



**Managerial Challenges in Addressing HIV/AIDS:
Gujarat State AIDS Control Society (GSACS)**

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Managerial Challenges in addressing HIV/AIDS: Gujarat State AIDS Control Society (GSACS)

Abstract

The spread of HIV/AIDS is not merely a problem of public health; it is also an economic, political, and social challenge that threatens to hinder decades of progress in different parts of Gujarat. There is an urgent need to significantly scale-up public health interventions that work to make a meaningful impact. While NGOs and community based organizations have a critical role to play in implementing these interventions amongst the various population groups, the government must shoulder the overall responsibility for planning, coordinating, mobilizing, and facilitating the various HIV/AIDS prevention, care and treatment services in the state. Generally, the departments of HIV/AIDS are dominated by doctor-managers who lack training in management. This working paper was developed with objective of enhancing the skills of the program implementers.

In this paper, in first three chapters we describe the overall situation of HIV/AIDS globally and nationally. Major challenges in managing sentinel surveillance, behavior surveillance, targeted interventions and its subcomponents have been described in chapter four. Issues related to integration of HIV/AIDS activities with reproductive health has also been discussed in the chapter. In chapter five, we present a few case studies from Gujarat State AIDS Control Society. These cases focus on the managerial issues in the following areas: Project Management, Blood Bank Management, VCTC/ICTC Management, Behavioral Surveillance and MIS for Targeted Interventions. These case studies bring out the ground level realities and can help participants develop insights for better management of the HIV/AIDS programme.

Key Words: HIV Management, Sentinel Surveillance, Targeted Intervention, MIS, Gujarat AIDS Control Society, blood safety.

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Managerial Challenges in addressing HIV/AIDS: A Study of Gujarat State AIDS Control Society (GSACS)

1. HIV/AIDS: Issues and Challenges

Health and Socio economic developments are so closely intertwined that it would be impossible to achieve one without the other. It is therefore necessary to improve the health outcomes in India so as to support India's economic developments over the last decade.

HIV/AIDS is not merely a public health challenge; it is also a political, social and economic challenge. AIDS is hindering decades of health, economic and social progress. Indicators of human development-such as child mortality, literacy, and food production- are slipping as the disease ravages families, communities, economies, and health systems in heavily affected countries. AIDS reduces life expectancy by years, erodes productivity, consumes savings, increases expenditure and reduces income. AIDS creates a stigma and leads to unfair discrimination of HIV infected people in the society. It causes significant obstacles to children coming from AIDS infected families in achieving universal access to primary education and health. Poor countries become poorer as AIDS intensifies chronic food shortages by reducing agricultural workforce in developing countries, it is estimated that AIDS will have claimed the lives of one-fifth or more of agricultural workers in southern Africa by 2020. The epidemic has created a need for robust, flexible health systems at a time when many affected countries are facing severe financial constraints for public service spending. Although global spending on AIDS has increased from US\$ 300 million in 1996 to US\$ 8 billion in 2005, it is less than what is needed by 2010 in order to address all the socio-economic and health issues of HIV/AIDS in developing countries.

According to the Joint United Nations Program on AIDS (UNAIDS, 2006), more than 20 million people have already died of AIDS, and the number of people living with HIV/AIDS continues to grow. It is estimated¹ that 38.6 million people are living with HIV/AIDS in 2005, 4.1 million newly infected with HIV, and 2.8 million lost their lives to HIV. The number of children orphaned by the disease rose from 11.5 million in 2001 to 15 million in 2003. About 95 percent of those living with HIV/AIDS are in developing countries. Sub-Saharan Africa is the hardest hit region in the world, accounting for almost two-thirds of people (approximately 25 million) infected with HIV worldwide. India with 5.1 million² cases of HIV has the largest number of people living with HIV outside South Africa.

¹ Historically, UNAIDS and WHO restricted HIV prevalence estimates to the 15-49 year age group. However, it is now evident that a substantial portion of people living with HIV/AIDS is 50 years and older. Accordingly all new estimates are for adults "15 years and older".

² According to National Family Health Survey (NFHS III), India has less than 3 million cases of HIV.

2. The United Nations and HIV/AIDS

It is obvious that a worldwide epidemic of this magnitude and complexity, which raises larger issues beyond the health sector, demands a response from an international organization. The UN system therefore came forward to address the HIV/AIDS issues, by creating UNAIDS in 1996, which represents an innovative partnership of seven co-sponsors: UNDP, UNDCP, WHO, UNICEF, UNFPA, UNESCO, and the World Bank. The role of UNAIDS is to advocate for global action on HIV/AIDS. Each partner organization is supporting various activities related to HIV/AIDS, in collaboration with governments, civil societies, and the private sector.

2.1 The UN General Assembly Declarations (2001)

The special Session of the United Nations general Assembly on HIV/AIDS in June 2001 was a landmark in the global efforts to respond to the AIDS crisis. In the Declaration of Commitment on HIV/AIDS (United Nations, 2001), leaders from 189 Member States committed themselves to a comprehensive set of time-bound HIV targets to halt, and begin to reverse, the global epidemic by 2015, as provided in Millennium Development Goal 6 (United Nations, 2000).

- **Prevention:** The Declaration calls for
 1. 25 % reduction in HIV prevalence among young people (aged 15-24)
 2. 90% of all young people (aged 15-24) to have access to vital HIV prevention information, education and services (reducing the number of sexual partners, consistent use of condoms, etc), including life-skills education
 3. 20% reduction in the proportion of infants infected with HIV
 4. **Blood Safety:** All member countries to establish a nationally organized and managed blood program to ensure safe blood transfusion services.
- **Children Orphaned and made Vulnerable:** The Declaration calls for all countries to implement national strategies to support children orphaned and made vulnerable by AIDS, to ensure their equal access to education and other services, and to protect them from abuse and stigmatization.
- **Care, Support and Treatment:** Care, support and treatment are fundamental elements of an effective response. The UN declaration calls for all countries to implement national treatment strategies and increase access to comprehensive care. A target of 80 % coverage of all HIV + pregnant women receiving ARV prophylaxis and 50 % coverage of all people with advanced HIV infection are envisaged in the declaration.
- **HIV and Human Rights:** The Declaration emphasizes the importance of human rights and fundamental freedoms to an effective AIDS response. Its calls on all countries to enact legislation against discrimination of people living with HIV/AIDS and the vulnerable populations. It also commits countries to implementing national strategies to promote women's rights and empower women to protect themselves from HIV infection.

- **Regular Reporting:** The declaration also calls for regular reporting to the General Assembly on a set of core indicators to plan and monitor the global progress in achieving its mandates.

2.2 UNAIDS Report 2006³

Five years hence, by March 2006, UNAIDS had received responses from 126 countries and territories, as well as from some civil societies. Even though all countries have not provided information for all core indicators, UNAIDS 2006 report contains the first comprehensive set of data on the member country's response to the AIDS epidemic the world has ever had. Country reports on the core indicators provide insights into the current status of monitoring and evaluation capacity, as well as guideposts for future efforts to increase national capacity in this field.

The UNAIDS 2006 report on the global AIDS epidemic mentions that about 80 % of the countries have reported incorporating HIV/AIDS framework in their general development plans. This reflects a political commitment from member countries to address the issues on HIV/AIDS in their socio-economic development.

However, the impact of any national plan depends in large measure on the degree to which it is successfully implemented.

As per the UN report (UNAIDS 2006), national prevention plans are generally not being effectively implemented. Information is limited on global success in achieving the target of a 25% reduction in HIV prevalence among young people (aged 15-24). Globally, targeted prevention services within community outreach programs reached 36% of sex workers in 2005. Prevention coverage is even more limited for men who have sex with men (about 9 %), and IVD users.

Most countries appear to have missed the target of ensuring that 90% of young people in 2005 receive critical prevention interventions, including services to develop the life-skills needed to reduce vulnerability to HIV. Data suggest that school-based HIV education is critical to increase HIV related knowledge levels for young people.

Countries have made notable progress in improving the safety of national blood supplies, with nearly 100% of countries reporting that blood is now routinely screened for HIV antibodies. However, available information suggests that national blood screening efforts are often impeded by inadequate quality assurance mechanisms, poor staff training and sub optimal laboratory procedures, which can cast doubt on the reliability of test results.

Precise information on service coverage of treatment services for sexually transmitted infections is extremely scarce. In 2001, WHO estimated that fewer than 18% of people with a sexually transmitted infection had access to treatment and care services.

While the global success in achieving the resource mobilization target is heartening, more extensive analysis subsequent to the 2001 Special Session indicates that substantially greater

³ This section relies extensively on the UNAIDS 2006 Report on Global AIDS Epidemic

resources will be required to place the world on track to begin to reverse the HIV epidemic by 2015. HIV funds available in 2005 are barely one-third of the amount that will be needed in 2008 (US\$ 22.1 billion) to support a comprehensive response (UNAIDS, 2005)

Additional resources, stronger national policy frameworks, wider access to treatment and prevention services and broad consensus on the principles of effective country level action-provides a good foundation to build a fully comprehensive, full-scale response to HIV/AIDS. An accurate understanding of both the epidemic and the national response is critical to the development, implementation and improvement of sound national policies and programs on HIV/AIDS.

3. India and HIV/AIDS

3.1 HIV/AIDS Scenario in India

As per UNAIDS estimate, India has the largest number of people living with HIV outside South Africa. Out of 6.5 million HIV/AIDS victims in South and South East Asia, 5.1 million live in India alone⁴.

While the epidemic is still spreading in the country (up from 3.5 million in 1998 to 5.1 million in 2003), there is no significant upsurge in the number of new infections, and therefore India continues to be a low prevalence country. However, six Indian states (Andhra Pradesh, Karnataka, Maharashtra, Manipur, Nagaland, and Tamil Nadu) have a high prevalence rate of more than 1 percent among the general population.

The predominant route of transmission of HIV/AIDS in India is through the heterosexual route (86%). Some of the key factors fueling the spread of HIV/AIDS in India are commercial sex, high prevalence of STI, large scale migration of workers from rural to urban areas and low levels of female literacy. According to the Annual Round of HIV Sentinel Surveillance 2003, the estimated number of 5.1 million HIV infections consists of 3.48 million general population, 1.49 million STI patients, 70000 Female sex workers, 10000 intravenous drug users, and 55000 children. The rates of HIV among sex workers, intravenous drug users, and STI patients remain unacceptably high in many parts of the country.

Rural India accounts for 60 percent and male infected persons account for 62 percent of the total number of infections. It has been reported that young people in India are among the most vulnerable to HIV. Over 35 percent of all reported HIV/AIDS cases in India occur among young people in the age group of 15-24 years. Knowledge about the virus and its transmission is still scant and incomplete.

Even though HIV prevalence is less than 1% in India, a mere 0.1% increase in the prevalence rate would increase the numbers living with HIV/AIDS by over half a million. Significantly, the epidemic is moving from high risk group and urban areas to the general population and hinterland (NACO 2005).

3.2 National AIDS Control Program

The Government of India launched a National AIDS Control Program in 1987, which concentrated on surveillance, blood safety, and IEC. A comprehensive five-year strategic plan was launched in 1992-99 with World Bank credit as the National AIDS control program (NCAP-I). NACP-I was a start-up investment to launch interventions for HIV prevention, so as to slow the spread of HIV, and mitigate the impact of AIDS. During this period, the National AIDS Control Organization (NACO) was established. NACO was entrusted with the responsibilities to strengthen the systems for HIV sentinel surveillance, install Voluntary

⁴ However, as per the Government of India's National Health Survey (NFHS III), India has less than 3 million HIV cases now.

Counseling and Testing Centres (VCTC), step up awareness generation activities, modernize blood banks, and so on. NACO created AIDS cells in all the states for effective implementation of the NACP I program. While some progress was achieved at the state levels, there were significant limitations in implementation: vulnerable groups were not identified, IEC remained somewhat limited, and community involvement was inadequate.

The second phase of NACP, NACP II (1999-2006) was formulated with two key objectives: reduction in the spread of infection and strengthen the capacity to respond to HIV/AIDS on a long-term basis. Specific objectives of this phase include interventions to change behavior through targeted interventions, decentralization of service delivery through State AIDS Control Societies (in place of AIDS cells), protection of human rights, Operational Research and management reform. State and Municipal AIDS Control Societies were empowered with adequate financial and administrative powers to identify and respond to local needs. During this period, NACP II has witnessed rapid expansion and decentralization in the country. There has been some amount of success, but we have to go a long way. WHO estimates that HIV/AIDS caused 2 percent of all deaths and 6 percent of deaths due to infectious diseases in India in 1998. Projections on mortality from infectious diseases in India show that by the year 2033, HIV/AIDS could cause as high as 22 percent of all deaths and 40 percent of deaths from infectious diseases.

The third phase of NACP, NACP III (2007-2012) focuses on reducing new infections by 60% in high prevalence states so as to obtain a reversal of the epidemic, and 40 % in the vulnerable states so as to stabilize the epidemic. The strategy to achieve these goals is the following (NACO, 2007):

- Prevention of new infections in high risk groups and general population through
 - Saturation of coverage of high risk groups with TIs
 - Scaled up interventions in the general population
- Providing greater care, support and treatment to a larger number of people living with HIV/AIDS
- Strengthening the infrastructure systems and human resources in prevention, care, support and treatment programs at the district, state, and national levels
- Strengthening a nationwide Strategic Information Management System

Also, NACP III has done away with classifying the states into High, Moderate and Low prevalence categories. Instead, 163 districts are classified as high prevalence, 59 districts have concentrated epidemic, 278 districts have increased presence of vulnerable population and 111 districts as low/unknown vulnerability.

4. Managing HIV/AIDS Program

4.1 Management Concepts: An overview

Management is all about managing organizational resources to produce goods and services as per client needs. Organizational resources include the following:

Financial Resources

Human Resources

Materials Resources

Machine/Equipment Resources

Managing the resources amounts to planning, implementing, monitoring and control (through interventions) the utilization of resources effectively and efficiently to produce goods and services. Effective utilization of resources measures the extent of achievement of goals. Efficient utilization measures the amount of resource input to achieve the intended outputs.

