

**The International AIDS Vaccine Initiative – India
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IAVI is a scientific organisation founded in 1996 whose mission is to ensure the development of safe, effective, accessible, preventive HIV 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 HIV vaccine development.

IAVI is a UNAIDS Collaborating Center. Its supporters include the Rockefeller, Alfred P. Sloan, Starr, Bill & Melinda Gates, Until There's A Cure and John and Marcia Goldman Foundations; the governments of the United Kingdom, The Netherlands, Canada, Ireland, and the United States; and the Mercury Phoenix Trust, World Bank and the New York Community Trust. IAVI has also received support from Crusaid, the Elton John AIDS Foundation, the Vincent P. Belotsky Jr. Foundation, Levi Strauss International, the James B. Pendleton Charitable Trust and other generous corporate and individual donors around the world.

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Introduction

India's socio-economic status, traditional social ills, cultural myths on sex and sexuality and a huge population of marginalised people make it extremely vulnerable to the HIV/AIDS epidemic. Since the first reported case in 1986 in Chennai, today there are nearly 4 million people living with HIV/AIDS in India as per the latest NACO¹ report, March 2001.

The emerging complexity of the epidemic has made it an issue that touches all aspects of human life. Most HIV/AIDS cases in India have been reported between the age group of 25-45 years, which means the untimely loss of a large number of adults in the prime of their productive life. Data from antenatal clinics reveal a rising HIV prevalence in pregnant women, almost 25% of the HIV affected persons (UNAIDS)², resulting in the consequent rise of the infection amongst children. Lack of awareness, absence of accurate data on infection rate, gender inequality and poverty are some of the crucial factors affecting a streamlined response to the epidemic in India.

The first line of defence must be prevention but even with a good spread of knowledge, many may not be able to modify their behaviour. For example, women often lack control of their own sexual activity and couples who have no access to testing will want children. Treatment advances have yielded important HIV/AIDS therapies, but the cost of their use, serious side effects and the rapid build-up of resistant strains of HIV, have put them out of reach for most people in countries where they are needed the most. Only an HIV/AIDS vaccine can end this pandemic. Past experience shows that fatal diseases like smallpox, cholera and even plague were eradicated only with vaccines.

Keeping this in mind, India's Ministry of Health and Family Welfare and the Indian Council for Medical Research have signed a Memorandum of Understanding with the International AIDS Vaccine Initiative (IAVI) to develop and evaluate one or more vaccines appropriate for use in India. The indigenously developed vaccine will be tailored to the HIV strain most prevalent in India.

To understand perspectives and some key issues as far as vaccine trials are concerned, IAVI in partnership with Probe Qualitative Research (PQR), studied the opinions among experts within community organisations active in the fields of HIV disease and reproductive health. This document comprises PQR's final report on the study.

Executive Summary

The study design

The study comprised in-depth, personal interviews using a flexible guide. The same researcher carried out all interviews for continuity and substance. A total of 24 interviews were conducted across Mumbai, Delhi and Chennai. The respondent categories were:

- Three opinion leaders
- Twelve NGOs
- Four hospital professionals
- Three international development organisations
- Two government representatives.

Responses to the questions asked are summarised below:

What makes a good trial

The respondents defined a good trial by the following major parameters:

- True volunteerism
- Absence of force or inducement
- Informed consent:
 - This was defined as consent given after a respondent received a detailed explanation in easily comprehensible language and in a psychologically comfortable setting. Volunteers would be given the full opportunity to understand the trial and its implications – in an interactive manner – and would have the freedom to stay with the trial or opt out. This would involve consent of the volunteers as well as their families and possibly, the community to which they belong.
- Ethical and sensitive treatment of volunteers:
 - This would comprise adequate reward for participating, though there was little clarity on what this adequate reward would be. On the one hand, there was a desire to compensate for the contribution being made without the compensation becoming large enough to impact the volunteer's decision to participate.
- Counselling to inform the volunteer that the vaccine may or may not work:
 - Complete protection of the volunteer in case of ill-health, where opinions ranged from providing lifelong medical care to taking responsibility for the family's welfare. The expectation was that all those aspects of care would be looked into which were listed by international norms and standards. The expectation was usually not that of a direct monetary translation – it was the spirit of the commitment rather than the dollar value that was being sought.
- Complete and proactive transparency:
 - An ethical review committee, comprising of respected experts across a range of subjects, was mentioned almost unanimously, in all interviews. Three levels of proactive transparency were suggested:
 - ~ The formation of the ethical review committee and announcement of the names of committee members
 - ~ Sharing the process with a stakeholders group
 - ~ Throwing the issue open to the press and public.

The main reasons for such transparency would be to:

- ~ Prevent exploitation of volunteers who might be poor and illiterate
 - ~ Ensure proper use of funds
 - ~ Protect the trial agency in the long run
 - ~ Get a possible commercial benefit for the vaccines from the publicity. This could make it easier to sell the final vaccine.
- Tailor made for Indian needs:
 - ~ Respondents urged that these trials be made culturally sensitive in order to be successful, which meant taking into consideration issues of beliefs and superstitions, diet and dress and other aspects of life that might be unique to the Indian culture
 - ~ Taking the political leaders along in spirit
 - ~ Detailed planning in collaboration with a representative group of respected experts.

The HIV/AIDS vaccine trials

The questions and concerns focussed on the vaccine, the experiment groups, the placebo groups and the false HIV+ status of volunteers.

About the vaccine

- Given the mutating strains of the virus, there were doubts about the ability of any vaccine to cope with this
- There were questions about the source of the vaccine, its method of working and the dosages required
- There were concerns about the long-term effect of the vaccine – which could not be predicted – and who would take responsibility for it
- Finally, there were concerns about how the trials would be managed.

The experiment group

- Respondents raised questions about the composition of volunteers, and voiced concerns about involving people who were already underprivileged and marginalised in society
- In a different context, however, respondents also offered suggestions about groups from where volunteers could be drawn, such as intravenous drug users and eunuchs, for specific reasons
- While some endorsed the idea of drawing volunteers from high-risk behaviour groups – for reasons of trial efficiency, others disagreed because they felt that there would be too many confounding factors with high-risk groups that could complicate results.

The placebo group

- The issue of using a placebo group caused confusion and a lot of concern but very few had a clear opinion on the subject. The main concerns were about fairness to the placebo group who would be at-risk because the false feeling of protection would make them indulge in high-risk behaviour
- Some respondents suggested that either a matched sample from different parts of the world should serve as control, or that the control group should not be administered anything but monitored in tandem with the experiment group

- Others felt that as long as both groups were given equal counselling, the method would be fair
- Some believed that the placebo group should be told that they had been given a placebo.

The false HIV+ status

This aspect of the trial yielded very little response. Even when attention was drawn to it, there was a tendency to gloss over the situation. Only a couple of respondents examined the issue with care, recognised it as being a potentially problematic situation, but did not have any immediate answers. Some suggestions were:

- ~ Providing cards that identified them as being volunteers and not HIV+ people
- ~ Using mass media to create awareness about this, and
- ~ Forcing the pace on inventing new tests that could differentiate between antibodies and the virus.

Trials in India

Reactions can be divided into negative, conditionally positive and clearly positive.

Negative response

The main reasons for a negative reaction were:

- ~ The fear that India was being chosen because trials could be run less expensively here than elsewhere
- ~ The fear that Indians would be used as guinea pigs in an unproven experiment, and that not enough was known about the vaccine yet.

The questions that arose were:

- ~ Would the trials be carried out in other countries at the same time?
- ~ Would these include a balanced mix of developed and developing countries?
- ~ Who would benefit from this experiment and how? What were their motives?
- ~ How would the Indian people benefit?

Conditionally positive response

Most respondents did not entirely reject the idea of trials in India, but their acceptance was full of caveats. The gist of their response was that:

- ~ If the trials were carried out with and through the government and other concerned groups;
- ~ If there were expert committees reviewing the trials at each stage;
- ~ If the concerned audiences were well informed and if ethical clearances were taken;
- ~ If the trials were run in an open and transparent manner;
- ~ If the trials were conducted by a reputed agency;
- ~ If the trials were for virus strains that would be relevant for India;
- ~ Then, the trials might help the country and would therefore be acceptable.

Clearly positive response

There were a few who believed that it would be good for the country to conduct the vaccine trials here. They believed that:

- ~ In the long run, vaccination would be the more practicable and easier option to changing behaviour, particularly behaviour related to sexuality
- ~ Trials in India would be necessary if a vaccine was to be developed for India – because trials carried out elsewhere would not suffice
- ~ Trials in India would be beneficial to the country in that they would provide a learning experience as well as put India at the forefront of AIDS control programmes.
- ~ An AIDS vaccine would end up empowering Indian women, which would be a good by-product of the trial.

Methodology

Research design

The study was designed as a qualitative research exercise, comprising in-depth interviews with carefully selected experts. The same interviewer conducted all the interviews so that comments made by one respondent could be bounced off the other respondents, thereby adding to the texture and content of the final report.

The study, carried out over a couple of months, resulted in an extensive range of opinions, which were further enhanced by the contextual references to other opinions collected till that time.

Research methods

Research tools and training

All the interviews were free-flowing, open-ended discussions where the interviewer operated with a loosely drawn up guide* to ensure that all relevant points were brought up with all respondents. The depth to which a certain issue was probed depended entirely on each respondent's individual expertise, interest and knowledge.

In addition, a detailed statement provided by IAVI, explained both the nature of the vaccine and the nature of the trials to respondents, so that they could familiarise themselves and understand the details of the trials. To facilitate reading, key lines were highlighted.**

Since the same interviewer conducted the interviews and wrote the guide, no training was required.

Though the IAVI list of experts served as a starting point, each respondent suggested several new names giving reasons for their suitability. As a result, the final interviewee list was richer for having been sourced from the experts – after they had understood the objectives of the study. The experts were located in Mumbai, Chennai and Delhi.

Data collection

Interviews were usually conducted in the respondent's offices, with some exceptions at the respondent's home and one at a quiet restaurant, when the interviewees were unable to give uninterrupted time in any other way.

Though most interviews lasted for one and half to two hours, the longest lasted four hours. All interviews were conducted in English, tape recorded and then transcribed verbatim.

* See Appendix 1: IAVI – Listening to NGOs, Discussion Guide

** See Appendix 2: A Note on the AIDS Vaccine

Limitations of the project

This research was entirely qualitative in nature, with a purposively selected sample of respondents and therefore has no statistical validity or reliability.

However, since this study comprises expert opinions and the selected group of experts comprises a finite, known population group, this study is a valid and reliable reflection of the opinions of this group.

Since AIDS activists were not included in the study, an important sub-group's opinions are missing. This will be addressed in other studies.

The AIDS vaccine trial proposal was shown to respondents as a detailed write up, with the assumption that they were experts in the field and would therefore have both the interest and expertise to read the detailed note. However, we found that this assumption was not always correct. For future qualitative research it would be more useful to present the concept of the AIDS vaccine trials on easy-to-read postcards, one aspect at a time, obtain reactions to that aspect, and then move to the next. Such an approach would probably result in a more equitable set of responses to each of the issues.

In this study, another possible limitation has been that respondents reacted selectively to only those aspects of the vaccine trial statement that interested them – therefore attention and interest levels differed from respondent to respondent.

