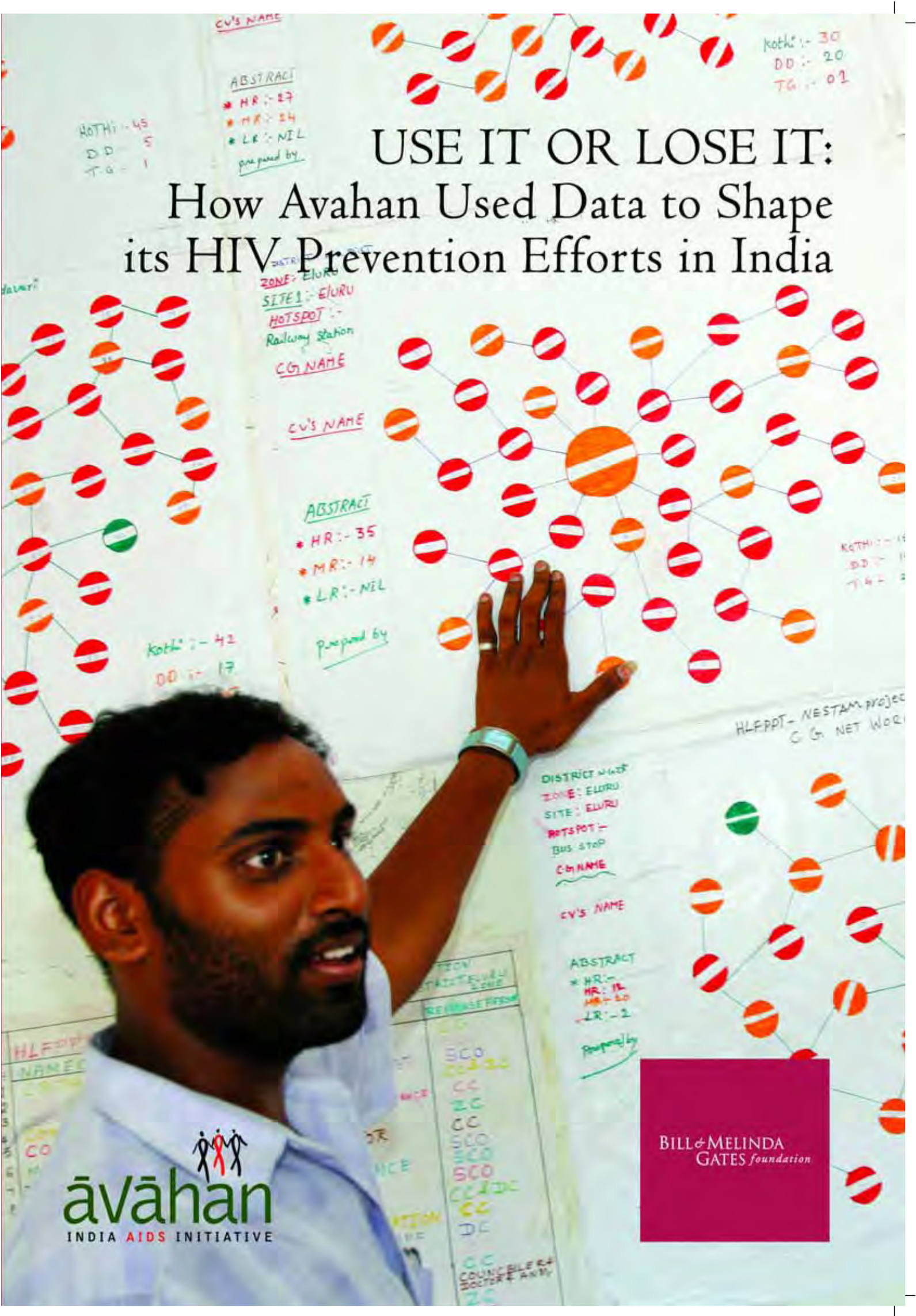

USE IT OR LOSE IT:
How Avahan Used Data to Shape its HIV Prevention Efforts in India

avāhan
INDIA AIDS INITIATIVE

BILL & MELINDA GATES *foundation*

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CONTENTS

INTRODUCTION

Data is a perishable good. Timely and relevant use of data to guide decision-making, though challenging, is critical, particularly for large and complex programs. Programs need to invest resources not just to gather and report data, but also to create and stimulate a culture that emphasizes appropriate data analysis and use at all levels. This publication—part of a series of publications on Avahan, the India AIDS Initiative funded by the Bill & Melinda Gates Foundation—provides an account of how Avahan has tried to address the challenges and opportunities of using data to guide a large program.[1]

AVAHAN: A COMPLEX PROGRAM WITH MANY MOVING PARTS

Avahan was started in 2003 with the aim of helping slow the transmission of HIV in India by raising prevention coverage to scale in populations most at risk (high-risk groups*) and bridge populations by achieving saturation levels (over 80 percent) across large geographic areas. Avahan works in six high-prevalence states—Andhra Pradesh, Tamil Nadu, Maharashtra, Karnataka, Manipur, and Nagaland—which in 2003 accounted for 83 percent of India's estimated HIV infections.[2] Avahan has three primary goals:

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

Working within a ten-year timeframe, the initiative has built a large-scale HIV prevention intervention program in the first five-year "build and operate" phase. Avahan operates in six high prevalence states and across major national highways of India. Seven lead implementing partners work in 83 out of 130 districts of these six states through 134 NGOs and over 7,000 peer educators and outreach workers. They collectively provide prevention services to about 200,000 female sex workers, 60,000 high-risk men who have sex with men, and 20,000 injecting

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

drug users (collectively referred to as high-risk groups or high-risk community in this publication). Two other lead implementing partners work with about 5 million men at risk at 17 high-volume transshipment locations along national highways and sex solicitation venues (hotspots) in some 100 towns of these states. Three evaluation partners—all external to implementation—work within a formal program monitoring and evaluation framework and associated activities. In addition, a number of other partners provide capacity building, advocacy, and mass communication support for the implementation partners.

Avahan, as part of the second five-year "transfer and replicate" phase and in keeping with its second goal, is now beginning to hand over the program to "natural owners" like the Government of India and the communities served by the program. The program has also begun work on the third goal of disseminating learnings from this initiative, and this document is a part of that effort. Throughout this document, "Avahan" refers to the effort of all these partner organizations, hundreds of grassroots NGOs, thousands of peer educators, and others working on this initiative. Please refer to Appendix II for a list of Avahan partners.

Gathering and using data is critical for all of Avahan's goals—to continuously refine the program and its many moving parts, to inform other HIV prevention efforts including the national prevention program and its direction, and to capture results and best practices. However, this is a challenging endeavor given the number of actors, different sources of data, and the inertia inherent to a large enterprise.

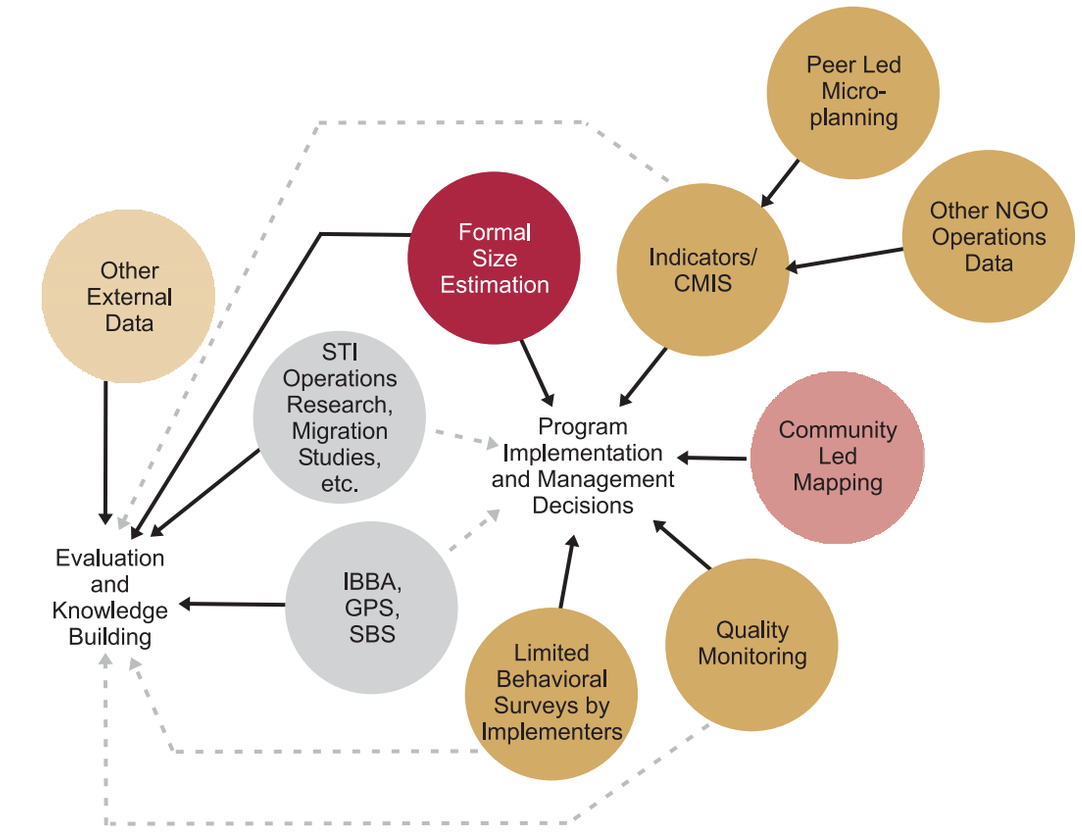
This publication describes how Avahan has used data to guide programming. Specifically, the following sections provide:

1. A brief overview of the different types of data generation activities and sources
2. An account of how data use by different constituencies in the program has guided program decisions and activities
3. A summary of learnings related to data use in a large, diverse program
4. Ongoing challenges

AVAHAN DATA SOURCES AND DATA GENERATION ACTIVITIES

Data sources relevant to the Avahan program can be grouped into three categories: (1) data generated by the implementation programs; (2) data relevant to implementation and evaluation collected by evaluation or knowledge building partners funded by Avahan; and (3) data from agencies external to Avahan but relevant to the Avahan program and its evaluation. These are briefly described below.

