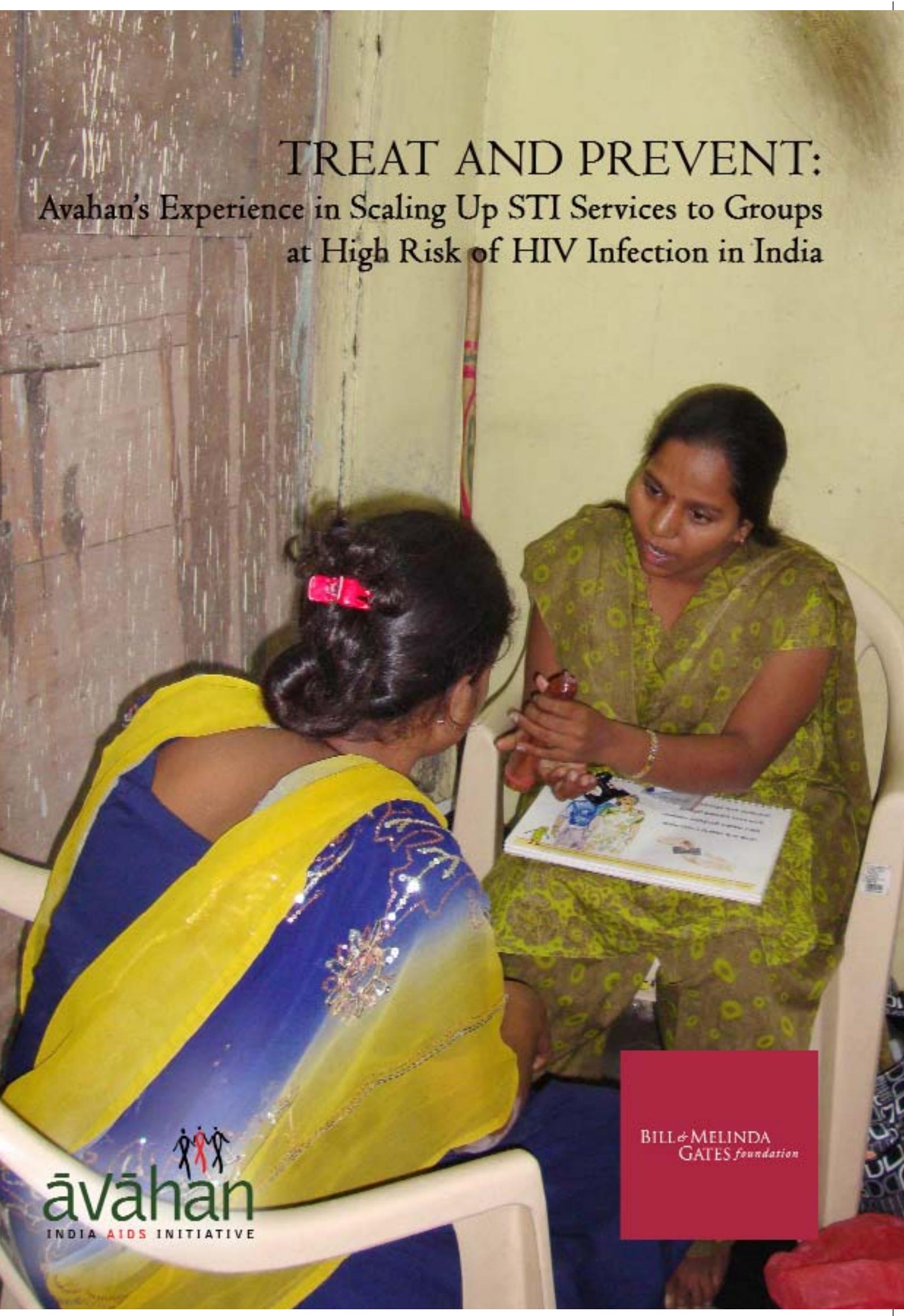


# TREAT AND PREVENT:

Avahan's Experience in Scaling Up STI Services to Groups at High Risk of HIV Infection in India



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# TREAT AND PREVENT:

Avahan's Experience in Scaling Up STI Services to Groups at High Risk of HIV Infection in India



BILL & MELINDA  
GATES *foundation*

This publication was commissioned by the Bill & Melinda Gates Foundation in India.  
We thank all who have worked tirelessly in the design and implementation of Avahan.

We also thank Chris Parker who assisted in the writing and production of this publication.

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## AVAHAN—THE INDIA AIDS INITIATIVE

Approximately 2.5 million people are infected with HIV in India.<sup>1</sup> The country is home to the third highest number of people living with HIV/AIDS (after South Africa and Nigeria).<sup>1</sup> The Indian HIV epidemic, as in many Asian countries, is concentrated within subgroups of the population most at risk of acquiring and transmitting HIV (high-risk groups\*<sup>2</sup>). These are female sex workers, men who have sex with men, transgenders, and injecting drug users.

In 2003 the Bill & Melinda Gates Foundation began its India AIDS Initiative, known as Avahan, a large-scale program to curtail the spread of HIV in India. The foundation has three primary goals for this initiative:

1. Build an HIV prevention model at scale in India
2. Catalyze others to take over and replicate best practices
3. Foster and disseminate lessons learned within India and worldwide

Avahan was conceived as a focused prevention program—reaching high-risk groups and bridge populations, in geographic areas most affected, with a standardized package of prevention interventions.\*\* The program focuses on providing coverage to high-risk groups in six Indian states (with a combined population of 300 million) that accounted for 83 percent of the country's HIV infections in 2002: Andhra Pradesh, Karnataka, Maharashtra, Manipur, Nagaland, and Tamil Nadu.<sup>3</sup> Each of these states varies greatly in terms of language and culture, and the stage and drivers of the HIV epidemic, as well as the length and extent of prior HIV prevention interventions.

As of March 2009 (the end the first five-year phase),\*\*\* the Avahan prevention programs were reaching approximately 321,000 high-risk individuals in 675 towns, in 82 out of 139 districts in these six states.\*\*\*\* This included approximately 221,000 female sex workers, 82,000 high-risk men who have sex with men, and 18,000 injecting drug users. In addition, services were provided to five million men at risk (truckers and clients of sex workers). During Phase I Avahan worked either alongside government- or other donor-supported NGOs, or as the sole HIV prevention service provider in a district for these groups.<sup>4</sup> In April 2009 Avahan entered its second five-year phase (Phase II), which focuses on the transition of the project to its "natural owners" (Government of India, other stakeholders, and the community).



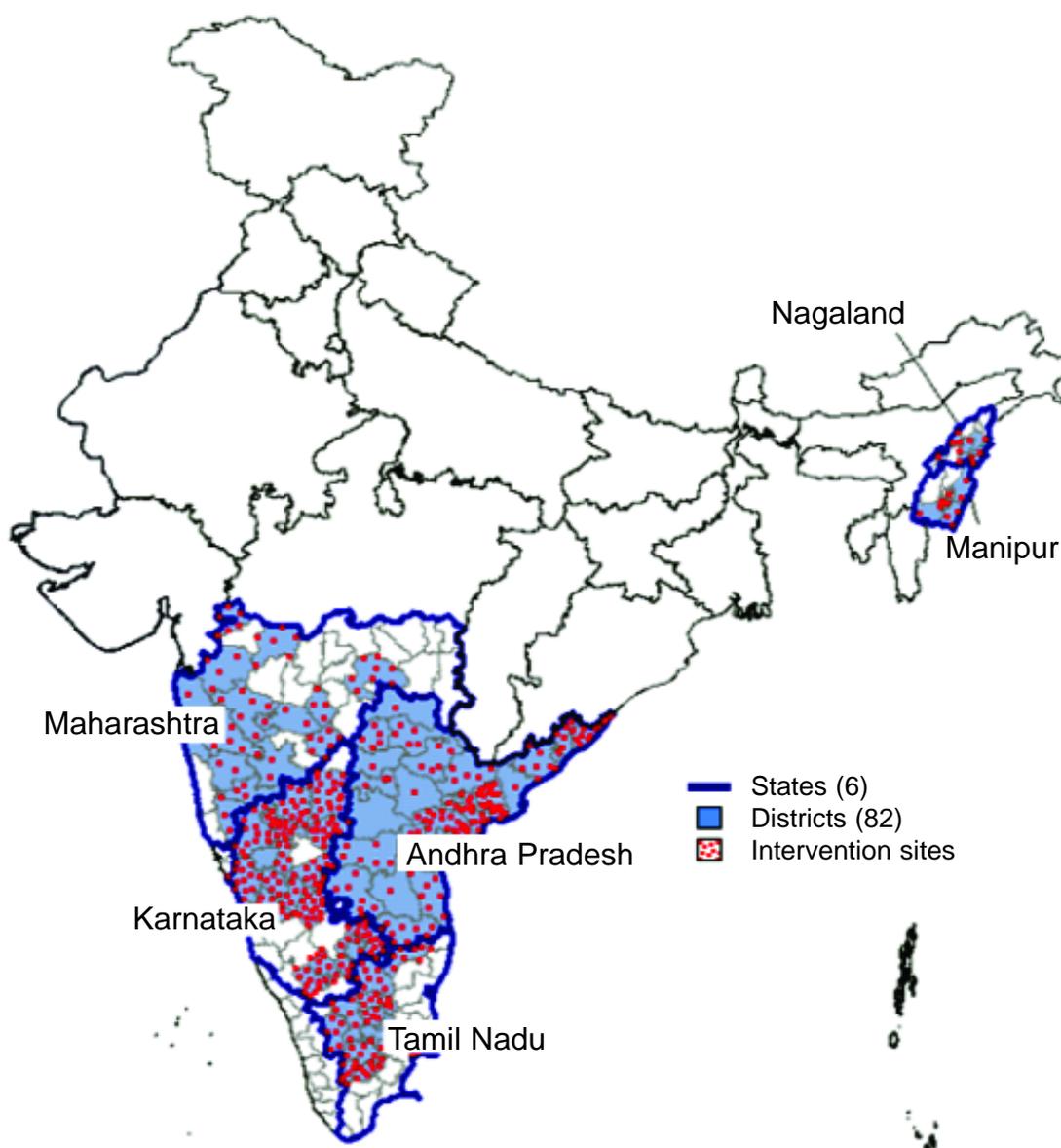
\* Definitions of terms used in this publication can be found in the Glossary.