Research Results

Experience with medical trials

Though most respondents of this study had no direct experience with trials, they had watched trials being carried out from the sidelines, and had some idea about why they had not been successful.

Those with direct experience had participated in trials only for public health problems and medical drugs.

“No experience with HIV/AIDS trials – I have done trials for Hepatitis and also Rabies.”

“Never involved with any trials, but aware of the controversy surrounding them.”

Most of their perceptions had been formed around contraceptive trials, such as those for Norplant and injectible contraceptives. These were either perceived as being insensitive, insincere or opportunistic.

“Norplant trials – did not try to understand the culture – the lower strata women were getting beaten up by their husbands for having had it implanted.”

“A group of doctors went to the village, offering the carrot of contraception, randomly picked 30 women and after administering the dosage, returned only after a year. No tracking was done, the (experiment) group had dissipated, so nothing came of it.”

One respondent, who had been involved in drug trials, felt that those who conducted the trials had not prepared the ground adequately for possible side effects, and were not available to help when volunteers started facing problems.

One of the major complaints was that trials were carried out almost surreptitiously. While the need for secrecy was understood at a macro level, there was a strong feeling that this was used to cover up more than just the formulae. Under the guise of safeguarding the corporate interests of pharmaceutical companies, much more was kept hidden from public view, such as: serious side effects, unfair treatment of volunteers or other practices.

“One reason could be the pure commercial reason of results getting out and the competitor using it. The second may be that there is a failure, or they have side effects – that is a more serious reason.”

On the whole, the attitude towards medical trials was one of caution and some suspicion. While all respondents recognised the need for trials for the sake of medical breakthroughs, most wished to stay away.

The overall perception was that trials were high-risk, high-responsibility activities best left to experts and the government.

What makes a good trial

The study revealed five parameters that were necessary to create appropriate conditions for a good trial:

- True volunteerism
- Ethical and sensitive treatment of volunteers
- Complete and proactive transparency
- Tailor-made for Indian needs
- Detailed planning – in collaboration with a representative group of experts.

True volunteerism

Absence of force or inducement is one of the most significant factors for true volunteerism. Most respondents did not really worry that force or coercion was being used to recruit volunteers since their faith in India's democratic system was strong.

Their worry was about a subtler form of force, namely misinformation or the absence of information. They expressed the fear that illiteracy levels of potential volunteer groups and the inequalities within society could lead to 'involuntary volunteerism' if unscrupulous persons or organisations carried out the trials.

“Ours is a consensus culture – cannot use the military to enforce anything”

“If people come forward voluntarily that's fine, but not without their consent. Must inform and get prior approval of the person otherwise it is an offence.”

However, the real concern was the area of inducement, since the poverty levels of the target group made potential volunteers highly vulnerable to either compensation or reward. The lines between the two can easily blur and several actions that may have their roots in a desire for fair play might end up becoming inducements. Some started to look at provision of treatment in this light: if volunteers were promised treatments not widely available in India, might this constitute unfair inducements to take risks that they would, otherwise, not undertake? The problem was not an easy one.

“These should be voluntary – cannot say I am giving you rupees ten lakhs for volunteering – that is inducement.”

Respondents were unanimously of the view that the spirit of true volunteerism lies in the informed consent of the individual and the others involved, including the family and the community. Informed consent was described as a function of several factors:

- ***In an appropriate manner***

A setting where the volunteer is comfortable and free to clear all doubts.

“The setting has to be an informed community setting – if you get a consent from the man in a doctor's clinic, it is not a consent born out of equity. I would like it to be a place where the patient feels free.”

“Volunteers should have the answers to all the crucial questions.”

- **With full opportunity to understand the trial and its implications**

Respondents strongly believed that consent received without volunteers understanding what they were consenting to amounts to a breach of trust. That kind of consent cannot be called consent at all.

“I think generally if principles of ethics and transparency, are maintained at every stage, it won’t lead to any problems. One is of course the ethics regarding the people who are undergoing the trial. They should be taken into confidence and told of all the implications.”

- **Clear explanations**

Information has to be communicated in a language the volunteer understands and in a manner that enables the person to clarify all doubts.

“Have to explain the procedure very clearly to the volunteers. Must inform the volunteers that the vaccine’s efficacy is not 100% sure. Must take categorical concurrence of volunteers, let him/her sign on a written statement – explain pros and cons in the local language.”

- **To stay with the trial or to opt out***

Finally, volunteers should have the freedom to continue with the trial or opt out whenever they want to. This would indicate the true spirit of volunteerism.

“Give an open-ended option, that is he can walk out when he wants – if any side effects, etc.”

Ethical and sensitive treatment of volunteers

Since the volunteers may be part of the underprivileged sections of society, a well-run trial would take no advantage of their vulnerability. In fact, it would take additional care precisely because they are easy to exploit. Therefore, an ethical trial would chalk out what it would do for its most privileged volunteers and apply the same principles here.

- **Counselling****

The first requirement of ethical and sensitive treatment would be to counsel volunteers that the vaccine may not work.

“Before taking volunteers from high-risk groups, have counselling sessions with them and explain to them the risks involved.”

* A few interviewees mentioned dropouts affecting trial results as a management issue. This has been a major focus of IAVI community education efforts in other countries, such as South Africa. Modern clinical trials have researchers make the worst possible assumptions about volunteers who cannot be followed-up; hence a high rate of dropout usually renders the trial a failure.

** Interviewers did not spontaneously raise a concern, which has been seen in other countries; misplaced belief in the efficacy of a vaccine may encourage unsafe behaviour. IAVI, and any other agency conducting clinical trials, are of the view that a trial would need a strong educational component to encourage low-risk behaviours. IAVI is already working with organisers of the Thai trial of VaxGen’s product, to understand best practice in the area.

“Have to make it clear that this is not a magic pill – suppose it does not work you will be putting yourself at risk with high-risk behaviour.”

“Inform them that the vaccine might not protect them.”

- **Adequate reward**

The second requirement would be to give volunteers some compensation for their participation.

Yet, there was a genuine lack of clarity about what form this should take. The definition varied from monetary reimbursement of trial related expenses to a gratuity for the services rendered.

“The responsibility of those who are running the trials is to assure them a minimum stipend and some sort of protection for the family. Or (alternately) you (could) become a substitute support system – give nutritional things.”

The inherent dilemma was – rewarding a poor man on the one hand, and the risk of the money becoming an inducement on the other. There was no doubt that the volunteers’ life would be eased with some monetary benefit. There was some guilt that volunteers were unlikely to come from the upper socio-economic strata.

“Monetary compensation should never be the motivation to participate in a trial.”

“If you promise food, what you mean is inducement – it is very easy to agree.”

Though no one had a clear solution to this, respondents agreed that there should be some form of compensation without it becoming large enough to impact the volunteer’s decision to participate.

“The line between compensation and inducement is very thin.”

- **Complete protection in case of ill health***

The third need for an ethical and fair trial was that the volunteer should be provided complete protection in case of ill health. All doubts about adequate compensation for participating in the trials disappeared completely in this context. The unanimous consensus was that volunteers would need to be well looked after in case of ill health:

- whether the volunteer became HIV+, or
- developed any other illnesses.

* This response differed significantly from that seen in some other discussions of the subject, in other developing and industrialised countries. A few respondents linked the idea of exceptional treatment to that of unfair inducements, but most did not. No one raised the issue that lifelong, triple combination therapy for thousands of participants, who were, by definition, members of at-risk groups, might render large-scale trials unaffordable. This may be because they saw it as a no-discussion issue. These concerns have been raised in other forums and are the focus of a recent presentation by Ruth Macklin³ of the Albert Einstein College of Medicine in New York. The issues may require special market research here.

There was no clear distinction between health damage caused by participation in the trial (e.g. an unforeseen allergic reaction) and health damage which would have happened in everyday life (e.g. a bicycle accident on the way to work).

In case a volunteer became HIV+, views on adequate compensation ranged from lifelong medical care to responsibility for the family. This issue caused anguish as respondents struggled with options of how such a situation could be compensated for.

“What will be the cost implications of the trial? Who is going to bear the cost in case the volunteer group becomes HIV+?”

“Who will pick up the tabs for his treatment, for his anti-retroviral therapy – the vaccine manufacturing company or the government or the research organisation? Lots of issues to be sorted out before the trials begin.”

Most respondents saw this happening only as a result of vaccine failure (in case of those who received the real vaccine) or of not receiving protection to begin with (in case of those who received a placebo). They rarely considered a situation where the vaccine itself would cause a volunteer to become HIV+. Considering the nature of the vaccine, even when asked directly about such a situation, most respondents dismissed that as being unlikely.

“If the participant picks up the virus by chance, it is the duty of the vaccine company to provide lifelong medical treatment. There should be some sort of trust fund which promises this and should have the sanction of the government.”

“Volunteers should be monetarily compensated if something goes wrong during the test, there should be 100% coverage of any health hazard they might encounter.”

There was a strong belief that monetary compensation alone was not enough. It was important that the volunteer should also receive psychological and social support.

“Should have access to medical, economical, psychological support. The trial agency has to look after these aspects.”

This care and support would also extend to the volunteer’s family.

“Fulfil obligation to the family and the kids – there has to be compensation for trials, but no inducement.”

“In such trials, some risk is involved. There should be some sort of insurance if, as a result of the trial, the volunteer develops other infection – malaria, typhoid, or dies – his family should be taken care of. Pay volunteers at par with international standards. A volunteer is very important to the success of the project, so should be compensated.”

While most suggestions regarding adequate compensation were motivated by humanitarian factors, one respondent felt that volunteers could form unions to ensure a better deal from the management. Therefore, it was in the interest of the organisation to organise a fair trial right at the beginning.

“Volunteers could be aware of trial costs, vaccine costs, salaries of doctors, etc – they could then demand higher compensation. All the volunteers know each other, they could form a union.”

During the interviews, respondents were asked whether the compensation should be on par with international standards.

The immediate and spontaneous response was that it should indeed be at international levels, though not all meant the same thing when they spoke of these standards. Most did not spontaneously delineate between compensation for harm caused by the trial and other events. The wider expectation was that all those aspects would be looked into that were assumed – sometimes wrongly – to be part of international norms and standards:

- Complete medical treatment for the volunteer
- Emotional, psychological and moral support
- Care for the family to compensate for the earnings and opportunity that the volunteer would have provided.

There was no clear idea on where these international standards might originate. No one mentioned the continuing discussions at UNAIDS (recent guidance says that the minimum standard is, “to provide the highest level of care attainable in the host country in light of the circumstances.”)⁶

This was both for a volunteer turning HIV+ and for other illnesses.

The expectation was usually not that of a direct monetary translation – it was the spirit of the commitment rather than the dollar value that was being sought.

“To protect the volunteers if they get affected, IAVI and the government should take full care and give full support to the individual and the family – give the best medical care, not just economic compensation. Also try and ease the disruption in their lives. Financial, social, professional, psychological, support – not only in the form of money.”

Complete and proactive transparency

Transparency was another absolute necessity. Almost every respondent stressed this need, laying emphasis that transparency should be both absolute and proactive. Any hidden information was unacceptable. If information was shared only after being demanded (by public interest groups or any other party), that too would be completely unacceptable.