Management of HIV/AIDS Program therefore deals with planning, implementing, monitoring and control (through properly defined interventions) the utilization of resources to provide HIV/AIDS services to the people, effectively and efficiently.

Effective utilization of resources would therefore measure how well the program objectives are met, while efficient utilization would measure how well the scarce resources are utilized to achieve the objectives.

Major components of HIV/AIDS program are

- Sentinel Surveillance
- Behavioral Surveillance
- Targeted Interventions
- Opportunistic Infections
- Counseling services
- Blood safety
- Treatment and Care

Managing each component of the HIV/AIDS program listed above, involves management of resources, namely financial management, human resource management, materials management, machines/equipment management.

A good manager is one who manages her/his resources to achieve the organizational objectives, both effectively and efficiently. Managing HIV/AIDS projects such as managing ART distribution calls for managing the entire supply chain management, starting with estimation of ART medicines; procurement, storage and transportation of ART medicines; managing the inventory of ART medicines; and distribution to the patients regularly.

Given the magnitude, nature and complexity of HIV/AIDS projects (more than 1200 sentinel surveillance sites, more than 1000 targeted interventions etc), it is necessary to design,

develop and implement a Management Information System (MIS) to address the managerial challenges in HIV/AIDS program.

4.2 An MIS perspective

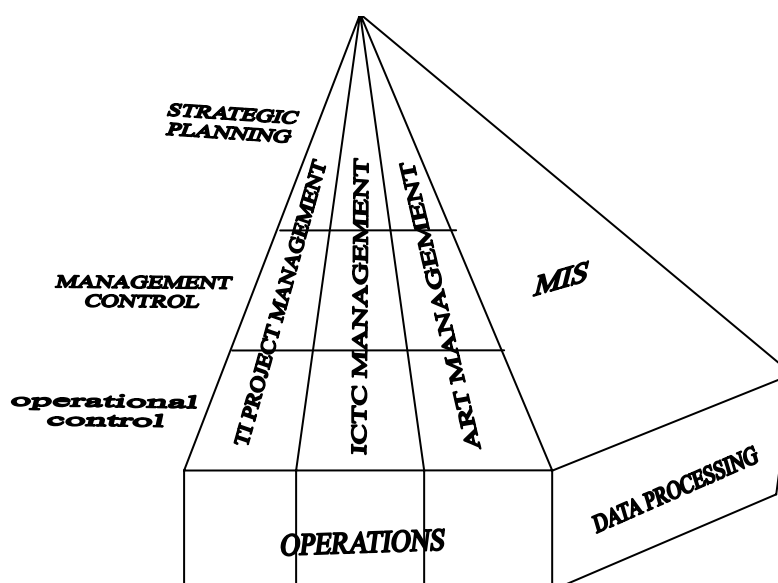
Since management is all about planning and control, a Management Information System (MIS) should provide information to support management. An MIS for the Project Director (PD) of GSACS therefore should provide information support to plan, monitor and control (intervene) the activities of GSACS.

Some people have used the term to describe systems in which a manager has instantaneous access to detailed information regarding the entire organization. Some see it merely as an appendage to the accounting system which merges into the usual financial type of summary statements or of non-financial data.

Defining MIS: Definitions most useful in practice are those which emphasize the use that is made of the information provided by an MIS rather than the technology or methodology employed in collecting and disseminating the information. We therefore define MIS as an integrated man-machine system that provides **information to support the planning and control functions of managers** in an organization. Let us make a few remarks to elaborate this definition:

Remark 1. We clarify what we mean by planning and control. Every organization, in order to function, must perform certain operations. For Example, the Project Director of GSACS has to plan the resource requirements (finance, staff, materials, equipment) for targeted interventions. Also, the PD must monitor and control (interventions) the activities of each targeted intervention. The figure below depicts the relationship between operations, planning, and control and illustrates the decision focus of MIS.

Figure 4.1 An MIS Perspective



Remark 2. An MIS includes all the ingredients that are employed in providing information support to managers in making planning and control decision. Managers often use historical data of an organization's activities as well as current status data to make planning and control decisions, often relying on operations research models.

This database is an essential component of an MIS. Manual procedures that are used to collect and process information and computer hardware are also ingredients of an MIS.

MIS is an integrated man-machine system that provides information to support the planning and control functions of managers in an organization. It is a system which (i) sub serves managerial functions, (ii) collects information systematically and routinely, (iii) supports planning and control decisions, and (iv) includes files, hardware, software and operations research models.

Framework For Understanding MIS: The information processes in an organization are labyrinthine, and without a general map to guide us in studying them, we should soon be lost in a mass of unstructured detail. Such maps are provided by a general framework that seeks to sharpen important distinctions in the type of information that supports managerial decisions. A number of such frameworks which in our opinion, provide maximum insight from a pragmatic standpoint are now discussed.

Different types of planning and control processes typically occur in organizations. Thinking of planning and control as two separate and homogeneous activities in an organization is not only meaningless but positively dysfunctional. The area of management planning and control should be divided into three categories, resisting the "natural temptation for two main divisions; planning (roughly, deciding what to do), and control (roughly, assuring that desired results are obtained)." The three categories are:

Strategic planning: Strategic planning is the process of deciding on the objectives of the organization, the resources used to attain these objectives and the policies that are to govern the acquisition, use and disposition of these resources.

Management control: Management control is the process by which managers assure that these resources are obtained and used effectively and efficiently in the accomplishment of the organization's objectives.

Operational control: Operational control is the process of assuring that specific tasks are carried out effectively and efficiently.

There are fundamental differences regarding the information characteristics for supporting Strategic Planning, Management Control, and Operational control decisions, as displayed in the Table 4.1.

Table 4.1 Information Characteristics for Planning and Control

| Information characteristics | Strategic planning | Management control | Operational control |
|---------------------------------------------------------------------------------|------------------------------------------|--------------------|---------------------|
| 1. Volume | Low | Intermediate | High |
| 2. Level of aggregation | High | Intermediate | Low |
| 3. Frequency of use of a particular type of data | Low | Intermediate | High |
| 4. Currency requirement | Low | Intermediate | High |
| 5. Accuracy | Low | Intermediate | High |
| 6. Scope | Wide | Intermediate | High |
| 7. Source | Significant amount from external sources | Mostly internal | Entirely internal |
| 8. Predictability of use | Low | Fairly high | Very high |
| 9. Variability with user | High | Intermediate | Low |
| 10. Distance of user (in organizational terms) from sources within organization | Far | Fairly close | Close |

While designing MIS, it is equally important to focus on the objectives of the decision-maker, i.e. what the manager is going to decide, and how the manager makes decisions. The process of decision making involves three stages:

Stage 1: Intelligence. Here, the decision-maker recognizes the problem.

Stage 2: Design. At this stage, the decision-maker identifies alternative courses of action to solve the problem.

Stage 3: Choice. At this stage, the decision-maker is concerned with the process by which one of the alternatives generated at stage 2 is chosen and pursued.

The foregoing discussions on MIS framework suggest the following guidelines pertaining to two key aspects of information systems development:

1. The type of applications that should be emphasized
2. The process of designing these systems

Matching technology and applications. An MIS designer should ensure synchronization between available technology and information needs for supporting different types of planning and control decisions. For example, it is evident that operational control applications will require technology which supports data capture in real time and a flexible data organization which can provide query facilities with reasonable response times. On the other hand, strategic planning applications will require technology which can access a variety of external sources, can run optimizing and simulation models, and can be used with user friendly software.

Tight coupling between applications for strategic planning and operation control. Since the information characteristics required to support strategic planning decision are quite different

from operational control, it is not always necessary to wait to build all operational systems before applications for management and strategic level can be developed. In fact, many of the transaction processing systems are large and complex, requiring many years of effort for development and implementation.

Different roles of models in strategic vs. operational systems. In developing systems in order to support strategic planning, an analyst needs to elicit the model from an executive (part of the top management team) and, therefore, needs knowledge and experience of a wide variety of functional areas and models. Prototyping, as a methodology of designing such systems, is most appropriate as all the specifications of an application system cannot be identified in advance. Whereas in operational control the problem is usually generic, several researchers may have built general models to solve such problems. What is required in an adaptation of generalized models to a specific situation. The analyst works largely with technical personnel in a specific function. System design has to be developed through a formal methodology, and technical aspects and efficiency are the important concerns.

4.3 Managerial challenges in HIV/AIDS Program

Below, we describe each of the HIV/AIDS program components in some detail, with a special focus on Gujarat State

4.3.1 Sentinel surveillance

Public health surveillance⁵ is the epidemiological foundation of public health. Surveillance is an ongoing reflection of collection, analysis and interpretation of health data essential to the planning, implementation and evaluation of public health practices. Of particular interest to planners is the link between surveillance and prevalence and control efforts.

According to NACO, “HIV surveillance is a collection of epidemiologic information of sufficient accuracy and completeness regarding the distribution and spread of HIV infection to be relevant to planning, implementation and monitoring of HIV/AIDS prevention and control program activities”.

HIV sentinel surveillance (HSS) deals with carrying out cross-sectional studies of HIV prevalence rates in selected groups of population, known as “sentinel groups” at regular intervals. This can be either community based or clinic/health facility based; the latter is much more convenient and hence always preferred. While various SACS under NACO routinely carry out facility based HSS, it is important to realize that NFHS III included a community based HSS.

In 1990, WHO proposed the use of Unlinked Anonymous Testing (UAT) for HSS. In UAT (without informed consent),

⁵ The term surveillance is derived from the French word meaning ‘to watch over’ and when applied to public health surveillance, it means close monitoring of occurrence and spread of selected health conditions in the population.

- Specimen is collected for purposes other than HIV testing (VDRL test in India)
- Specimen are coded, therefore no client identity
- HIV test is carried out in addition to the regular test (VDRL test)
- HIV results not disclosed to the patient

It is important to realize that UAT leads to missed opportunities for referring patients/clients to available prevention services such as VCT, PMTCT centres, etc. Also UAT constraints prevention and control efforts even at the community level since no personal details are kept about the sampled population.

Feasible & Cost Effective Surveillance can be achieved by annual screening of the same risk group in the same place over time, collection of samples within a short time, and using sentinel approach for sample collection (feasibility).

The objectives of HSS are to provide

- An understanding of the spread of HIV infection, how the infection is spreading over time, and to understand the trajectory of the epidemic, and
- Information to design targeted interventions (TIs) for prevention and control the epidemic.

The objective of HSS is to monitor the trend of infection and not estimation of prevalence rate. However, many countries resort to UAT approach for estimating HIV prevalence rate, in the absence of any other methodology. Limitations of HSS data for estimation of prevalence rates arise from many dimensions:

- Choice of sentinel groups: Ante-natal mothers, considered as proxy for general population, constitute a small sample.
- Choice of sentinel sites: Most of the sentinel sites are the District hospitals. District hospitals mostly cater to urban and semi-urban population, thereby ignores the larger rural population
- Sampling method: HSS uses “Consecutive sampling” methodology, instead of probability/random sampling, so as to ensure the required sample size within the stipulated period of 12 weeks. As a result, the method of estimation (use of median) and computing confidence intervals needs to be understood correctly.

Number of sentinel sites over the years from year 1998 to 2006 in India is shown in Exhibit 4.1 and state-wise sentinel sites for year 2006 is shown in Exhibit 4.2

4.3.2 Behavioral Surveillance

While HSS data is used to track the spread of infection, Behavioral Sentinel Survey (BSS) data is used to track the behavior of the population vulnerable to the epidemic. Like sentinel surveys, Behavior Surveillance (BS) also focuses on general population as well as specified populations.

The general population based survey focuses on the sexual and drug injecting behavior of the general population. The advantage of general population based surveys is that they provide information on a number of topics such as age at menarche, age at first intercourse, age at marriage, overall levels of pre-marital and extra-marital sex, use of drugs etc. The main disadvantage is that they are expensive and complex, refusal rates are high and are done only once in 4-5 years.

Specified populations for BS would include Social Groups: defined by socio-economic, cultural, and demographic characteristics. Specified population based surveys focus on those who are at higher risk of contracting and transmitting the virus, such as Commercial Sex Workers (CSW) and their clients, Men having Sex with Men (MSM), Injection drug users (IDU) etc. A major challenge in specified population based survey is that people in such groups are hard to reach and stigmatized. If conducted properly, such surveys do provide valuable information to the planners to design specific targeted interventions for specific groups of people.

BS is based on social and behavioral concepts and methods which include both qualitative and quantitative data collection and analysis. Ethnographic methods are extensively used in BS, as they bring the investigators close to the people; diminish social distance and foster empathy, all of which improves data collection through questionnaires, access to people and interpretation of results. Bias in such surveys (general and specific groups) occurs since the respondents may not always be truthful about their sexual and drug use behavior. However, trends can be observed between reported sex activities and STI as well as between repeated condom usage and condom distribution. Self administered questionnaires are known to elicit more honest information as participants remain anonymous.

BSS aids in the following:

- Functions as early warning systems thus alerting policy makers to emerging risks or changes in the existing risk behavior of the population (general, and specific)
- Reveals gaps in the knowledge and understanding of HIV/AIDS that interventions can address effectively
- Helps identify population segments that are at a higher risk

Note that BS is different from Sentinel Surveys:

- BS requires informed consent and voluntary cooperation (not linked to HIV testing) and hence efforts are required to maintain good rapport with the survey population. HSS on the other hand, is unlinked anonymous testing, requires no consent, and therefore no collaborative relationship is not required.
- BS is not limited to fixed facilities, and hence offers better opportunities to develop more representative samples. HSS is linked to fixed facilities; sampling is non-random, and therefore subject to more bias in trend analysis.

4.3.3 Targeted Interventions

Targeted Intervention (TI) program aims at preventing and control the rate of transmission among the vulnerable and marginalized populations.