\*\* "Avahan" refers to the effort of the partner organizations, over 100 grassroots NGOs, thousands of peer outreach workers, and others working on this initiative.

\*\*\* All statistics in this publication are as of March 2009, the end of Avahan Phase I, unless otherwise specified.

\*\*\*\* A district is an administrative subdivision of a state. An average district has an area of 2,000 square miles and a population of two million.

Figure I: Avahan Intervention Districts



*Source:* Avahan Routine Monitoring Data

The treatment and prevention of sexually transmitted infections (STIs) among high-risk groups has been demonstrated to be an effective component of an overall strategy for preventing the spread of HIV. In addition, counseling about condom use can occur in the context of clinical services, and individuals are more likely to heed prevention messages if such services are provided. For these reasons, the scale-up of treatment and prevention of STIs within high-risk groups has been an important part of Avahan's intervention strategy.

## Avahan interventions

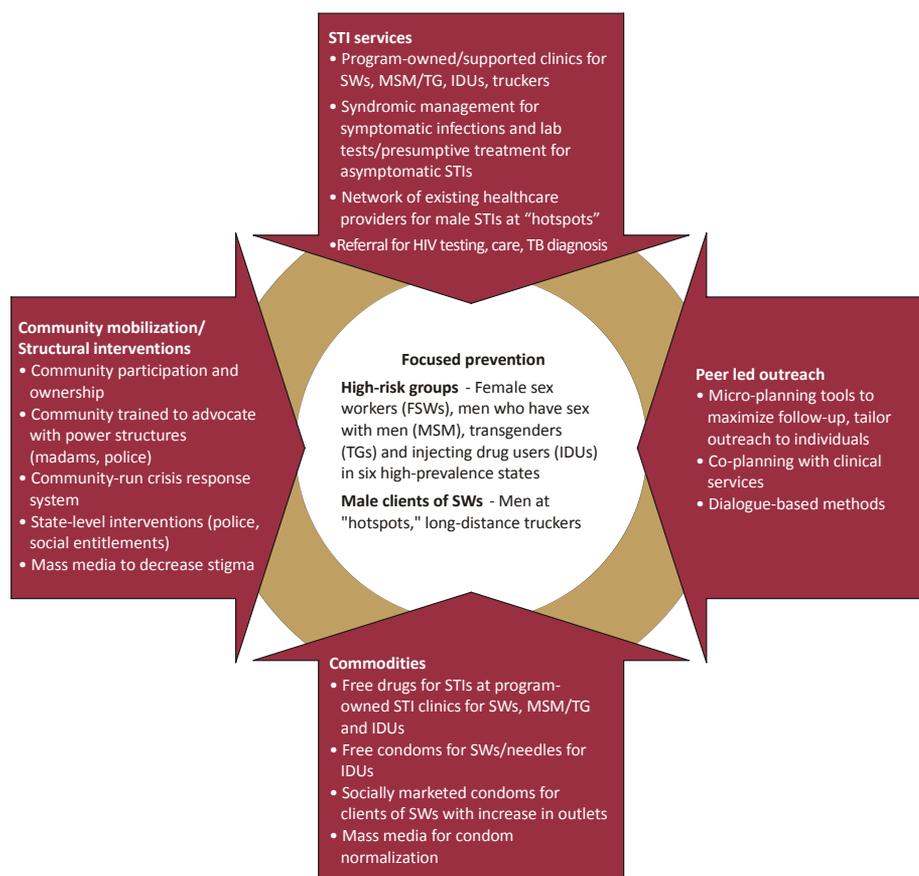
The Avahan package of HIV prevention interventions includes:

1. **Program-supported clinical services to treat STIs other than HIV** (the focus of this publication). Sexually transmitted infections are important determinants of HIV transmission. Avahan's STI strategy employs a package of interventions including peer outreach, community mobilization, promotion of condoms, and STI services that has been effective elsewhere in decreasing STI and HIV rates among sex workers.<sup>5,6</sup> Avahan has established and funded 340 clinics in fixed locations (known as static clinics), and a variety of other service delivery models including mobile clinic vans, outreach medical visits, health camps, and private providers that have provided free STI management services at least once for an estimated 408,000 individuals.\*
2. **Peer led outreach.** Peer outreach workers using micro-planning tools identify high-risk individuals among their social network and provide support and information to improve their ability to negotiate condom use and encourage their attendance at STI clinics and self-help programs.<sup>7</sup> Avahan has about 7,800 peer outreach workers in 82 districts across six states.
3. **Commodity distribution.** Avahan promotes and distributes free condoms for sex workers and supports free needle and syringe exchange for injecting drug users. As of March 2009, Avahan was distributing over 11 million condoms free of charge every month to sex workers, high-risk men who have sex with men, and transgenders. For male clients Avahan supports condom social marketing through the expansion of traditional and non-traditional outlets and mass media to make condoms more socially acceptable among the general population, and to make condom use more viable for groups at highest risk. Avahan clinics provide free STI drugs for high-risk individuals diagnosed with STIs.
4. **Facilitating community mobilization and ownership of the program and advocating for an enabling environment.** In addition to risk reduction services, Avahan addresses factors contributing to the vulnerability of high-risk groups. Avahan works with high-risk communities to strengthen their individual and collective "agency" so that they can adopt and sustain safer behaviors.<sup>8</sup> Today, 129 community groups or organizations, some with legal registration and annual membership fees, exist across the districts served by Avahan. Community groups associated with Avahan at local levels are addressing societal perceptions that lead to stigmatization of HIV and high-risk communities. They advocate with government authorities and other stakeholders to secure an enabling environment (i.e., a more supportive legal framework and less hostile social atmosphere). These local efforts have been supported by advocacy efforts at the state and national level and mass media efforts to reduce stigma.



\* Due to high mobility and turnover in high-risk groups, the number of individuals accessing clinical services at least once is larger than the estimated denominator in Avahan intervention areas.

Figure 2: Summary of Avahan Technical Strategies



This publication describes Avahan's work delivering STI services, STI outreach, and clinical linkages to HIV testing and care and TB testing and treatment, and describes Avahan's scale-up of services across six states in India as part of its larger HIV prevention initiative. Avahan's work builds upon the efforts of many other groups to describe the STI burden in high-risk populations and to provide services. This publication also contains:

- Avahan's experiences in designing, organizing, and executing STI service delivery at large scale, specifically:
  - Standardized service delivery system
  - Virtual organization
  - Near simultaneous creation of the delivery footprint
  - Customizing services to populations
  - Maintaining an execution focus
  - Monitoring and managing the intervention
- Accomplishments
- Lessons learned

# THE CHALLENGE OF SCALING UP STI SERVICES IN INDIA

In a country as large as India, scale-up is a significant challenge, especially for a program that seeks to reach a large and diverse number of high-risk individuals including female sex workers, high-risk men who have sex with men, transgenders, injecting drug users, and male clients of sex workers, all of whom are dispersed across widely varied geographic areas and cultures. Avahan addressed this challenge by designing, organizing, and executing its program to operate at scale. Avahan scaled up infrastructure and services reaching 80 percent of the final total within three years. Cross-sectional survey data indicated that 83 percent of the estimated high-risk population had been contacted by a peer outreach worker at least once.<sup>9</sup>

Avahan's approach for STI service delivery was based on the overall project design for scale-up:<sup>4</sup>

1. Designing for scale
2. Organizing for scale
3. Executing and managing for scale

## Designing for scale

Before starting STI service delivery, Avahan partners conducted detailed mapping and size estimations of the high-risk populations across the districts they were to cover. These exercises helped establish an initial denominator and locations against which Avahan planned scale-up of services.<sup>4</sup>

Based on this mapping and size estimation exercise within each district, Avahan identified key locations that contained large concentrations of high-risk group members where services should be established first in order to cover the largest number of individuals. This was done without compromising the need for simultaneous scale-up for different populations across different districts. For example, Avahan saturated coverage of sex workers in major urban areas with the largest populations before expanding coverage to less dense, peri-urban areas. Depending on the density of the high-risk populations and proximity to service delivery sites, clinic services were provided through project-owned static clinics, outreach clinics (including mobile vans, satellite clinics, and health camps), preferred providers (private clinics that are screened and contracted to provide services to high-risk individuals), and government clinics strengthened through equipment provision and staff training. In addition, Avahan provided STI support in 14 districts where the government was already providing services. The two male client programs focused on intervention locations with the highest concentrations of men at risk, either in large "hotspots" (places where sex is solicited) or large truckstops on the national highways.

With these estimates in hand, Avahan partners next set about designing a number of elements that would promote consistent and high-quality roll-out of the STI services. Several of these elements were technical while others concerned program management and monitoring services to improve delivery and gauge the success of the

intervention. The most important elements related to STI services are listed below, and several are discussed in more detail in the following sections:

- Creating a common minimum program that clearly defined:
  - An STI "Essential Services Package" that all clinics should provide.
  - A manual of operating standards called the *Clinic Operational Guidelines and Standards (COGS)* for all clinics.<sup>12</sup>
  - Key project milestones that provided measurable targets and timelines for the program to guide implementation.
- Providing **capacity building support** to NGOs responsible for operating and managing STI clinics since many were undertaking this type of work for the first time.
- Creating a **common management framework** that defined relationships and management support guidelines (such as intensity of engagement and relationship with lead implementing partners, STI capacity building partners, and other stakeholders), and formal review process guidelines.
- **Developing and using data collection tools**, such as routine program data and qualitative and quantitative assessments to monitor and improve services. These data are used to inform all decision making. This includes metrics for program-wide analysis of Avahan, predictive and warning capabilities for a district, and the ability to look at individual NGO- and clinic-level data.