The agency would have to ensure that transparency was built into the trial at the outset, retained right through and offered before it was asked for.

• *Suggestions for ensuring transparency*

Respondents unanimously agreed that the best way to ensure transparency was by setting up an ethical review committee.

This committee would comprise respected experts across a range of disciplines, whose credibility and integrity was unquestionable.

“The control trial should be monitored by a group of sensitive, well-informed and articulate people, from interrelated disciplines. There should be total openness and somebody would be accountable to the people if things go wrong.”

“Research projects should have a monitoring body – an Institutional Review Board – which closely follows every step being taken. Board will constitute medical, legal, HIV representatives – if women are participants, then leaders of women’s groups.”

“Such issues should be sorted out by legal experts, social workers, economists (for compensation etc.) healthcare professionals, psychologists, STD specialists. Government, ICMR and NACO should be involved. Include HIV+ person in the pre-trial committee to safeguard the interests of the volunteers.”

It was also important that communication about the trials, to the general public, should be made in a proactive manner. This was critical for building up public confidence and protecting the trial agencies from a backlash of negative publicity.

“Transparency should be broadcast on the media – newspapers and television. Make people aware – if awareness is generated, it is easier to get volunteers. Have talk shows and discussions on television – when they come with that full knowledge, you never have problems with participants.”

“Make it completely transparent, advertise (send a news release) in the newspaper every three months or so, have a press conference every three months and talk about the progress. Some means of transparency and an ethics committee which is available to the press for interviews and to answer questions.”

“Have the trial in multiple centres, involve academics, NGOs, research groups.”

“A governing body should include NGOs, scientists – an impartial body because everyone is likely to have their own leanings.”

Those who had thought the issue through more thoroughly suggested a three-tiered process of ensuring transparency in a proactive manner.

At the first level there would be an ethical review committee which would keep an eye on all the details of the trials – rewards and compensations, the method of volunteer selection, the quality and depth of counselling and so on. The composition of the committee was of critical importance – and making its list of members publicly known was almost as important.

“They must have a press conference, and give a bandout as soon as the committee is appointed. Because people will question what is the basis of the committee appointed. Whether we have collected a one million-dollar cheque from Bill Gates or somebody.”

“You need an expert committee – they will define a protocol. And once that is defined, it would have to be revisited again and again.”

“Good to have some HIV+ people in the apex committee”

At the second level, the trial plans would be shared by a large and selected group of stakeholders who would have a direct stake in the success of the trials. The group would include people with a higher than average risk of contracting HIV, such as NGOs working in the field of HIV/AIDS, the medical profession, the legal profession and others who would have a more direct interest in the outcome than the general public.

“They should have a press conference and an open discussion on what they want to do. Then from the floor you get a lot of ideas. Then you have another meeting with the HIV/AIDS activists. That is one half; the other half is the AIDS community; the HIV+ people and sex workers. And then journalists, lawyers, etc.”

“The process of communication would need to be started with a large group of people – NGOs, CSWs, HIV+ people, etc.”

“Have a two-three day residential workshop, with NGOs who are involved in the treatment of HIV+ and also those who are on the prevention side.”

At the third level the issue would be thrown open to the press and public. Communication with the press and other media representatives would continue on an interactive basis, so that once they were convinced about the genuineness of, and the intentions behind the trials, they could be trusted to convey the right picture to the public.

Several respondents suggested that the trial organisers use modern media methods to reach out to the public directly and allow them access to whatever details that might interest them. They suggested the use of internet and television to host panel discussions or “phone-in” interviews, so the public could clear their doubts directly.

“It should not be a closed kind of trial. It should be on the net so any person can read the details or write in for questions.”

“It is a three level thing. One is the committee, after the committee it is a stakeholders group who might be about a 100 people. After that the third level which is opening up before the press to inform them. Take all those inputs, and then go back to the drawing board.”

- **Reasons for transparency**

All respondents strongly felt that the organisers had nothing to lose from transparency – but may have a lot to gain. Apart from gaining the confidence of the public there were other indirect benefits that can be divided into four categories.

- If the entire trial was shown live on-camera, it would provide protection to volunteers from the vulnerable sections of society. Organisers would find it difficult to exploit a volunteer group if they knew they were being observed.

“People can be used as guinea pigs, that is why panels are required, and the informed consent of volunteers is necessary.”

- Monitoring would ensure the proper use of funds allocated for the trials.

“Monitoring is very important because otherwise funds might get misappropriated as it happened in the case of some NGOs – who were carrying out some trials.”

- Transparency would protect the trial agency in the long run. Medicine trials have often run into rough weather and controversies that could detract from the focus of the trial. In fact, they could completely derail the trial process resulting in heavy expenditure, wasted efforts and no benefits vis-à-vis the vaccine.

“If the vaccine works, great, but if it doesn’t then they will blame you for making them HIV+.”

“Information sharing is the most important – demystifying the information – sharing it with the community and volunteers.”

- There could even be a commercial benefit if the process was both transparent and proactive.

“So, in fact there is a double-edged advantage in it. One is that you will be preventing controversy because people know from the beginning what is happening. Two, you will have pre-sold the vaccines anyway, so that you don’t have to spend again on the campaign.”

Tailor-made for Indian needs

Since insensitivity to local cultures and norms was believed to have been the Waterloo of many trials in India, respondents urged that cultural sensitivity should be an important criterion for these trials.

This involved understanding the customs and social rules of the community within which the vaccine trials were being carried out. It required recognition of local taboos, local calendars and their significance, norms for social interaction and power hierarchies. While the agency needed to understand the cultural milieu before starting the trials, respondents also suggested that local experts were included on the committee to avoid problems.

“Emphasise the need for our own experts, researchers – should be sensitive to our country, mentality, beliefs, superstitions.”

Being sensitive also meant that the trials should be conducted with the help of people familiar to the at-risk groups, such as the NGOs who work with them. This suggestion was based on the view that at-risk groups are vulnerable groups

with low literacy levels, who are probably unable to negotiate their own interests, independently. Having a known group to interface for them would make matters easier for everyone concerned.

“Do it with the high-risk groups – through NGOs who are working with them.”

The local situation would also have to be kept in mind to ensure that trials did not demand resources that were unavailable. This suggestion has implications even beyond the trial stage – since trials carried out under artificially created ‘hothouse’ situations might not be possible to implement in the real world.

“(The trials should not demand) a high-class infrastructure – Deep freeze, to maintain specimens at 70 degrees, plus constant power to maintain the equipment.”

Another concern reiterated here and in other contexts, was that the trials should only be carried out for those vaccines that would address the Indian virus subtype.

*“Should address the relevant variants, not the American type which isn’t useful here. Our types of strains are different. Ideally, it should be indigenously developed for indigenous strains.”**

Detailed planning

Finally, since these would be sensitive trials, respondents strongly believed that careful planning would make all the difference between a successful trial and one riddled with uncertainties.

“Give vaccine only to a number that can be monitored. Maintain stringent criteria – and clearly monitor results.”

If there is no systematic follow up and if volunteers don’t come back, it is an absolute waste. If there is no proper documentation then they are not able to compare antibodies on different days.”

The above quote clarifies the level of planning and careful detailing required to compare trial results across different days for the same volunteer – and across volunteers on the same day and on different days. Respondents also felt that it was important to make allowances for different physical and biological situations that make each respondent different from the other. Some respondents suggested that if every variable was not kept in mind at the beginning, those conducting the trial would run the risk of receiving sub-optimal insights or useless data.

*These concerns echo the current draft (Guideline 6) of the CIOMS commentary⁴ but no respondent specifically referred to the extended discussions, which have gone into these guidelines. CIOMS says:

“(research must be) responsive to the health needs and priorities of the population or community in which it is carried out...(and that) any product developed will be made reasonably available to that population or community.”

Another part of careful planning was to involve those people who could make or mar the trial process. Political leaders in particular needed to be involved, since their support was necessary for the success of the trial.

“Probably a third area is to maintain political advocacy. If the political leaders are not engaged, social movement does not happen.”

“Government has to be taken into confidence. Liability issues, and insurance issues have to be worked out.”

Finally, true planning would also involve laying down performance standards so that the parameters to measure success would be clear before the trials started.

“Define what is success and what is failure.”

Though not mentioned by the respondents, ideally the parameters need to be spelt out both in quantitative and qualitative terms – even though the latter would be difficult to define and even more difficult to measure.

What makes a good trial – issues that have been raised outside India but were not raised in these discussions*

No respondent spontaneously raised the issues that have dominated recent discussions on CIOMS guidance and on updating the Helsinki Declaration. Recent CIOMS draft guidelines have controversially suggested:

“In general, if there is reason to believe that a product developed by a research programme is unlikely to be reasonably available to the population of a proposed host country or community, at the conclusion of the research, it is unethical to conduct the research in that country or community.”

The Helsinki Declaration, 2000 says:

“Medical research is only justified if there is a reasonable likelihood that the populations in which the research is carried out stand to benefit from the results of the research.” (article 19)

Knowledge and perception of HIV/AIDS

Awareness and perception

- ***Awareness but rejection***

The knowledge of AIDS means being aware of its existence and of the methods of prevention. Respondents believed that today, there is a very high level of awareness about AIDS that is being translated into careful behaviour. They inferred this after reading that the sale of condoms has increased.

*The author is indebted to the International Council of AIDS Service Organisations and to the presentation which it provided by Ruth Macklin, PhD, Professor of Bioethics at the Albert Einstein College of Medicine of Yeshiva University of New York.³ The quotes on this page are taken from this presentation and from: “The Ethics Wars: Disputes over International Research.”⁵

“Lots of work is going on for awareness and sensitisation, but behaviour change will take time. Some change in attitudes of male clients – truckers are showing awareness of the need to stay with one partner – recognising the possibility of infection.”

“The last round of the BSS (Tamil Nadu) showed that condom use among sex workers has gone up to 90%, which is the kind of level you need to maintain for the epidemic to taper. Among truck drivers also, it has touched 85%. I don’t think any other state is anywhere near this.”

At the same time, other respondents expressed their concern that the information had not been internalised and this constituted a barrier to changed behaviour.

“80% to 85% are aware of HIV/AIDS but not properly informed.”

“Awareness is high but it is not changing behaviour in any way. There is still ignorance and resistance to condom usage.”

“NACO has imparted a lot of training but despite that, attitudes are slow to change.”

“High sense of false safety among non-high risk groups: ‘If I do not belong to a certain section of society, I don’t expose myself to any risk.’”

“Awareness campaigns increase awareness levels in the general public, may bring about some behaviour change in some people: very highly educated, media oriented populations. But many other populations may not have what is called a risk perception. Between awareness and behaviour change you have to perceive the risk as yours.”

This rejection of the problem, at a personal level, was seen to interfere with the management of HIV/AIDS’ issues in the country.

“The consequence is that political support is patchy in the country.”

“Overall, there isn’t a sense of urgency across sectors of population or across sectors of civil society.”

Many respondents believed that though the nature of the problem lay in social situations which were changing rapidly, yet the change was still not socially accepted. Thus, high-risk behaviour remained hidden and unacknowledged, adding to the spread of HIV/AIDS, whereas a frank recognition of the problem would enable prevention.