Certain populations are at a greater risk of acquiring and transmitting HIV infection due to higher levels of risky behavior and insufficient capacity or power to decide to protect themselves, such as Commercial Sex Workers (CSW) and their clients, Injecting Drug Users (IDU), Truck Drivers, Men having Sex with Men (MSM), migrant workers and street children. Directing HIV prevention efforts to such groups is a proven cost effective strategy as it has the multiplier effect of preventing many subsequent rounds of infections among the general population.

TIs involve multi-pronged strategies such as Information, Education, and Communication (IEC); Behavioral Change Communication (BCC); Counseling; Treatment of Sexually Transmitted Infections (STI), Provision of condoms and so on. TIs play a critical role in building an enabling environment and in reaching out to the bridge population. The design of TIs should take into account the social, economic, cultural and demographic profile of the target group. For India state-wise status of Targeted Intervention in year 2006 is shown as Exhibit 4.3.

Information, Education, and Communication (IEC) generates awareness about HIV/AIDS, and about the services on prevention of HIV as well as on treatment and care support. The role of IEC in alleviating stigma and discrimination towards people living with HIV is central to all communication efforts. IEC activities are critical to mainstreaming HIV/AIDS by mobilizing other sectors of the society to help integrate HIV/AIDS messages into their existing activities, such as in work place.

While the first generation of prevention messages (IEC) focused on “safety” which actually translates into secondary behavior changes (e.g. Condom use) and harm/risk reduction activities (clean needles), second generation messages (BCC) target primary behaviors of individuals/communities and call for a change in lifestyle. The main focus of BCC programs include: stimulating community dialogue on high risk behavior/settings; addressing cultural practices related to sexuality; promoting healthcare seeking behaviors for prevention, care and support at the individual and community level, and so on.

At the medical level, there is strong connection between STI and HIV. Counseling and treatment of STI including the partners, condom promotions etc are important components of HIV program on prevention, control, treatment, and care.

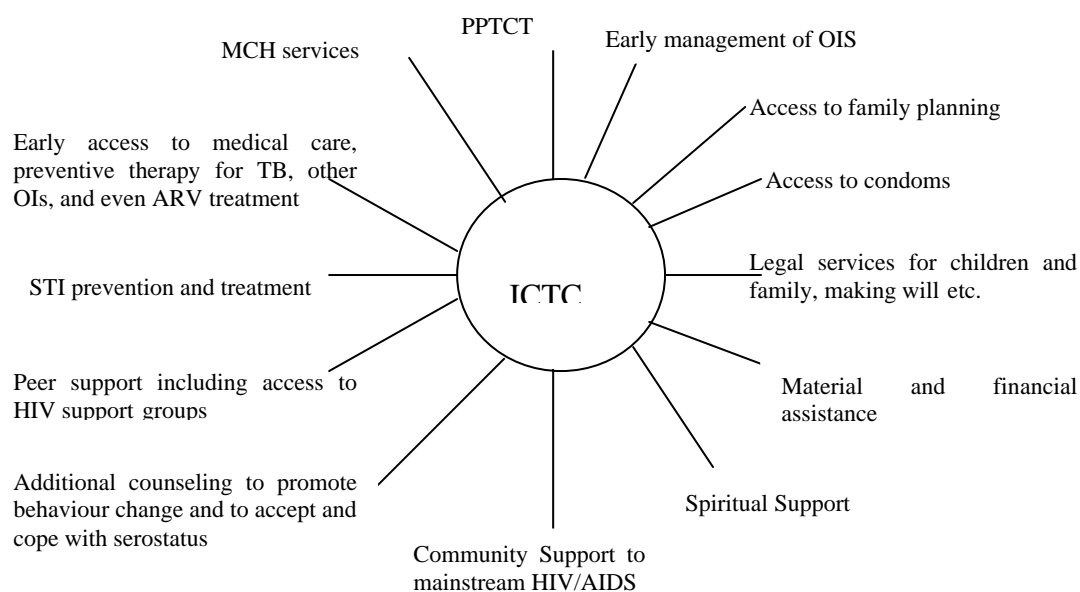
Unfortunately HIV program management is not sufficiently integrated with management of other health programs. Managerial challenges are many to integrate HIV program with Reproductive and Child Health program (for treatment of STI/RTI, promoting condom use, Adolescent and Sexual Health, Counseling ANC mothers, and so on), and with TB program (as TB is an opportunistic infection, see Treatment and Care section 4.3.7). Managerial challenges also exist for integrating HIV program with other Non-Health Programs, such as adolescent and sexual health programs which require coordination with the department of youth affairs, department of women and child health, department of education, and so on.

Counseling, an integral component of any TI is discussed below in a separate section.

4.3.4 Counseling Services

Counseling is the core of HIV/AIDS prevention and control activities. Counseling consists of pre-test and post-test counseling. Pre-test counseling presents the counselor with the challenge of balancing the provision of information, assessing the risk and responding to the clients emotional needs. Good pre-test counseling is a necessary and sufficient condition for good post- test counseling. Post –test counseling focuses on helping the client to identify and understand the implications of a negative or a positive result. HIV negative clients can take necessary actions for adherence to stable, non-risky behavior patterns. In the event of a positive HIV test result, counseling strengthens the strategies for coping with immediate stress, possible stigma, psychological and social impacts. It provides referrals to appropriate facilities for care, support and treatment and promotes more informed choices for future. Counseling services are offered for Voluntary Testing, Management of STIs, Prevention of Parent to Child Transmission and so on.

Figure 4.2 Linkages between Counseling and HIV Prevention, care and support



Source: Voluntary Counseling and Testing: Operational Guidelines, National AIDS Control Organization, Ministry of Health and Family Welfare, Government of India, 2004

Some of the expected benefits to the society from counseling services include:

- Generating greater awareness and knowledge of HIV/AIDS, potentially leading to reduced transmission in the wider community
- Contributing to a more supportive environment for mainstreaming HIV/AIDS
- Encouraging openness and reducing fear and stigma surrounding HIV
- Stimulating a community response in support of people with HIV, including the development of care and support for people living with HIV/AIDS
- Supporting human rights (no mandatory testing)

There is a move towards Integrated Counseling Testing centres instead of standalone counseling centres for VCTC, STI, PPTCT etc.

The Number of ICTC centres in India as on 2007 is shown in Exhibit 4.4

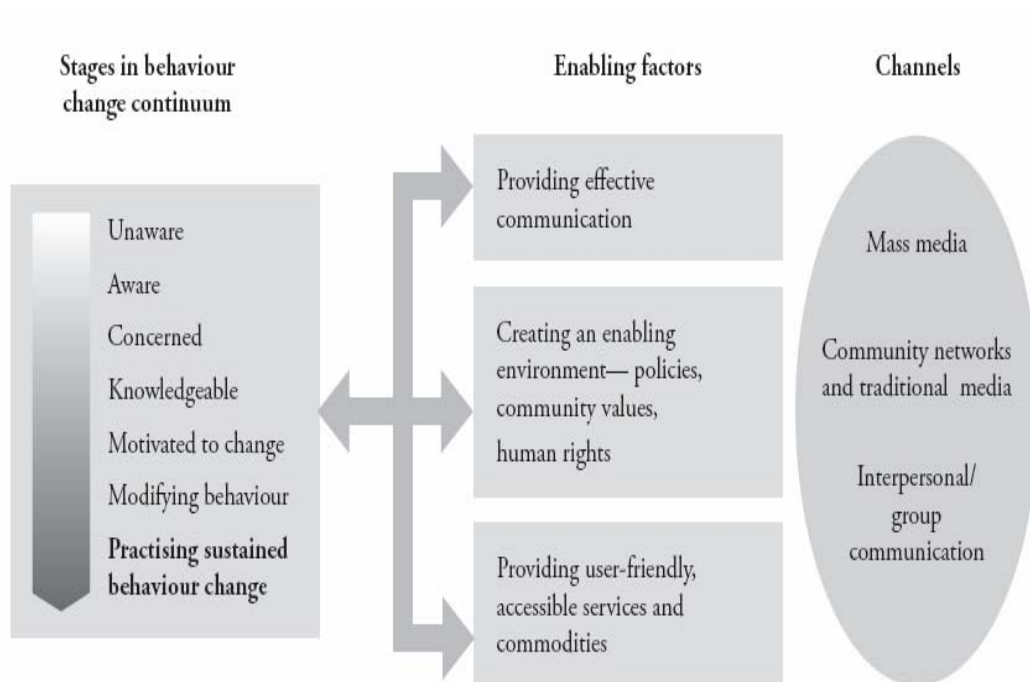
4.3.5 IEC & BCC

IEC (Information Education & Communication) & BCC (Behavioral Change & Communication) are key components of TIs.

IEC is a process of working with individuals, communities and societies to develop communication strategies to promote positive behaviors which are appropriate to their settings. IEC was widely used in FP and MCH for many years. It is now being used for HIV programs.

BCC builds on IEC. BCC recognizes that behavior is not only a matter of having information and making a personal choice. Behavior change also requires a supportive environment. BCC is influenced by “development” and “health services provision” and that the individual is influenced by community and society, which provide the supportive environment necessary for behavior change. Figure 4.3 explains the framework for BBC design in HIV/AIDS.

The various target audience (NACO, 2004) for the IEC/BCC interventions are adolescents, young adults, women, core transmitter groups (CSW, MSM, IDU), bridge populations (transport workers, migrants, industrial workers), community leaders, religious leaders, elected representatives, Positive People’s Networks, health providers- government sector & private sector, NGOs/CBOs and media.

Figure 4.3 A framework for BCC design in HIV/AIDS

Source: National IEC/BCC strategic framework for HIV/AIDS Program, NACO 2004

Effective BCC can give following outputs.

- Increase factual knowledge of HIV/AIDS
 - Stimulate social and community dialogue
 - Promote essential attitude change
 - Improve skills and sense for self effectiveness
 - Reduce stigma and discrimination against people living with HIV/AIDS
 - Create demand for information services – VCT, PPTCT..
 - Advocate for an effective response to the epidemic
- Promote services for prevention, care and support for vulnerable communities/populations

4.3.6 Blood Safety

The Blood safety program of HIV/AIDS aimed at ensuring safe and clean blood (and blood components) for transfusion needs is another major activity for prevention and control of HIV/AIDS. Between 5% and 10% of HIV infections worldwide are transmitted through the transfusion of infected blood and blood products. An investment in safe and adequate supplies of blood is a cost-effective investment in the health and economic wealth of every nation.

The human costs of unsafe blood are incalculable. Morbidity and mortality resulting from the transfusion of infected blood have far-reaching consequences, not only for the recipients themselves, but also their families, their communities and the wider society. Since a person can transmit the infection during the asymptomatic phase, it can contribute to an ever-widening pool of infection in the wider population.

The economic costs of a failure to control the transmission of infection have already been demonstrated in countries with a high incidence and prevalence of HIV and AIDS. Increased requirements for medical care, higher levels of dependency and loss of productive labour all place heavy burdens on overstretched health and social services and on the national economy.

It is important to realize that a mere inventory of safe blood at the blood banks is not enough. We have to make safe blood available for transfusion services wherever it is required. Shortfalls in blood supply have a particular impact on women with pregnancy complications, trauma victims and children with severe life-threatening anemia. Globally, up to 150 000 pregnancy-related deaths could be avoided each year through access to safe blood. In India alone, about 25000 women die every year due to post partum hemorrhages. Timely transfusion of blood is thus an important intervention which can save the lives of many such women, if adequate supply of blood is available at all health centres.

Blood Bank Management should focus on managing the following activities so as to ensure an adequate supply of safe blood and blood components, for use when clinically needed:

- Donor recruitment and retention (repeat volunteer blood donors)
- Blood collection (camps, walk-ins, volunteer, replacement)
- Testing (ensure safe blood, window period for HIV+)
- Processing
- Storage (whole blood Vs components)
- Issue to health centers
- Usage in health centers (beneficiaries, transfusion within a time period)

Evidence has shown that a well organized, nationally coordinated blood transfusion service is safer and more cost effective than hospital based or other fragmented systems. This will allow blood and blood products to be equitable, safe, accessible, and adequate to meet the transfusion requirements of the patient population. However, because of a lack of national coordination and the fragmentation of services, only about 60 of the 192 WHO Member States have a national blood policy, relevant legislation, and one specific organization responsible for the national blood program.

The provision of safe and adequate blood supply at national level is the responsibility of the government/national health authority of each country.

Some of the major issues in blood bank management are:

Inadequate Government Commitment:

Government support for blood transfusion services in several countries in the SE Asia region is still not adequate. Some blood transfusion services continue to rely on donor funding for basic operations, such as procuring test kits or carrying out donor recruitment activities. These essential activities often have to be stopped when cooperation programmes end or donor agencies withdraw.

Lack of Blood Donors:

Lack of voluntary non-remunerated blood donors is still the main constraint for blood safety in the region. Family replacement donors still provide the bulk of blood for the services. Donors are still paid in some countries.

Poor Organization of Blood Supply System:

Blood transfusions rely on very fragmented blood supply systems. Such systems mean that control is exercised by different players of layers of government, which makes it very difficult to assure the quality of blood and blood products. More resources as well as stronger political will and leadership are needed if systems are to be reformed. India has a large number of independent and hospital based blood banks of different levels of sophistication, serving different types of hospitals and patients. Central, state and autonomous government institutes, municipal corporations, cantonment boards, railway services, ESI authorities, armed forces etc are among the public bodies concerned with the organization and administration of blood services. In addition, there is a spectrum of trusts, independent commercial and private blood banks, with IRCS holding a primary position.

Low Status of Blood Banks:

Hospital based blood banks usually have a low status within laboratories and are usually run by a laboratory technologist, who is often inappropriately trained and inadequately supervised.

Inadequate Coverage of Blood Screening:

We have policies to screen donated blood for HIV and HBV and HCV. However, coverage of all blood units in the country and the sustainability of screening depend on the availability of testing reagents. Because some blood services have not achieved full coverage, in rural areas or in emergencies blood transfusion sometimes has to take place with blood that not been tested at all.

Lack of quality Control:

Quality control is considered to be less an essential component of routine work than a luxury that adds costs to under-resourced blood banks. A lack of quality assurance measures (including manuals of standard operating procedures, appropriate training and competency certification programs, and continuous assessment systems) often hinders the implementation of good laboratory and manufacturing practices.