### Creating a Common Minimum Program for all partners

Avahan developed a Common Minimum Program (CMP) to guide all partners during the start-up phase and subsequent phases. Key elements of the STI delivery component of the CMP included a standardized STI Essential Services Package, a *Clinic Operational Guidelines and Standards* manual, project milestones, capacity building support for partners, and a common program management framework.

#### The STI Essential Services Package

Avahan expects all clinics to provide a standardized STI Essential Services Package to all patients. The main components of this package include:

1. **Syndromic case management.** Individuals are treated for STIs based on syndromes, which are a group of symptoms and clinical signs, and common causes of the syndromes.
2. **Presumptive treatment for asymptomatic infections.** In the first two years of implementation, sex workers were treated quarterly with azithromycin plus cefixime for treatment of asymptomatic chlamydial and gonococcal infections. The rationale for treating sex workers presumptively is that they are usually asymptomatic and have a greater risk of acquiring these infections due to inconsistent condom use and multiple partners. The initial recommendation of quarterly treatment was changed to treatment for new patients during their first clinic visit and for patients who have not received any clinical services for more than six months, when survey results in 2006 showed relatively low prevalence of cervical infections in sex workers.<sup>13</sup>
3. **Regular screening for STIs.** Clinics and peer outreach workers promote monthly check-ups for sex workers to detect signs of STIs by speculum/bimanual examination, and twice-yearly serological testing and treatment for syphilis. While regular monthly check-ups are promoted, the programmatic target is at least one clinic visit per sex worker every three months. Transgenders and high-risk men who have sex with men are also encouraged to have STI check-ups, including quarterly proctoscopic examinations and semi-annual syphilis screening. Peer outreach workers provide health education on STI symptoms to injecting drug users and advise them to attend the clinic

when symptomatic. Because of the high prevalence of syphilis among injecting drug users, regular semi-annual syphilis screening is now recommended and is being scaled up at injecting drug user sites.

4. **Condom promotion.** All high-risk group members are advised to use condoms consistently with clients and regular partners, counseled about how to negotiate condom use, and given free condoms.
5. **Standardized pre-packaged STI drugs.** Antibiotics to treat STI syndromes are pre-packaged by syndrome with color-coded packages corresponding to each syndrome (Figure 3). Pre-packaged therapy enhances provider and patient adherence to recommended treatments.
6. **Partner treatment.** For clinic attendees with regular sexual partners, partner treatment is provided through referral to the project clinic or, in a few sites, through patient-delivered partner therapy.
7. **Referral for HIV testing.** All clients accessing STI services are informed about HIV testing and the importance of knowing their status, and are referred for HIV testing and counseling to a nearby facility. With the scale-up of government antiretroviral treatment services across the states, the linkages and access to these services were strengthened, continuing into Avahan Phase II.
8. **Counseling.** Health education and counseling are offered to all clients following the "four Cs"—condom demonstration and promotion, ensuring compliance with treatment, counseling, and contact treatment/partner management. Peer outreach workers provide health education on STI prevention. Clinic counselors focus on more sensitive one-to-one counseling needs including personalized risk-reduction plans. Further details are available in the manual, *Guidelines and Standards for Counseling High-Risk Groups in Clinical Settings*.<sup>14</sup>

Figure 3: STI Syndrome Treatment Packets



State-level partners and local-level NGOs adapt the Essential Services Package, which was designed for project-owned clinics, to the various types of STI service delivery models to meet the needs of their local high-risk populations. The clinical services are linked to peer led outreach in order to promote utilization, reinforce healthier behaviors and prevention practices, and facilitate follow-up and partner treatment.

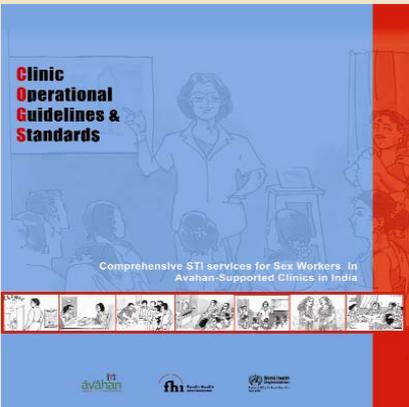
### Essential Components of an STI Visit for High-Risk Clients

- Patient history
- General physical examination
- External genital and peri-anal examination in females, males, and transgenders
- Speculum and bimanual examination in women
- Proctoscopic examination in males, females, and transgenders where indicated
- Treatment of any identified STI syndromes according to Indian Government guidelines
- Asymptomatic (presumptive) treatment for common STI pathogens at first visit
- Periodic syphilis screening
- Health education and counseling on ongoing basis
- Referral for HIV testing, HIV treatment and care, tuberculosis (TB) diagnosis and treatment, and other clinical and social services

### Clinic Operational Guidelines and Standards

Avahan created the *Clinic Operational Guidelines and Standards (COGS)* manual to set out clear, standardized procedures and guidelines, based on Indian National AIDS Control Organisation (NACO) guidelines, international best practices, and the experiences of the lead implementing partners. The COGS, along with tools for training, supervision, and monitoring, was introduced in 2005, and defines a common approach for STI prevention, diagnosis and treatment, and standards of service delivery for all Avahan clinics. The STI capacity building partner used participatory assessments, field experience, existing national guidelines, lessons learned in the field, and expert inputs to refine the manual and ensure that it is realistic and useful. The COGS forms the basis for training and supervision and serves as a benchmark against which performance of clinics can be monitored.

Figure 4: Manual and Contents of the Clinical Operational Guidelines and Standards (COGS)



1. Clinical management with detailed protocols and standards
2. Health education and counseling of clients
3. Laboratory support
4. Infection control
5. Ethical standards, confidentiality, and right of refusal
6. Monitoring, evaluation, and reporting
7. Technical support and supervision
8. HIV testing
9. Referral linkages, including HIV-related support services

### Key project milestones

Avahan also produced a Common Minimum Program document that provides a checklist of activities that each partner should complete during the initial set-up and provision of STI services, including key project milestones.<sup>11</sup> Key project milestones aim to provide time-bound, measurable targets to guide the intervention. These quantitative milestones cover pace of infrastructure and service roll-out as well as specifying desired service utilization levels. The targets form the basis of regular reviews and discussions across partners. The milestones in the Common Minimum Program have evolved with the program from start-up to its mature phase and at each stage have helped set the direction and clarify priorities across Avahan. For STI services these milestones included: (1) defining an effective essential STI service package; (2) ensuring an adequate and consistent supply of commodities (drugs, condoms); (3) establishing acceptable and accessible clinical services; (4) creating systems to train staff and monitor services; (5) establishing laboratory support for diagnostic testing; and (6) establishing a functional referral system for HIV testing and counseling, HIV care, and TB testing and treatment.

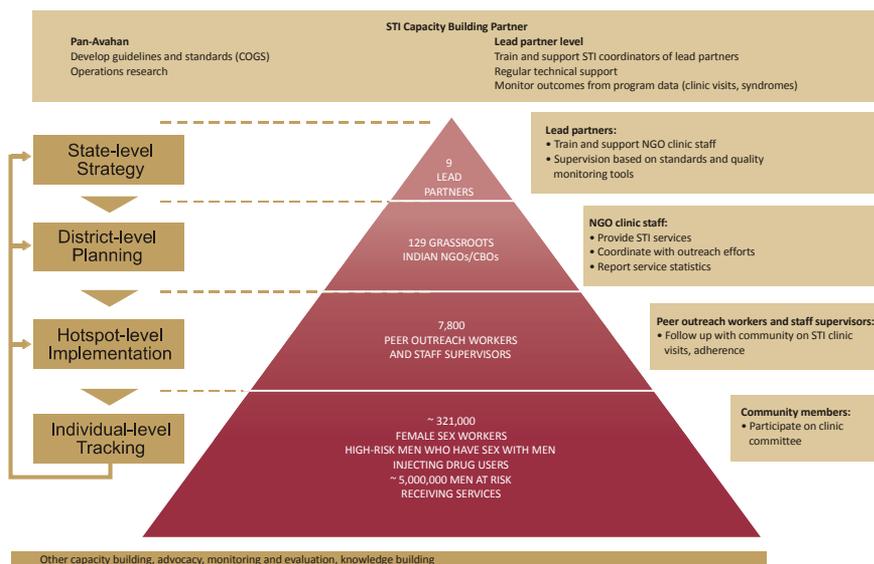
### Organizing for scale

#### The Avahan virtual organization

Avahan designed its organizational structure to enable rapid and simultaneous scale-up across geographic areas, facilitate standardization of key elements, and share best practices across all programs, including STI services. Avahan’s pyramid organization structure (Figure 5) includes the following types of partners:

- **State-level lead implementing partners** who sub-grant to and support grassroots NGOs. Between December 2003 and March 2004, Avahan made nine lead implementing grants. Seven of the nine lead implementing partners work at the state level on prevention programming for high-risk groups. The remaining two grants support programs for men at risk (clients of sex workers and long-distance truckers). These large national or international NGOs sub-grant to, manage, and support 129 local implementing NGOs.

Figure 5: Organizing for Scale—The Avahan Virtual Organization for STI Service Delivery



- **Capacity building partners** support the implementing partners in the areas of STI clinical service delivery, interpersonal communication, and community mobilization. Their main activities were to develop common approaches, help set standards, and ensure cross-learning across the partners. STI capacity building is described in more detail below.
- **Other supporting partners** address advocacy and communication, implement the monitoring and evaluation framework, and generate additional information to guide HIV prevention programming.