“It is a social phenomena and people just haven’t understood that. If it were a medical phenomenon it would have been relatively easy to deal with – but it is about sex, drugs, rock and roll – things that people like to do and are not willing to change. That is why we have an epidemic – because it’s about things that give people pleasure.”

“Main cause is lowering of moral standards. Pre-marital sex is on the rise, even among college students – fear of HIV/AIDS has not stopped this.”

- **Prognosis for the problem**

Most respondents did not expect the HIV/AIDS problem to explode. In fact, most of them expected some stabilisation soon, despite the fact that they spoke of a current prevalence rate of about 1.5% to 2%

“Estimate that 2%-4% (of the population) is affected by HIV/AIDS.”

“Future trends are that HIV/AIDS will grow but not to the extent it has in Africa. Current 1.5% to 2% affected will go up to 5% to 10%.”

“Our estimate is 3.84 million cases in India. Some say this is an underestimation – maybe; on the other hand, I might even say it is an overestimation because whatever data is coming, is coming from the high prevalence states.”

It was not clear whether respondents actually believed that the problem would not grow or if they too were expressing a wish that the problem would go away. However, there were only a few who expressed a sense of urgency through their tone or body language. The general impression was that they thought things would not get much worse, though it might be a while before they got better.

“Too early to say but HIV/AIDS is showing some early signs of stabilising.”

“NACO’s official version is that it is slowing down. I don’t know how far that is true. In Tamil Nadu we claim that it is going down. I have a copy of a paper where there is evidence to show that there may be a slight slowing down in Tamil Nadu.”

In fact, there was only one voice of alarm.

“The overall picture for India – taking into account poverty, population and literacy – is grim.”

There was one government official who was not unduly concerned about the situation.

“Those who have HIV/AIDS will die, and there will be no further infection, so the problem will end.” (words to that effect)

Attitude to HIV/AIDS

- **Social stigma**

A second important factor that interfered with the management and control of HIV/AIDS in India, was the perception that HIV/AIDS was caused by immoral behaviour. This social stigma was a major obstacle in improving the attitude to, or caring for, HIV + patients. It created a wide gap in the treatment of HIV/AIDS

and the acceptance of an individual's vulnerability. It almost seemed that accepting one's vulnerability was as good as admitting to an immoral lifestyle, so: "if I lead a straight life, I am not at risk".

This stigma also created a prejudice in the minds of caregivers. Between the dilemma of moral judgement and the fear of infection, caregivers treated HIV+ patients inconsiderately and without sympathy. This added to the agony of the patient and his family, and kept away those patients whose needs were less urgent.

"But just information and counselling is not enough. Sex workers and truckers need access to health care without stigma."

"Discriminatory attitude to HIV+ found in all hospitals – they have to wash their own vessels, etc. Now at least the sign boards announcing HIV+ status, have been removed."

"HIV patients often do not return – they quietly disappear and die. Often families are not told because of fear of rejection."

A few respondents also believed that poor moral standards were at the root of the HIV/AIDS problem.

"Nothing to be worried about in the middle class. Mainly a disease that affects the lower strata of society."

- **Attitude change**

Despite the depressing reality of the social stigma surrounding HIV/AIDS, many respondents believed that there was a perceptible change in people's attitudes towards it. As more and more people were beginning to accept the problem, they were less likely to pass moral judgements on the patients.

"It is difficult to change the mind of people. First stage was thinking it is about homosexuals, second stage was about getting it from commercial sex workers (CSWs). Now people are beginning to say – poor thing, she got it from blood transfusion or, the child got it from its mother."

A primary impetus behind this change was the work of NGOs.

"Change thanks to the work of many positive NGOs and their vociferous demands on government such as Suniti Solomon's YRG foundation, SOS in Maharashtra, Anjali Gopalan's NAZ, and the Sangram group in Sangli."

Improved communication was also responsible for this change.

"Some credible advertising now.."

"Infection has been coming down marginally. Certain sections of society that did not want to know about HIV/AIDS or did not have access to information are beginning to change their attitude."

Making sex education available to the youth was also leading to a greater awareness of the HIV/AIDS problem.

“They are taking education programmes to schools – India is finally beginning to remove the taboo on sex – awareness is contributing to a slow down.”

Finally, community programmes were also a contributing factor.

“In Karnataka, Maharashtra, Andhra Pradesh and Tamil Nadu, more community based programmes are happening to provide support and care – this is missing in the North.”

Respondents also mentioned the beneficial role being played by religious leaders in some parts of the country, such as Andhra Pradesh, where they discussed HIV/AIDS and the need for care of HIV/AIDS patients. Their acceptance was helping to remove the social stigma and change attitudes.

- ***Needs for the future***

While acknowledging a change in some areas, respondents felt that a greater attitude change was needed in the area of medical care for patients and their families.

Respondents wanted the public as a whole to see HIV/AIDS as a manageable disease, not as a death sentence.

“Being HIV+ need not be a death sentence. I have seen so many of my friends bouncing back – with a combination of treatment, emotional support and opening up of future options.”

“Need to look at HIV/AIDS as a public health problem. Currently prevention is only through education. Make condoms and STD treatment services available, because of the link between STD and HIV/AIDS.”

“Need to impart correct training so that people can look upon HIV/AIDS as any other disease, like diabetes.”

“ARV (Anti Retro-Viral therapy) prolongs life for as long as possible. You know like diabetes and other chronic diseases. They have a fairly normal life span.”

Proper surveillance was necessary to estimate the size and growth of the HIV/AIDS affected population and to reach out to those who may not be seeking care at all.

“Seeing only the tip of the iceberg. For every one informed person who seeks care and counselling, there are nine who do not even approach anyone.”

“Counselling centres available but inadequate as these are for the infected, not for those at risk. People stay away because of the stigma attached.”

Some felt this should be treated as a gender issue, since women are the victims of a disease largely spread by men. Many respondents strongly felt that most women were innocent victims of a problem over which they had little or no control.

“Women have no scientific information on sex, it is discussed only in metaphors. Denied access to biological information. Unsafe abortion is rampant and is another (unrecognised) route for the infection to spread. Early pregnancy leads to low resistance, anaemia, etc.”

“HIV/AIDS epidemic must be treated as a gender issue since women have a lower status in every way and cannot negotiate for safe sex.”

Finally, respondents felt that the change in attitudes should lead to continuous care so the patient is cared for not just by professional staff but also by the family; and not just for the duration of hospitalisation but also subsequently, at home and in the community.

“TISS started a partner project called “Continual Care” – a beautiful concept where all persons dealing with an HIV/AIDS patient are involved – right from the tertiary care centre to when the patient is rehabilitated in society. Involvement of all concerned – family, friends, NGOs – which lessens the load on tertiary care centres who then focus on other life-threatening conditions.”

“Good counselling is needed – people are more willing to accept it now. Counselling is the most cost effective health care expenditure, I think.”

Management of HIV/AIDS

There is a range of issues that need to be addressed, if the problem of HIV/AIDS is to be handled in an efficient and humane manner:

- Communication
- Treatment
 - ~ Use of treatment options available today
 - ~ Maximising the potential opportunity offered for preventing mother-to-child-transmission (MTCT) which is almost entirely controllable
 - ~ Social issues
- Prevention
 - ~ STD management
 - ~ Condom supplies
 - ~ Focus on men having sex with men (MSM)
 - ~ Managing blood transfusion.

• Communication

Most respondents felt that it was imperative to keep the public informed of the various aspects related to HIV/AIDS – and to simultaneously address the social issues of empowering women, addressing men, providing counselling and working on political advocacy.

“Communication is important since the electronic and print media are very effective nowadays. Print media does not give enough information. Television is more involved but not as much as is required.”

“Need to have a mass education campaign because lots of services may be available but unless questions are answered and doubts cleared, nothing will come of it.”

“Creating awareness among sex workers, school children, general public is of utmost importance.”

Communication was also perceived an absolute necessity to effect a change in attitudes. It was imperative because there was a wide range of issues that needed to be addressed and a varied population base that needed to be spoken to in a language (style and manner) they could understand. It was also important to inform the public not only of the HIV virus, but also about how it spreads.

“Cannot make much headway unless community biases and stigma are lowered.”

“Need for education and community participation to create behavioural/attitudinal changes about sexual health.”

It was equally important to inform an HIV patient of his rights, particularly since some patients feel they are being chastised and may even be apologetic about getting HIV/AIDS. This feeling would hardly be conducive to making a patient think of his rights. Therefore, his chances of getting exploited are very high, unless he is armed with the right information and a genuine feeling of self-worth.

“Awareness efforts designed in India are fear based. Those who are HIV+ need to know their rights, like the right to be employed.”

One of the primary methods of using communication to manage the problem of HIV/AIDS would be by introducing sex education in the school curriculum.

“We need sex education in schools – since the age of the first sexual encounter for boys in India is eight years. We monitor our girls but not our boys.”

“Revamp the syllabus to make kids more aware of sexual behaviour – as it is they have access to so much information through the internet.”

Another route would be to enlist the support of religious leaders, since they have a great deal of influence on the community.

“A lot of stigma associated with HIV/AIDS will get diluted if religious heads campaign and speak up on this issue. In Andhra Pradesh, a swami has been speaking on HIV/AIDS – very important.”

“Religious heads play a large role – through mandirs, masjids, churches.”

- **Treatment**

Anti Retro-Viral Therapy

Since Anti Retro-Viral Therapy (ARV) is one of the primary methods of treating HIV/AIDS, respondents felt that the treatment available today should be used to help remove the stigma and fear of HIV/AIDS and give those who are affected, a chance to live a normal life.

“HAART – Highly active anti retro-viral therapy – a person can take this therapy and survive. Cipla and 5-6 other drug companies have come in.”

“Today HIV/AIDS is not fatal, it is in the category of a chronic illness. Treat it and keep living with a positive attitude, as long as the people around do not stigmatise me. HIV/AIDS is stigmatised because it has moral overtones.”

There was little recognition of the complexities of ARV regimens, resistance, side effects, the strong likelihood of treatment failure, the need for extensive laboratory and testing structures and the need for 95+% compliance with the treatment regimen if resistance was to be avoided. The message of drug companies had been understood to be that these treatments were relatively uncomplicated and effective.

They also felt that a positive attitude combined with sincere and comprehensive care was necessary to support those affected with HIV.

“Depends on antibodies – have monitored positive patients for 15-16 years and they are still healthy. Also being careful about diet, drinking water will help.”

“India cannot just look at prevention any more. There are hundreds, thousands of people who come from the economically productive age group – we have to support this group with treatment.”

“Awareness is one aspect and the other is continuous care.”

Nevertheless, there were some voices that continued to view the treatment with caution.

“No complete cure available anywhere in the world. Drugs by Cipla are available but are very, very expensive. Not a complete cure but will prolong life span – costs about Rs. 10,000 – 15,000 a month.”

“I don’t know how physicians are truly treating patients with HIV/AIDS, because it is a very complex subject and there are so many side effects, so many complex regimes. Huge profits on the medicines.”

“Pharmaceutical companies, Cipla etc, have this anti retro-viral drug which used to cost Rs.40,000 but is now down to Rs.3,500 to 4,000 a month. This is still unaffordable for many.”