Figure 1: Avahan Data Sources



Data streams generated by implementation programs include:

1. Formal mapping and size estimation related to most-at-risk (high-risk) populations generated through research agencies contracted by the lead implementing partners; needs assessment studies; and community led mapping of the high-risk populations.
2. Behavioral data from surveys of high-risk populations and men at risk conducted by research agencies commissioned by the implementing partners.
3. Routine program monitoring indicators on service provision, service uptake, and community activities from some 134 grassroots NGOs operating across Avahan. Several of these indicators have been reported monthly since late 2004. These indicators aggregate data captured from communities' interactions with peer educators and utilization of program-owned and -supported STI clinics. They also provide information on other operational and infrastructure aspects reported by the NGOs.
4. Qualitative measures of STI clinical services and community mobilization.

Data streams generated primarily for evaluation or knowledge building purposes by Avahan-funded evaluation and knowledge building partners include:

1. Two rounds* of a cross-sectional behavioral and biological survey (called the Integrated Behavioral and Biological Assessment—IBBA). This assessment covered: (1) about 27,000 female sex workers, high-risk men who have sex with men, injecting drug users, and male clients of female sex workers, in 29 districts; and (2) 2,000 long-distance truckers along four national highway route corridors.[3] These surveys capture an array of data elements—sociodemographic, HIV risk behavior including condom use, and presence of several STIs and HIV infection.
2. Surveys of general population in five districts to capture sociodemographic behavior, condom use, and prevalence of several STIs and HIV.
3. Data from other knowledge building grants in areas such as migration and mobility, validation of STI treatment algorithms, and community mobilization and structural interventions.

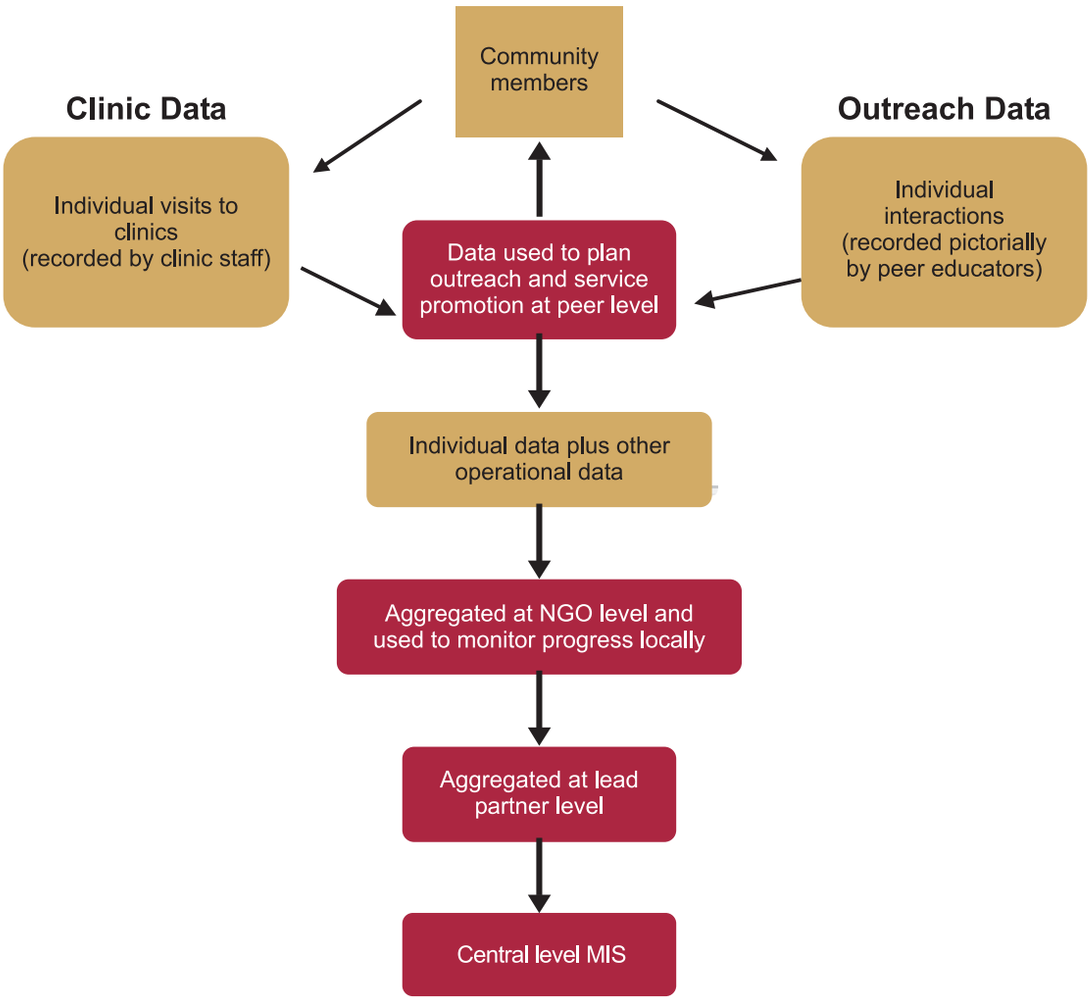
Data streams generated by sources external to Avahan include:

1. Antenatal clinic (ANC) HIV prevalence data from the government's sentinel surveillance system.[4]
2. National- or state-level behavioral surveys such as the nationwide behavioral surveillance surveys in 2001 and 2006 by the National AIDS Control Organization.[5,6]
3. Data from the third National Family Health Survey (NFHS-3), a demographic and health survey conducted in 2005-2006 that also tested over 100,000 respondents for HIV.[7]

Appendix I contains a more detailed description of these data streams.

* The first round was completed during 2006 and part of 2007. The second round will be completed during 2009 and 2010.

Figure 2: Avahan Routine Monitoring Data Flow



PRINCIPAL DATA USES IN AVAHAN: SOME EXAMPLES

Over time, Avahan has consciously emphasized analysis and use of data by all stakeholders in the program. Data analysis is used to guide program decisions and activities in areas such as resource allocation, implementation scale-up, course corrections and shifts in implementation, program redesign, impact evaluation, and advocacy. The following sections describe some examples of data use.

Investing and allocating resources across districts, populations, and sites

The foundation worked closely in 2003 and 2004 with the respective state governments to arrive at the intervention geographies for the Avahan initiative. These decisions were determined by analyzing three sets of data:

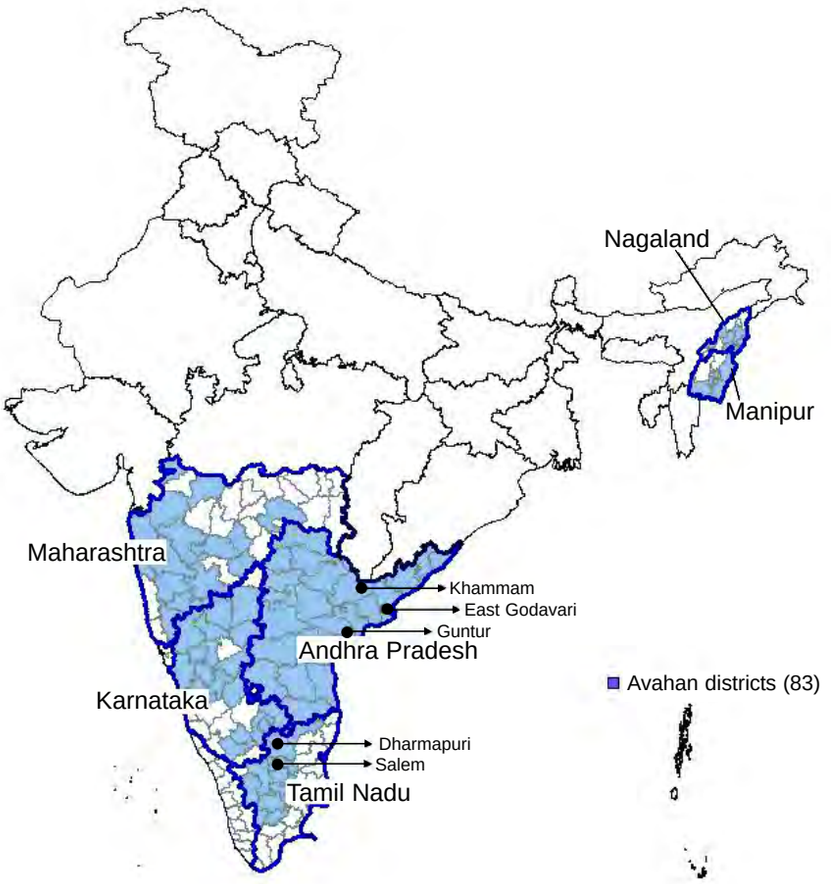
1. The level and trends in ANC HIV prevalence at the district level
2. The size of different high-risk populations estimated at the time and their proportion to general population
3. The nature and extent of coverage of the high-risk populations by prevention services funded by government or other donors

A primary objective of this analysis was to identify priority districts—those having ANC HIV prevalence higher than one percent and large high-risk populations—with little or no coverage of prevention services. A related objective was to identify other priority districts that had gaps in existing prevention programs, which might require complementary services. However, this did not preclude selection of other districts that did not fall strictly into these classifications, especially where the state governments felt such districts were strategically important.

The early investment decisions were constrained in part by the incompleteness of data available across the states and districts. This was particularly true of size estimation data for high-risk groups. In cases where the data were severely incomplete, Avahan partners had to generate size estimates as a preliminary step and refine program focus decisions thereafter. Avahan therefore approached the problem differently for each of the high-risk groups—female sex workers, high-risk men who have sex with men, and injecting drug users.

Some district-level data on female sex worker size estimates were available in each state, though the completeness of the data was questionable. However, this initial data allowed the foundation and the government to agree on the districts in which Avahan would operate. Thus, districts such as Salem and Dharmapuri in Tamil Nadu, and Khammam in Andhra Pradesh were identified as having strategic importance not only because of high ANC HIV prevalence but also because available size estimation data indicated that female sex worker populations were large and there was little or no prior HIV prevention intervention coverage.

Figure 3: Avahan Intervention States



The foundation's decision-making process for high ANC prevalence districts (prevalence greater than one percent) which already had female sex worker interventions* (such as East Godavari and Guntur in Andhra Pradesh) was different. In these and several other similar districts across the states, the foundation decided on a two-pronged strategy to complement existing interventions. The first was to provide STI treatment services to female sex workers where existing interventions did not offer program-funded clinical services. Second, the foundation also decided to fund full prevention coverage including outreach and STI treatment in parts of the districts not covered by existing interventions.

Data on size estimates of men who have sex with men were almost non-existent during 2004. Only the state of Tamil Nadu had available district-level size estimation data on high-risk men who have sex with men, which revealed a substantial population size with less than 10 percent state-wide prevention coverage. Thus in Tamil Nadu, the foundation decided prior to the start of the program to also to saturate coverage of self-identified men who have sex men in all the districts in which it planned to run female sex workers interventions.