### STI capacity building partners

In 2004, Avahan selected Family Health International (FHI), with the World Health Organization (WHO), as its primary capacity building partners at the central level. Initial capacity building needs included defining an essential STI service package, developing clear standards and tools, and providing the necessary training and support to enable lead implementing partners to support local implementing NGOs to maintain clinical care and treatment standards across the variety of service sites. (An additional challenge was that many lead implementing partners had already started establishing clinics and training staff before the STI capacity building support was in place.) The central STI capacity building team put into place many of the standards described above, as well as the clinic quality monitoring tool discussed later in this publication.

#### STI Capacity Building Partners

Avahan selected Family Health International and WHO as its main capacity building partners to:

- Develop common approaches to STI treatment and control
  - *Clinic Operational Guidelines and Standards (COGS)*
  - *Guidelines and Standards for Counseling High-Risk Groups in Clinical Settings*
  - Handbooks on STI management, supervision, increasing STI service utilization, counseling
- Strengthen lead implementing partners to enable ongoing technical and management support
  - Semi-annual training of STI technical coordinators
  - Assist lead implementing partners in trainings
  - Quarterly supervisory visit to NGO clinics in each lead implementing partner's area
  - Technical updates
- Create indicators and methodologies to monitor clinic activities and maximize treatment effectiveness
  - Develop STI indicators and monitoring and evaluation tools
  - Develop clinic quality monitoring tools
- Conduct operations research to inform program implementation
  - Treatment guidelines
  - Cost-effective service delivery

## Executing and managing for scale

With a design and organizational structure in place, Avahan focused on rolling out and managing the STI intervention. Key activities included:

- Near simultaneous creation of the service delivery footprint
- Customizing services to high-risk population needs
- Maintaining execution focus
- Managing all levels of the intervention

### Creation of the service delivery footprint

Avahan attempted to quickly and near simultaneously roll out its footprint (infrastructure for STI service delivery) across all intervention areas. This entailed establishing high-quality and accessible services (the supply side) and addressing barriers to service uptake and increasing interest in the services (the demand side). Avahan achieved this by ensuring that the nine lead implementing grants were made nearly concurrently and were coupled with aggressive milestones for the first year. These milestones focused both on soft infrastructure (e.g., sub-granting to organizations, hiring human resources including peer outreach workers, and skills training) and hard infrastructure (e.g., establishing clinics and drop-in centers, and commodity procurement systems), all informed by mapping and size estimation data. The lead implementing partners quickly sub-granted to local implementing NGOs, who inherited the overall milestones for their intervention areas.

Avahan's site-level roll-out of prevention interventions was conceived in three distinct but overlapping phases:

1. Establishing infrastructure at each location across intervention areas
2. Increasing quality of services and intensity of coverage of the high-risk community
3. Expanding the scope of services by layering on select additional activities as core interventions matured (e.g., referral linkages with health services, incorporating TB screening)<sup>15</sup>

### Intensified Case Finding for Tuberculosis

Avahan continues to refine and expand the scope of services, including the addition of TB screening and referral services. Delivering TB services to high-risk groups has a number of challenges. These groups are difficult to access; they have low awareness about TB and the TB-HIV association; and they have limited access to health care. They also present a number of practical challenges for standard TB therapy, such as the need to verify their addresses and follow up the cases during nine months or more of treatment. In 2007, Avahan partnered with the Revised National TB Control Program (RNTCP) with the goal of intensifying case finding for TB and improving access to treatment for high-risk group members. With the help of the RNTCP, Avahan incorporated intensified case finding with verbal screening for TB symptoms as part of outreach, and TB symptom screening is now included in Avahan's clinical program and management guidance, with accompanying training for state-level and local-level NGO staff. The capacity building partner, FHI, developed a low-literate training toolkit and aids for its peer outreach workers. Avahan set up a referral system to ensure that high-risk individuals diagnosed with TB received appropriate treatment. Avahan accomplished this with the support of central-, state-, and district-level government TB officers. As of March 2009, 129 NGOs in six states are now involved in TB case finding activities. A total of 10,378 high-risk group members have been identified as TB suspects, with 6,879 referred for further screening and 1,565 diagnosed with active TB.

Avahan introduced services in a phased manner. Syndromic case management was initially introduced in the clinics, followed by the introduction of presumptive treatment, and then syphilis screening. Each implementation phase was coupled with capacity building support to NGO clinic staff and was coordinated with clinic-based and peer led messages to promote the services. Capacity building partners and lead implementing partners quickly resolved technical issues as they emerged. The clinical services were closely linked with peer led activities to increase uptake of services and ensure referrals and follow-up.

As STI services increased in coverage and quality, the scope of services was widened to include TB services and referral and follow-up of HIV-positive individuals.

### Customizing services to populations

Local implementing NGOs tailor their STI services to meet the needs of the local high-risk population. Important factors for successful STI service delivery include clinic accessibility and acceptability. Hours of operation and location are key factors in clinic accessibility—if clinics are too far away from high-risk group members or the service times are inconvenient, clinic use will usually be low. Local implementing NGOs conducted initial mapping and micro-planning exercises with the clinic beneficiaries to identify sites and appropriate delivery methods to maximize coverage and access.<sup>16</sup>

#### Clinic accessibility and acceptability

To make STI services as accessible as possible in the most cost-effective manner, Avahan established multiple delivery models that balance access with cost:

- **Static clinics located near the high-risk community:** Avahan currently supports 340 static clinics that are positioned as close as possible to where high-risk individuals live and work based on community input. Static clinics are staffed with a physician, nurse, and counselor. Avahan set up static clinics where there were more than 500 female sex workers or men who have sex with men or transgenders in the area ("hotspot"). These clinics often have a drop-in center attached, which functions as a "safe zone" where high-risk group members can relax, watch television, hold cultural or religious functions, or simply chat with their peers. These clinics are usually located near or within a hotspot. They have facilities for clinical examinations, including an area for internal examinations and a private counseling area.
- **Satellite clinics, mobile clinics, and health camps:** Regularly scheduled mobile clinics and satellite clinics have all been successfully employed to increase the accessibility of clinic services. These clinics provide services at regular, fixed times for areas with relatively few high-risk group members. The mobile clinics are vans that are able to provide services to locations such as brothels, workplaces, and bars where "bar girls" work. The driver's cabin is used for counseling and the rear portion of the van is used for examinations and dispensing drugs. Satellite services are at fixed locations where the staff brings the clinical supplies. In addition, periodic health camps provide outreach services based on the needs of high-risk groups, at varying locations.
- **Preferred providers:** Local implementing NGOs and community members helped identify local private health care providers suitable for providing STI services. These private health care providers receive STI training from the NGO and use Avahan's STI pre-packaged syndrome treatment kits. Sometimes they also receive Avahan staff support for documentation and counseling on designated clinic days. These private providers give cost-effective services in areas with low numbers of sex workers. However, quality monitoring and data collection are often less consistent and more difficult with these providers.
- **Government clinics:** Some local implementing NGOs partner with the government to provide STI services. Government facilities have been improved and clinic staff trained to provide services at scheduled times to sex

workers and men who have sex with men. NGO staff provide ongoing support to clinic staff to ensure that services are provided in a non-judgmental manner. In some instances, dedicated government facilities are utilized, with clinic staff and operations supported by local implementing NGOs.

The acceptability of STI clinics is another important variable determining their success. Avahan involved sex workers in choosing the location, personnel, and hours of operation for clinics. In some instances, sex workers, men who have sex with men, and transgenders receive training and are involved in the program management and operations of the clinics. The clinics are often attached to a drop-in center, which provides greater opportunities for high-risk individuals to become involved in clinic operations and has increased uptake of clinic services. Most clinics have also set up community clinic oversight committees to help manage operations at both static and mobile clinics. Community members are also involved in the process of identifying appropriate and acceptable private preferred providers.

### Building Skills for Management of Sexually Transmitted Infections in Men Who Have Sex with Men and Transgenders

Additional training was provided to health care providers managing STIs in men who have sex with men and transgenders. After an initial training, the STI capacity building partner, FHI, noted that there was mutual embarrassment among clients and doctors about discussing personal sexual issues and risk behaviors, and the providers were unable to understand local terminology used by men who have sex with men for their self-identities and risk behaviors. Clinical examinations were usually not performed, due to the reluctance of clients and the limited experience of physicians in proctoscopic examinations. Additional training was given to address: sexuality issues and the epidemiology of STIs in men who have sex with men and transgenders; clinical issues such as history taking, oral and proctoscopic examinations, and management of STIs and common ano-genital problems; and health education and counseling. Over time and with supportive supervision, the staff gained the confidence of the men who have sex with men and transgender communities, and preventive check-ups for STIs increased from 14 percent of the estimated high-risk men who have sex with men and transgenders monthly in 2007 to 20 percent monthly in 2009. Rates of proctoscopic examination for clinic attendees also increased from 18 percent in 2007 to 79 percent in 2008.

### Involving the community and peer outreach workers

The Avahan approach includes peer outreach workers who come from the high-risk community. These peer outreach workers assist with outreach and clinic services as much as possible to build ownership. Avahan encourages progressively increasing participation of community members in (1) peer outreach and education in the community, (2) management of drop-in centers, (3) daily clinic activities related to medical visits and clinic administration, and (4) building a supportive environment through community-based organizations, self-help groups, and income generating activities.