Despite the mention of antibiotics, there was little awareness of the studies showing that treatment of opportunistic infections is affordable in developing countries, manageable without a sophisticated health infrastructure and delivers health and economic benefits to affected communities. Future research by IAVI and PQR will seek reaction to these findings.

Mother-to-child transmission (MTCT)

Several respondents (mostly from the medical profession) were concerned that the medication available to prevent mother-to-child transmission of the virus was not being utilised to its full potential. They felt frustrated that the authorities were losing precious time deciding on the best route for MTCT and therefore the opportunity to prevent the spread of HIV/AIDS was being unnecessarily delayed.

Again there was little awareness of complications, side effects or resistance.

“Hospitals which are HIV savvy can reduce MTCT. Today HIV+ mothers have hope that they can have a child.”

“MTCT has been reduced from 30% to 3% – 5% by giving prophylactics.”

“A one-year-old project at the Wadia hospital for prevention of MTCT is doing very well.”

“If you have good ante natal care centres across the country, you can prevent MTCT by giving prophylactics.”

Since several models were available, the authorities just needed to select the right one. One respondent explained what these options were:

“MTCT can be stopped by 98%. Current success is only 50% because the medication based on the Thai model is being given for only three weeks.

- *Atlanta model: 12-14 weeks of medication before birth and no breast-feeding because 8% of infection is picked up from the breast.*
- *Uganda model: After 20 weeks of pregnancy, medication for 8-10 weeks and to the child for 6 weeks. No breast-feeding.*
- *IHO model: 6 weeks to mother, 6 weeks to child, C-section, modified breast feeding (beat the milk to kill the virus).*

However, not everyone was clear about MTCT prevention.

“Have heard of medicines to prevent transmission from mother-to-child. But it is very expensive, works out to about Rs.1,500 a week and has to be taken for 6-9 months, and if a dose is missed, you have to start all over again. May also have a lot of side effects like indigestion – would require a lot of funds and family support.”

Though some respondents suggested a caesarean delivery for HIV+ women, as a way of reducing risk for the child, the others did not perceive it as a viable option.

“Even without medication, a baby delivered by a C-section means transmission is reduced by 50%, since major transmission occurs at childbirth.”

“A lot of infection takes place during birth – to prevent MTCT, a caesarean section is recommended – but it is unaffordable and many may not want it.”

Addressing social issues

Respondents agreed that HIV/AIDS was not just a medical problem but one riddled with social implications.

Many believed that the main onus of spreading HIV/AIDS lay with men, while women were relatively innocent bystanders. Those who talked about the predominant role of men referred to them as vectors or primary carriers of the infection, who needed to significantly modify their attitude and their behaviour, in order to change the HIV/AIDS situation in India.

“Women are the vulnerable population, they are not the ones infecting others. Statistics show that if an infected woman has unprotected sex with 100 men, chances are she will give it to only one out of the 100.”

“Women get affected because they do not have access to information and do not understand related issues of transmission. Women’s empowerment is the need of the hour.”

“First of all in community work you have to empower women.”

Therefore they strongly felt that one way of addressing the social aspects of this problem, was by empowering women and focusing the communication about HIV/AIDS, to men.

“To beat this epidemic, you have to concentrate on males. Women are not empowered to do anything.”

“The sex worker tells the client to please use a condom, sometimes it succeeds but if it fails he has to come back because the sex worker next door will also not allow him without a condom. This solidarity at Sonagachi is the reason for its success.”

Providing counselling services was also a necessary step in the process.

“Just as you have alcohol and suicide counselling, you need to have HIV/AIDS awareness and counselling groups in every locality – to help people treat HIV like any other disease – like diabetes.”

“All cultures find it difficult to change, especially when it is with regard to moral issues. With more cases of HIV/AIDS, the subject is going to be forced into the open. Salient attitudes will get more defined and polarised – with that the psychological impact on the victim and his family is going to increase.”

Many NGO respondents expressed concern that there was not enough sensitivity to the HIV/AIDS issue. They said it could not be managed in isolation, but needed holistic care, and help on issues beyond the HIV infection.

“There is a need to address the root cause of vulnerability and exposure. It is not about HIV/AIDS but the underlying frustration.”

“Need systems of welfare and insurance – the upper class people can manage, but for the masses it is a loss of livelihood.”

“You need to include them in the strategies you are developing to fight HIV/AIDS. That is hardly ever done.”

Finally, respondents felt that people’s complacency needed to be replaced with a sense of urgency.

“Have to deal with it as a mainstream issue – health and development – rather than as a medical issue. Deal with it as a social issue.”

“Have to let people know how it is going to affect society when young people of the productive age contract HIV/AIDS. The message should be that it is not about one person but about society at large.”

Prevention

To focus on prevention three aspects are important:

Management of STDs: Not enough was being done to address the prevalence of sexually transmitted diseases (STDs), which create the right conditions to harbour the HIV virus. Since this was a critical step for the prevention of HIV/AIDS, it needed to be addressed on an urgent basis.

“Have to provide services for STD conditions, and make condoms accessible.”

“Create awareness so that learned behaviour becomes habitual behaviour.”

“Spread awareness of the link between STD and HIV, so that people come forward for STD treatment.”

Condom use: Even those respondents whose personal or religious beliefs prohibit the use of condoms, recognised that condoms are absolutely necessary, today, to prevent the spread of the HIV/AIDS epidemic. This was evident from their spontaneous mention of the important role of condoms in preventing HIV infection.

Others, including those working with the MSM fraternity, expressed the same opinion.

“Solution is to use contraception even though I am bound by religion and cannot advise anyone to do this. Need to raise the moral standards in society.”

“Currently the only preventive measure is the condom.”

“Try to prevent escalation of HIV/AIDS by encouraging the use of condoms.”

“We (MSMs) decided to work on two indicators – increase condom use and decrease anal sex or at least make it safer.”

Contact tracing if possible: Respondents working in hospitals were frustrated that contract tracing was so difficult with HIV+ patients. This was a major obstacle to prevention.

They felt that communication aimed at changing attitudes would make contract tracing easier and increase the chances of prevention.

“Number of rural people coming is twice as high as urbanites. Most people do not go in for contact tracing when they know they are HIV+, whereas with STD you can trace the contact and treat the source.”

Respondents strongly felt that prevention was critical. It was not a subject open to debate and made strong economic sense.

“So, there are two options. Prevention is about 6 cents per capita, per year, in India, whereas the treatment costs \$300 per capita, per year. That is thousands of times more.”

Vaccine trials in India

Halfway through the interview, respondents were asked about the possibility of vaccine trials in India.

This was not explained verbally in detail, but given in writing, to ensure that all respondents received an identical description – thereby ruling out the chances of interviewer bias or intra-respondent variations.

Their reactions to the statement are discussed in three parts:

- The first part highlights those questions about the vaccine which need to be addressed when the trials begin.
- The second deals with the use of placebos and the false HIV+ status of the respondent – the two issues on which comments were specifically requested.
- The third part focuses on the questions and concerns related to the trials being carried out in India.

Questions about the vaccine

- ***The ‘wild’ nature of the virus***

One of the primary questions was which virus will the vaccine address? Doubts were raised about the ability of any vaccine to cope with the mutating strains of the HIV virus.

“I know that the HIV/AIDS virus mutates rapidly, develops new clones and identities – so how can a vaccine be stabilised?”

“Another problem is the mutation. There are several sub-types, sub-type C is what we find predominantly in India. Mutation confers anti-microbial resistance upon the vaccine, antiviral resistance and biological fitness. So the vaccine they are creating is against this wild type virus.”

“In principle, it seems like a good idea. But I’ve heard that a vaccine against each cell strain is an impossibility. So if money is being spent on vaccine development, it is a waste; can be developed for common strains maybe. With so much global migration, which common strains are we talking of? What is common in India may not be common elsewhere, and people are moving around everywhere.”

Other questions concerned the source of the vaccine, its method of working and the dosages required.

- **Source**

Though these questions were raised by a doctor, they are being included here in case they come up in the future after more medical experts become aware of the trials, or when the vaccine is reported in the media, on the net or anywhere else.

“Need to know how you grow this vaccine. What consequent of the envelope vaccine are you using? Is it from the natural virus or a synthesised virus?”

“I’d want a very detailed idea of the methodology used – how does it work, what are the antibodies used, the genetic variations – a clear written paper.”

“Where has the system been brought from? What is the latent period and how many years guarantee can you give? Has it been tested on animals? What was the impact? Questions should be answered and documents provided. Source of the vaccine – animal or person?”

- **Method of working**

“How does the vaccine work? Does it work by preventing the multiplication?”

“A vaccine not even inactivated – it is only from the particular coat that the GP 120 has been sequenced and synthesised and found to contain so many amino acids – and this is the one that is being injected. The protein is no longer capable of reforming.”

“Have heard about these but am very sceptical about them. Concerns – how do they work, what are the long-term implications?”

- **Dosages required**

“It should not have too many booster doses. 1-2 doses and then a booster dose every 5 years.”

“How often will it be needed? Suppose my HIV goes after three months, will I need it every three months? When will boosters be needed? Offers protection for what period of time?”

It is clear that a comprehensive programme of scientific education would be needed before any trials were contemplated in India.

Respondents were also concerned about the long-term impact of the vaccine – which could not be predicted – and about who would take responsibility for such an impact.

“Need to understand the long term side effects on the people who get the virus.”

“It should be safe – not have any neurological side effects.”

“We don’t know what it will possibly do to the human system. At one time it was said that multiple sclerosis is a result of the person having received the polio vaccine in his childhood.”

“What will happen if the vaccine goes wrong? What is the support system? Who will be responsible?”

Questions were also raised about how the trials would be managed.

“Must have all the information about the vaccine – the trial, and the various control factors. As trials begin, bring up a debate on TV/Press.”

“The government will have to put out a document, which the (monitoring) group will be able to explain in simple terms. They will be there throughout the trials and play the part of simplifying them.”

“It should be assured by NIF, FDI or any European body.”

“Who to vaccinate, what will be the efficacy, how will it be tested, where? On whom? Those who are already positive or high-risk? Will it make people less vulnerable? Will it increase the antibodies?”

The range, speed and spontaneity of questions raised as soon as the information on the vaccine trials was given to the respondents, provide a glimpse of what to expect once the trials are announced. There was definite tension in the air, as respondents thought of the diverse issues involved and the problems, they believed, were intrinsic to the trials.

If medical trials were avoidable, in their view – the possible impact of successfully developing an HIV/AIDS vaccine was not lost on them. The next step was to focus their attention on two features of the vaccine trial that could become a potential source of questions in the future. One was the use of experiment and placebo groups. The other pertained to the false HIV+ status that a volunteer would possibly have to live with.

The experiment groups and placebo groups

- ***The experiment groups***

Respondents were concerned about the consent of the volunteer to participate in the trials. Though similar views had been expressed in other trials, they were definitely more urgent this time.

“They will ask ‘what’s in it for me?’ They will ask for family support, survival amount.”

“There has to be transparency in getting volunteers – they must understand the implications of this trial. If they are injected with the HIV/AIDS virus, without their knowledge, it would be absolutely and totally dishonest.”