Inappropriate use of Blood:

The inappropriate use of blood is widespread. This includes the transfusion of blood or blood products when it is not strictly needed or when safer alternative therapies are available. In addition, whereas in most developed countries 75% -100% of the blood collected is transfused as components, in developing countries most of the blood is transfused without being separated.

Blood Component Therapy:

It is necessary to promote blood component therapy. Some of the advantages are

- One unit of whole blood gives four components. As the human body requires blood components most of the time, we should provide only the required component to the body, and not the whole blood. The unused components from one unit of blood can possibly save three other lives.
- Investments in blood component separation should be utilized fully. If government cannot address this concern satisfactorily, it may be worthwhile to explore public private partnerships.

Number of blood banks in India in year 2006 is shown as Exhibit 4.5

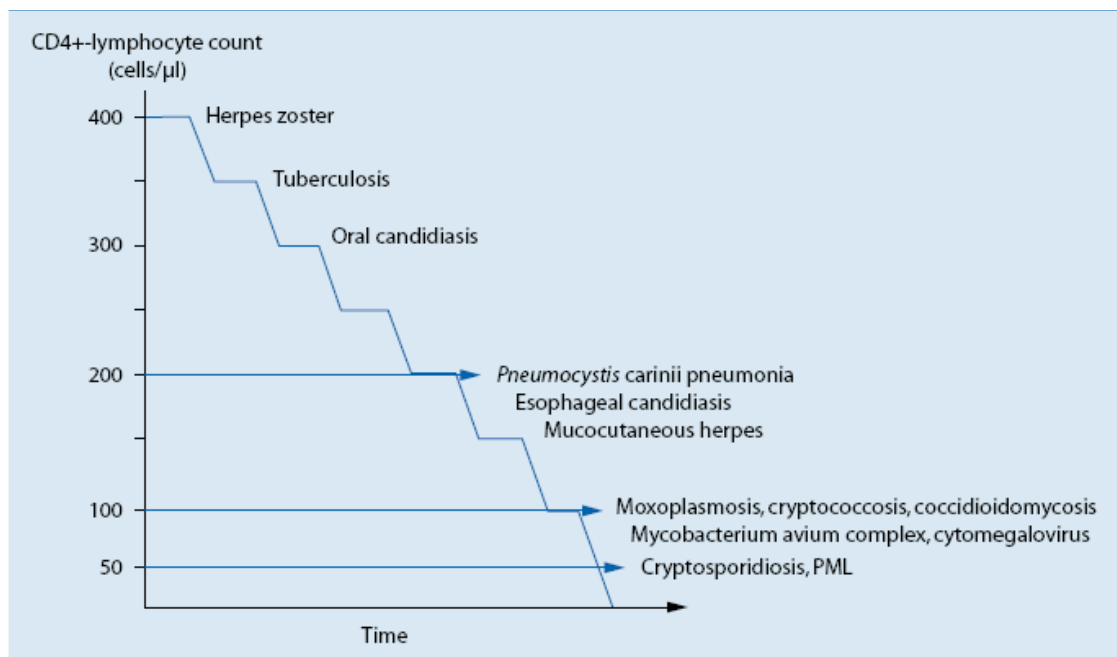
4.3.7 Treatment and Care:

The burden of HIV infection poses enormous challenges for the Indian Government where 80 percent of national health expenditure passes through the private sector. The role of medical ethics has gained more importance with the spread of AIDS epidemic. The huge shortfall in Antiretroviral Therapy (ART) for AIDS is unacceptable. There is an urgency to scale up treatment programs for providing life-prolonging ART.

Home based care is another emerging issue for HIV treatment and Care. Care givers such as doctors, nurses and counselors should provide good quality care. There are several cases of HIV/AIDS patients being turned away by private healthcare providers due to staff fear, and apparent lack of resources. It is time for the government to sensitize the private healthcare providers.

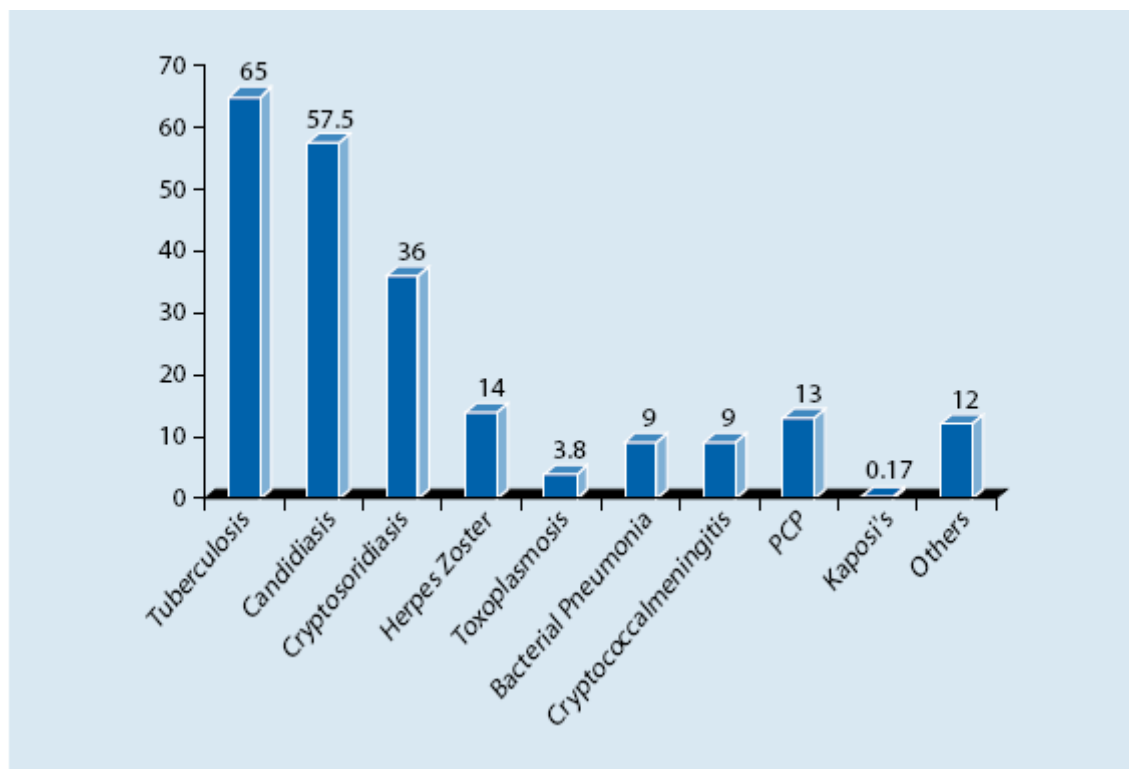
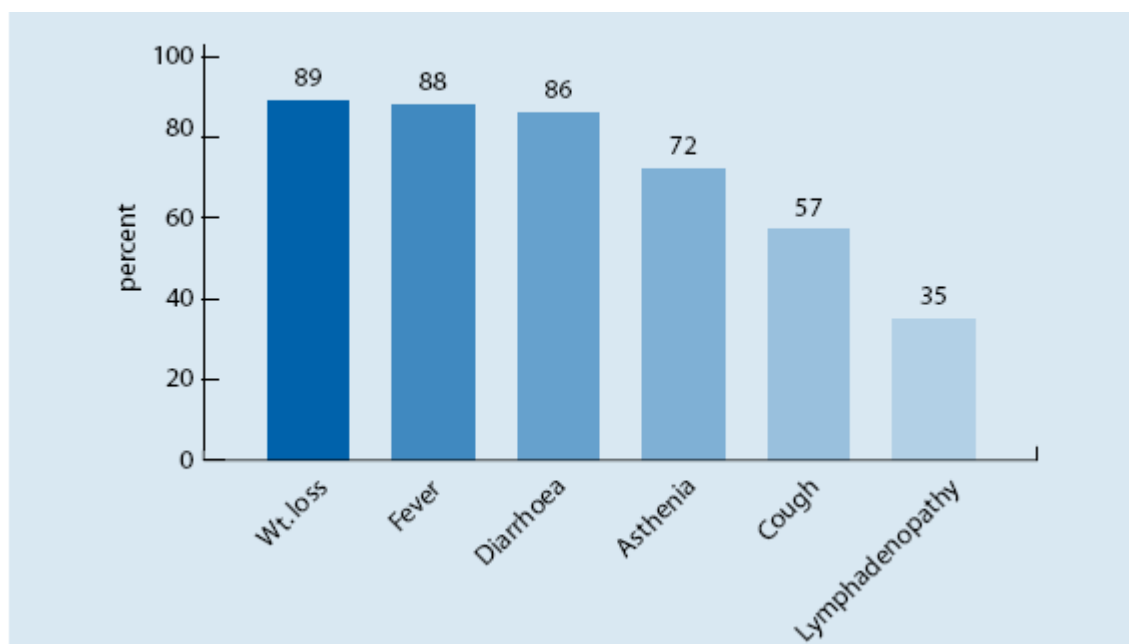
An opportunistic infection (OI)⁶ is a disease caused by a microbial agent in the presence of a compromised host immune system. Acquired immunodeficiency syndrome (AIDS) is defined as the occurrence of life threatening OIs, malignancies, neurological diseases and other specific illnesses in patients with HIV infection and CD4 counts <200 cells/mm³. Tuberculosis (TB) generally develops at CD4 counts of 200–500 cells/mm³, as does *Candida albicans* infection. In the West, the incidence of OIs has markedly declined because of the widespread availability of highly active antiretroviral therapy (HAART). However, OIs continue to contribute significantly to the morbidity and mortality in resource-limited countries, though the increasing availability of ART will help reduce this.

⁶ This section of OI is contributed by Dr. Rajesh Gopal, GSACS.

Figure 4.4 Association between opportunistic infections and CD4+ lymphocyte count**Figure 4.5 HIV related infections most frequently encountered in India**

| Bacterial | Viral | Fungal | Parasitic | Other illnesses |
|----------------------------------|---------------------------------|----------------------------------------|----------------------------|--------------------------|
| Tuberculosis | Herpes simplex virus infection | Candidiasis | Cryptosporidiosis | AIDS dementia complex |
| Bacterial respiratory infections | Oral hairy leukoplakia | Cryptococcosis | Microsporidiosis | Invasive cervical cancer |
| | Varicella zoster virus disease | <i>Pneumocystis jiroveci</i> pneumonia | Isosporiasis | Non-hodgkin lymphoma |
| <i>Salmonella</i> infection | Cytomegalovirus disease | Penicilliosis | Giardiasis Stongyloides | |
| | Human papillomavirus infections | | Toxoplasmosis | |

* Rare infections include those due to *Bartonella henselae*, *Rhodococcus equii*, atypical mycobacterioses and human herpesvirus (HHS)-8 infections

Figure 4.6 Opportunistic infections among patients with AIDS in India**Figure 4.7 Presenting symptoms and signs in patients with AIDS**

It is important to emphasize the strategies for diagnosis of OIs, their management in patients on ART, timing of initiation of ART in the presence of an OI, recommendations during pregnancy, geographically distinctive OIs and drug interactions during concomitant administration of treatment for OIs and ART. Simple preventive measures go a long way in decreasing the disease burden of OIs.

State-wise number of ART centres in year 2007 in India is shown as Exhibit 4.6

4.3.8 RCH-HIV/AIDS integration

Integration is defined as “ offering two or more services at the same facility during the same operating hours with the provider of one service actively encouraging clients to consider using the other services during the same visit, in order to make the services more convenient and efficient” (FHI, 2004). Integration is more efficient way of delivering services in the health and other social sector. Unfortunately, in many countries including India, HIV/AIDS activities have been separate, outside the main reproductive health/MCH department. This has its advantages as well as disadvantages.

Rationale for integration:

Following are the key arguments of integration between HIV and RCH/SRH programs:

- Biologically similar “transmission routes” – “sex” for both.
- Target population is almost same - Men & Women of reproductive age.
- RH and HIV address sexuality – complex socio-cultural aspects & sensitivity
- Need for similar medical / health & social skills, similar infrastructure
- Counseling and BCC needed for both RH & HIV/AIDS
- Gender, poverty, marginalization, vulnerability, stigma are issues in both RH and HIV/AIDS
- Health system is one – too many vertical programs pulls it in various directions
- Fragmentation to “one stop shop” – convenient to clients
- FP / MCH/ RCH is and old program with extensive network and staff up to the village level
- HIV programs have more resources, political commitment, advocacy....

Benefits of integration:

Integration provides with many benefits or advantages to both programs. These are listed below:

- Integrated services may be more accessible, especially for women
- Reducing the stigma about STD/HIV
- Transmission to newborn can be averted by identification of HIV positive women
- Opportunity to reach adolescents, by combining FP and HIV messages
- Reducing risks of HIV infection by RTI/STI detection and treatment
- Duplication is avoided and better utilization of scarce resources
- Reducing financial and opportunity costs for clients
- Benefits to clients in terms of improved service mix and quality of care
- FP/RCH has good reach in the community – low risk groups...

- RCH may benefit from resources of HIV program.