* The earliest HIV prevention interventions with high-risk groups in Andhra Pradesh were started by the Andhra Pradesh State AIDS Control Society in 1999-2000.

Avahan partners then commissioned comprehensive size estimation exercises for men who have sex with men across all the districts that lacked such estimates but had already been selected for female sex worker interventions. This exercise was completed in 2005, and subsequently, Avahan partners initiated prevention interventions with these groups.

Avahan conducted size estimation exercises of injecting drug user populations in the north-eastern states of Manipur and Nagaland where significant populations were thought to exist without prevention coverage. Subsequently the program rolled out prevention services to cover these populations. In the four southern states most injecting drug user groups were covered through programs supported by government and other donors, so Avahan did not develop programs for these groups.

Avahan partners and grassroots NGOs then used the size estimates of female sex workers, high-risk men who have sex with men, and injecting drug users (in the north-eastern states) within their districts to sequentially focus on towns and clusters with the largest concentrations of high-risk populations, and thereafter on the smaller clusters. The estimates have been revised periodically with community inputs to verify accuracy.

Size Estimation of High-risk Groups in Avahan

Why do size estimation? Size estimates of the target population are an essential input for initial resource allocation decisions as well as for program evaluation. At the start of Avahan, intervention districts were chosen in consultation with government. The primary objective was to saturate coverage in high-risk districts in the chosen states. The criteria for classifying a district as high-risk included size of the uncovered population of female sex workers (or injecting drug users in the north-east) and/or the level of ANC HIV prevalence. However, this did not preclude selection of other districts which did not fall strictly into these classifications, especially where the state governments felt these other districts were strategically important. Moreover, in 2003 the existing size estimation data were limited and of variable quality.

Challenge of size estimation for high-risk populations: Estimating the denominator of high-risk populations is challenging because they tend to be hidden and hard to reach. Direct methods such as house-to-house census are not cost-effective or even practical for these populations. There are several indirect methods that may be used to generate size estimates.* These include both non-mathematical and mathematical methods. Both sets of methods require geographic and social mapping of high-risk venues within a territory as an initial step.

Initial size estimation exercises by implementing partners: Avahan partners commenced programs with size estimation efforts in each district. Most partners conducted formal (i.e., the efforts were executed by contracted research agencies) indirect exercises. In a few cases the efforts were "informal" in that the effort was conducted by the partners, albeit with support from Avahan capacity building partners. All partners used variations of a non-mathematical method that involved a combination of geographic and social mapping combined with the iterative, intensive use of Delphi techniques** with different key informants. Thus the steps were: (1) identifying an initial set of potential solicitation or high-risk venues (such as a bus station) in the top 10 or 20 towns of a district; (2) identifying and building rapport with local "key informants" such as tea shop owners and pimps in these venues; (3) through these people, meeting and building rapport with some community members; (4) arriving at exhaustive lists of high-risk venues in a town through discussions with an initial set of key informants and community members at a few locations; and (5) using a series of focus group discussions with key informants at each venue to arrive at consensus estimates of numbers of populations at risk in each venue, and thus for the total in a town.

Refining size estimates with data from service delivery: Over time, well-managed implementing programs may be able to refine initial size estimates as they gain the trust of the communities and reach hidden populations with services. Thus, as Avahan implementing programs increased coverage of populations with services, in many cases the actual numbers accessing services exceeded the original size estimates. In other cases, in spite of active program efforts it was apparent that the initial size estimates were larger than the actual population at risk in the district. Most Avahan partners have also repeated formal indirect non-mathematical size estimation activities at intervals of 18 to 24 months.

Size estimation in selected districts by evaluation partners: Additionally, as part of the Integrated Behavioral and Biological Assessment (IBBA) under Avahan's evaluation framework, formal size estimations of select high-risk populations groups in the IBBA districts were conducted using three different and complementary methods. The multiplier method was used in some districts in conjunction with data from the program monitoring data on those who had accessed clinical services from Avahan in the last three months. In some districts, the capture-recapture method was used. In others, a sampling method was used, which involved: (1) getting rough measures of size for all the venues through key informant interviews; (2) selecting some of the venues using probability proportional sampling; (3) doing a detailed head count of unique individuals operating in these venues; and (4) using an appropriate formula, estimating the total population for all the venues with confidence intervals.

These methods yielded a set of estimates which were in some cases quite different from each other and from the broad range of the estimates originally generated by the research agencies hired by implementing partners. The wide differences in the results from these methods were largely due to either imperfect execution or implementation challenges associated with each of these methods.

The future: Avahan will continue to update field-based estimates of high-risk population numbers and distribution to maintain a living denominator for the program. The program will also invest in indirect, formal, external-to-program size estimation as this offers both an external audit of the program's internally generated numbers and can be used to validate at least the ordinal ranking of venues, towns, and districts in terms of size estimates.

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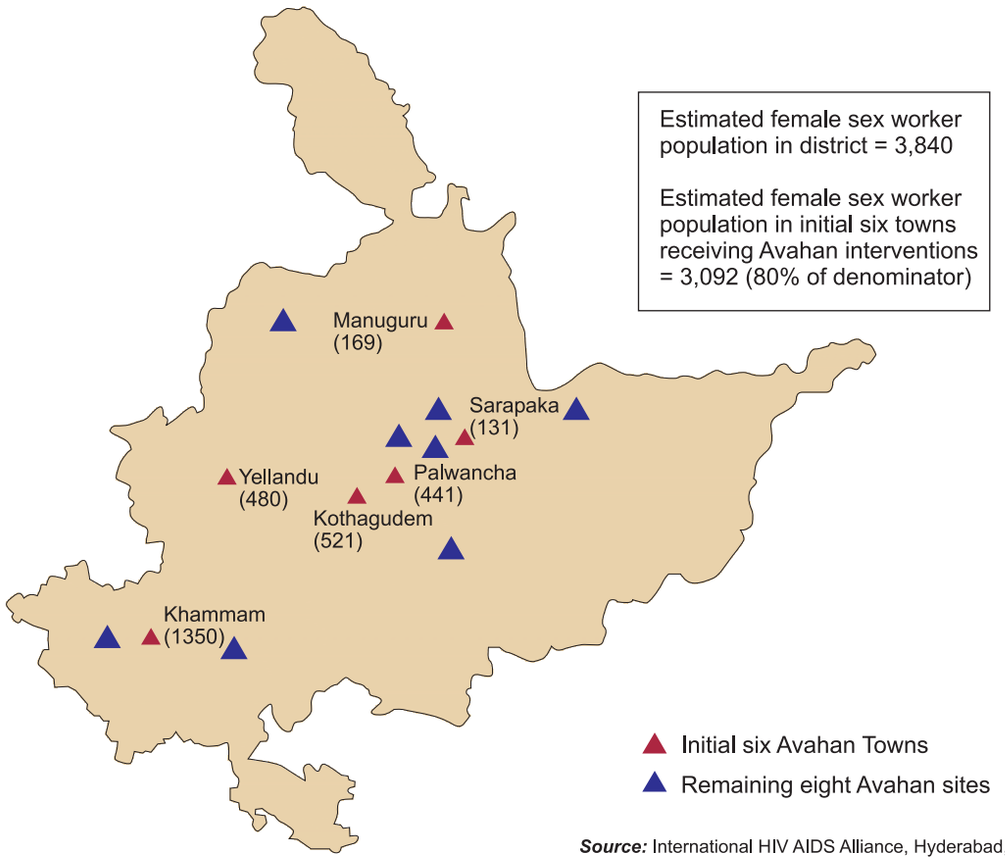
* UNAIDS/WHO Working group on HIV/AIDS/STI Surveillance Issues and Methods. Estimating the size of populations at risk for HIV, 2003.

** Dalkey NC. The Delphi Method: an Experimental Study of Group Opinion, RM-5888-PR. Santa Monica , California , USA : The RAND Corporation; 1969.

Figure 4: Interventions

District map of Khammam District, Andhra Pradesh showing towns and sex worker numbers



Source: International HIV AIDS Alliance, Hyderabad, India

Kickstarting outreach and setting up services

Rolling out services from start-up in each of Avahan's 83 districts required three things: (1) knowing an approximate denominator to be reached; (2) identifying specific individuals and the time and location they could be reached; and (3) a community-friendly way to provide the services. Formal size estimation efforts provided the first piece of data. For the rest, Avahan worked with community members drawn from the high-risk populations.

Early peer educators at the grassroots NGO level would typically draw street maps of sex worker locations to determine a "beat" within which they would operate. These pictorial representations marked sex solicitation venues (for example, a local bus station) and areas that might potentially be community-friendly for locating a drop-in center or clinic.

Then, to put faces to numbers, the peer educators would also draw social network maps of their beat areas, which would be filled with names and characteristics of individuals as their friends and acquaintances identified and introduced them to hitherto unknown community members.

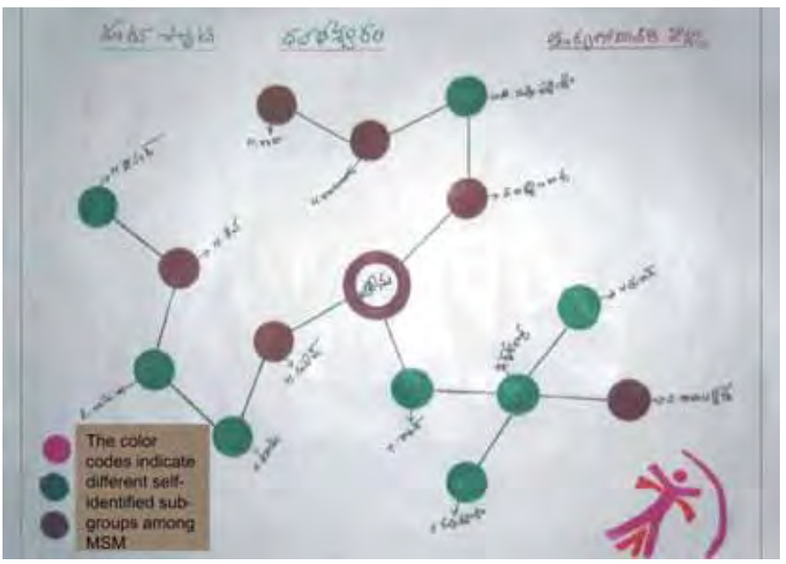
Figure 5: Determining Peer Educator "Beats"

Kickstarting an intervention: Determining peer educator "beats" using community-produced pictorial street maps

Source: Australian International Health Institute—Emmanuel Health Association

Figure 6: Social Network Mapping

Attaining breadth: Facilitating outreach by putting names to numbers using social network mapping



Source: Hindustan Latex Family Planning Promotion Trust

These exercises served three purposes: (1) to help shortlist venues for services and identify community members to whom services should be provided; (2) to serve as a "warm-up" exercise to engage community opinion leaders and influencers with the program; and (3) to function as an initial step to build the skill of community members to generate and use data, especially around individual-level tracking.