Peer outreach workers are typically responsible for providing outreach to approximately 50 high-risk individuals (30-85 depending on the concentration at the site). As part of this outreach, they encourage them to visit the STI. As part of this outreach, they encourage peers to visit the STI clinics and often accompany them as they attend the clinic for screening and treatment. For more information on the role of peer outreach workers, see the Avahan publication, *Managing HIV Prevention from the Ground Up*.<sup>7</sup>

### Maintaining execution focus

With a roll-out plan in place, Avahan needed to remain focused on establishing services. With explicit progress milestones and frequent field visits and progress reviews, Avahan used data to maximize program roll-out. One of

the central tenets of Avahan implementation, particularly starting in 2006, has been the extensive devolution of data collection and use to the frontline peer outreach workers, which has allowed them to tailor specific service components and coverage intensity to individual community members' needs, including STI services. Close coordination between outreach teams and clinical services helps the peer outreach worker identify the community members scheduled for clinical services. The underlying management framework allows for timely refinements, corrective actions, and program shifts. For example, when STI clinic visits were below the anticipated numbers, local implementing NGOs were able to determine the cause and address it. Or when cross-sectional survey data revealed an unexpectedly high reactive syphilis serology in the high-risk groups,<sup>13</sup> lead implementing partners developed a plan for screening, treatment, and quality assurance/quality control and implemented it across their implementing NGOs. The monitoring and evaluation system related to STI service delivery is described in the next section, and further details on the use of routine and other data can be found in Avahan's publication on this subject.<sup>17</sup>

### Managing all levels of the intervention

To manage its widespread STI service implementation, Avahan designed a common management framework that articulates all processes for managing execution of the program. This framework includes:

- Defined relationships across the virtual organization and clear roles for lead implementing partners, capacity building and other partners, local implementing NGOs, and peer outreach workers
- Management support guidelines for areas such as intensity of field engagement and relationship with local stakeholders
- Guidelines for formal reviews

Avahan employs a three-tiered supervisory system (state and central levels on one side and community input on the other). The state-level STI technical coordinators from each lead implementing partner are responsible for up to 20 clinics, and they are expected to visit each clinic monthly. During these visits, they carry out mentoring and supervision activities to improve performance of the clinical teams. The coordinators provide feedback on the spot during these visits, and subsequently in writing. The central STI capacity building team conducts "dipstick" supervisory visits with the state-level STI coordinators once every three months. The purpose of these dipstick visits is to provide ongoing technical support to the STI technical officer and NGO clinic staff, to see the on-the-ground realities of STI service delivery, and to develop an action plan to overcome barriers and scale up implementation

of STI services. The resulting information contributes to program management support, guidance revision, and subsequent trainings, and facilitates cross-learning of local innovation and other actions by the STI capacity building team. At the community level, each clinic has a community-run clinic committee that makes certain that services are acceptable to the community by ensuring providers are sensitive to community needs and that the location and hours of operation maximize community attendance.



### Program management and monitoring tools

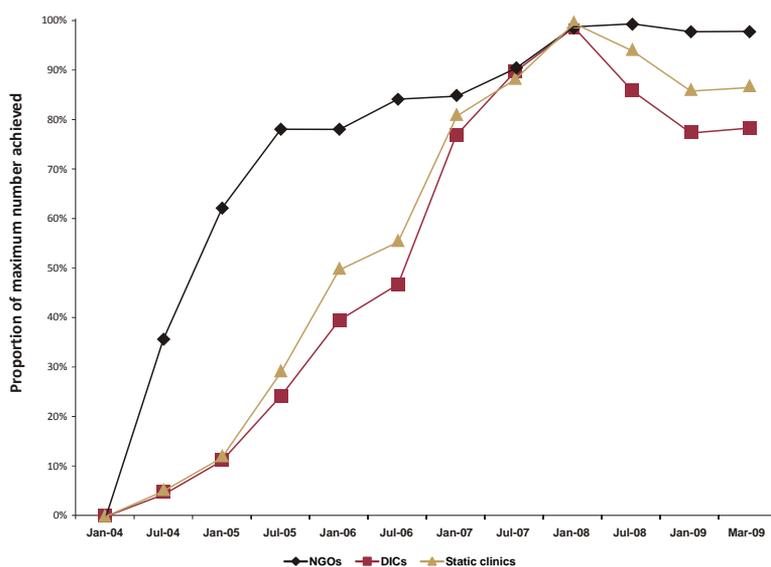
To assist with managing and improving the intervention, Avahan also uses a number of program management and monitoring tools. These include:

- **Routine monitoring data and indicators** that provide data and analysis, from the individuals at the clinic all the way up to program-wide data
- **Qualitative assessments** to assess and improve services, including "dipstick" supervision visits and qualitative assessments when clinic attendance numbers are low
- **Quantitative surveys** such as the Integrated Biological and Behavioral Assessment (IBBA), to improve the program as well as to collect data for program evaluation<sup>18</sup>
- **Operations research** to inform STI management guidelines

### Routine monitoring data and indicators

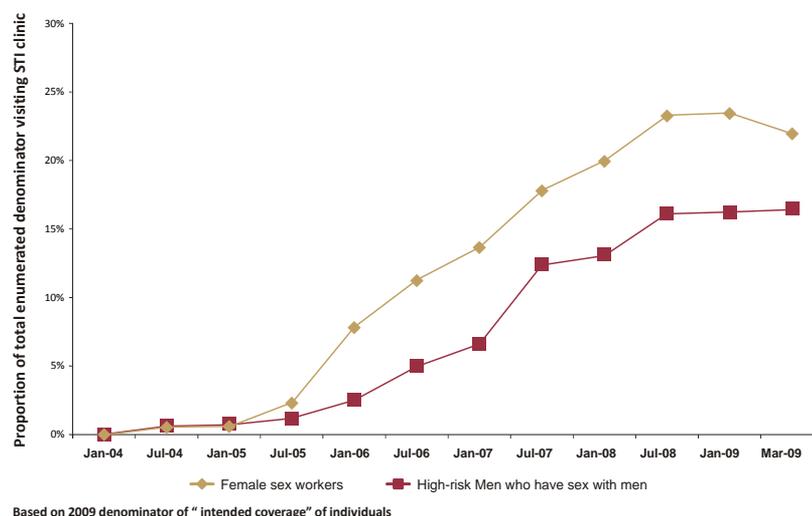
The Avahan routine monitoring system captures and tracks data across all intervention areas. These data are used to provide performance feedback and inform course corrections, with individual data collected at the clinics aggregated to enable results to be measured at the level of local implementing NGOs, districts, lead implementing partners, and the entire Avahan program. Routine STI program data cover infrastructure (e.g., number of clinics and drop-in centers), human resources (e.g., number of peer outreach workers and clinicians), and service utilization (e.g., number of individuals visiting a clinic in a month, STI syndromes, syphilis screening). Avahan program data showed that 80 percent of all STI clinics established in Avahan Phase I were established within three years of project start-up (Figure 6).<sup>9</sup> Avahan program data also showed a steady increase in the percentage of the estimated number of sex workers, men who have sex with men, and transgenders who attended the clinics monthly, although the numbers do not reach the target of 33 percent quarterly attendance (Figure 7).<sup>9</sup>

**Figure 6: Contracting of NGOs and Establishment of Drop-In Centers and STI Clinics**



**Source:** Verma R, Shekar A, Khobragade S, et al. Scale-up and coverage of Avahan: a large scale HIV-prevention program among female sex workers and men who have sex with men in four Indian states. *Sex Transm Inf* 2010; 86:i76-i82.

Figure 7: Uptake of STI Clinic Services by Female Sex Workers and High-Risk Men Who Have Sex with Men



**Source:** Verma R, Shekar A, Khobragade S, et al. Scale-up and coverage of Avahan: a large scale HIV-prevention program among female sex workers and men who have sex with men in four Indian states. *Sex Transm Inf* 2010; 86:i76-i82.

The monitoring data are reviewed periodically at peer outreach worker, local implementing NGO, and lead implementing partner levels, as well as Avahan-wide, to assess performance against milestones and to make sure the long-term program goal of saturating coverage has been reached. Avahan’s publication on data use<sup>17</sup> provides a detailed account of how Avahan achieved programmatic shifts and refined the implementation through use of routine monitoring and other data sources.

### Qualitative assessments to ensure high-quality services

To ensure that STI clinical sites provide high-quality services according to the *Clinical Operating Guidelines and Standards* manual, the central STI capacity building team developed a clinic quality monitoring tool to be used as part of routine supervision.<sup>19</sup> The quality monitoring tool has two functions:

1. A checklist to help clinic supervisors from the lead implementing partners support, monitor, and improve overall quality of service delivery during their periodic visits.
2. A tool to track quality of STI services over time.

This tool contains 80 questions to assess five key performance areas of STI clinical services, as summarized in Table 1 below. The tool documents the observations in yes, no, or numerical form (percentage and numbers), using interviews, clinical observations, record reviews, and data analysis to answer the 80 questions. Each answer receives a numerical score, and the scores are tallied for an overall score from 0 to 5.