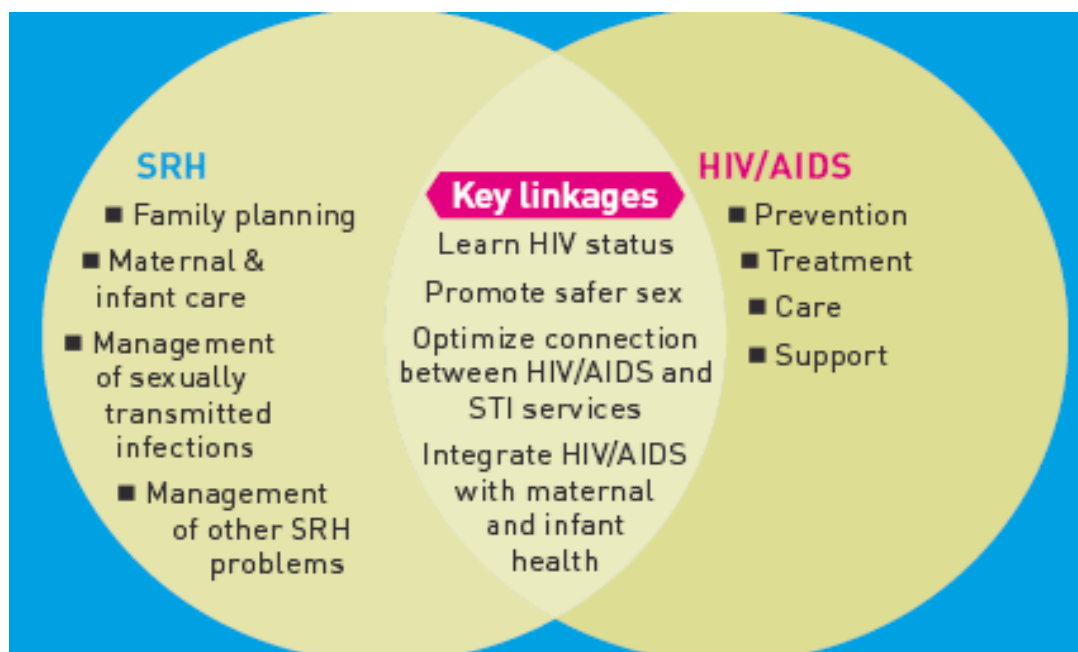
Thus there is a strong rationale for integration or linkages between the two programs. The world Bank considers that *“Integrating HIV prevention into FP and MCH programs addresses missed opportunities to curb the HIV epidemic”*.

NRHM: New opportunities for integration:

Recognizing the importance of Health in the context of socio-economic development, the Government of India has launched National Rural Health Mission (NRHM) to improve the basic healthcare delivery system in partnership with the states. It is conceived as a decentralized district planning led sector program. The mission adopts a synergistic approach by relating health to determinants of good health, such as nutrition, sanitation, hygiene, and safe drinking water. The goal of NRHM is to improve the availability of and access to quality healthcare by people, especially for those residing in rural areas, the poor, women, and children.

For the success of NRHM, one of the important tasks is to ensure that RCH and HIV/AIDS programs work closely together. However, such collaboration currently is far from satisfactory. The advantage of close collaboration between RCH and HIV/AIDS programs are felt now more than ever before. With a significant proportion of HIV/AIDS infections occurring through heterosexual transmission, HIV/AIDS is a serious RH problem. By establishing a strong linkage between RCH and HIV/AIDS programs, RH clients can obtain HIV/AIDS education and services, and HIV/AIDS programs can incorporate RH modules, including sexuality counseling. Antenatal programs can enhance PMTCT, HIV/AIDS programs can use the RH infrastructure in districts, and both programs can achieve cost sharing by complementing efforts, and so on. The potential for contribution and sharing between them is tremendous.

However, planners see HIV/AIDS and RCH programs as distinct activities and turfs to be protected, while providers, communities and people see these services as “packages”. Existing organizational structures do not promote program collaboration. Programs take a fragmented approach between and within programs. Both programs suffer from low levels of human and financial resources. There is an urgent need to provide a conceptual framework for closer linkages between HIV/AIDS and RCH/SRH programs, outline strategies which encourage collaboration, and build an integrated system to address common issues. WHO has developed a simple framework for such linkages or integration between HIV and Sexual and Reproductive health (SRH) programs (Figure 4.8). Integration is conceptually appealing but there are many managerial challenges in RCH-HIV/AIDS program linkages.

Figure 4.8 Framework for priority linkages between SRH and HIV/AIDS

(Source: <http://www.who.int/reproductive-health/stis/linking.html>)

Areas of integration or Integration/linkages:

Integration/linkages between MCH/RCH/SRH and HIV are possible in following areas:

- RTI/STI screening in both of the programs
- Blood- Access Vs Safety
- FP promotion- Condom Vs other methods
- Maternal Care and HIV/AIDS/STD in mother and child
- Infection Control in health settings
- Breast feeding advice & HIV
- HIV and child survival / Child health

Managing STD/RTI services: HIV is an STD and hence there is a natural point of linkage between HIV and STD/RTI services. In India, STD and RTI have remained neglected areas of public health because they are still seen as diseases to be treated by specialists (skin and VD experts). Even though recent studies have shown that prevalence of STD and RTI are quite high in India, there is little national effort to revamp the management of these diseases and integrate their management in the primary health care system. Even today most health providers in the peripheral level are unable to diagnose RTI and STD with any reasonable accuracy and provide treatment for the same. Even in the Medical colleges there is very little integration between STD/ HIV department and RTI being treated in other departments. The essential drug list of various states, do not include the drugs for these diseases. Most PHC, CHC and even district hospital labs are not equipped to diagnose even simple STD and RTI. There have been some efforts as pilot projects under the leadership of UNFPA and WHO. But there is hardly any data to show how many clinical facilities are regularly providing this treatment. At the district and state levels, there is no management structure or systematic MIS

to track RTI/STD management. There is an urgent need to integrate the services currently offered under HIV/AIDS and RCH programs and improve the quality of these services in the primary health care system.

Access to safe blood: In India, hemorrhage ranks first as the cause of maternal death, accounting for almost 30 % of all maternal deaths. Various notes from the Planning Commission and the Ministry of Health and Family Welfare highlight the need for access to safe banked blood in CHC/FRU units. NACO has the overall responsibility to ensure safety blood in the country. They have supported various government blood banks to improve their capacity and quality. But within NACO there is no emphasis on access to blood along with safety. Government has no officer responsible to ensure availability of safe blood in rural areas. On the other hand unnecessarily high standards for setting of blood banks has reduced access to blood in rural and remote areas. There is no logistics management system to make safe blood available at CHC/FRU units where it could be live saving. Uneven distribution of blood banks (for example, Ahmedabad district alone has 29 blood banks out of a total of 157 blood banks in Gujarat), conflict between the guidelines of NACO and FDA, and poor monitoring are some of the major obstacles for access to safe blood. It is necessary to achieve a better coordination between NACO and the District Health Systems to ensure availability of safe blood in the CHC/FRU units.

Family Planning Services: FP is an old and long standing program with high level of administrative priority in India. It has so far focused on sterilization of women with 2-3 children as its main strategy. But for linking FP with HIV programs the focus has to also include the following:

- Education on safe sex – prevention of unwanted pregnancy & disease – esp. for adolescents and newly married
- Promoting dual protection– use of condoms for male and female
- RTI/STI screening & treatment – required before IUD insertion
- Counseling for partner for FP and STD
- Assessing STD/HIV risk of the family before advising appropriate FP method.

Unfortunately, in the past FP and HIV programs have worked in isolation and a lot of efforts have to made to reorient FP staff to make them skillful about HIV activities and programs and make them integrate it in to their daily activities. FP staff will also have to target new group of clients such as adolescents, young married couples, single persons and people with high risk behaviors. Even the MIS has to change so that Condoms, counseling, HIV risk assessment etc are give importance in FP program.

MCH- HIV linkages: MCH services provide another window of opportunity for HIV activates. Young women who come to MCH services are also important risk group for HIV and recipients of some HIV services. Here we provide a brief list of possible areas of MCH – HIV linkages:

- Risk reduction counseling during ANC when mothers are captive audience and come for repeated visits to the health centers for care during pregnancy.
- Detection and management of RTI/STI in pregnancy.
- Anti-retroviral therapy to prevent mother to child transmission of HIV
- Pre-marital counseling, Adolescent health education is required for FP and HIV

Besides linkages with maternal health, there are many possibilities of linking HIV activities with child health. For example breast feeding advice & HIV is one area where postnatal care and child health care can link with HIV concerns. Similarly HIV and child survival / Child health in terms of PPTCT, and management of HIV positive children will need integration of HIV activities with regular child health activities like immunization, diarrhea management, ARI management etc.

MCH-HIV linkage is possible as at the district level and below only PHC system is available to provide services for MCH and HIV. This integration will need lot of cross-training and skill building in MCH staff for HIV and vice-versa. It will also require new supplies and monitoring system to see that this integration is monitored well.

Infection Control in health settings: This is another area that links HIV and MCH/PHC work. Proper control of infection in health care settings by sterilization of equipment and universal precautions will lead to decrease in blood born infections including HIV. Unfortunately there has not been much emphasis on this vital area of linkage. Some things like injection safety and medical waste disposal have received some attention, but other areas of universal precautions for infection control are not addressed well. As HIV programs have lot of funds and there are no funds for infection control in general, proper linkage will help both programs.

Structural linkages: Health programs are managed from directorate of health services while HIV programs are managed from State Aids Control societies. NRHM activities are being handed over to state health societies. Serious thought needs to be given to first linking HIV management structures in central govt and state govt levels to health management structures. First the office of HIV programs have to be in the health department as are the offices of other disease control programs. Then programmatic integration should be worked out, with one single health plan and health program where HIV control is one of the activities with other health programs. Under NRHM this is feasible.

Concern and challenges in integration:

Integration also poses serious concern and challenges to the HIV and FP/MCH/PHC program. In the past when malaria and FP programs were integrated with other health programs the results were far from optimal, with lack of control on many vertical programs. Hence we have to keep track of the challenges in integration. We see the following Challenges in integration.

- Resources allocation may be at stake for Family Planning (FP)/MCH
- Too much focus/attention on HIV/AIDS at the cost of FP/MCH
- Inadequate infrastructure of reproductive health service delivery points – affects HIV program
- Decline in the quality of services due to overburdening of staff
- Overburdening of management – and lack of focus on HIV
- Lack of reproductive health need assessment of vulnerable groups like CSWs, IDUs, MSM etc.
- Lack of interaction between Reproductive Health and HIV/AIDS officers and field staff
- Absence of conducive organizational environment for HIV interventions.
- Difference in the nature of counseling needs for RH and HIV/AIDS
- Judgmental attitude about HIV of reproductive health service staff

- Donor funds for to vertical / targeted programs programmes – FP / Abortion problem
- Integration; a complex and time consuming process – needs managerial capacity and skill

Way forward:

Given the philosophy of NRHM, integration of HIV and general health services is inevitable. It is matter of time and details how the integration can be done so that maximum benefit can be derived from both programs. We suggest the following steps for integration:

- NRHM & State-RH Mission should form a task group on integrate HIV/AIDS related services into general services
- Think about what can be done in NACP III and NRHM for convergence –
- Start by integration of few components e.g. dual protection, Blood safety etc.
- Under RCH II plan for RH and HIV linkage strategies: interventions for RTI/STI, FP counseling & services, gender sensitization training to all providers to increase awareness about men's involvement in FP and HIV.
- Develop planning and monitor indicators of integration of RH and HIV.
- There should be periodic review of integration of the programs.

Appropriate management systems, processes, and procedures need to established so as to meet the NRHM goal to improve the availability of and access to quality healthcare by people, especially for those residing in rural areas, the poor, women, and children and the HIV program goals of reducing infection and improving care and treatment.

5. Case Studies from Gujarat

In this chapter, we present a few case studies from Gujarat State AIDS Control Society⁷. These cases focus on the managerial issues in the following areas:

Project Management

Blood Bank Management

VCTC/ICTC Management

Behavioral Surveillance

MIS for Targeted Interventions

Your tasks, as a NACO consultant are

- Understand the context in which these cases were developed
- Analyze the data given to you in each case
- Diagnose the seriousness of the issues raised
- Identify the magnitude, complexity, and nature of managerial challenges
- Suggest performance indicators for effective and efficient management
- Give your recommendations consistent with the diagnosis.

⁷ We are very thankful to Gujarat State AIDS Control Society (GSCAS) for their excellent cooperation and guidance in developing these case studies. These case studies are prepared as a basis for classroom discussion. Cases are not designed to present illustrations of either correct or incorrect handling of administrative problems.

5.1 Project Management: STD/HIV Intervention Program for CSWs in Baroda City

Vikas Jyot Trust (VJT) was established in 1973 as a voluntary organization with the prime objective of providing legal counsel to distressed women and supporting economic uplift of needy women. VJT had a relatively modest beginning set up as a division of Shri Lalitadevi Stree Audyogik Society. Over the years, VJT has developed dedicated workers and has been involved in a variety of initiatives involving community work at the grass root level. With active participation in activities such as Mahila Margdarshan Kendra, Street Children, Legal Aid Center, Family Counseling Center etc, VJT has gained reputation as a non government organization (NGO) committed to growth and betterment of women and children.

Given its background and history of working among various communities in Baroda city, VJT became aware of lack of awareness about HIV/AIDS, unsafe health practices and high incidence of STD among the most vulnerable section of the population comprising CSWs. To respond to these developments, VJT got involved with GSACS in a PSH project involving targeted interventions to control the prevalence of STD and improve awareness among the CSW population in Baroda city. Overall, the objectives of multi-year project include the following:

1. Increase awareness and consciousness about STD in the target population.
2. To prepare Madams/Brokers for STD/HIV prevention.
3. To promote safe sexual encounters among CSWs.
4. To make STD treatment easily accessible for CSWs.
5. To advocate issues of STD, HIV/AIDS and create mass awareness.

Estimates based on a preliminary need assessment study indicate that the target population consists of 2800 CSWs in Baroda city. While the goal of the project is to cover this entire population, VJT's target for the current year (first year) is to reach out to about 800 CSWs. The project involved a multi-pronged intervention strategy with a wide mix of activities to achieve the objectives mentioned above. These include one-on-one and group meetings, focused group discussions, STD treatment, advertisement of condom promotion activities etc. Exhibit 5.1.1 provides some details for partial set of project activities relating to (a) increasing awareness and reducing misconceptions in the target group, and (b) assessment of condom requirements and setting up a system to facilitate procurement and distribution of condoms to the target group. These include time/resource requirements, implicit logical relationships among activities and complement of available resources etc. Further, since the project represents a new initiative for VJT, the NGO needs to recruit suitable staff comprising of project officer, counselors, outreach workers and peer educators and create an appropriate organization for executing the project activities.