Identifying bottlenecks to scale-up and making course corrections

In order to achieve the goal of building a prevention program at scale, the foundation staff designed programs that would reach saturation coverage (over 80 percent) of high-risk populations in the geographies where the program operates.

Apart from establishing basic program infrastructure and outreach services, saturation coverage to scale required: (1) broadening and deepening contacts with a high proportion of the mapped denominator in each district to deliver prevention services; and (2) maintaining service quality and repeat contact with the denominator. Avahan used a structured management approach to scale up service delivery, which combined the following (see next page):

Avahan's Common Minimum Program

Avahan's Common Minimum Program (CMP) aims to build a common vision and define a set of operating standards for the Avahan virtual organization. In its larger sense, the CMP includes well-documented guidelines for programmatic and technical approaches, key project milestones, a common management framework, and a common set of indicators against which the program could be monitored.

Programmatic and technical standards aim to facilitate a program-wide common minimum approach to launching and running interventions on the ground, supported by guidelines and where appropriate, tools. The guidelines cover the following areas:

- Community participation
- Clinical services for prevention
- Outreach and behavior change communication

Key project milestones aim to provide time-bound measurable targets for the program to guide intervention. These quantitative milestones cover pace of infrastructure and service roll-out as well as specified desired service utilization levels. These targets form the basis of regular reviews and discussions across partners. The milestones in the CMP have evolved with the program life-cycle from start-up to mature phase, and at each stage have helped set direction and clarify priorities across the Avahan organization, thereby phasing the program.

Common program management framework articulates the management process for execution. These elements include:

- Defined relationships across the virtual organization and clarified ownership of specific areas for lead implementing partners, capacity building and other partners, NGOs, and peers
- Management support guidelines for such areas as intensity of field engagement and relationship with local stakeholders
- Formal review process guidelines

Data collection for decision-making includes tools and processes for data collection and analysis to inform decision-making at all levels. This includes metrics for program-wide analysis of Avahan, predictive and warning capabilities for a district, the ability to look at individual NGO level data, and individual risk assessment and planning by peers. These include:

- Grassroots up to program-wide routine monitoring metrics and indicators
- Qualitative assessments
- Quantitative assessments (surveys)
- Repeat mapping and size estimation exercises
- Estimated condom (or needle/syringe) needs of target community

1. **Programming standards.** Avahan created a Common Minimum Program document in 2005 that defined the minimum technical standards and key milestones for different programmatic areas including community mobilization, behavior change communication, clinical services, local advocacy, monitoring and evaluation, and program management. Implementing partners were encouraged to customize the standards to fit local contexts within this framework.
2. **Field engagement.** Frequent field trips to grassroots NGO intervention sites helped Avahan partners contextualize the monitoring data, assess practical implementation challenges, and identify field successes through first-hand observations. Field trips included visits to program infrastructure (such as drop-in centers and STI clinics) and interactions with local program staff (peer educators, NGO outreach workers) and with community members being covered by the interventions. These trips also covered government and local influencers as required to generate support for the project. The Common Minimum Program articulates field engagement guidelines for all levels of program participants.
3. **Analysis of monitoring data.** Scrutiny of routine monitoring data on service roll-out and utilization across implementation sites helped identify outliers on both ends of the spectrum that required further follow-up. While initially much of the analysis was done by the Avahan implementing partners, over time this activity became decentralized. Decentralized analysis by peers and NGO staff often led to early identification of problems and also stimulated local problem-solving.
4. **Program reviews.** Avahan partners and their staff held periodic, formal joint reviews off-site and on-site to discuss and arrive at course corrections and necessary shifts in implementation focus. The reviews provided a platform to assess progress, share learnings, identify challenges, and set milestones for each program. Each implementing partner in turn conducted periodic reviews with their NGOs and peers to assess progress, address challenges, and set priorities.

The three case studies below illustrate examples of this approach. The first recounts how monitoring data analysis was used to increase emphasis on promotion of clinical services by peer educators, which in turn led to broader service uptake. The second case study illustrates the use of data to increase the involvement of peer educators in service delivery (mainly outreach and condom distribution). The third case study shows how analysis of clinic traffic data guided a redesign of the clinic service delivery model to promote repeat service uptake.

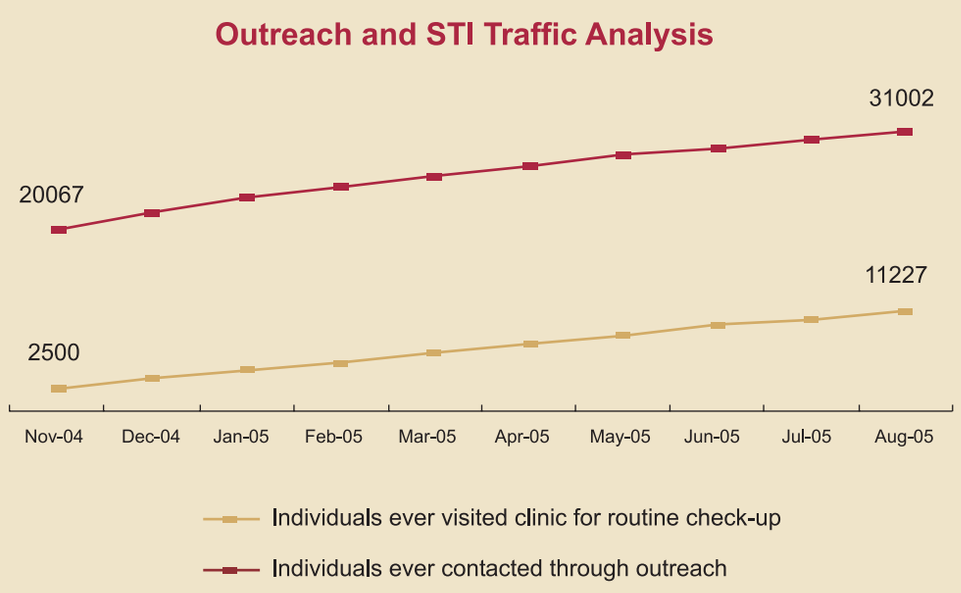
Case Study 1: If You Build It, Will They Come?

Case study 1 is based on the actual experience of an Avahan partner which was instrumental in substantially raising the emphasis on peer education. By the end of 2005, the Avahan implementing partner had finished rolling out program infrastructure across all its districts. The top locations across districts with high concentrations of populations at risk had been identified, implementing NGOs had received sub-grants, NGO staff were hired and trained, an initial cadre of peer educators had been put in place, clinics and drop-in centers established, and outreach efforts had commenced. Monitoring systems had been established and the NGOs were reporting monthly indicators. All the indicators seemed to indicate an encouraging upward trend, but more careful analysis by the partner revealed gaps.

By the third quarter of 2005, around **31,000** community members (estimated as 70 percent of the known denominator then) had been contacted through outreach. However, the number who had ever visited the program clinics for STI treatment or regular health check-ups was much lower at **11,000** (or around 30 percent of those met through outreach at least once).

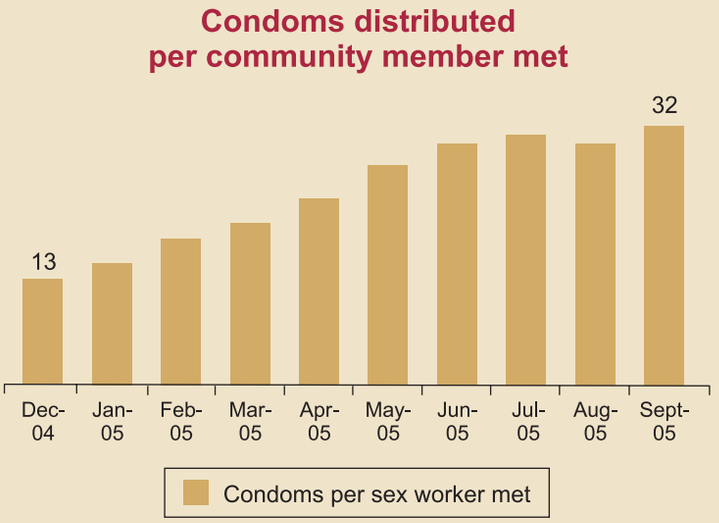
The Avahan partner shared these data with the peer educators and NGOs to facilitate a series of focus group discussions to identify the root of the problem. The discussions revealed that while peers were actively promoting condom use and raising awareness of risk factors in behavior, they were not promoting clinical services. This was largely due to: (1) inadequate knowledge of what the STI clinics could offer the community; and (2) perceived lack of program emphasis by the implementing partner and the NGO.

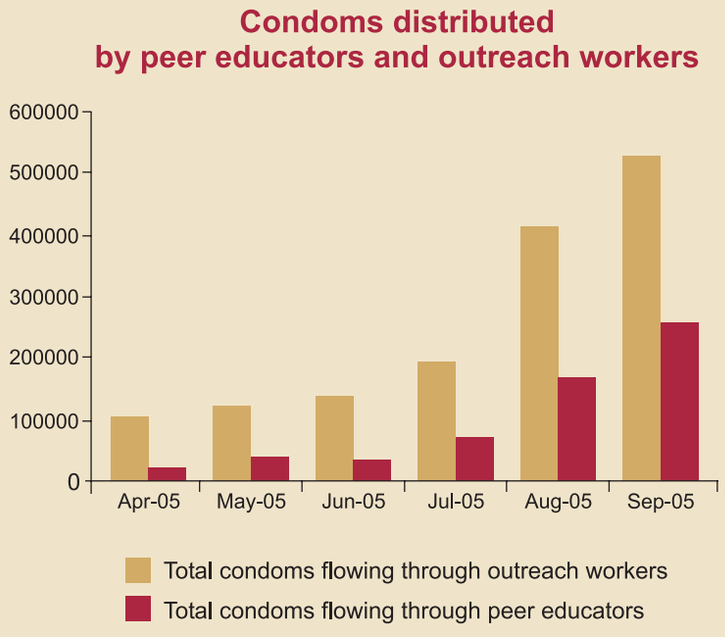
The data and the results of the focus groups discussions were reviewed by the partner. As a corrective action to the low proportion of clinic visits compared to outreach contacts, an outreach worker and peer educator re-education program was launched to address this. This experience of an Avahan partner was instrumental in substantially raising focus on the importance of peer education to promote service uptake.