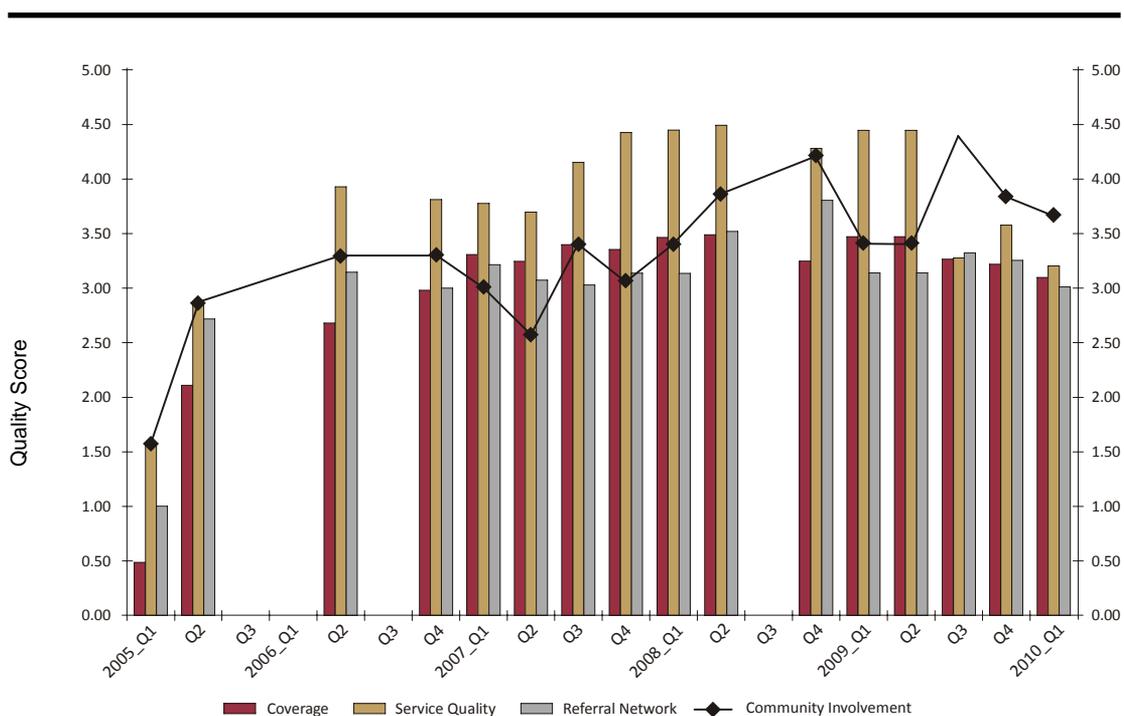
Mobile STI Clinic Van

**Table I: Summary of Indicators and Data for the STI Clinic Quality Monitoring Tool**

<b>Question (Indicator)</b>	<b>Main components of composite scale</b>	<b>Methodology</b>
1. Are the services accepted and accessed? <i>(Coverage)</i>	<ul style="list-style-type: none"> <li>• Clinic service uptake</li> <li>• Clinic orientation to sex workers</li> <li>• Clinic orientation to provide STI services</li> <li>• Monthly check-ups—uptake</li> <li>• Presumptive treatment for STIs—uptake</li> </ul>	Quantitative analysis of clinic and program data (calculated in percentage)
2. Are adequate clinical care, effective drugs, and preventive support given? <i>(Quality of clinic and services)</i>	<ul style="list-style-type: none"> <li>• Clinic staffing and training (5 sub-components)</li> <li>• Clinic set-up (5 sub-components)</li> <li>• Performance at clinic encounter (5 sub-components)</li> <li>• Performance on counseling (5 sub-components)</li> <li>• Performance on correct treatment (review of 10 random records)</li> <li>• Infection control and waste management (5 sub-components)</li> <li>• Drug and condom supply (5 sub-components)</li> <li>• Ethical standards and confidentiality (5 sub-components)</li> <li>• Completeness of patient records (review of 10 random records)</li> <li>• Clinic documentation and reporting (5 sub-components)</li> </ul>	Provider interview, provider observation, and review of records selected randomly
3. Is the clinic an entry point for prevention to care continuum? <i>(Referral network)</i>	<ul style="list-style-type: none"> <li>• Availability of referral directory</li> <li>• Documentation of referrals</li> <li>• Formal linkages with HIV testing</li> <li>• Formal linkage with other referrals</li> <li>• Periodic meeting with referral sites</li> </ul>	Provider interview and record review
4. Are MSM and SWs taking active role in managing and delivering the services? <i>(Community involvement)</i>	<ul style="list-style-type: none"> <li>• Drop-in center utilization</li> <li>• Involvement of community members in clinic activities</li> <li>• Involvement of community in STI follow-up in the field</li> <li>• Periodic meetings between clinic and outreach staff</li> <li>• Recommendations of meetings are acted upon</li> </ul>	Staff interview and clinic observations
5. Are we providing adequate supportive supervision to the clinics? <i>(Technical support)</i>	<ul style="list-style-type: none"> <li>• Availability of designated supervisor</li> <li>• Frequency of clinic visit by supervisor</li> <li>• Overall clinic load per supervisor</li> <li>• Use of supervisory tool</li> <li>• Joint action plan implementation</li> </ul>	Review of scale-up information, field observations, interviews, and consensus score

Members of the STI capacity building team used the tool during supportive supervision visits conducted once every three months with the STI coordinators and developed a quality score. From 2005 to 2008, overall quality indicators for the five performance areas showed a three- to seven-fold improvement (Figure 8).<sup>20</sup> In the latter half of 2009 to 2010 the proportion of private providers in the assessed clinical services increased dramatically. While this tool is useful for systematically documenting performance during supervisory visits and improving quality over the long term in STI interventions for high-risk groups, it is time-consuming, resource-intensive, and requires a structured approach.<sup>20</sup>

Figure 8: Improving Quality of STI Services



Source: Mogasle V, Wi T, Das A, et al. Quality assurance and quality improvement using supportive supervision in a large-scale STI intervention with sex workers, men who have sex with men and injecting drug users in India. *Sex Transm Inf* 2010; 86:i83-i88.

### Quantitative surveys

Avahan supports a number of quantitative assessments to evaluate and improve STI services and the overall Avahan intervention. These include the Integrated Behavioral and Biological Assessment (IBBA), which is a series of surveys that measure changes and monitor trends in behaviors and in STI and HIV prevalence among more than 27,000 participants drawn from high-risk groups and clients of sex workers across 29 districts, and from truckers along the national highways.<sup>18</sup> Findings from the first IBBA, implemented from late 2005 to early 2007, led to some program changes:

- Because the prevalence of *N. gonorrhoeae* and *C. trachomatis* was found to be relatively low, the frequency of presumptive treatment was reduced from quarterly to treating patients only during their first clinic visit or if they have not received any clinical services in the previous six months.
- High prevalence of reactive syphilis serology in the first round of the IBBA accelerated the implementation of syphilis screening at all clinical sites (described below).

### Syphilis Screening at Avahan STI Clinics

In 2007 Avahan lead implementing partners accelerated their efforts in the screening and treatment of reactive syphilis at STI clinics that serve high-risk populations. Activities included: (1) integrating syphilis screening communications into existing outreach, with clear messages to differentiate syphilis testing from HIV testing; (2) providing syphilis screening tests and treatment to individuals and their partners; (3) setting up systems to refer patients for syphilis screening when a lab is not available onsite; and (4) implementing quality assurance systems for testing.

The syphilis testing strategies adopted are: (1) onsite RPR/VDRL (rapid plasma reagin/venereal disease research laboratory) testing followed by confirmation of all reactive RPR by a treponemal test at a reference laboratory; (2) onsite point of care (POC) rapid treponemal testing (e.g., immuno-chromatographic strip test [ICST], Syphichick / Determine / Biotline) and an offsite RPR test on all positive POC treponemal tests; and (3) onsite collection of blood samples and offsite testing for clinics without lab facilities. To support this testing, the STI capacity building partner trained clinicians, laboratory technicians, and nurses in specimen collection, onsite testing, and test interpretation, and management of reactive syphilis including penicillin anaphylaxis treatment. Avahan also procured equipment required for onsite laboratory screening and helped identify referral laboratories for offsite testing.

Lead implementing partners developed internal and external quality control systems to ensure that syphilis test results are reliable, valid, and reproducible. These included standard operating procedures for lab tests and the reporting of results, standards for equipment maintenance and record keeping, protocols for specimen storage and handling, and inclusion of a known positive and negative panel to ensure the accuracy of testing procedures. For external quality controls, a competent external reference laboratory was contracted to provide external quality control by supervising Avahan clinics through onsite evaluations, performing routine re-testing of samples to verify results, and conducting proficiency RPR/ICST testing at the clinic with its own prepared samples.

External quality control in selected Avahan clinics in Andhra Pradesh showed an improvement in agreement of results from 70 percent to 90 percent between May 2008 and October 2008. Based on external proficiency exams, the Avahan clinics showed a significant improvement in performance (from 60 percent to 90 percent concordance between June 2008 to November 2008) of rapid tests by both auxiliary nurse midwives and laboratory technicians. Due to the increased focus in the Avahan initiative, syphilis screening of high-risk groups has increased, from 25 percent in 2006 to 55 percent in 2008.

- Due to the high prevalence of HIV and STIs in new sex workers and young sex workers demonstrated by the IBBA, and data from NACO indicating that sex workers were at a site for many months before being contacted by a peer outreach worker, Avahan reoriented outreach efforts to focus on the sex workers most at risk of acquiring STIs and HIV.

### Sex Workers Most at Risk

Peer outreach workers who work with sex workers focus their outreach efforts on their peers who are most at risk of acquiring STIs and HIV. These include peers who:

- Have the highest number of sexual partners (in most settings, brothel-based sex workers have the highest number of clients per day)
- Have entered sex work most recently
- Are under the age of 21
- Do not regularly use condoms
- Are exposed to violence or coercion
- Have serious financial instability



Preparing for a Health Camp

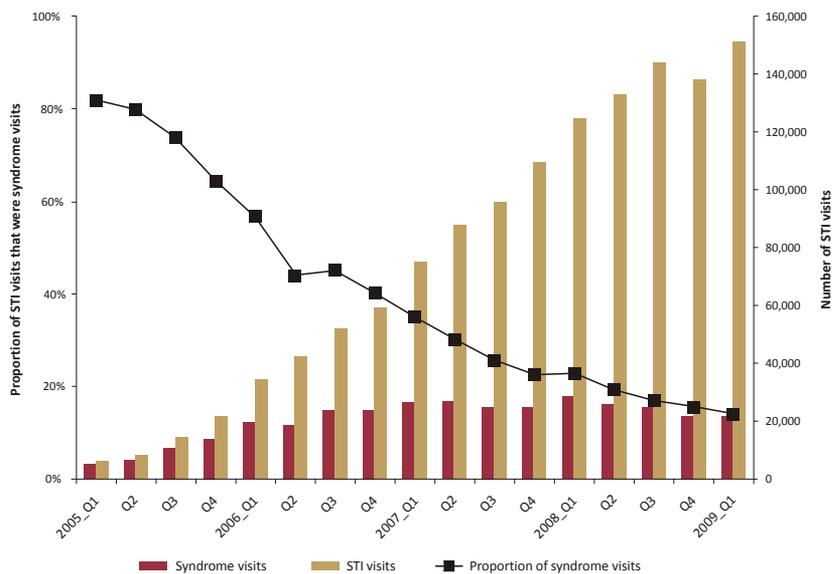
### Operations research

Operations research is being conducted with cohorts of female sex workers and high-risk men who have sex with men at seven sites in two cities to evaluate the STI Essential Services Package. The research is also being conducted at eight male STI clinics in four states to determine the etiologies of urethral discharge and genital ulcer disease syndromes and to determine gonococcal antimicrobial susceptibility. Data will be used to inform the Indian government's national STI guidelines for high-risk groups.