“Have to explain the procedure very clearly and inform the volunteers that the vaccine is not 100% sure. Must take categorical concurrence of volunteers, let them sign on a written statement – explain pros and cons to them in their local language.”

“Volunteer should fully comprehend what the trial is about before he/she agrees to participate. Should be done completely and openly, transparently.”

“Need to get consent of spouses.”

A respondent with a legal viewpoint stressed that informed consent was a sensible step in a careful trial.

“The important thing is how you choose the people. If picked at random, say, from an STD clinic – they are not very articulate and may agree to anything. How do you know you have really got consent?”

“Community consent is not an impediment – it is actually good, because then, not only does the concerned person know, the community is also kept in the picture – and they cannot deny knowledge at a later date.”

Sourcing and selecting volunteers for these trials caused a lot of anxiety.

“(Trials) would be conducted on poor people – which rich man will volunteer? These folks should not be guinea pigs because if anything happens to them, they won’t have anything to fall back on.”

“Why high-risk people as volunteers – get people from the government, actors, theatre people.”

Potential groups for selecting volunteers were also suggested.

“IV drug users can be used – though they are drug users, they have a reduced risk of transmission from sex .”

“Success of such a trial would depend on the commitment of the volunteers. Therefore, instead of selecting patients from hospitals and counselling centres, tap the patriotic spirit of the people. .”

“No use seeking women as volunteers, because they are not empowered to make even the slightest decision in their lives.”

“A second group you can try is partners – one with the virus and one without. She has been given the vaccine and is in regular contact with her husband, but still remains protected.”

Respondent’s ambivalent attitude to the trials was clearly evident, and often the same person expressed this confusion. Sometimes they seemed frustrated at the enormous complexities involved in conducting the trials in a fair and equitable way; at other times, they enthusiastically volunteered suggestions and showed excitement at the possible outcome.

Some respondents suggested that volunteers should be chosen from all classes of society and all walks of life. However, others felt they should be people from high-risk groups.

“(Volunteers should be) truckers and CSWs – disadvantage is that they are a moving population; advantage is that they are high-risk groups.”

“Give vaccines to those in the high-risk group. (Those with) multiple sexual partners but are (HIV) negative. If such persons are targeted, the trial will have a good outcome because many will eventually become positive, so you’ll know the placebo results quite quickly.”

One respondent completely disagreed with the idea of high-risk groups.

“I feel it should be a kind of a randomised trial – everyone should be included (not only high-risk groups) so the analysis will show the reaction to both high and low risk groups.”

“High-risk groups may have a greater presence of certain bacteria which may interfere with the results. For example, Herpes Zoster is more prevalent in the high-risk group and is a marker for HIV also. What if this interferes? Then they have other RTIs, STDs – so keep a larger sample and at the time of analysis, we can see.”

- **The placebo groups**

Though the issue of using a placebo group caused confusion and concern, very few had a clear opinion on the subject.

The main concerns were about being fair to the placebo group. They feared that these groups would be at high-risk, because the false feeling of being protected by the vaccine could make them indulge in high-risk behaviour.

“There is no cure for HIV/AIDS so if somebody is offering something, people will jump.”

“They will indulge in high-risk behaviour and if they contract HIV then they are going to ask you questions. It will lead to an increase in high-risk behaviour – they will go more often to a CSW because they feel they now have protection. And if they contract HIV they will blame you.”

“Would it be ethical? Because volunteers will have expectations. If they are high-risk people of poor economic means, their hopes will be much higher.”

These hopes could be about protection; a few also believed that the hopes could be related to a cure or the omnipotent ability of the vaccine to both protect and cure.

“Common person does not understand that a vaccine will prevent, not cure.”

Some accepted the need for a control group that would receive a placebo as part of a scientific trial.

“On the face of it, it seems wrong to give placebos but it is necessary – control trials require that for scientific reasons.”

Others however continued to have difficulty with the concept that a volunteer should be under the impression that he has a vaccine, even though that was not true. This feeling of ‘false promise’ caused a lot of discomfort to a large number of respondents. They suggested ways out of the dilemma through two options:

- One, that a matched sample from different countries should serve as a control group. As the volunteers were being tested, this control group that knew nothing about the trials, would be asked to come in for regular testing of their HIV status.

While this would eliminate the worry of false promise – it would enable HIV+ incidence from ‘normal’ behaviour to be measured against the HIV+ incidence among those with the vaccine.

- The other suggestion was to have a control group that was fully briefed and counselled about the vaccine trials, but was not given the vaccine – while others would be given the vaccine.

To many respondents, this seemed fair, as in this way the volunteer was not operating under any feeling of false security caused by the placebo. These volunteers would be carefully monitored in tandem with the experiment group.

“No placebo – take the other (from the public) as placebo, matched on age, race, contraceptive use etc.”

“Both groups will assume that they are getting a vaccine – unethical towards the group that gets the placebo – counsel both groups, every six weeks, and keep enforcing the same message (condoms, etc) to both groups. Placebo may give a false sense of security.”

“Placebo is a technical question, don’t know much about it. But it is cheating because volunteers think they are getting vaccines for HIV/AIDS when in reality they are not.”

Others felt that as long as both groups were given equal counselling, the method would be fair.

“Whatever you are giving to one group should also be given to the other control group so that both are at the same level. For example if yoga and meditation is offered to one group, it should be offered to the placebo group also. Have the same facilities and accessibility for both groups.”

“Placebo or actual virus, everyone should be given protection – so they cannot turn around and say, ‘I gave you the placebo so I shall not look after you now’.”

Many believed that the placebo group should be told that they had been given a placebo, so that they were not lulled into a false sense of security.

“The placebo group should be told, otherwise it would be violating their human rights.”

“You have to inform volunteers that they are being given a placebo because the high-risk volunteers are taking part in the trial in the hope, that despite their sexual behaviour, they may not contract HIV/AIDS.”

Only a few seemed to have a clear view regarding the placebo group.

Placebo is possible now, because we do not know the effect of the vaccine. Once you know the vaccine has a good effect, there would be ethical problems giving a placebo.”

- ***The false HIV + status of the volunteer***

This aspect of the trial evinced little response. Most respondents overlooked the fact that antibodies would be built up by the vaccine, to show a false HIV+ status. Even when they were asked to comment, they tended to gloss over it. A few respondents tried to suggest solutions, but dropped them after a while. It was as if the issue was too complex for them to find a solution for it.

Only a few respondents examined the issue with care.

“Will need a very high level of counselling, since they might believe they have become HIV+ after the vaccination. A more sophisticated test may show that they have not got the virus but their antibodies have been developed to a level. Need to do this before the trials and keep nothing secret about it. Have to guard against social stigma.”

“You could tell them to carry a card that they appear to be HIV+ because of the experiment – it does not mean they are infectious agents. But who is going to believe that?”

“I think if the volunteer is informed and the media is well informed, it will only be a minor problem.”

One respondent believed that suitable tests could be developed (and would need to be developed) to differentiate and identify an antibody from an infection.

“If a vaccine is injected, antibodies will develop. Only that can prevent the disease. It is also true that for HIV/AIDS we are doing antibody testing – so it will be difficult for a person to know whether he has HIV or he is HIV+ on account of the vaccine.”

“If there is a 100% foolproof method, it will be okay. Because there will be a definite schedule of developing a vaccine. Then there will be a certain test which will certainly help to decide whether it is the vaccine or whether it is the virus that has entered the body.”

This respondent also worried that the results of this study could be affected by the behaviour of the volunteers, which would be difficult to supervise.

“We do not know after how many days, weeks or months the vaccine is going to develop antibodies. Since both are high-risk groups, we have to indicate that for the first month you should not indulge in sex or (if you must), use condoms. So that we can be very sure that whatever is developing in the case group will also develop in the control group. Otherwise the vaccine will be proved to be ineffective even if it is effective. When the productive level of the vaccine begins, only then will we be able to ascertain the effectiveness of the value of the vaccine.”

Trials in India

The reactions to conducting trials in India ranged from negative to conditionally positive to clearly positive.

- **Negative reactions**

There were many reasons why choosing India as a trial site evoked a negative reaction.

The first was the fear that India was being chosen because trials could be run less expensively here than elsewhere.

“Why India – because it is cheap? Whether the trial is successful or not – the question always remains why only in India?”

“International agencies should not be allowed in if it is beneficial only to India. Currently India is thought of as a centre for cheap trials.”

“They are very careful when they use such things in developed countries; they will not just use such things ad hoc, unless they are sure of it.”

“They have to convince us that the smaller area where they tried these out was successful – only then can they ask a larger number of people to share it.”

“Very sensitive issue. Depends on the preliminary work. What has already been done becomes very important.”

There was also the fear that Indians would be used as guinea pigs for an experiment that had not been proven elsewhere, and a vaccine that not enough was known about.

“India has been a dumping ground for useless toxic medicines produced in the West. We are guinea pigs for a whole lot of trials.”

“There are trials that have been carried out and failed in some countries, now they are being tried in developing countries – without even checking why they failed in the first place. Highly unethical – will it only be tested in India and will Indians ever be able to afford such a vaccine?”

“How have they developed it? Who has developed it? Have trials been carried out in other countries before? What are the effects and results?”

“Need to know more before vaccine trials can take place in India – has it been tested in the country where it has been developed? What is the history of HIV/AIDS vaccines globally? What has been learnt from previous studies?”

One of the questions that arose was whether the trials would be carried out in other countries at the same time.

“It should be tested all over the world, without bias. There is always a tendency to test trials in the third world, that is what I am trying to find out.”

Some questioned whether there would be a balanced mix of developed and developing countries.

“It should be a multi-country study instead of just India. HIV/AIDS is a global problem. WHO should take the responsibility that it is conducted in 5-6 developing and developed countries.”

“I would be much more comfortable if tests were multi-country – developing as well as developed countries. The same protocols to be maintained in all countries”.

“Carry out the test simultaneously in 4-5 countries: Bangkok, UK, US, South Africa – both in developing and developed countries. If trials are going on simultaneously in 4-5 countries, comfort levels would be higher.”

Respondents also wondered who the ultimate beneficiaries would be and how they would benefit from the experiment. They questioned the motives of those that were conducting the experiment.

“The government cannot afford trials for equally critical illnesses – should it spend money on this? Especially when results are not guaranteed. What are the motives of the company? What is the commitment of the government?”

“What does the population who is being tested get out of this. If something happens, will there be insurance?”

“Very fact that the volunteers have participated should allow them cover for HIV/AIDS – they should be given life-time medical care, attention.”

“My concern is that if the vaccine is going to be effective, it should be as per our sub-type. It should not be only for Europeans or Americans, it should be for our people. Only if the beneficiaries are Indian, otherwise why should we act as guinea pigs.”

They also questioned whether the Indian people as a whole, would benefit from the trials*

“ At what cost will the vaccine be available here after the trials? We should get some benefits, otherwise why should we participate?”

“If India is going to participate and if the vaccine is successful, the cost should be based on the country’s ability to afford it since the trials were carried out here.”

“We are a developing country, we cannot afford to be a trial piece because if there are adverse effects, being a poor country, we will not be able to stand up to it.”

- **Conditional positive reactions**

These respondents were willing to take a positive view if certain conditions were fulfilled.