Case Study 2: Peer Educators–Showpieces or Trusted Partners of the Program?

Case study 2 is based on the actual experience of an Avahan partner, which resulted in a deeper understanding of the challenges of getting peer educators and professional outreach workers to work together. Free condom distribution is an essential aspect of the Avahan program for most-at-risk communities. These are distributed based on a periodic assessment of the "condom gap"—which is the difference between the average number of sex acts per month and the estimated number of condoms available to the communities through other sources (e.g., partners bringing condoms). Peer educators are then expected to tailor the supply locally to the community members they serve. In this particular case, the number of condoms distributed on average equalled the expected average condom gap of around 30 condoms per month per community member, but closer examination revealed that as many as 50 percent of the condoms were distributed by outreach workers and not by peer educators. Thus, there was some question as to whether those who most needed condoms were getting them. More important still was the question why peer educators were not charged with the responsibility of distributing the condoms as necessary since they were in more frequent contact with the community members. Subsequent discussions with the NGOs, outreach workers, and peers revealed issues of trust including a lack of confidence in whether the peer educator would know exactly how to tailor supplies, when to reorder, and whether they would actually distribute the condoms. Subsequently, the partner and NGOs launched skill-building sessions to raise peer educators' capacity to carry out these tasks and to help outreach workers become coaches rather than directive managers of peer educators.

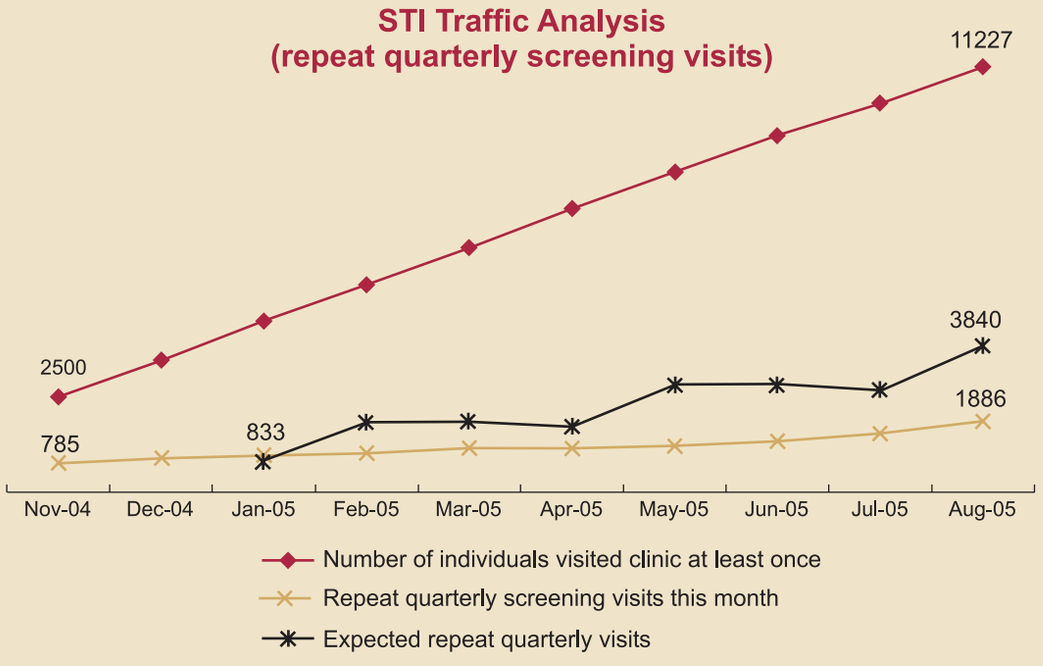




Case Study 3: You Built It. They Came (Once). But Why Don't They Come Again?

Case study 3 is based on the actual experience of an Avahan partner, which led to the adoption of increased governance measures involving communities as well as evolution of more appropriate ways to deliver STI screening. At the time, Avahan's STI management protocol suggested that community members should be offered routine screening services once a quarter. The number of community members who had ever visited an STI clinic for a screening was **11,700**. However, while repeat, quarterly routine check-up visits should have been approximately **4,000** (based on first-time visit records), the actual number visiting clinics for repeat routine screenings was around **1,900**, which was less than half the number expected. The partner examined the data by NGO and clinic location to find out if there was a pattern. Out of some 41 clinic locations, 10 had a very low percentage (less than one-fourth) of return screening visits.

The partner and the NGOs then investigated the possible reasons. It turned out that in five of these locations, doctors were perceived by the community to be deeply stigmatizing. The other five locations served a dispersed population in a large geographic area with an average travel time of two hours to the clinic, so while first-time visits were a novelty, repeat visits were considered too burdensome. The partner worked with the NGOs to create community committees for overseeing clinic operations and for data monitoring, a practice that was channeled back to other Avahan partners. Additionally, the partner also adopted the practice of operating satellite or mobile clinics to supplement the static clinics. Such flexible service delivery models are now used across Avahan.



This structured management approach enabled Avahan to:

1. Identify early bottlenecks to scaling up as well as instances of local best practices that could be replicated across the program
2. Facilitate periodic focus shifts
3. Identify and roll out appropriate course corrections

In particular there were at least three significant early outcomes from this process.

The first, as shown in the three case studies, was an explicit acknowledgement of the important role of peer educators in the program and consequent focus on greater devolution of data ownership and decision-making to them. The next section discusses this in greater detail.

The second was that monitoring focus, and even indicator measurement, needed to align with shifts in the program life-cycle. Thus, in successive phases of the program, the monitoring focus shifted from infrastructure set-up (for example, number of clinics operational) and first-time contacts (for example, number of community members ever used clinical services) to repeat service uptake (for example, number of community members coming back for periodic screening). Also, as absolute numbers for service uptake increased, dashboard indicators, which convert absolute numbers into percentages by comparing them against appropriate denominators, were introduced.

In parallel, some indicators that had lost their relevance and were not being monitored were replaced or even dropped to reduce the burden of data collection. So for example, early indicators that tracked the number of advertising agencies and research organizations collaborating with implementing partners, or the number of organizations used at NGO level for referrals were dropped since they provided no useful management input. On the other hand, the indicator measuring the number of interpersonal HIV/STI prevention communication sessions in a month was replaced by the more useful one of number of unique community members reached through the program in a month.

Finally, there were some program implementation shifts. In late 2007 Avahan decided to place increased emphasis on reaching sex workers who are new to the trade. This was based on some preliminary analysis of data from the first round of the IBBA that indicated:[2]

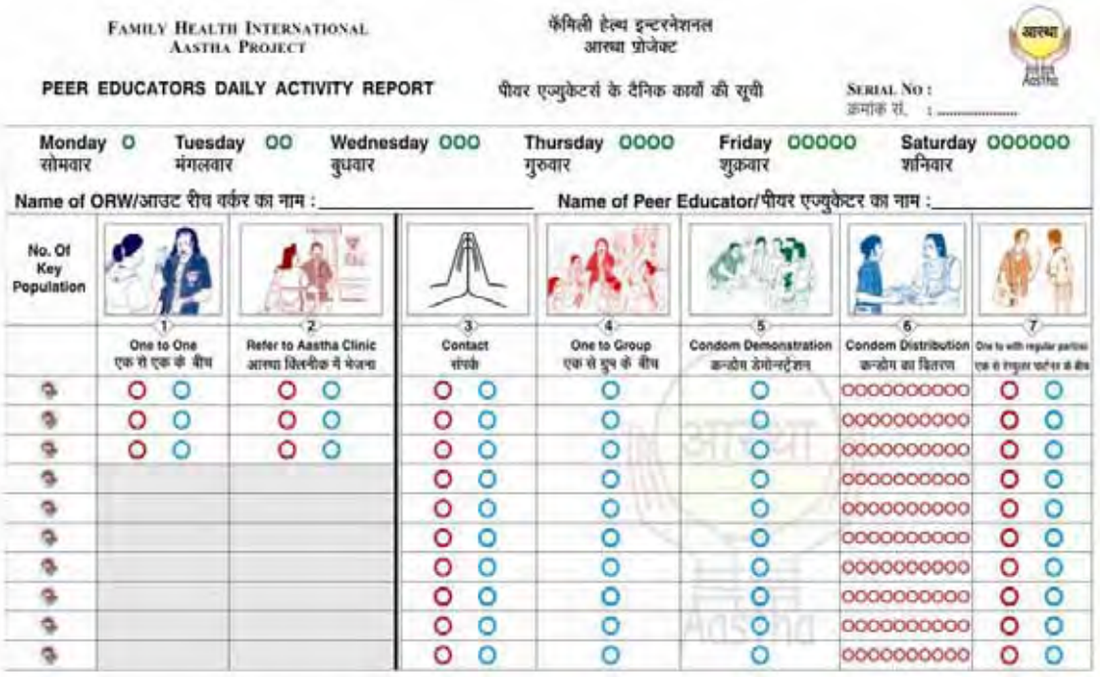
1. New sex workers across the program with less than one year's duration of work formed between 9 percent and 37 percent of the overall sex work population (average 17 percent).
2. These new sex workers in the aggregate had an HIV prevalence that was only about 20 to 30 percent lower than the sex workers who had been practicing longer. This suggested that either the new sex workers were HIV-positive when they entered the trade, or they acquired HIV quite quickly after entry. In either case, it was important that the program reach new sex workers early with services, to prevent early acquisition and further transmission from this possibly more vulnerable group.
3. The program's coverage of new sex workers as measured by exposure to intervention in several districts was low compared to that of sex workers working for a longer duration.

Similarly, a decision was made to change the approach to STI clinical management after data from the IBBA showed: (1) low levels of gonococcal and chlamydial infection compared to historical data; and (2) pockets of high reactive syphilis serology. Based on these findings, the approach to STI clinical management in Avahan interventions was refocused to step up screening for syphilis while increasing the threshold for presumptive treatment in the management of sexually transmitted infections.

Increasing depth of outreach and service utilization

Since early 2006, Avahan interventions have increasingly devolved the ownership of outreach data and their use for decision-making to front-line peer educators. This is especially true for data and decisions related to tracking individual community members and tailoring coverage intensity and service components for them. This makes programmatic sense because the peers are drawn from the communities that they serve and possess contextual knowledge of these groups that is inaccessible to outsiders.

Figure 7: Increasing Depth of Outreach Using Individual Tracking Cards



FAMILY HEALTH INTERNATIONAL
AASTHA PROJECT

फॅमिली हेल्थ इन्टरनेशनल
आस्था प्रोजेक्ट

PEER EDUCATORS DAILY ACTIVITY REPORT

पीयर एज्युकेटर्स के दैनिक कार्यों की सूची

SERIAL NO : क्रमांक सं. : .....