## ACCOMPLISHMENTS

1. **Avahan scaled up high-quality STI clinical services** for the target population. This entailed focusing on the number of high-risk individuals to be covered in order to build the infrastructure for services, and utilizing a wide variety of models to deliver cost-effective services in many different settings to increase the accessibility of services. Quality was built by developing and updating a common service package, and with regular supportive supervision by the STI capacity building partners and lead implementing partners.
2. **Avahan reached a large percentage of the population with clinical services.** Avahan program data showed that an estimated 408,000 individuals received STI services at least once in Phase I of Avahan. Program data also indicated that the health-seeking behavior of the high-risk population improved. Figure 9 shows program service statistics indicating increasing number of STI-related visits over time with the proportion of visits for symptoms decreasing. Outreach contacts by peer outreach workers and community events at drop-in centers contributed to the high utilization of clinic services by increasing focus on health-seeking behaviors and encouraging clinic visits. A variety of service models (e.g., static clinics, mobile clinics, preferred providers, and health camps) also contributed to the program's reach. About 50 percent of STI services were delivered through non-static clinics. Acceptability was increased by involving the community in location and staffing decisions and as members of the clinic oversight committees for ongoing input. Close coordination of clinic staff and peer outreach education resulted in improved clinic staff attitude, increased clinic follow-up, and increased trust in the clinic staff on the part of high-risk community members.

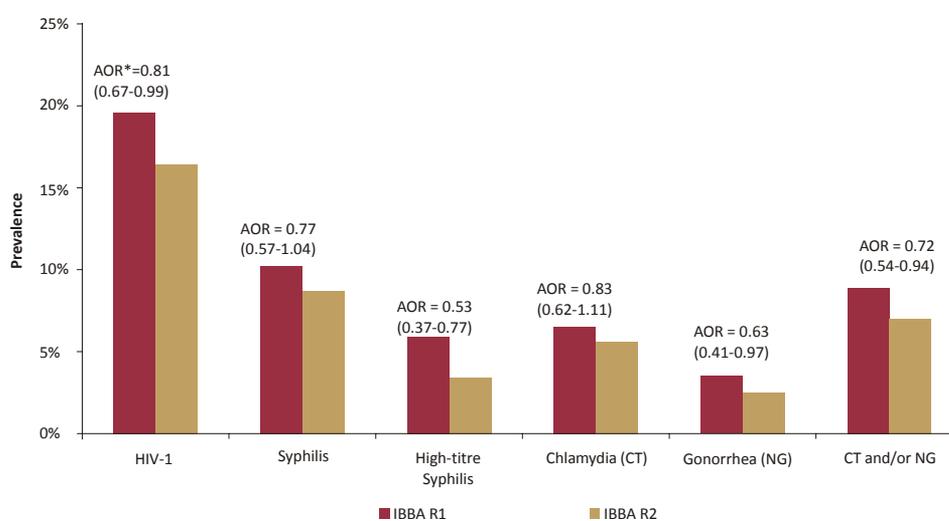
Figure 9: Decreasing Trend of Symptomatic STI Visits among All STI Visits to Clinics



Source: Avahan program monitoring data

- Where two rounds of IBBA have been completed, Avahan intervention sites showed reduced STI prevalence among female sex workers.** In a recent evaluation report among female sex workers from five districts in Karnataka, prevalence of some STIs—high-titer syphilis, gonorrhea, and chlamydial or gonococcal infection—and HIV has decreased (Figure 10).<sup>21</sup> The baseline cross-sectional survey (IBBA R1) was conducted 7 to 19 months after the initiation of HIV prevention programs in the districts. Follow-up cross-sectional surveys (IBBA R2) were conducted 28 to 37 months after the baseline surveys. All surveys were completed between 2004 and 2009.

**Figure 10: STI and HIV Prevalence among Female Sex Workers in Five Districts in Karnataka**



Multivariate model adjusted for the following variables: (1) district, (2) age, (3) marital status, (4) residency status, (5) usual place of solicitation, (6) age started sex work, (7) charge per sex act, (8) weekly sex work income, (9) proportion of clients who were new, (10) proportion of FSWs with regular clients

\* Adjusted Odds Ratio

**Source:** Ramesh BM, Beattie T, Isac S, et al. Changes in risk behaviours and prevalence of sexually transmitted infections following HIV preventive interventions among female sex workers in five districts in Karnataka state, South India. *Sex Transm Inf* 2010; 86: i17-i24.

- Avahan was able to use its virtual organization and the large number of frontline peer outreach workers to rapidly scale up new interventions** such as syphilis testing using point-of-care syphilis tests, and verbal screening for TB symptoms. The case finding for TB was a successful partnership between the public sector government institutions responsible for TB control and HIV prevention NGOs, and served as a model for expansion of the program across India. This was accomplished through a Revised National Tuberculosis Control Program (RNTCP) scheme entitled *TB-HIV scheme: delivering TB interventions to high-risk groups*.<sup>22</sup>

## LESSONS LEARNED

Five years after Avahan began large-scale support for STI clinics across its six intervention states, a number of key lessons have emerged:

1. **It is possible to reach marginalized populations, such as sex workers, with STI clinic and outreach services on a large scale.**<sup>6</sup> The scale-up plan must have clear objectives and milestones, a clearly defined organization and management framework, a strong monitoring system, and a soundly designed intervention package that ensures community involvement and engagement. Regular supportive supervision using a standardized quality monitoring tool against published standards can help maintain quality in STI service provision.
2. **A centralized STI capacity building group is important for ensuring standardized and high-quality implementation in large-scale efforts.** This group is responsible for defining and maintaining standards, disseminating them to all partners with associated training, supporting implementation if required, disseminating best practices, and monitoring quality. Frequent field engagement is critical for this group to accomplish its responsibilities.
3. **Active involvement from the high-risk community results in clinical services that are more acceptable to the population.** Community members can help maximize utilization of STI services for hard-to-reach populations. They work as peer outreach workers to encourage attendance at clinics, work at the clinics, help identify appropriate sites and providers for STI services, and serve on committees to oversee clinic operations. Coordination of clinic staff and peer led education is essential.
4. **Using point-of-care tests (rapid syphilis tests) at the STI clinics helps overcome the barriers** of limited laboratory capacity for syphilis screening, logistical difficulties of blood transport, and high-risk groups' fears of blood drawing.<sup>23</sup>
5. **An appropriate mix of STI service delivery methods can maximize program utilization in a cost-effective manner.** Possible service delivery models include static clinics; outreach/mobile clinics; preferred providers; and government clinics. However, obtaining monitoring data and quality monitoring are harder to accomplish with non-static service delivery models.

In Avahan's second phase, several challenges remain for its STI and overall HIV interventions. Avahan must find ways to achieve the national targets for coverage and quality according to Indian national norms for STI services while aligning service costs to government budgets. At the same time, STI clinics must continue to strengthen linkages to other services and to HIV testing, treatment, and care. Most importantly, Avahan must ensure the continuing transition of the HIV interventions to government, other stakeholders, and high-risk communities by continuing to monitor services, providing data to NACO on implementation costs and results, and streamlining approaches so they can be utilized by the public sector.

## AVAHAN PARTNERS

### Lead Implementing Partners

#### Alliance for AIDS Action Project, India HIV/AIDS Alliance, Andhra Pradesh

The India HIV/AIDS Alliance serves 23,000 high-risk MSM and transgenders and 48,000 female sex workers, covering 14 districts of Andhra Pradesh state.

<http://www.aidsalliance.org/sw7224.asp>

#### Swagati and Nestam Projects, Hindustan Latex Family Planning Promotion Trust, Andhra Pradesh

Hindustan Latex Family Planning Promotion Trust (HLFPPT) coordinates the Nestam Project, which serves 11,000 high-risk MSM and transgenders in nine coastal districts of Andhra Pradesh state, while its Swagati Project reaches 25,000 female sex workers across the same area.

<http://www.hlfppt.org>

#### Corridors and Project Sankalp, Karnataka Health Promotion Trust, Karnataka

The Karnataka Health Promotion Trust (KHPT) serves 21,000 high-risk MSM and transgenders, and 64,000 female sex workers, through its Sankalp and Corridors Projects, which operate in 16 districts of Karnataka state and three of Maharashtra state.

<http://www.khpt.org/projects.htm>

#### Aastha Project, Family Health International, Maharashtra

Family Health International's (FHI) Aastha Project serves 3,000 high-risk MSM and 26,000 female sex workers in Mumbai and Thane districts of Maharashtra state.

[http://www.fhi.org/en/CountryProfiles/India/res\\_AasthaProject.htm](http://www.fhi.org/en/CountryProfiles/India/res_AasthaProject.htm)

#### Mukta Project, Pathfinder International, Maharashtra

Pathfinder International's Mukta Project serves 6,000 high-risk MSM and transgenders and 14,000 female sex workers in 10 districts of Maharashtra state.