The first, that the trial would have to be conducted with and through the government and other concerned groups.

*This issue was raised in a recent UNAIDS guidance.⁶

“Any HIV preventive vaccine demonstrated to be safe and effective, as well as other knowledge and benefits resulting from HIV vaccine research, should be made available to all (trial) participants...as well as to other populations at high risk of HIV infection. Plans should be developed at the initial stages of HIV vaccine development to ensure such availability.

“International agencies should only be allowed to conduct trials through the government. And not only the government, as the government should not be the sole custodian.”

“If working with the government, very good. Should give more help and encouragement to them.”

The expert committees formed for this purpose would review the trial at each stage.

“Need expert committee groups nationally.”

“Vigilant bodies, legal professionals, activists necessary at state/sub-state levels to ensure ethical requirements are met, show how they are framed, to what extent implementing agencies are aware and indoctrinated into understanding them. All this to be taken seriously.”

“Government and international agencies should have the responsibility for conducting them correctly. Need a national commission for human rights with a sub-commission on HIV/AIDS. Can include government officers, NGOs, researchers, social and medical scientists.”

Concerned audiences would be kept well informed and all the necessary ethical clearances would be taken.

“As long as it is ethically approved and does not harm the individual, it is fine.”

“Very good – unless you do field trials, don’t know how it is going to work. But need ethical clearance from various agencies. How have they developed it? Who developed it? Have trials been carried out in other countries before coming to India? What are the effects/results? Has there been an academic, scientific debate. Want government sanction – proper protocol and guidelines to be followed.”

The trials would be conducted in an open and transparent manner.

“Start talking about the vaccine instead of keeping it a secret. Start the communication before the actual implementation otherwise you could give this vaccine a bad name.”

“It has been done in Thailand, Brazil so what is the problem if it is done in India? After taking consent of all the volunteers.”

“Drug companies have been testing out drugs for years in India – but now the press is very active – therefore it is important to be very careful, keep the press informed and ensure complete transparency. The government does not react unless the press highlights the issue.”

The trial would be conducted by a reputed agency.

“The fact that IAVI is associated with it gives me more confidence. Have not heard of the AIDS Vaccine Institute.”

“I haven’t heard of IAVI but you should involve ICMR – not only lends credibility but also provides medical support to the project.”

Finally, the strains of the virus used in the vaccine, would have to be relevant for India.

“If it is for India, then you will need the C virus. If it is for the US or Thailand, then the B virus is there and further studies also.”

If all these conditions were fulfilled, respondents felt that the trials might help the country and would therefore be acceptable.

“Important for us to strengthen the hands of our own government. Strengthen the ethical structure within which scientists and government policies work and concentrate more on them.”

“Need the expertise of international agencies. Have to negotiate with all stakeholders to ensure an ethical framework.”

“We have to come out with a vaccine – it would be a step forward for the country.”

- **Clearly positive**

A few respondents, who seemed to take an objective view of the whole proposal, were clear that trials would be necessary in India.

“There are different viral antigens in India, specific to India. So if they conduct trials in the US or any other place, it won’t benefit us. But if there is a trial here, it will be beneficial to us. The trials have to be done ethically, to benefit the public. In the past, that has not been done.”

“I think it should be done here, because unlike other diseases, types and subtypes are so many in these viruses. So unless you conduct a trial in India, with Indian people, you may not be able to use a vaccine which is being used elsewhere. If the vaccine trial takes place under constant monitoring, when the vaccine finally comes out, it will find acceptance straight away.”

“Feasibility trials are a mandatory requirement. Even if it has been proven elsewhere, we have to do it in our own country to see whether it suits our people also. There are guidelines for bringing in any drugs. Our health ministry and the ICMR want these results before accepting a new drug.”

They expressed the belief that conducting trials in India would ultimately be beneficial to the country.

“It’s a good thing that trials are being held in India, otherwise we will lose out. They have the right protocols and methods. It is not about someone making money – the vaccine is for our benefit.”

Some respondents felt strongly, that between prevention through vaccines and prevention through behaviour change, the former was undoubtedly the winner. When so much was at stake and several years of attempting to change behaviour had not yielded significant results, they wondered why the whole issue was in question at all.

“I am from a background in social behavioural science. If you think making a vaccine to suit some types, or such dynamic viruses such as HIV is difficult, try getting people to wear a condom when having sex. It is more difficult than working on a vaccine.”

“It’s relevance for a country like India is immense because we have such overwhelmingly serious obstacles to behaviour change in this country. A vaccine is the easier solution.”

“The possibility of permanent prevention is either through a vaccine or through a change in human behaviour. The second is very difficult. The first is the real one – if vaccines have eradicated smallpox, they can also eradicate HIV – so there is certainly a need for vaccines.”

Finally, one respondent saw far reaching benefits from the HIV/AIDS efforts.

“I think working with women has a crucial importance. Women are particularly vulnerable in this country and I think we have to empower women over what in effect amounts to a minor social revolution. It may take 30 years in this country, but HIV/AIDS management has been a vehicle for so much that results may be positive in terms of the social economy.”

Discussion

On the whole, the attitude to the trials was not negative. With a large number of caveats, most of the experts recognised the importance and need for the trials and accepted that they would have to be held in India.

However, the need for caution was expressed strongly, over and over again. There seemed to be a sense of distrust, a fear of the possibilities of exploitation: that unless the trials are carefully supervised and monitored by responsible people, the high-risk groups “who are already marginalised in society” could be taken advantage of and left to fend for themselves after the trials are over.

There was also the fear that the trials may not benefit India and Indians, that Indian people would bear the brunt of uncertainty and ill health to benefit prosperous people in prosperous countries.*

Since this is the group that represents opinion leaders, it can make or break the trial, and to that extent, its views must be accorded careful attention.

How should these trials be conducted to be successful?

Start by seeking the opinion of experts – was a correct first step. Taking on the matter from there, based on the study findings, we would recommend the following. While the direction of the recommendations has come from the respondents, the interviewers’ own understanding of the situation has influenced some of the emphasis and suggestions. However, care has been taken, to leave personal views out as far as possible.

The steps for action have been listed below, in the order of importance as we see them – after talking to the experts – even though this may not be the chronological order of events.

1. Dissemination of information

This aspect needs to be taken very seriously. We believe that the three-stage dissemination process, suggested by one of the respondents, should be accepted as the operating method. This would involve:

- Inviting a group of carefully selected, well-known and highly respected persons – from the fields of medicine and the social sciences, HIV/AIDS activists, NGOs working with high-risk groups and the media – to form a monitoring committee.
- Making the appointment of this committee and the names of its members widely known.

*It was clear that substantial information needs to be provided on vaccine trials and HIV/AIDS vaccines in particular. This includes the scientific information, ethics and human rights issues. There is also a need to point out that an Indian vaccine based on an Indian sub-type could not really be tested among European and American populations where the subtype is almost entirely absent.

- Inviting a large group of stakeholders to an interactive session, to discuss the proposed vaccine trials. This session should include presentations of the proposed vaccine trial, a panel discussion and a long question and answer session open to the entire audience. It may be one large session in a single city or a series of stakeholder meetings in three or four major metros. If both were equally possible, we would recommend the latter as it would enable wider audience participation and a sense of having been given due importance. The latter would be necessary to prevent undue challenges from the stakeholders, once the trials began.
- Organising press conferences and informing the media about the proposed trials, the monitoring committee and the expected results as well as the benefits to the country as a result of these trials.
- Encouraging debate on television so that many issues are brought out in the open and discussed.
- Launching the trials.
- Keeping the media and key stakeholder representatives informed of the progress as the trials proceed. By this stage, it would be better to allow the monitoring group to speak about the trials and answer media and stakeholder questions.

2. Compensation

The issue of compensation was not neatly summed up in any interview. We attempt to do so here, based on our understanding of the collective views.

- We believe that volunteers would definitely need to be compensated for all out of pocket expenses.
- IAVI may consider paying an honorarium for participation, but this should not be large enough to become an inducement. As a thumb rule, a sum of money (or goods) that is equal to about a month's earning for the volunteer, would seem right. However, the actual amount would need to be discussed with a wider group, possibly with the monitoring committee.
- In case of illness, the expectation was that IAVI would take care of all medical expenses. This would apply to any illness or injury during the course of the trial, including those, which have nothing to do with the vaccine.
- In case of the volunteer turning HIV+, IAVI would be expected to take care of his lifelong medical needs and also offer compensation to the family for earnings lost. Once again, details of this would need to be decided upon after consultation with the monitoring committee. However, it was clear that the care would have to be at par with international standards, although it is not clear what the international standards would be. Therefore, all types of care that an international volunteer would get for having participated, would be given to the Indian volunteer – medical, physical comfort, counselling for psychological and social adjustment, family welfare and others. The exact

medical treatment would need to be agreed on in collaboration with Indian agencies and community groups.

- No respondent spoke of the possibility of the death, or serious injury, of a volunteer during trial because of an unexpected reaction to the vaccine or, for example, a serious accident during vaccination itself. It would be useful to also decide on the action standard for this after due consultation.

3. Recruitment of volunteers

The process of identifying volunteers need to be thought through in detail. We believe that the close involvement of respected NGOs, in the process, would be a good idea and would result in volunteerism in action as well as in spirit.

It would be a good idea to plan the process of recruitment in great detail. We recommend:

- Selection of a venue where the respondent would be comfortable – physically, psychologically and emotionally. It must be remembered that Indian society is very hierarchical, and several factors may cause discomfort that might make no sense to a foreigner. It would be a good idea to allow an NGO working with the potential volunteers, to determine what would generate comfort.
- All explanations should be translated into colloquial local language. Translations are often stiff and academic and make no more sense than a foreign language would. Ideally, translations should be written down and given to another person for retranslating into English, to ensure that the letter and spirit of the explanation is captured.
- The process of explanation of the trials should also be carried out through an NGO person who would be able to explain the process, and with whom the potential volunteer would be comfortable enough to ask questions.
- IAVI partners in South Africa have experimented with systems that require the volunteer to re-state risks and disadvantages in their own words. The Thai organisers of the current phase III trial on the VaxGen vaccine have used a ‘test’ system that requires volunteers to pass a test on the information given before participating. Both ideas should be considered.
- It would be a good idea to invite some stakeholders to be present at such a recruitment process so that they may pass on the message about the fairness of the process.

4. Benefits to the nation

The nature of benefit that might be offered is not known nor was this discussed in detail. We believe that experts expect this benefit to be three-fold:

- Trials would pertain to a vaccine strain that is widely present in India. To take this further, we believe that it would necessarily have to be relevant for the most dominant strain in India and none other.

- The vaccine developed as a result of this would have to be made available to the entire Indian population at an affordable rate, even at a discounted rate
- The volunteers would be looked after in a manner that is in keeping with international standards but is adapted to the medical infrastructure in India. The public would need the comfort of knowing that the volunteers have gained, or retained status quo, but not lost from participating in these trials.

In conclusion, we would like to add a word of caution that comes from an observation of the manner in which respondents reacted to the interview.

Most respondents moved from an easy-going acceptance of the idea to alertness and a realisation that the issue was a complex one. Their responses then took on a sense of unease and rejection, which finally moved to a cautious acceptance, but with many caveats.