Monday O सोमवार | Tuesday OO मंगलवार | Wednesday OOO बुधवार | Thursday OOOO गुरुवार | Friday OOOOO शुक्रवार | Saturday OOOOOO शनिवार

Name of ORW/आउट रीच वर्कर का नाम : _____ Name of Peer Educator/पीयर एज्युकेटर का नाम : _____

No. Of Key Population	1 One to One एक से एक के बीच	2 Refer to Aastha Clinic आस्था क्लिनीक में भेजना	3 Contact संपर्क	4 One to Group एक से ग्रुप के बीच	5 Condom Demonstration कन्डोम डेमोन्स्ट्रेशन	6 Condom Distribution कन्डोम का वितरण	7 One to with regular partner एक से रेगुलर पार्टनर के बीच
1	O O	O O	O O	O	O	OOOOOOOOOO	O O
2	O O	O O	O O	O	O	OOOOOOOOOO	O O
3	O O	O O	O O	O	O	OOOOOOOOOO	O O
4			O O	O	O	OOOOOOOOOO	O O
5			O O	O	O	OOOOOOOOOO	O O
6			O O	O	O	OOOOOOOOOO	O O
7			O O	O	O	OOOOOOOOOO	O O
8			O O	O	O	OOOOOOOOOO	O O
9			O O	O	O	OOOOOOOOOO	O O
10			O O	O	O	OOOOOOOOOO	O O

Source: Family Health International, Mumbai, India

Greater peer ownership of outreach is accomplished through a process[8] known as micro-planning, which is meant to help peer educators track individuals in their outreach networks* to target the most at-risk and least reached members of the community with appropriate services. The specific details of how micro-planning is implemented vary across Avahan lead implementing partners. Peer educators carry individual tracking cards which allow them to capture the content of their interactions with the members of their outreach network. They then review these records, typically on a weekly basis, either meeting singly with their supervisor or by meeting and consulting as a group, and then take decisions on next week's "beat" or next steps for specific individuals in their network.

* A peer educator typically works in a small locality where she personally has contact with between 25 to 50 high-risk group individual members. An outreach worker, who is a professionally trained social worker or an experienced peer educator employed by the NGO, supervises between 10 and 20 peer educators. An NGO will have 5-10 outreach workers on average.

Figure 8: Increasing Depth of Outreach Using Wall Chart Summaries

Source: Pathfinder International, Pune, India

Supervisors use these meetings and follow-up field visits to assess the quality and timeliness of record-keeping. Since functional literacy is low in certain groups, Avahan partners collaborated with peers to develop low-literacy pictorial tools. These tools have symbols for capturing different outreach transactions—services offered and utilized, and reminders for follow-ups and action. Aggregates of these transactions are fed into the routine monitoring systems to generate summary reports of program data at the NGO level.

This system has maximized coverage and enhanced the depth of service utilization by the community members. Peers now know critical characteristics of individuals in their respective networks and customize their outreach plan accordingly. For example, they meet sex workers with high client volumes more frequently to replenish their condom stocks; they also work more intensively with individuals who do not visit the clinic frequently or who have repeat STI episodes.

This emphasis on peer led individual tracking and data use for work planning has helped build the skills and confidence of peer educators, which prepares them to become articulate managers, coaches, and spokespersons for their communities. Additionally, the periodic meetings where peer educators interact to discuss and exchange proposed solutions also help build skills in working together as a community group.

Going back to the drawing board

All levels of Avahan's program implementation structure—implementing partners, NGO staff, and peer educators—analyze programmatic data and experiences to guide implementation focus. At the NGO and peer level such analysis drives refinements to outreach planning on an almost weekly basis. The refinements improve targeting efficiency and outreach performance but usually do so within the framework of the existing program design. The structured analysis of field data has led at least two lead implementing partners to radically alter their program design. In both cases, the key principle in the re-design was how to focus resources more efficiently by targeting fewer locations but with higher service intensity to raise program coverage.

Avahan's prevention component for men at risk includes a program to address India's major national highways, with an exclusive focus on long-distance truckers, who form about 40 percent of India's five million truckers. The program[9] started in 2004 with 35 intervention sites across the country. Monitoring data from the first year of operations at these locations revealed that long-distance truckers constituted only about half of the total population reached by the intervention. Moreover, service uptake was highly variable across intervention sites. An analysis of trucker flow through all the locations revealed that the variability of reach across locations was due to differences in the number of long-distance truckers available at the location and the length of time they spent there. The analysis also showed that several locations with large numbers of long-distance truckers had limited service uptake due to low visibility of services. The Avahan partner used these findings to re-design the program in 2005. The new design focused exclusively on high-yield locations and deployed services in natural traffic areas of long-distance truckers in these locations to maximize coverage.* Exposure to the program among long-distance truckers, as defined by brand recall, increased five-fold within two years, even though the program was now operating at half the original number of locations. Further details can be found in the Avahan publication on long-distance trucker interventions.

Avahan's other program for men at risk was originally given two mandates: (1) build a franchise network of approximately 3,000 private providers for treating male STIs; and (2) create and support a condom social marketing network. Subsequent data collected by the implementing partner indicated that physicians treating high volumes of STIs were concentrated in approximately 100 towns in the four southern states where Avahan works. These towns also accounted for an estimated 65 percent of the mapped female sex workers and high-risk men who have sex with men populations in the states, and therefore, were likely to account for the majority of the sexual transactions between male clients and sex workers. Consequently the partner decided to limit franchise outlets to these 100 towns, resulting in a 25 percent cost saving on the total grant. The savings were redirected to strengthening condom normalization, demand generation, and targeted behavior change communications for men at risk in these 100 towns.

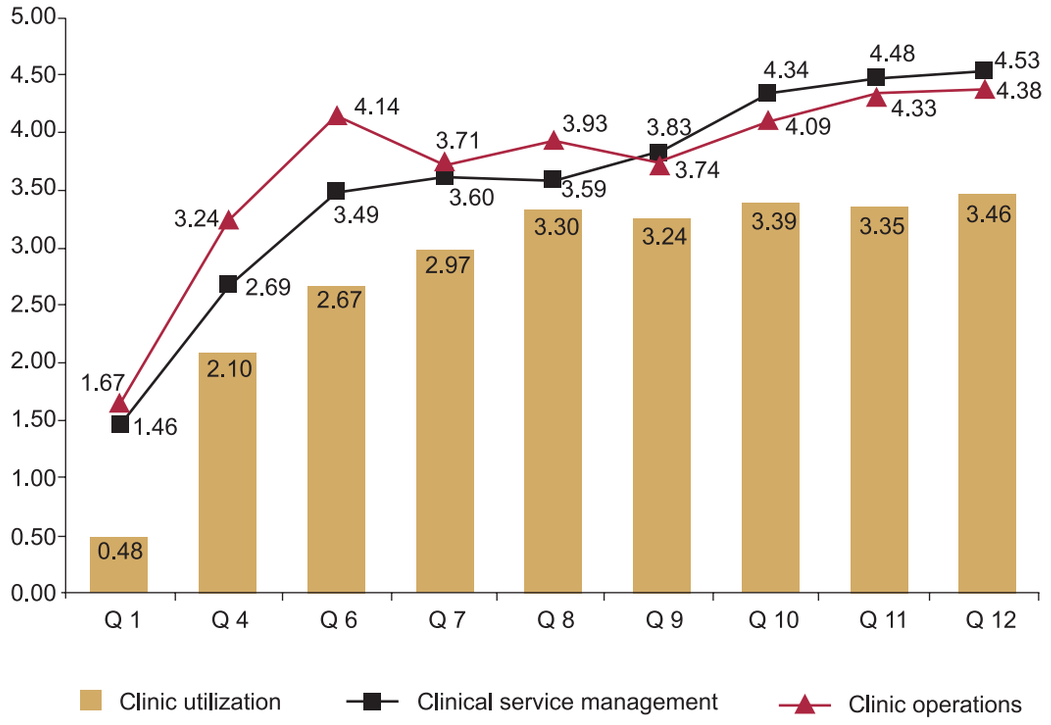
* Potential locations for running intervention programs with truckers could include highway stretches, restaurants along the highways, interstate checkposts, or transshipment locations. Of these, 17 transshipment locations offered the most appropriate venues for interventions because of (1) the large numbers of long-distance truckers who traveled point-to-point on specific routes between these; and (2) the length of time spent there. Within these transshipment locations, there are "natural traffic areas," such as transport brokers' and agents' offices, where truckers congregate, waiting for their next route assignments.

In both cases mentioned above the foundation team supported the implementing partner's move towards a program design that maximized impact even if it diverged from the original proposal and budgets.

Monitoring quality

The Common Minimum Program and other guideline documents also set standards to monitor quality of implementation. For STI clinical services the *Clinic Operational Guidelines and Standards*[10] are used to monitor quality of Avahan-supported clinics by routinely collecting information as part of supervisory visits. A fine-grained analysis of the indicators allows identification of problems over many clinics with a single technical issue or for chronically underperforming sites. The quality of STI care delivered through the STI franchised clinic network is monitored using simulated patient surveys. Results of these surveys inform the ongoing communication and refresher training activities.