Exhibit 5.1.1 includes details of these activities as well. Exhibit 5.1.2 – 5.1.5 contain the guidelines used by GSACS for budgeting and administering project grants.

Case prepared by Prof Devnath Tirupati of the Indian Institute of Management, Ahmedabad, as a basis for classroom discussion. Cases are not designed to present illustrations of either correct or incorrect handling of administrative problems. Copyright © by the Indian Institute of Management, Ahmedabad.

Questions:

Based on the information provided, develop a simplified network for the project with emphasis on the first phase consisting of recruitment of personnel and setting up the project organization at the NGO.

Extend the network in (a) and develop a detailed representation for the entire project envisaged for the first year.

Prepare an action plan to achieve the desired target in the first year. How would you modify the plan in the subsequent years?

Using information given in Exhibit 5.1.2 – 5.1.5, develop a budget for the project that can form the basis for requesting funds from GSACS.

How would you use the plan and budget developed above to monitor progress on the project and controlling the project expenditure? Examine the related issues from both VJT and GSACS perspective.

Exhibit 5. 1.1 Details of Partial Set of Activities for TI Program

| Intervention | Activity | Description | Details |
|-----------------------------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Organization for the project: Initial recruitment and training to create project office at the NGO. | A | Recruitment of Project officer (P.O.) | About 1 week |
| | B | Recruitment of ORWs | About 1 week |
| | C | Recruitment of Counselor | About 1 week |
| | D | Orientation training | About 1 week, could be common for Project officer, ORWs and Counselor |
| | E1 | Specialized training to POs | 2 days |
| | E2 | Specialized training to ORWs | 2 days |
| | E3 | Specialized training to Counselor | 2 days |
| | F | Refresher Training | 1 day, could be after six months (to Project officer, ORWs and Counselor) |
| Increasing awareness about and empowering PSHs on condom usage. | G | Meetings of ORWs with CSWs, identification of potential candidates for recruitment of Peer Educators (PE) | Ongoing, but 2-3 group meetings per week in the bunch of 8-15 CSWs |
| | H | Progress evaluation by P.O. | 1 day every month |
| | I | Recruitment of PEs | The process starts during activity G, takes about 1-2 months in total, generally in three phases and each time recruitment takes 2-3 days. |
| | J | Training to PEs | 2 days initial training in the group of 8-10 and 1 day refresher training after 6 months. |
| | K | Meeting of PEs with PSH | Ongoing, but each PE meets average 40-50 CSWs per week |
| | L | Meetings of ORWs with ESH | Ongoing, but 8-10 per week |
| | M | Progress evaluation by P.O. | 1 day every month. |
| | N | Recruitment of CORWs | The process starts during activity L, takes about 1 month in total and official recruitment takes 2-3 days. |
| | O | Training to CORWs | 1 day orientation |
| | P | Meetings of CORWs with clients | Ongoing, but meet average 10-15 clients per day. |
| | QA | Counseling for PSH | Ongoing, but 8-10 per day |
| | QB | Counseling for ESH | Ongoing, 8-10 per day |

| | | | |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| To provide easy access and facilitate distribution of condoms to meet the demand. | R | Estimation of the quantity of condoms | Ongoing, the process takes 2-3 days. P.O., PEs and ORWs are involved in the process |
| | S | List of the sites for condom booths prepared after meetings | Once a year, survey for opening more condom booths is part of the meetings of PEs and ORWs with PSH. |
| | T | Verification of sites by P.O. | Once a year |
| | U | Final decision on the no. of depots to be opened, location and owners | 1 week |
| | V | Training to depot owners | 2 training one day each per year |
| | W1 | Procurement of condoms from SACS/PSU | Ongoing, the process takes 1-2 days |
| | X1 | Distribution of condoms by PEs | Ongoing |
| | X2 | Distribution of condoms by ORWs | Ongoing |
| | X3 | Distribution of condoms by Counselor | Ongoing |
| | X4 | Distribution of condoms by doctors | Ongoing |
| | X5 | Distribution of condoms by depots | Ongoing |
| | To develop a system to involve PSH and ESH to ensure availability of condoms | Y | Meetings among depot owners |
| Z | | Meetings among PSH to assess impact of depots | 1 day meeting, average 3-4 meetings per year |
| AA | | Incentive to the best depot | Once a year |
| AB | | Development of social marketing strategy | Once a year |
| AC | | Enabling environment activities | Ongoing. 1 day activity, twice a month..Includes police meetings, CBO/NGO meetings, etc. |
| W2 | | Procurement of condoms through social marketing | Ongoing, process takes 1-2 days. |

Exhibit 5. 1.2 SACS Budget Guidelines

| Cost Head | Minimum(Rs.) | MPE(%)** |
|---------------------------------------------------------------------------------------------|--------------|---------------------------|
| Salary: | | |
| Project officer | 8000 p.m. | 20% |
| Salary of Out reach workers | 5000 p.m. | 20% |
| Incentives to Peer educators | 1500 p.m. | NA |
| Salary of Counselor | 6500 p.m. | 20% |
| Recruitment cost | 5000 | 50% in case of Metro city |
| Office expenses: | | |
| Rent | 4000 p.m. | 20 % |
| Water & electricity | 12000 p.a. | 10 % |
| Stationery & Xerox | 9000 p.a. | 10 % |
| Office maintenance | 7200 p.a. | 10 % |
| Phone, Fax & Courier | 18000 p.a. | 10 % |
| Internet | 6000 p.a. | 10 % |
| Condom procurement | 10,000 p.a. | NA |
| Social marketing(rolling fund) | 20,000 | NA |
| Enabling environment cost: | 29,000 p.a. | |
| Big police meeting, NGO meet, CBO meet, Police meeting, Brokers meet, hotel boys meet | | |
| IEC- condom promotion | 25,500 p.a. | |

** MPE: Maximum Permissible Enhancement

Exhibit 5. 1.3 Training Budget Guidelines

| Stakeholders | Av. No. of participants per meeting | No. of Programmes | Cost per programme (Rs.) |
|-----------------------------------|-------------------------------------|-------------------|--------------------------|
| Specialized training (ORWs) | 8 | 1 | 2000 |
| Specialized training (Counselor) | 1 | 1 | 1000 |
| PEs | 15 | 2 | 2000 |

Exhibit 5. 1.4 Refresher training budget guidelines

| Stakeholders | Av. No. of participants per meeting | No. of Programmes | Cost per programme (Rs.) |
|--------------|-------------------------------------|-------------------|--------------------------|
| ORWs | 8 | 1 | 2000 |
| PEs | 30 | 1 | 2000 |
| Counselor | 1 | 1 | 1000 |

Exhibit 5. 1.5 Meetings budget guidelines

| Stakeholders | Av. No. of participants per meeting | No. of Programmes | Cost per programme (Rs.) |
|----------------|-------------------------------------|-------------------|---------------------------|
| Depot owners | 8 | 4 | 500 |
| FGDs | 8 | 25 | 64 |
| Big meetings | 20 | 60 | 160 |
| Small meetings | 5 | 250 | 40 |

Teaching Note:**Objectives and Case Synopsis:**

The objective of the case is to enable participants to develop a structured approach for planning, execution and monitoring of intervention projects (TI) initiated under HIV/AIDS control programs. The approach should be useful to the NGOs that undertake implementation of individual projects and planning agencies (such as SACS) at the state and national level that have responsibility for administering programs involving several projects.

The case provides a brief overview of the background and overall objectives of a multi-year project and includes fair amount of detail at the activity level to permit development of detailed plan for the first year. The objective is to integrate activity level planning and budgeting. Ideally, the case will follow an introductory session on project management that introduces participants to the basic principles of network techniques and provides a flavor of software packages such as MS Project.

It is important for the instructor to note that the core activities of TI projects (such as meetings, group discussions) are ongoing and repetitive in nature. This is not typical of most “projects” in Project Management courses. Accordingly, class room discussion can focus how MS Project can be adapted to help planning (and monitoring) of TI projects.

Analysis:

The questions at the end of the case provide a natural progression in discussion and development of a structured approach. The analysis presented in this teaching note is fairly straightforward with the details elaborated in the accompanying tables and figures.

Question 1: The objective here is to illustrate a hierarchical approach in developing the project network moving from an aggregate representation to a detailed one, depending on the level at which it is being used. The aggregate network in part (a) focuses on the initial organization setup and fulfilling the overall objectives, and is useful at SACS level. The more detailed network of part (b) is appropriate for the implementing agency such as the NGO.

Analysis in part (a) is similar to the introductory example of the previous day and allows participants to get some hands on experience with MS Project. Part (b) deals with construction of detailed network and presents an opportunity to discuss two atypical features: (i) activities that are repetitive in nature, for example weekly meetings, focused group discussions etc., and (ii) inserted delay in the start of successor activity. For example, there is a minimum gap of six months between initial training and refresher training. The instructor can utilize examples in (i) to illustrate how the feature can be used to develop targets on almost a continuous basis (say weekly, or monthly). Similarly, refresher training example may be used to illustrate application of delay insertion feature available in MS Project.

Budgeting: The objective here is to help participants develop a budget from the ground up – from individual project activities. This exercise allows participants to determine resource requirements and funds needed to meet the project targets. The participants should be able to

develop ability to incorporate scale effects and estimate resource and budgetary support requirements as a function of outreach target of CSWs for the year.

Monitoring and Control: The discussion in this phase can focus on two aspects – (a) the need to measure progress and compare with plan, and where appropriate revise the plan, and (b) the perspectives of different stake holders – NGO, SACs and PSHs.

Detailed Supplements:

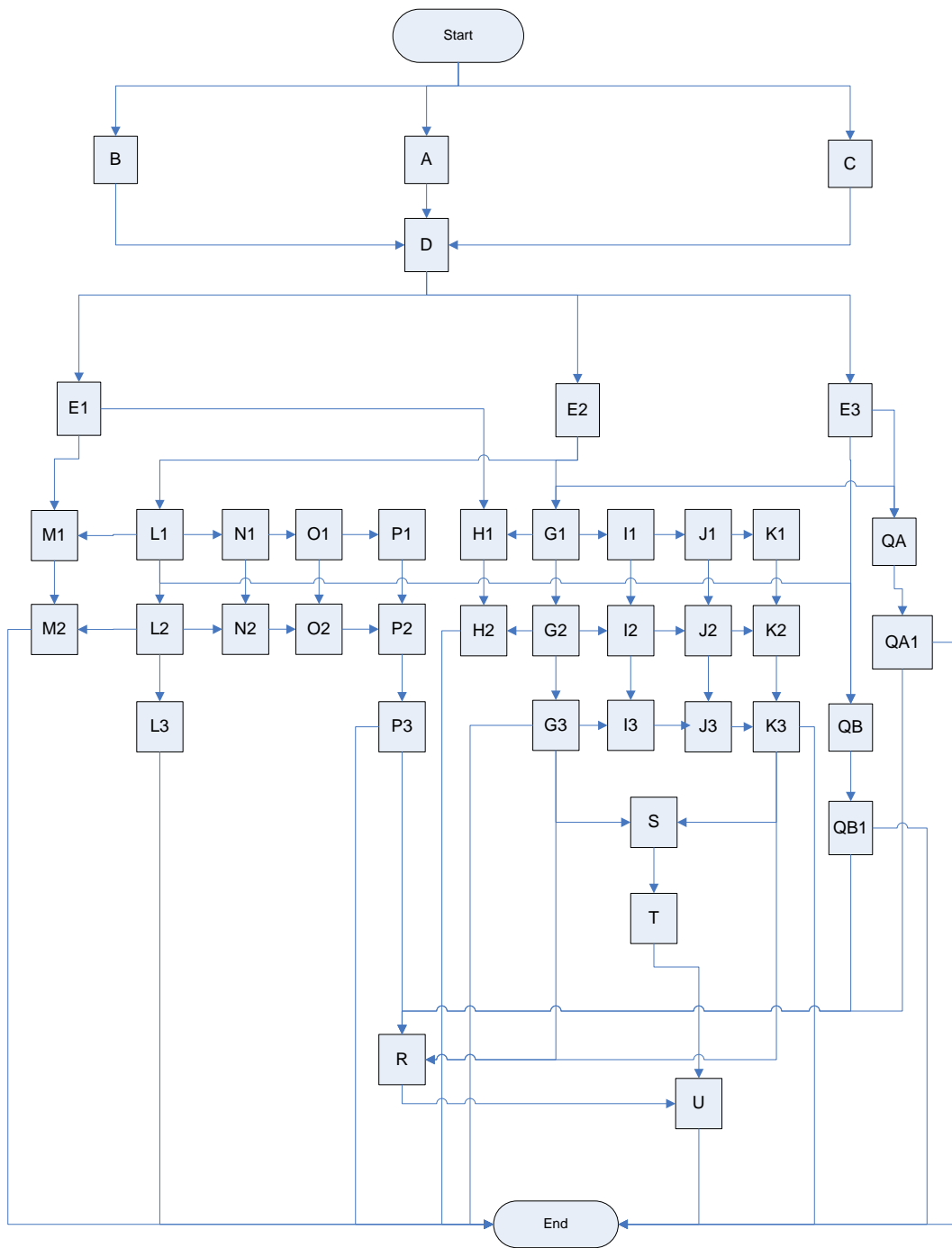
1. Network diagrams:

- i) For setting up and shaping up the organizational structure of NGO VJT in the first year,