[http://www.pathfind.org/site/PageServer?pagename=Programs\\_India\\_Projects\\_Mukta](http://www.pathfind.org/site/PageServer?pagename=Programs_India_Projects_Mukta)

#### Project ORCHID, Emmanuel Hospital Association, Manipur and Nagaland

Emmanuel Hospital Association (EHA), working with its sub-grantee, the Australian International Health Institute (Nossal Institute for Global Health), serves 18,000 injecting drug users and 1,100 high-risk MSM in 13 districts across the states of Manipur and Nagaland.

<http://www.eha-health.org/eha-in-manipur/orchid>

### Tamil Nadu AIDS Initiative, Voluntary Health Services, Tamil Nadu

Tamil Nadu AIDS Initiative (TAI) serves 15,000 high-risk MSM and transgenders and 35,000 female sex workers, in 12 districts of Tamil Nadu state.

<http://www.taivhs.org>

Several of the partners listed below have completed work on their grants. These partners are indicated by the use of the past tense to describe their work. Work by other partners is ongoing.

### Partners for men at risk

**Population Services International (PSI)** provided prevention services for men at risk in commercial sex settings across 100 towns in the four southern states and supported condom social marketing in Avahan districts.

**Transport Corporation of India Foundation (TCIF)** provided prevention services for long-distance truckers in 17 truck stops along the major national highways.

### Cross-cutting, advocacy, and capacity development partners

**American India Foundation (AIF)** mobilized non-resident Indians in the U.S. in supporting HIV/AIDS activities in India.

**BBC World Service Trust (BBC WST)** is developing mass media interventions to address the normalization of condom use in men across the four southern states.

**CARE International** was responsible for building the capacity of implementing partners in community led interventions, and it is now responsible for a community learning site on community led approaches in Rajamundry, Andhra Pradesh.

**Center for Advocacy and Research (CFAR)** is working to increase the quantity and quality of HIV reporting at the state and local level.

**Constella Futures (now Futures Group International)** worked at the national, state, and local levels for advocacy strategy development support for issues related to HIV prevention in high-risk populations.

**Family Health International (FHI)** is supporting implementing partners to deliver uniformly high-quality clinical services including services for STIs, counseling, and basic HIV management. It has also worked to build the organizational capacity of the Indian Network of People Living with HIV/AIDS (INP+), to expand its support to people living with HIV/AIDS networks and individuals.

**Heroes Project** mobilizes local celebrities and develops media company partnerships for a general public awareness campaign.

**Mirabai Films** wrote and produced four short films with A-list Indian directors in the Indian Bollywood style, depicting positive human stories about individuals, families, and communities affected by HIV and AIDS.

**Program for Appropriate Technology in Health (PATH)** was responsible for building the capacity of lead implementing partners for a dialogue-based approach to communication interventions.

**University of Manitoba** is responsible for the development of a community learning site for community led approaches in Mysore, Karnataka.

## Evaluation and knowledge building partners

**Corridors of the University of Manitoba** is examining the impact of source and destination interventions for migrant sex workers in northern Karnataka and southern Maharashtra.

**Duke University** is documenting the implementation of community led interventions and identifying elements of successful approaches.

**Family Health International (FHI)** is responsible for monitoring and evaluation data collection across the Avahan program to measure outcome and impact through large-scale, cross-sectional biological and behavioral surveys in core and bridge populations.

**International Center for Research on Women (ICRW)** gathered and documented data on gender-related stigma and sexual violence and their consequences for HIV among mobile populations.

**International Institute for Population Sciences (IIPS)** implemented an HIV/AIDS module and HIV prevalence assessment in the six high-prevalence states as part of the National Family Health Survey 3 (NFHS-3) (a demographic and health survey).

**Laval University** is modeling the impact of Avahan interventions, doing costing and cost-effectiveness analyses, and performing additional studies to acquire data for the model including general population surveys, special behavioral surveys, and polling booth surveys.

**Population Council** is documenting major migration routes for men and sex workers and investigating facilitators and potential intervention points for possible HIV prevention interventions.

**University of Toronto** documented geographic variation in HIV-1 prevalence, its determinants, and intervention coverage for 115 districts in southern India and supported additional activities for evaluation.

## Government support partners

**Hindustan Latex Family Planning Promotion Trust (HLFPPT)** provides technical and management support to NACO and State AIDS Control Societies for condom programming across India.

**Public Health Foundation of India (PHFI)** provides technical and management support to NACO and State AIDS Control Societies to strengthen programs with high-risk groups.

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## GLOSSARY

**Agency** is a term adopted in rights-based approaches to describe the choice, control, and power that poor or marginalized individuals or groups have to act for themselves to claim their rights (civil or political, economic, social, and cultural) and hold others accountable for their rights.

**Bridge populations** are persons who have sexual contact with persons who are frequently infected with and transmit STIs, and also with the general population.

**Community-based organizations (CBOs)** in the Avahan context are locally formed organizations of high-risk individuals which seek to provide support, capacity building, and other resources to their members so that they can hold systems accountable for effective HIV prevention services, and advocate for others services that they require. CBOs may also carry out self-help initiatives and more general advocacy for high-risk groups. Membership in a CBO often entails a nominal annual fee, and regular attendance at meetings is expected. Leadership positions within a CBO are filled through election by the membership.

**Community mobilization** is the process of uniting members of a community to combine their direct knowledge of vulnerability to HIV with collective action to overcome the barriers they face, increase their self-reliance, and reduce their HIV risk.

**Community ownership** means that a high-risk community has control over the activities the program undertakes, and significant understanding of and influence over service delivery. Community-owned programs display leadership, initiative, representation, and oversight by community members, and the programs have accountability systems to ensure that the program's interests do not supersede those of the community.

**Drop-in centers** were established early on in the Avahan initiative to provide a safe space for high-risk groups to come together. The centers themselves are often basically equipped but clean rooms that accommodate 50-150 people, have cushions and mattresses on the floor, and bathing facilities. They are often housed next door to the program managed medical clinic. With no similar refuge available, drop-in centers have become the hub of community life, each serving from 5 to 11 contact points or hotspots where high-risk populations solicit and practice.

**An enabling environment** in the context of Avahan's work is one in which social inequity and violence, harassment, abuse, and discrimination against people with HIV and high-risk groups are reduced, and the self-confidence of high-risk individuals and their collective identity are strengthened, so that they can advocate for, and take ownership of, effective HIV prevention interventions.

**High-risk groups** in the Avahan initiative are female sex workers, high-risk men who have sex with men, transgenders, and injecting drug users.

**High-risk men who have sex with men** are self-identified men who have sex with men to whom Avahan provides services. This group of men is not representative of all men who have sex with men in India. In the settings where Avahan works they are at high risk on account of their large number of sex partners and the fact that a disproportionate percentage sell sex or practice anal receptive sex.

**Men at risk** refers to men who engage in high-risk sexual activities, including commercial sex and sex with non-regular partners. In the Avahan initiative this translates into a programmatic focus on men congregating at points of sex solicitation. A large proportion of these men are long-distance truckers.

**Micro-planning** is the methodology used by peer outreach workers for recording and analyzing risk and vulnerability during outreach. Peers use a visual tool to collect data with which they directly plan further outreach, based on the needs of the individuals they are serving.

**Peer outreach workers** are representative members of a community who serve as a link between the program and the community. They manage the program on the ground through outreach and serve a population with whom they have a similar occupational, behavioral, social, or environmental experience and among whom they are trusted and a role model. Peers work with 35-85 members of their community to influence attitudes and provide support to change risky behaviors.

**Presumptive treatment for STIs** involves treating individuals in a group for an STI based on the overall prevalence in the group and not on individual clinical signs or symptoms.

**Syndromic management of STIs** involves treating for all common etiologic agents that cause a syndrome, including a constellation of clinical signs and symptoms.

**Vulnerability** refers to the circumstances which negatively impact the ability of a high-risk individual or group to remain uninfected by HIV. Vulnerability for a sex worker or a man who has sex with men is linked to abuse, violence, and social stigma, and impacts his or her control in sexual encounters.

## VALUES OF THE FOUNDATION

- This is a family foundation driven by the interests and passions of the Gates family.
- Philanthropy plays an important but limited role.
- Science and technology have great potential to improve lives around the world.
- We are funders and shapers—we rely on others to act and implement.
- Our focus is clear—and limited—and prioritizes some of the most neglected issues.
- We identify a specific point of intervention and apply our efforts against a theory of change.
- We take risks, make big bets, and move with urgency. We are in it for the long haul.
- We advocate—vigorously but responsibly—in our areas of focus.
- We must be humble and mindful in our actions and words. We seek and heed the counsel of outside voices.
- We treat our grantees as valued partners, and we treat the ultimate beneficiaries of our work with respect.
- Delivering results with the resources we have been given is of the utmost importance—and we seek and share information about those results.
- We demand ethical behavior of ourselves.
- We treat each other as valued colleagues.
- Meeting our mission—to increase opportunity and equity for those most in need—requires great stewardship of the money we have available.
- We leave room for growth and change.

The Avahan India AIDS initiative, funded by the Bill & Melinda Gates Foundation and managed by an in-country foundation team, is a large and ambitious HIV prevention program.

Avahan's ten year charter has three distinct elements. The first is to build and operate a scaled HIV prevention program, with saturated coverage for populations most at risk in the six states which account for the bulk of HIV infections in India. The second is to transfer the program to the government of India and other implementers in the country; and the third is to encourage the replication of best practices by fostering and disseminating lessons learned from the program.

Avahan reaches more than 220,000 female sex workers, 80,000 men who have sex with men and transgenders, 18,000 injecting drug users, and about 5 million men at risk.

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