Figure 9: Monitoring the Quality of STI Clinical Services

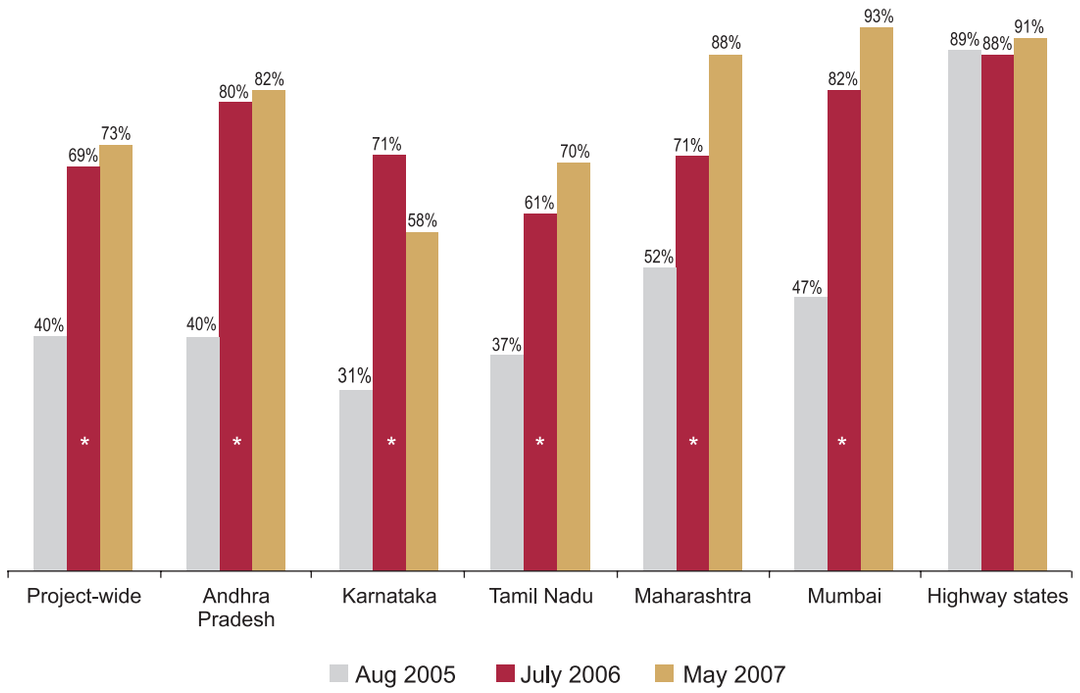


Y Axis: Performance Score 0 to 5; 0 = poor & 5= outstanding

Source: Family Health International, New Delhi, India

To monitor the accessibility and availability of condoms in the Avahan project areas as part of the condom social marketing effort, condom coverage surveys[11] were conducted annually. The results of these surveys were used to inform ongoing support to these sites and overall planning for development of new traditional and nontraditional outlets as well as monitoring overall project performance.

Figure 10: Percentage of Hotspots Meeting Condom Coverage Standards



Hotspots fall into several categories and each category is required to have a minimum number (defined as condom coverage standard) of retail outlets selling condoms

* = significantly different than the preceding round of surveys (p<.05)

Measuring the epidemic impact of Avahan

A major future use of the various data streams will be to measure Avahan's contribution to India's HIV response. The monitoring and evaluation framework for assessing Avahan's contribution to the epidemic response is predicated on four methods:

1. Basic trend analysis of HIV and STI prevalence and behavior change among high-risk, bridge, and general populations in the IBBA districts over two rounds.
2. Transmission dynamics modeling with these data and size estimation and program monitoring data, to estimate total averted infections and cost effectiveness of Avahan.
3. Synthetic analysis that will try to associate ANC HIV prevalence trends (particularly the youngest age groups) with characterization of program coverage of high-risk groups by multiple players (including Avahan).
4. Plausibility modeling using IBBA and ANC prevalence data and data on fertility patterns from other sources such as the Reproductive and Child Health survey[12] to establish the plausibility of relating any observed decline in ANC prevalence to changes in high-risk group and and bridge group behavior.

LEARNINGS

As the first five-year phase of Avahan draws to a close there are several learnings that will prove useful in its next phase.

Data collection does not automatically lead to use

Within Avahan, initially there were significant barriers to effective, timely data use. These included time delays between data collection, collation and analysis, mismatch between those who collect and those who analyze data, and natural inertia that inhibits bringing fresh perspectives to how data are viewed. Avahan tried to address these barriers by: (1) devolving ownership for collection and use of data to those who could use it most effectively; (2) building and enabling paper and software tools for data capture, analysis, and integration including for non-literate populations; and (3) instituting formal forcing mechanisms for data use such as multi-level reviews. These have helped foster a data use culture.

Measurement drives action

People focus on executing what is measured and monitored. Avahan partners have found that changing and improving the focus of measurement to align it with the stage of implementation aided effective program management. Changing reporting or measurement systems was challenging but also rewarding because additional data and new avenues for analysis changed Avahan's perspective and indeed guided program evolution. It is also important to avoid measurement inertia primarily by removing irrelevant data collection activities.

Don't rely on numbers alone

Purely quantitative indicators may seem easier to collect and measure. However, numbers can often deflect attention from harder to measure, but equally essential program attributes that might be qualitative. Avahan, for example, wanted to measure community mobilization efforts and chose as an indicator the number of community-based organizations (CBOs) formed. However, partners soon found that grassroots NGOs on occasion forced the formation of community-based organizations that did not reflect true mobilization. Subsequently this indicator was supplemented by additional and more qualitative measures of mobilization.

THE FUTURE

Avahan continues to face several major ongoing measurement and data use challenges. These include:

1. Negotiating data ownership issues to ensure that all the data are used effectively
2. Managing data analysis at scale
3. Integrating and synthesizing multiple data sources to form a coherent view
4. Collecting reliable data for "soft" or "hard" to measure areas such as community mobilization
5. Sustaining a data use culture in the long term

APPENDIX I

DATA SOURCES GENERATED BY OR RELEVANT TO AVAHAN

Size estimation of populations at risk

All the Avahan state-level lead implementing partners have conducted at least one, and in some cases as many as three, rounds of formal, indirect, and non-mathematical size estimation exercises of high-risk groups by contracting third-party agencies (for example, research groups or other Avahan capacity building partners). These size estimation exercises were done initially to inform decisions on the geographic focus and resource allocation across clusters in districts. Subsequent rounds were done to revalidate denominator numbers against actual population reached as the program grew. Full details of size estimation exercises are described in Figure 2 of the main text.

The Avahan partner working with long-distance truckers conducted a mapping of major transport establishments at each transshipment location to arrive at the route segment-wise number of long-distance truckers passing through intervention sites, while the number of male clients of sex workers was arrived at via triangulation of data from multiple data sources including: 1) 2001 National Behavioral Surveillance Survey (BSS); 2) the state-level size estimates for female sex workers and data on their reported partner numbers from the IBBA and BSS; and 3) IBBA data on men at risk and their reported encounters.

Pictorial mapping tools

Typically, at the start of an intervention, grassroots NGOs worked with community members who engaged early with the program to identify clusters and community networks in a given geographic territory. Using pictorial mapping tools, community members were able to plan for accessing these networks with appropriate services.

Routine program monitoring data

The Avahan routine program monitoring system is both a logical and physical assembly of individual-level data on program operations captured across the interventions that cover high-risk populations. It is used to capture, track, and inform course corrections in the operation of this program at multiple levels ranging from the smallest logical unit of the peer educators and their network all the way up to an Avahan-wide level through "dashboard" indicators.

Avahan's routine monitoring system has not been static—it has undergone two revisions over the last four years. On the first occasion, reporting requirements were expanded to include details of implementation by NGOs in each district. In the second revision, dashboard indicators that converted absolute measures into percentages by comparing them against appropriate denominators were introduced. During this revision some earlier indicators that were not relevant to ongoing program use were dropped.

In conjunction with the lead implementing partners, Avahan's evaluation partner developed standardized aggregate indicators for reporting at the grassroots NGO level. These indicators typically cover infrastructure (e.g., number of clinics and drop-in centers), human resources (e.g., number of peer educators), and service utilization (e.g., number of condoms distributed and number of individuals visiting a clinic in a month).

The "raw" data flows from the grassroots NGO level that generate these aggregate indicators include the following:

1. Operational data collated by grassroots NGOs on a monthly basis
2. Data capture on a daily or "as happens" basis at touch-points between the program and the high-risk community which includes:
    a. Individual interactions between over 7,000 peer educators and their charges. Peer educators—where functional literacy is low in certain groups—use pictorial tools to record their outreach interactions. These data are used by the peer educators themselves to make decisions on the timing, content, and focus of their interactions with the community.
    b. Records of visits to program-owned STI clinics made by the community members.
    c. Records of registers and minutes of meetings held by community groups and committees at the drop-in centers.

Across lead implementing partners working in the states, there is some diversity in: (1) the specific data capture tools (for example, pictorial forms may have symbols appropriate to the local setting or, in the case of men who have sex with men, the community sub-culture); (2) the type of system (manual or computer software) used to aggregate data for reporting at the grassroots NGO level; and (3) the kind of data collected to support additional internal metrics and indicators. However, the indicators reported from the grassroots NGO level to the Avahan program team are standardized across implementing partners covering high-risk groups. The men at risk programs, which have different design and program coverage considerations, have separate indicators.

A combination of manual and automated processes integrates reports from grassroots NGOs across Avahan. In the manual system, the lead implementing partner at the state level integrates forms from each NGO into a master summary in spreadsheet form. A web-based automated system to "pull" the integrated and individual NGO reports directly on a monthly basis from partners' computer systems is under development. While both these systems offer the capability to view data to the NGO level, some partners' own data systems allow them to view data down to individual clinic and peer educator level touch-points. Other partners enter data directly into a web-based data capture system.

The men at risk program for long-distance truckers employs a web-based reporting system with ability to track specific indicators down to the NGO and STI clinic level. Examples include individuals met through peer outreach, individuals attending clinics, and condom and STI kit sales. The STI franchise condom social marketing program provides monthly reports against its set of indicators, including number of male STIs treated and condoms sold.

Lead implementing partner led survey activities

All the lead implementing partners have also conducted one or more rounds of studies and surveys related to the initial needs assessment for program start-up and/or behavioral data collection. Needs assessment studies were conducted to assess issues related to availability and use of STI services and condoms by the community, typically prior to intervention start. Behavioral surveys have focused on sociodemographics, and knowledge, attitudes, and practices related to sexual behavior, condom use, and treatment seeking for STIs.

Integrated Behavioral and Biological Assessment

The Integrated Behavioral and Biological Assessment (IBBA) is a cross-sectional survey conducted by an Avahan-funded evaluation partner working with the Indian Council of Medical Research as part of the overall Avahan monitoring and evaluation framework.[2] These cross-sectional surveys are district-wide and collect data on about

400 respondents per district per survey group of female sex workers, clients of female sex workers, injecting drug users, and high-risk men who have sex with men in 29 districts, and truckers across the national highways. The districts were chosen purposively based on two criteria: 1) sociocultural regions within a state; and 2) the size of the female sex worker population in the districts (in the south) or the size of the injecting drug use populations (in the north-east). Behavioral data captured by the IBBA include variables related to sociodemographics, intervention exposure, knowledge, attitude, and practices related to safe sex (or safe injecting practices), and STI treatment seeking. Biological data captured through this survey include HIV, herpes simplex virus type 2 (in a subset) and syphilis serology, and gonorrhea and chlamydia from urine samples. Injecting drug users were also tested for hepatitis B and C. The first round was completed during 2006 and part of 2007. The second round is scheduled to be conducted over 2009 and 2010.

The IBBA is both a major evaluation activity in its own right and a key input into transmission dynamics modeling to assess the eventual contribution of Avahan to India's epidemic response.