Projecting this into the real world scenario – when the trials are announced – we expect that the above reaction might be replicated. There might be an easy going acceptance at the outset – but this could be misleading and it would be important not to take this at face value or to expect a smooth passage. Thus, it would be important to:

- Remain alert for the smallest negative opinion and take care to address it as soon as possible.
- Continue to take care in a proactive manner, to see that the trials are projected correctly and clearly right at the outset – and as they progress.

The trials would thus need to be carried out with extraordinary care, such that the public at large on the one hand, and the opinion leaders on the other, perceive the trials as being open, fair and transparent.

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Appendix I

IAVI-LISTENING TO NGOs DISCUSSION GUIDE

Establish the field of operation of the NGO and the way it works in this field

- Can you tell me something about the field that you are working in.
- What is the subject that you deal with on a regular basis,
 - ~ how long have you been in this field
 - ~ what is the major issue in this country with regard to (name subject)
 - ~ what is the goal of your organisation.
- What are the major barriers that you face in achieving this goal.
- How do you influence (name subject); spontaneous; directly & indirectly.
- What would you say are the spillover areas of this basic 'goal/area of work' of your organisation.

The NGO and AIDS

- If AIDS mentioned, continue with the subject, if no mention of AIDS, explain that your interest is in the field of AIDS and then continue.
 - ~ What is your view regarding the HIV+/AIDS situation in India – is it under control, would you say? What is the direction in which HIV infection is headed just now? (improving or becoming worse?) How has it changed over the last few years?

Spot and then probe for seriousness of the infection, attitude to it, treatment for it

- ~ Why is that so?
 - ~ What is the main cause of the disease having progressed as it has? How is it spreading and why?
 - ~ What in your view is required to get the AIDS situation under control? Of this, what is being done to a sufficient degree and with sufficient quality?
 - ~ To what extent has this been achieved?
 - ~ What are the barriers to effective AIDS control in India?
 - ~ Who would you say are the key people who can effect AIDS control?
- Where is the effort really lacking? Why is that so?

Changing Scenario

Going by the situation just now and the manner in which the disease has progressed over the last decade, what is your prognosis for the future? And how will it be different from today. Draw comparisons of past vs. today vs. future.

- How has the disease changed course since its onset in India? Probe for:
 - ~ How do you see the disease progressing? Speed, affecting what population groups, why so? Who will be relatively safe from this, why so?
 - ~ Where will it halt?
- What can be done to make stop or slow down the progress?
- In your opinion, what are the effective ways of preventing HIV infection? What is being done on this at the moment – can you give me some more details on that? In your view, how effective has this been? Why or why not?
- There is one school of thought that say that communication and education will lead to behaviour change which in turn will halt the progress of the disease – what is your opinion on this? Who should this be targeted at, and how.
- What are the medical/pharmaceutical ways of curing or preventing HIV/AIDS infection? What are these? How effective are they? How can these be made widely available? What is the barrier to their wide distribution?
- Are there any drugs or vaccines that you are aware of?

NGO's base level understanding of an AIDS vaccine

- Have you heard of any AIDS vaccine that might be currently available or in testing stage?
- IF **AWARE** OF AN AIDS VACCINE, ASK: Can you explain to me what is its concept, how does it work, what does it do, etc. Cover spontaneous answers and then probe for:
 - ~ What is its principle?
 - ~ How does it operate?
 - ~ How does it impact spread of AIDS?
 - ~ Who is it meant for? HIV+, AIDS patients, high-risk groups, general population
 - ~ How does it benefit? Who benefits the most?
 - ~ Are there any drawbacks? What and why do you feel these are so?
 - ~ What would be the ideal AIDS vaccine? How will it work?

- ~ What is the progress that has been made in the development of an AIDS vaccine internationally? How far/ close are we to an effective AIDS vaccine?
- ~ What is India's status on this? Do we need an AIDS vaccine? Why/ why not?
- ~ Who are the major players in the field? What is the role of the government? What about the Indian pharmaceutical companies and the MNC ones? Is there a difference?
- ~ If an AIDS vaccine was to be introduced in India:
- ~ What would you say needs to be done before it is introduced?
- ~ What should be done while launching it to ensure success?
- ~ What factors would support or accelerate progress of such a vaccine launch in India? How can one build on these?
- ~ What would be the possible barriers? How can one overcome these?
- ~ Who would it appeal to most? Why?
- ~ Who would be its strongest rejectors? Why?

AIDS vaccines concepts

HIV Vaccines: I have here a statement regarding the work being done on a vaccine to prevent HIV infection (ALLOW TIME TO READ THE CONCEPT).

- What is it saying, what does this mean?
- What is your view regarding this? What thoughts come to mind, what questions?
- It says that this is being developed in collaboration with Indian scientists? How does that make you feel – what thoughts does it arouse and why? Now this vaccine has to come up for field trial. One of the countries in which field trials are to be carried out is India. How do you react to that?
- What are the first thoughts that come to mind?
- Are there any questions to which you would like to receive answers before you form an opinion? What are these questions? (EXPLAIN THAT YOU WILL REPLY TO THOSE AFTER A WHILE; IN THE MEANTIME, YOU HAVE MORE QUESTIONS).
- You mentioned that you would want to know about and? I need to understand how the answers to this will impact your opinion – can you elaborate on that a bit? Why are these aspects of importance, and in what way? What answers do you envisage and how will they affect your opinion?
- What concerns would you have about such trials being carried out in India? What else? And what else?

Vaccine trials

- Have you been involved, directly or indirectly with clinical trials in adults (e.g. vaccines, contraceptives) at any stage in your career? (IF YES, GET DETAILS).
- What product were these trials for?
- When and where were they carried out?
- How were they carried out – that is, how were the volunteers motivated, screened, found eligible – was the process acceptable to you? What did you like or not like about this process?
- What about the next steps – how were they handled? Was that satisfactory? What could have been done differently? Why do you think it was not done that way?
- When were the trials completed? Were you in the picture till the end?
- In your view, from hindsight, do you think it was a good thing that the trials were run? Why or why not?
- If the clock could be put back and the trials could be started from the beginning, all over again, what would you like to see done differently? What changes in the trial method or process would you recommend? Why?

Successful trials

In the final analysis, what factors make the difference between a good trial and a bad trial?

- What factors would be included in a good trial?
- What pitfalls or mistakes would a good trial avoid?
- If a trial has been well conceived and executed, what would be the signs:
 - ~ at the outset?
 - ~ mid-way?
 - ~ at the end?
- By the same token, what are the signs of a badly conceived or executed trial:
 - ~ at the outset?
 - ~ mid-way?
 - ~ at the end?
- What pointers would you give to the government or an international agency who intends to conduct such trials.

Concerns

Coming back to the issue of a vaccine for the HIV virus. As I mentioned, the plans are for this vaccine to go into trial in the next few months. In that context, we wanted to understand how you feel about this or react to the concept.

- What concerns come to mind when I talk of a vaccine trial for the HIV virus?
- Why these concerns?
- Any others? What others?

In our past interviews, some of the concerns that have been expressed are:

- ~ Definition of failure
- ~ Risk of HIV infection as a result of the vaccine
- ~ Vaccine versus placebo and the impact thereof
- ~ Risk behaviour of the volunteer and its impact on the trial
- ~ The ethics of such trials
- ~ (Any others that you would like to add?)

Can we discuss these? First of all, how would you rank or group these concerns? Which concerns rank as highly important in your mind and which are less relevant? (ALLOW RANKING/GROUPING TO HAPPEN). You have rated these as very important – can we discuss each of these. FOR EACH, ASK:

- ~ Why does this rank as an important concern? What can be done that would set your mind at ease on this front? GET DETAILS
- ~ REPEAT FOR ALL CONCERNS ON THE 'HIGH' LIST
- ~ MOVE TO THE 'LOW CONCERN' LIST
- ~ You have put these in the low concern list – why is that so?
- ~ Some people we were speaking to felt highly concerned about this issue too. Why do you suppose that was so? What do you think they could be worried about in this context? How could the trial implementers set their minds at ease on this score?

Finally...

IAVI (International AIDS Vaccine Initiative) is looking at introducing the vaccine and conducting the trials.

- How do you react to that
- Have you heard of them. What do you know about this organisation
- Knowing that it is IAVI, does it make any difference to your initial response. In what way, why.

Appendix II

A note on the HIV/AIDS Vaccine

The Government of India and various Indian research institutions are involved in several projects to develop a vaccine which might make people less vulnerable to infection by HIV, the virus which causes AIDS. Indian researchers are collaborating with overseas scientists and organisations (including IAVI) in these experiments. If these projects are successful in the laboratory, the vaccines will need to be tested on human volunteers. Usually these tests involve several stages.

First, the vaccine would be tested on twenty or thirty healthy volunteers who are at low risk of contracting AIDS. These tests would probably be carried out in India and overseas. Scientists would take blood samples and measure whether the vaccine had been able to teach the immune system to recognise the AIDS virus and to react to it. They would also check carefully to make sure that the vaccine was not causing other medical problems or side effects. The volunteers in these “phase I” trials are given a very lengthy, individual briefing to ensure that they understand they are at some risk as the first human beings to test an unproven vaccine.

Later, if the early trials are successful, the vaccine would need to be tested on larger groups of people and would need to be tested against a placebo (an injection which has no effect at all on the body). It would be important to ask for volunteers from groups that are at risk of becoming infected by HIV because only then can we see how well the vaccine works. Each volunteer would have to thoroughly understand the risks of the trial; would be told that there was no assurance that the vaccine being tested would work and, would be given a lot of counselling on how to reduce the risk of getting AIDS through behaviour change. These large trials will tell us how effective the vaccine would be, in use, in the community, and would look for any side effects or medical problems which might not have been seen in the earlier, smaller tests. If these trials are successful, the vaccine might then be approved for widespread use.

Of course, everyone hopes that a vaccine will be completely effective but most scientists believe that the first successful vaccines against HIV will probably prevent five or six out of every ten people from developing AIDS. There are several possible ways of doing this. Some vaccines, in tests, try to get the body to identify the HIV virus on first contact and to destroy it immediately. Other possible vaccines would only teach the body’s immune system to keep the virus under control – which means that a person would still become HIV+ but might be less likely to become ill.

All the vaccines currently being developed use just a small fragment of the virus that causes AIDS so it is very unlikely that anyone could contract the disease from the vaccine. In some other diseases, doctors use vaccines made from killed or inactivated versions of the virus itself – but no one is using this approach for AIDS because of the concerns about what would happen if any of the viruses

survived the processes designed to kill it. However, people who receive the vaccine may develop “antibodies” to it. “Antibodies” are used by the immune system to identify and remember harmful viruses and bacteria that the body has been in contact with. A successful vaccine may teach the immune system to develop antibodies to HIV. If it did, the person vaccinated would show up as “HIV +” – on some of the tests currently used to establish who has been exposed and who has not. This would not mean they had HIV or AIDS but it might mean that they would be discriminated against if they did not explain that their body had developed the antibodies as the result of a vaccination.

Many new vaccines are very expensive. IAVI only collaborates with companies that commit to selling any successful vaccine at just above cost price in developing countries.