Table 5. 1.1 Table of all the necessary activities and their predecessors:

| Activity | Description | Immediate predecessor |
|----------|----------------------------------------------------------------------------|-----------------------|
| A | Recruitment of Project officer (P.O.) | --- |
| B | Recruitment of ORWs | --- |
| C | Recruitment of Counselor | --- |
| D | Orientation training to Project officer, ORWs and Counselor | A, B, C |
| E1 | Specialized training to POs | D |
| E2 | Specialized training to ORWs | D |
| E3 | Specialized training to Counselor | D |
| F | Refresher Training to Project officer, ORWs and Counselor (6 months delay) | E |
| G | Meetings of ORWs with CSWs (G1, G2, G3....., G6 | E2 |
| H | Progress evaluation by P.O. (H1, H2, | E1, G |
| I | Recruitment of PEs (I1, I2, I3) | G |
| J | Training to PEs (J1, J2, J3) | I |
| K | Meeting of PEs with PSH (K1, K2, K3, ...) | J |
| L | Meetings of ORWs with ESH (L1, L2, L3...) | E2 |
| M | Progress evaluation by P.O. (M1, M2...) | E1, L |
| N | Recruitment of CORWs | L |
| O | Training to CORWs | N |
| P | Meetings of CORWs with clients (P1, P2...) | O |
| QA | Counseling for PSH (QA1, QA2...) | E3, G |
| QB | Counseling for ESH (QB1, QB2...) | E3, L |
| R | Estimation of condoms requirements | QA, QB, P, K, G |
| S | List of the sites for condom booths prepared after meetings | G, K |
| T | Verification of sites by P.O. | S |
| U | Final decision on the no. of depots to be opened, location and owners | R, T |

Diagram 5. 1.1 Project Network Diagram-I

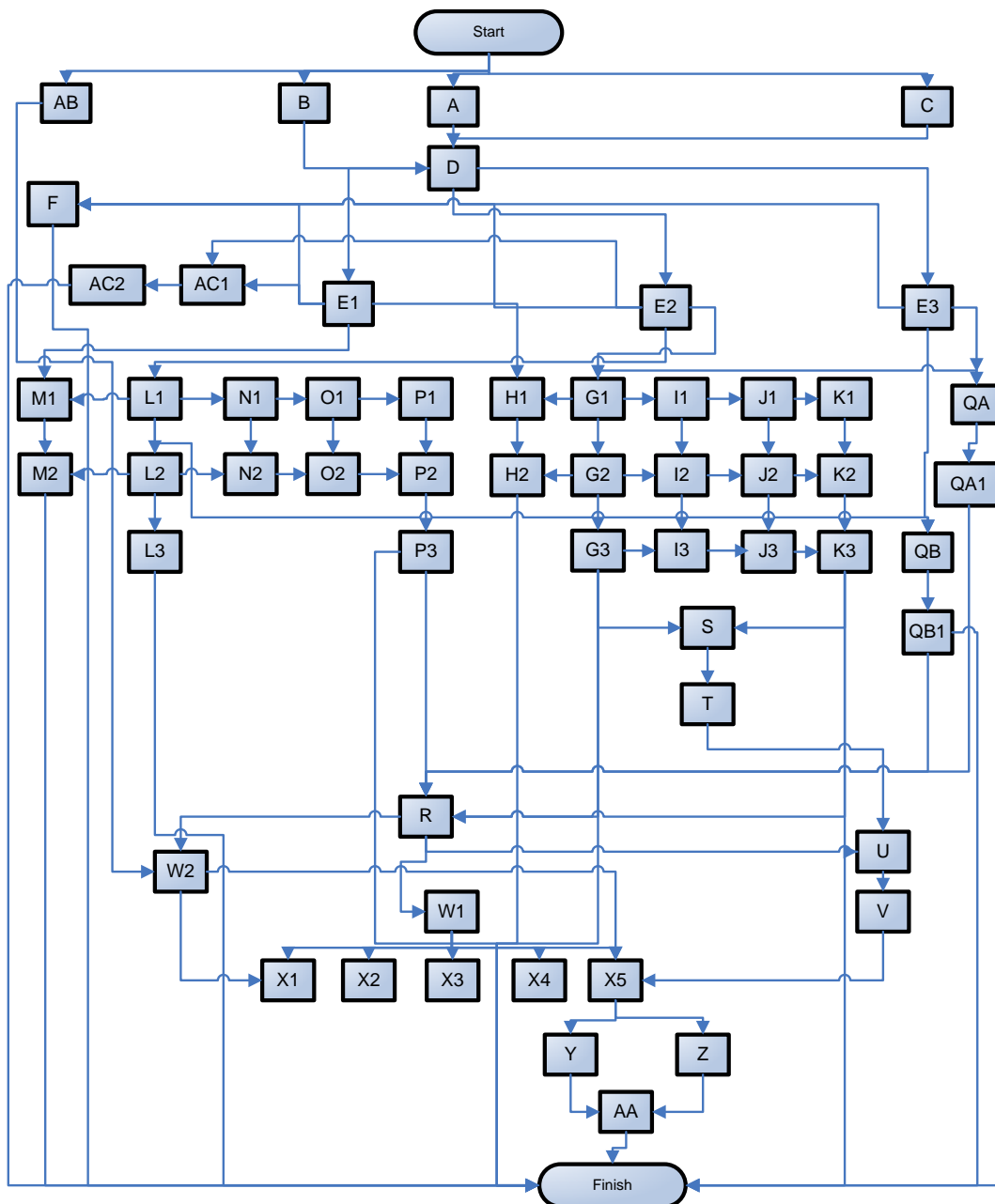


ii) Of the complete project.

Table 5. 1.2 Table of all the necessary activities and their predecessors:

| Activity | Description | Immediate predecessor |
|----------|----------------------------------------------------------------------------|-----------------------|
| A | Recruitment of Project officer (P.O.) | --- |
| B | Recruitment of ORWs | --- |
| C | Recruitment of Counselor | --- |
| D | Orientation training to Project officer, ORWs and Counselor | A, B, C |
| E1 | Specialized training to POs | D |
| E2 | Specialized training to ORWs | D |
| E3 | Specialized training to Counselor | D |
| F | Refresher Training to Project officer, ORWs and Counselor (6 months delay) | E |
| G | Meetings of ORWs with CSWs (G1, G2, G3....., G6 | E2 |
| H | Progress evaluation by P.O. (H1, H2, | E1, G |
| I | Recruitment of PEs (I1, I2, I3) | G |
| J | Training to PEs (J1, J2, J3) | I |
| K | Meeting of PEs with PSH (K1, K2, K3, ...) | J |
| L | Meetings of ORWs with ESH (L1, L2, L3...) | E2 |
| M | Progress evaluation by P.O. (M1, M2...) | E1, L |
| N | Recruitment of CORWs | L |
| O | Training to CORWs | N |
| P | Meetings of CORWs with clients (P1, P2...) | O |
| QA | Counseling for PSH (QA1, QA2...) | E3, G |
| QB | Counseling for ESH (QB1, QB2...) | E3, L |
| R | Estimation of the quantity of condoms | QA, QB, P, K, G |
| S | List of the sites for condom booths prepared after meetings | G, K |
| T | Verification of sites by P.O. | S |
| U | Final decision on the no. of depots to be opened, location and owners | R, T |
| V | Training to depot owners | U |
| W1 | Procurement of condoms from SACS/PSU | R |
| X1 | Distribution of condoms by PEs | W1, W2 |
| X2 | Distribution of condoms by ORWs | W1 |
| X3 | Distribution of condoms by Counselor | W1 |
| X4 | Distribution of condoms by doctors | W1 |
| X5 | Distribution of condoms by depots | W1, W2 |
| Y | Meetings among depot owners | X5 |
| Z | Meetings among PSH to assess impact of depots | X5 |
| AA | Incentive to the best depot | Y, Z |
| AB | Development of social marketing strategy | --- |
| AC | Enabling environment (AC1, AC2.....) | E1, E2 |
| W2 | Procurement of condoms through social marketing | AB |

Diagram 5. 1.2 Project Network Diagram-II



Prepare an action plan to achieve the desired target in the first year. How would you modify the plan in the subsequent years?

To achieve the desired target in the first year, MS Project has been used to design the plan. For this purpose, activities have been entered in the order given in table 5.1.2 above. Project start date has fixed at 1/1/07, and one-year plan has been attempted to design. Though the activities in this process are on going that is several activities happening simultaneously, for designing a project form, certain assumptions have been made:

1. For designing the time schedule, one year has been considered of 300 days, 25 days per month, 8 working hours per day.
2. Activity G (meeting of ORWs and PSH), activity K (meeting of PEs with PSH) and activity L (meetings of ORWs with ESH) and activity P (meeting of CORWs with clients) are actually the ongoing activities, taking place at the same time. But for giving a clear representation of the various chief activities, these have been denoted separately. All these meetings comprise various activities including one to one meetings, small meetings, big meetings, focused group discussions, condom promotion activities, advertisement related to condom promotion etc.
3. The whole project can chiefly be segregated in two different segments. One is organization development and network establishment, growth in the affected area of the NGO until the actual assessment of condom requirement in the area is done, and depots are opened for condom distribution. Second segment is including all the activities, which were done in the first segment, additionally including distribution of condom in the PSH and ESH, and assessing condom usage awareness among target population and awareness regarding various sex related problems.
4. For the first year, since the NGO is starting its operation in the area, so it will take some time to set up the basic organization structure in the area. Once a basic structure is formed, all the usual activities required for condom promotion will go on. So in MS Project presentation of this problem, once the depots are fixed, remaining period of the year has been segmented into 4 parts, considering that there are 4 meetings of depot owners and PSHs and ESHs in a year (given in table 5.1.3) for project performance assessment.

MS Project presentation output has been given as table 5.1.3. This planning suggests that one-year operation of the NGO to achieve the target will take 270 working days, under current assumptions. In the subsequent year, only the first segment of the first year plan, which is used to establish the basic NGO structure in the area and developing its network, will change. It can be converted to the second segment of the first year's plan related to condom distribution and promotion.

Budgetary planning for the project that can form the basis for requesting funds from GSACS:

Assumptions:

1. Project level costs(not specific to individual project activities):

| Cost Head | | |
|---------------------------------------|-----------------------------|--------------------------------|
| Salary: | Per month cost (Rs.) | Total annual cost (Rs.) |
| Project officer (1 PO) | 8000 p.m. | 96000 |
| Salary of Out reach workers (8 ORWs) | 5000 p.m. | 480000 |
| Incentives to Peer educators** | 1500 p.m. | 495000 |
| Salary of Counselor | 6500 p.m. | 78000 |
| Recruitment cost | 5000 | 5000 |
| Office expenses: | | |
| Rent | 4000 p.m. | 48000 |
| Water & electricity | 12000 p.a. | 12000 |
| Stationery & Xerox | 9000 p.a. | 9000 |
| Office maintenance | 7200 p.a. | 7200 |
| Phone, Fax & Courier | 18000 p.a. | 18000 |
| Internet | 6000 p.a. | 6000 |
| Total cost | | 1254200 |

** Peer educators assumed to be recruited in three phases within one and a half month.

Hence, incentive for the first batch of PEs will be calculated for 11.5 months, while incentives for the second batch of PEs of size 10 would be calculated for 11 months and for third batch of same size time period of incentive calculation will be 10.5 months.

2. For PO, ORW and Counselor, training programs and refresher training programs organized by the NGO takes place only once a year. So costs for these activities have been calculated as follows:

| Training | No. of Programs | Cost per programme (Rs) | Total cost (Rs) |
|----------------------------------|------------------------|--------------------------------|------------------------|
| Specialized training (ORWs) | 1 | 2000 | 2000 |
| Specialized training (Counselor) | 1 | 1000 | 1000 |
| PEs | 2 | 2000 | 4000 |
| Total cost | | | 7000 |

| Refresher Training | No. of Programmes | Cost per programme (Rs) | Total cost (Rs) |
|---------------------------|--------------------------|--------------------------------|------------------------|
| ORWs | 1 | 2000 | 2000 |
| PEs | 1 | 2000 | 2000 |
| Counselor | 1 | 1000 | 1000 |
| Total cost | | | 5000 |

These costs could be clearly identified from the task cost table 5.1.4 given as project budget.

- Weekly meeting costs of PEs, CSWs, ESHs, ORWs, CORWs have been calculated by clubbing together the costs of small meetings, big meetings and FGDs (Exhibit 5.1.5, given in case) using the following method:

| Meeting cost | No. of Programs | Number of programs per week (Assuming there are 50 weeks in a year) | Cost per program (Rs) | Cost per program per week (Rs) |
|-----------------------------------|-----------------|---------------------------------------------------------------------|-----------------------|--------------------------------|
| Per week number of FGDs | 25 | 0.5 | 64 | 32 |
| Per week number of Big Meetings | 60 | 1.2 | 160 | 192 |
| Per week number of Small Meetings | 250 | 5 | 40 | 200 |
| Total cost per week | | | | 424 |

So the cost becomes Rs 424. Similarly for the meeting between depot owners, total number of meetings is 4 and per meeting cost is Rs. 500. Now as per the table 5.1.3 in Meeting activities in this given case start on 17/1/07 and the ends upon 14/11/07. Though these activities are ongoing, yet for budgetary calculation purpose, these dates has been considered to calculate number of weeks this activity of meetings goes on. So approximately, total number of weeks when these meeting activities go on, could be assumed to be 42 weeks (We have assumed that there are 300 working days in the year and 6 working days a week, so total number of weeks in the year is 300/6 that is 50). So total cost of meetings will be total cost of group meetings + total cost of meetings between depot owners.

Total cost of group meetings = $42 \times 424 = \text{Rs. } 17,808$

Total cost of meetings between depot owners = $4 \times 500 = \text{Rs. } 2,000$ (displayed in the cost task table number 2, appendix).

Total cost of meetings = $17,808 + 2,000 = \text{Rs. } 19,808$

Therefore, total expected cost for this first year program = $1254200 + 7000 + 5000 + 19808 + 84500 = \text{Rs. } 13,70,508$

Here the cost figure Rs. 84500 is the cost of social marketing, enabling environment cost and IEC, given in Exhibit 5.1.2 from the case.

4. Total cost that can be asked from SACS by NGO will be Rs 13, 70,508.

This cost has been developed in accordance with the guidelines prepared by NACO, which can be helpful in monitoring the project.

Monitoring progress on the project and controlling the project expenditure, from both VJT and GSACS perspective.