General population surveys

District-wide general population surveys in a very small subset of the IBBA districts (five) are also being conducted as part of Avahan's evaluation activities, by another evaluation partner. These surveys use a sample size of 6,000 (equally divided between men and women, urban and rural) per district. They capture sociodemographics, knowledge, attitude, and practices related to safe sex, and STI treatment seeking, and serology for HIV, syphilis and herpes simplex virus type 2 (in a subset), and gonococcal and chlamydial infection.

These general population surveys serve two purposes. The first is as input into a transmission dynamics model being built by this evaluation partner to estimate averted infections. The second is to provide data to calibrate antenatal HIV prevalence data available from the national sentinel surveillance system.

Knowledge building partner data

Avahan also has knowledge building partners who collect data on epidemiologic and programmatic issues that may inform the implementation focus of Avahan, the transmission dynamics modeling, and the national program. Specific areas that are under investigation include: (1) possible intervention points for HIV prevention interventions for male migrants and mobile sex workers; (2) how community mobilization impacts risk and vulnerability and the influence of structural interventions on vulnerability; and (3) validation of STI syndrome management algorithms for high-risk groups.

Quality measurements in Avahan

Based on the *Clinic Operational Guidelines and Standards* for STI services adopted across Avahan, three quality indicators were developed: clinic performance, STI case management, and clinic operations. These data are collected from NGO clinics during routine supervisory site visits by either the lead implementing partner's technical officer or by the STI capacity building partner. Information is obtained through analysis of the routine reported clinic data, interviews and observation of the clinic providers, and clinic record reviews. Finally, the indicators are coded using an ordinal score.

In the franchised clinics, individuals with STIs were recruited and asked to pose as STI patients in randomly sampled clinics. After the consultation the simulated patients were asked to complete a form that recorded whether an STI history was done, whether condoms were suggested, and what medications were prescribed.

The condom coverage surveys assessed three specific definitions of coverage including: (1) hotspots were sufficiently covered with condoms and/or point of purchase materials; (2) hotspots were sufficiently covered at

outlets open until at least 9:00 p.m.; and (3) hotspots were sufficiently covered with condoms at outlets open seven days a week. The minimum coverage standards are based on geographic size of the hotspot; specific standards were set for truck halt points and the bar district in Mumbai. Sampling was done using lot quality assurance procedures.

Data from sources external to Avahan

There are numerous other sources of HIV-related data in India that inform Avahan. These data come from studies and surveys conducted by government and other donors, including:

1. HIV data from the routine sentinel surveillance of antenatal care clinic (ANC) attendees, attendees at government STI clinics, and respondents from selected targeted interventions supported by the National AIDS Control Program.[3] The ANC HIV data are useful for assessing trends in the general population in Avahan districts.
2. Select, repeated behavioral surveys of at-risk and general population groups at the national level and in a few of the Avahan states. Of these, the NACO Behavioral Surveillance Surveys 2001 and 2006 offer some data that will be useful in the interpretation of Avahan collected evaluation data.[4, 5]
3. The third National Family Health Survey (2005-2006), a demographic and health survey, included voluntary HIV testing of over 100,000 men and women.[6] This provides state-level HIV estimates for five of the six Avahan states along with information on sexual behavior, sociodemographic information on both men and women, information on HIV prevalence difference between urban and rural populations, and some information on migration.

APPENDIX II

LIST OF AVAHAN PARTNERS DURING THE CURRENT PHASE

Avahan Partners

As Avahan reaches the end of its "build and operate" phase, several of the partners listed below have completed the 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.

Lead implementing partners

Avahan has seven lead implementing partners working in six states who are responsible for implementing prevention interventions for female sex workers, high-risk men who have sex with men, and injecting drug users through sub-grants to grassroots NGOs:

Emmanuel Hospital Association and Australian International Health Institute—Manipur and Nagaland

Family Health International (FHI)—Maharashtra (Mumbai and Thane)

Hindustan Latex Family Planning Promotion Trust (HLFPPT)—Andhra Pradesh (coastal districts)

International HIV/AIDS Alliance (IHAA)—Andhra Pradesh (interior districts)

Pathfinder International—Maharashtra

Tamil Nadu AIDS Initiative (TAI)—Tamil Nadu

University of Manitoba—Karnataka and three districts in Maharashtra

Two grantees are responsible for programming for men at risk:

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

Transport Corporation of India Foundation (TCIF) provides 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 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.

Family Health International (FHI) and INP+ (HIV positive people's network) are working to build the organizational capacity of the local NGO, 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 implementing 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 and Yale Universities are 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 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 of Population Studies (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).

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

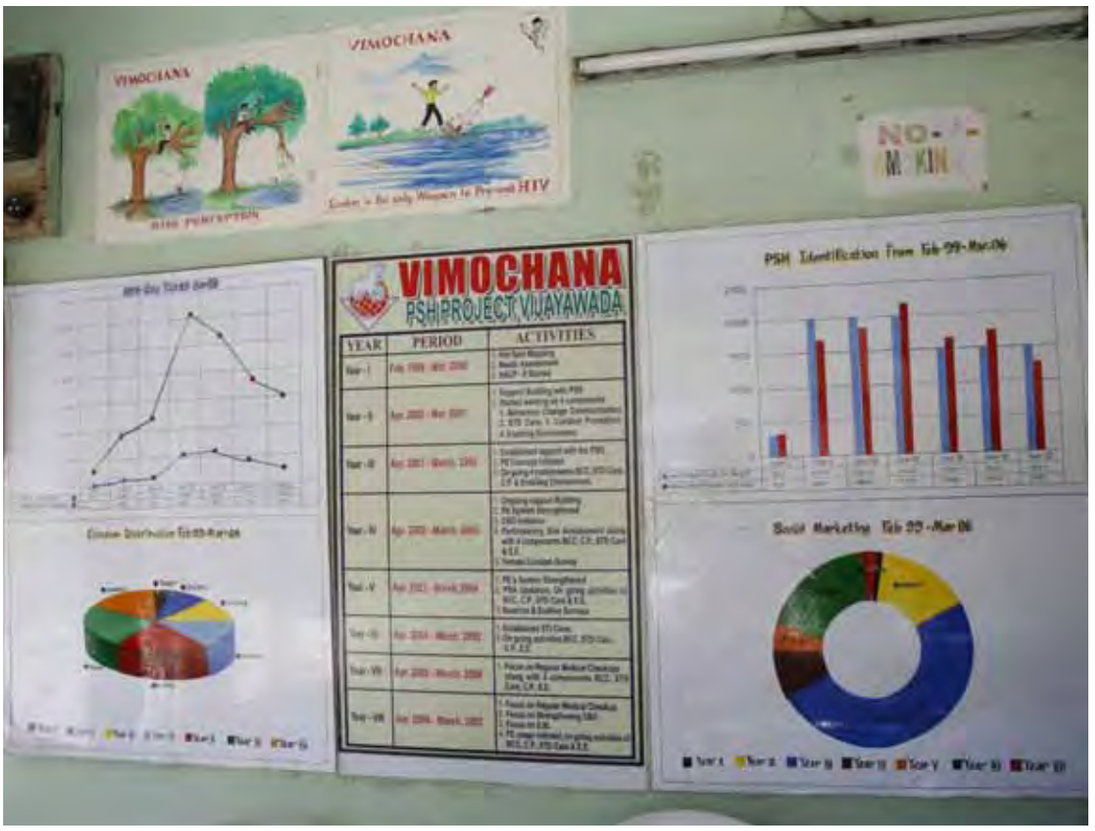
University of Laval is modeling the impact of Avahan interventions, doing costing and cost-effectiveness analyses, and performing additional studies to acquire data for the model including general population surveys, special behavioral surveys, and polling booth surveys.

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

Government support partners

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

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



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GLOSSARY

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

Dashboard metrics present the most essential indicators and measures that help program managers make decisions, which are usually operational but sometimes also have more strategic repercussions. They help in the process of translating strategy to action, in following up the progress of execution, and identifying key bottlenecks.

Drop-in centers were established early on in the program to provide a safe space for the high-risk populations to come together. The centers themselves are often very clean but basically equipped rooms that fit between 50 – 150 people, have cushions and mattresses on the floor, bathing facilities, a mirror and are housed next door to the program managed medical clinic. With no similar refuge available, drop-in centers become the hub of the community life serving approximately 5 to 11 contact points or hotspots, such as parks, cinemas, gardens, bus stops, bazaars, bridges, railway stations, and homes where high-risk populations solicit and practice.

High-risk groups in this monograph refers to female sex workers, high-risk men who have sex with men, transgenders, and injecting drug users.

High-risk men who have sex with men in this monograph refers to the self-identified men who have sex with men in India to whom Avahan provides services. This group of men is not representative of all men who have sex with men in India, and in the settings where Avahan works 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.

Long-distance truckers are defined by the Indian transportation industry as truckers traveling 800 kilometers or more in a single direction. Long-distance truckers are nationally mobile.

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

Micro-planning is the system peer educators use for recording and analyzing risk during outreach. The peer educators use a low-literate management tool to collect data which they use to directly plan outreach based on the individual need of the population they are serving.

Peer educators 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 operate to 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. Peer educators work with 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.

Structural intervention is used to refer to interventions that work by altering the context within which health is produced or reproduced. Structural interventions locate the source of public health problems in factors in the

social, economic, and political environments that shape and constrain individual, community, and societal health outcomes.

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

Traditional/nontraditional outlets in the context of condom distribution, refer to places where consumer goods, such as condoms, are sold. Traditional outlets refers to outlets that carry all consumer goods including toiletries, etc. Nontraditional outlets refers to outlets that are engaged in other products and services such as tea shops, roadside cafes, barber shops, and phone booths. These outlets do not sell any consumer products but due to their location (in and around hotspots), operating hours (open till late in the night), and the rapport their owners may share with men at risk (tea shop owners), they are critical for condom distribution.

Transshipment locations are places where loading and unloading of goods takes place along national highways. Large national loads brought to the location by long-distance truckers are usually broken up into smaller, regional, and local consignments for redistribution. Long-distance truckers then pick up their next consignment at the location.

Vulnerability is the circumstances which impact an individual's or a high-risk group's control over acquiring HIV. Vulnerability for sex workers is linked to abuse, violence, and social stigma and impacts their agency 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.

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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 parts. The first is to build and operate a scaled HIV prevention program, with saturated coverage for those 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 encourages the replication of best practices by fostering and disseminating learnings from the program.

Avahan is in its fifth year of operation, reaching populations most at risk including nearly 200,000 female sex workers, 60,000 men who have sex with men and transgenders, 20,000 injecting drug users, and about 5 million men at risk.

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