showed that the smear and culture negativity during the second month of treatment was good, indicating that the drug regimen is effective in killing *M tuberculosis*. However, the high mortality - during and immediately after treatment of TB - was cause for concern. Similarly, the recurrence rate

Treatment for TB in HIV TB co-infected people

For patients with CD4 < 250 cells/mm³, ART should be started as soon as TB treatment is tolerated (between 2-8 weeks later). For patients with CD4 counts between 250 and 350, ART should probably be started after the first two months of TB treatment. Currently it is recommended that for patients with HIV TB, a Rifampicin – containing anti-TB regimen should be used. The standard short-course intermittent regimens used in the

RNTCP can be employed. Rifampicin use with certain anti-retroviral drugs needs to be studied both for efficacy and safety, as Rifampicin induces the p450 enzyme system in the liver, the metabolism of non-nucleoside reverse transcriptase inhibitors like Nevirapine and protease inhibitors like indinavir and lopinavir is enhanced, leading to lower blood levels. Hence, pharmacokinetic studies are urgently required in the Indian setting.

was high and was caused by both re-activation as well as re-infection with a new strain of *M tuberculosis*. Both the high mortality and recurrence rate are directly related to the degree of immunosuppression. Hence, one of the important priorities is to determine when to start anti-retroviral therapy (ART) for patients with both HIV and TB?

The drug interactions, overlapping toxicities and logistic problems make the co-administration of anti-tubercular and antiretroviral drugs challenging. The best regimen as well as timing of ART in HIV TB co-infected patients needs to be worked out. Directly observed treatment (DOT) has revolutionized the treatment of TB by ensuring compliance and thereby achieving high cure rates. The feasibility and cost-effectiveness of the DOT strategy for administration of antiretroviral drugs needs further study.

A word about preventive therapy

Preventive therapy for TB has been found to be effective in a clinical trial setting, though the optimal regimen and duration are still debatable. More field/operational research needs to be carried. A path-breaking clinical trial at the Tuberculosis Research Centre is comparing a six-month regimen of drugs Ethambutol and Isoniazid with a three-

year regimen of Isoniazid alone, among patients with HIV infection. Though preventive therapy has the potential to reduce the incidence of TB, it has operational constraints. Experience from USA, South Africa and Brazil has shown that the use of ART in populations is associated with reduced risk of TB, other opportunistic infections and death. An observational cohort study from South India also reached similar conclusions.

The war has just begun

This snapshot of the interaction between HIV and TB outlines the issues of concern and the many challenges to be overcome. No one point tactic will help us here; indeed, a combination of strategies including active case finding for TB in HIV-infected persons, improved diagnostic methods, directly observed treatment, preventive treatment and anti-retroviral therapy could reduce the burden of HIV-associated TB in India. Clinical and operational research needs to be undertaken in the areas identified above in order to develop scientifically valid, operationally feasible and cost-effective strategies appropriate for implementation in India. ■

Dr Soumya Swaminathan is the Deputy Director (Sr Grade), Division of HIV/AIDS, Tuberculosis Research Centre, Chennai.

◀ In Conversation

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How should one approach the issues of risk-reduction with male sex workers when the reality is that very often their livelihood depends upon sex work?

The reality of people's lives has to be kept in mind when working on risk reduction strategies. Male sex workers face even greater stigma than their female counterparts and are extremely invisible and difficult to reach. Condom use among them is very poor. There are many reasons for this – poverty, barriers to accessing condoms, inability to negotiate condom use in anal sex or the threat of

violence, both physical and sexual, drug and alcohol use. Some of the ways to approach risk reduction would be to improve access to condoms and water-based lubricants, skill building to overcome barriers to accessing, purchasing and using condoms, and sensitising service providers and law enforcement agencies. It would include drug and alcohol reduction and strategies to address poor self esteem, external and internalised stigma that characterises these populations. Building community networks to deal with issues of harassment and violence by local goondas, clients and police has also to be part of such efforts. ■

ASK to get ANSWERS...

If you have a question on any issue pertaining to HIV/AIDS or AIDS vaccines, write to us at:

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Our experts will give the answer. The question and the answer will be published in the next issue of Sankalp.

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IAVI is a scientific organisation founded in 1996 whose mission is to ensure the development of safe, effective, accessible, preventive AIDS vaccines for use throughout the world. IAVI focuses on four key areas: accelerating scientific progress; education and advocacy; ensuring vaccine access and creating a more supportive environment for industrial involvement in AIDS vaccine development.

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