Table 5. 1.3 Project Schedule

| ID | Task Name | Duration | Start Date | Finish Date | Predecessors | Resource Names |
|----|--------------------------------------|-----------------|-----------------------|-------------------------|----------------|----------------|
| 1 | Baroda AIDS Project | 313 days | 1/1/2007 8:00 | 12/31/2007 17:00 | | |
| 2 | Organization structure | 169 days | 1/1/2007 8:00 | 7/16/2007 17:00 | | |
| 3 | A | 6 days | 1/1/2007 8:00 | 1/6/2007 17:00 | | |
| 4 | B | 6 days | 1/1/2007 8:00 | 1/6/2007 17:00 | | |
| 5 | C | 6 days | 1/1/2007 8:00 | 1/6/2007 17:00 | | |
| 6 | D | 6 days | 1/8/2007 8:00 | 1/13/2007 17:00 | 3,5,4 | |
| 7 | E1 | 2 days | 1/15/2007 8:00 | 1/16/2007 17:00 | 6 | |
| 8 | E2 | 2 days | 1/15/2007 8:00 | 1/16/2007 17:00 | 6 | |
| 9 | E3 | 2 days | 1/15/2007 8:00 | 1/16/2007 17:00 | 6 | |
| 10 | F | 1 day | 7/15/2007 8:00 | 7/16/2007 17:00 | 7,8,9 | |
| 11 | AB | 3 days | 1/1/2007 8:00 | 1/3/2007 17:00 | | |
| 12 | Misconception Reduction | 40 days | 1/17/2007 8:00 | 3/3/2007 17:00 | | |
| 13 | G1 | 6 days | 1/17/2007 8:00 | 1/23/2007 17:00 | 8 | ORW[8] |
| 14 | G2 | 6 days | 1/24/2007 8:00 | 1/30/2007 17:00 | 13 | ORW[8] |
| 15 | G3 | 6 days | 1/31/2007 8:00 | 2/6/2007 17:00 | 14 | ORW[8] |
| 16 | G4 | 6 days | 2/7/2007 8:00 | 2/13/2007 17:00 | 15 | ORW[8] |
| 17 | G5 | 6 days | 2/14/2007 8:00 | 2/20/2007 17:00 | 16 | ORW[8] |
| 18 | G6 | 6 days | 2/21/2007 8:00 | 2/27/2007 17:00 | 17 | ORW[8] |
| 19 | H1 | 1 day | 1/31/2007 8:00 | 1/31/2007 17:00 | 14 | PO |
| 20 | H2 | 1 day | 2/28/2007 8:00 | 2/28/2007 17:00 | 18 | PO |
| 21 | I1 | 2 days | 1/31/2007 8:00 | 2/1/2007 17:00 | 14 | ORW[8] |
| 22 | I2 | 2 days | 2/14/2007 8:00 | 2/15/2007 17:00 | 21,16 | ORW[8] |
| 23 | I3 | 2 days | 2/28/2007 8:00 | 3/1/2007 17:00 | 22,18 | |
| 24 | J1 | 2 days | 2/16/2007 8:00 | 2/17/2007 17:00 | 22 | |
| 25 | J2 | 2 days | 3/2/2007 8:00 | 3/3/2007 17:00 | 24,23 | |
| 26 | Meeting of PE's with PSH | 24 days | 2/19/2007 8:00 | 3/17/2007 17:00 | | |
| 27 | K1 | 6 days | 2/19/2007 8:00 | 2/24/2007 17:00 | 24 | PE[10] |
| 28 | K2 | 6 days | 3/5/2007 8:00 | 3/10/2007 17:00 | 27,25 | PE[20] |
| 29 | K3 | 6 days | 3/12/2007 8:00 | 3/17/2007 17:00 | 28 | PE[30] |
| 30 | Meeting of ORWS with ESH | 21 days | 1/17/2007 8:00 | 2/9/2007 17:00 | | |
| 31 | L1 | 6 days | 1/17/2007 8:00 | 1/23/2007 17:00 | 9 | ORW[8] |
| 32 | L2 | 6 days | 1/24/2007 8:00 | 1/30/2007 17:00 | 31 | ORW[8] |
| 33 | L3 | 6 days | 1/31/2007 8:00 | 2/6/2007 17:00 | 32 | ORW[8] |
| 34 | M | 1 day | 2/7/2007 8:00 | 2/7/2007 17:00 | 33 | PO |
| 35 | N | 2 days | 2/7/2007 8:00 | 2/8/2007 17:00 | 33 | |
| 36 | O | 1 day | 2/9/2007 8:00 | 2/9/2007 17:00 | 35 | |
| 37 | Meeting of CORWs with clients | 18 days | 2/10/2007 8:00 | 3/2/2007 17:00 | | |
| 38 | P1 | 6 days | 2/10/2007 8:00 | 2/16/2007 17:00 | 36 | CORW[10] |
| 39 | P2 | 6 days | 2/17/2007 8:00 | 2/23/2007 17:00 | 38 | CORW[10] |
| 40 | P3 | 6 days | 2/24/2007 8:00 | 3/2/2007 17:00 | 39 | CORW[10] |
| 41 | Counseling for PSH | 4 days | 1/24/2007 8:00 | 1/27/2007 17:00 | | |
| 42 | QA1 | 1 day | 1/24/2007 8:00 | 1/24/2007 17:00 | 13,9 | COUNSELLOR |
| 43 | QA2 | 1 day | 1/25/2007 8:00 | 1/25/2007 17:00 | 42 | COUNSELLOR |
| 44 | QA3 | 1 day | 1/26/2007 8:00 | 1/26/2007 17:00 | 43 | COUNSELLOR |
| 45 | QA4 | 1 day | 1/27/2007 8:00 | 1/27/2007 17:00 | 44 | COUNSELLOR |
| 46 | Counseling for ESH | 4 days | 2/9/2007 8:00 | 2/13/2007 17:00 | | |
| 47 | QB1 | 1 day | 2/9/2007 8:00 | 2/9/2007 17:00 | 35,9 | COUNSELLOR |
| 48 | QB2 | 1 day | 2/10/2007 8:00 | 2/10/2007 17:00 | 47 | COUNSELLOR |
| 49 | QB3 | 1 day | 2/12/2007 8:00 | 2/12/2007 17:00 | 48 | COUNSELLOR |
| 50 | QB4 | 1 day | 2/13/2007 8:00 | 2/13/2007 17:00 | 49 | COUNSELLOR |
| 51 | Condom Estimation | 11 days | 3/19/2007 8:00 | 3/30/2007 17:00 | | |
| 52 | R | 3 days | 3/19/2007 8:00 | 3/21/2007 17:00 | 50,45,40,29,18 | GROUP[39] |
| 53 | S | 1 day | 3/19/2007 8:00 | 3/19/2007 17:00 | 29,18 | GROUP[39] |
| 54 | T | 1 day | 3/20/2007 8:00 | 3/20/2007 17:00 | 53 | PO |
| 55 | U | 6 days | 3/22/2007 8:00 | 3/28/2007 17:00 | 54,52 | PO |
| 56 | V | 2 days | 3/29/2007 8:00 | 3/30/2007 17:00 | 55 | |
| 57 | Meeting 1 | 57 days | 3/22/2007 8:00 | 5/26/2007 17:00 | | |
| 58 | W11 | 2 days | 3/22/2007 8:00 | 3/23/2007 17:00 | 52 | |
| 59 | W21 | 2 days | 3/22/2007 8:00 | 3/23/2007 17:00 | 11,52 | |
| 60 | X11 | 54 days | 3/24/2007 8:00 | 5/25/2007 17:00 | | |
| 61 | X11G1 | 6 days | 3/24/2007 8:00 | 3/30/2007 17:00 | 58,59 | PE[30] |
| 62 | X11G2 | 6 days | 3/31/2007 8:00 | 4/6/2007 17:00 | 61 | PE[30] |

| ID | Task Name | Duration | Start Date | Finish Date | Predecessors | Resource Names |
|------------|------------------|----------------|-----------------------|------------------------|--------------|----------------|
| 63 | X11G3 | 6 days | 4/7/2007 8:00 | 4/13/2007 17:00 | 62 | PE[30] |
| 64 | X11G4 | 6 days | 4/14/2007 8:00 | 4/20/2007 17:00 | 63 | PE[30] |
| 65 | X11G5 | 6 days | 4/21/2007 8:00 | 4/27/2007 17:00 | 64 | PE[30] |
| 66 | X11G6 | 6 days | 4/28/2007 8:00 | 5/4/2007 17:00 | 65 | PE[30] |
| 67 | X11G7 | 6 days | 5/5/2007 8:00 | 5/11/2007 17:00 | 66 | PE[30] |
| 68 | X11G8 | 6 days | 5/12/2007 8:00 | 5/18/2007 17:00 | 67 | PE[30] |
| 69 | X11G9 | 6 days | 5/19/2007 8:00 | 5/25/2007 17:00 | 68 | PE[30] |
| 70 | X21 | 54 days | 3/24/2007 8:00 | 5/25/2007 17:00 | | |
| 71 | X21G1 | 6 days | 3/24/2007 8:00 | 3/30/2007 17:00 | 58 | ORW[8] |
| 72 | X21G2 | 6 days | 3/31/2007 8:00 | 4/6/2007 17:00 | 71 | ORW[8] |
| 73 | X21G3 | 6 days | 4/7/2007 8:00 | 4/13/2007 17:00 | 72 | ORW[8] |
| 74 | X21G4 | 6 days | 4/14/2007 8:00 | 4/20/2007 17:00 | 73 | ORW[8] |
| 75 | X21G5 | 6 days | 4/21/2007 8:00 | 4/27/2007 17:00 | 74 | ORW[8] |
| 76 | X21G6 | 6 days | 4/28/2007 8:00 | 5/4/2007 17:00 | 75 | ORW[8] |
| 77 | X21G7 | 6 days | 5/5/2007 8:00 | 5/11/2007 17:00 | 76 | ORW[8] |
| 78 | X21G8 | 6 days | 5/12/2007 8:00 | 5/18/2007 17:00 | 77 | ORW[8] |
| 79 | X21G9 | 6 days | 5/19/2007 8:00 | 5/25/2007 17:00 | 78 | ORW[8] |
| 80 | X31 | 54 days | 3/24/2007 8:00 | 5/25/2007 17:00 | | |
| 81 | X31G1 | 6 days | 3/24/2007 8:00 | 3/30/2007 17:00 | 58 | COUNSELLOR |
| 82 | X31G2 | 6 days | 3/31/2007 8:00 | 4/6/2007 17:00 | 81 | COUNSELLOR |
| 83 | X31G3 | 6 days | 4/7/2007 8:00 | 4/13/2007 17:00 | 82 | COUNSELLOR |
| 84 | X31G4 | 6 days | 4/14/2007 8:00 | 4/20/2007 17:00 | 83 | COUNSELLOR |
| 85 | X31G5 | 6 days | 4/21/2007 8:00 | 4/27/2007 17:00 | 84 | COUNSELLOR |
| 86 | X31G6 | 6 days | 4/28/2007 8:00 | 5/4/2007 17:00 | 85 | COUNSELLOR |
| 87 | X31G7 | 6 days | 5/5/2007 8:00 | 5/11/2007 17:00 | 86 | COUNSELLOR |
| 88 | X31G8 | 6 days | 5/12/2007 8:00 | 5/18/2007 17:00 | 87 | COUNSELLOR |
| 89 | X31G9 | 6 days | 5/19/2007 8:00 | 5/25/2007 17:00 | 88 | COUNSELLOR |
| 90 | X41 | 48 days | 3/31/2007 8:00 | 5/25/2007 17:00 | | |
| 91 | X41G1 | 6 days | 3/31/2007 8:00 | 4/6/2007 17:00 | 58,59,56 | DEPOT[8] |
| 92 | X41G2 | 6 days | 4/7/2007 8:00 | 4/13/2007 17:00 | 91 | DEPOT[8] |
| 93 | X41G3 | 6 days | 4/14/2007 8:00 | 4/20/2007 17:00 | 92 | DEPOT[8] |
| 94 | X41G4 | 6 days | 4/21/2007 8:00 | 4/27/2007 17:00 | 93 | DEPOT[8] |
| 95 | X41G5 | 6 days | 4/28/2007 8:00 | 5/4/2007 17:00 | 94 | DEPOT[8] |
| 96 | X41G6 | 6 days | 5/5/2007 8:00 | 5/11/2007 17:00 | 95 | DEPOT[8] |
| 97 | X41G7 | 6 days | 5/12/2007 8:00 | 5/18/2007 17:00 | 96 | DEPOT[8] |
| 98 | X41G8 | 6 days | 5/19/2007 8:00 | 5/25/2007 17:00 | 97 | DEPOT[8] |
| 99 | Y1 | 1 day | 5/26/2007 8:00 | 5/26/2007 17:00 | 98 | |
| 100 | Z1 | 1 day | 5/26/2007 8:00 | 5/26/2007 17:00 | 98 | |
| 101 | H3 | 1 day | 4/28/2007 8:00 | 4/28/2007 17:00 | 94 | PO |
| 102 | H4 | 1 day | 5/26/2007 8:00 | 5/26/2007 17:00 | 98 | PO |
| 103 | M3 | 1 day | 4/28/2007 8:00 | 4/28/2007 17:00 | 94 | PO |
| 104 | M4 | 1 day | 5/26/2007 8:00 | 5/26/2007 17:00 | 98 | PO |
| 105 | Meeting 2 | 54 days | 5/26/2007 8:00 | 7/27/2007 17:00 | | |
| 106 | R2 | 3 days | 5/26/2007 8:00 | 5/29/2007 17:00 | 60,70,80,90 | |
| 107 | W12 | 2 days | 5/30/2007 8:00 | 5/31/2007 17:00 | 106 | |
| 108 | W22 | 2 days | 5/30/2007 8:00 | 5/31/2007 17:00 | 106 | |
| 109 | X12 | 48 days | 6/1/2007 8:00 | 7/26/2007 17:00 | | |
| 110 | X12G1 | 6 days | 6/1/2007 8:00 | 6/7/2007 17:00 | 107,108,60 | PE[30] |
| 111 | X12G2 | 6 days | 6/8/2007 8:00 | 6/14/2007 17:00 | 110 | PE[30] |
| 112 | X12G3 | 6 days | 6/15/2007 8:00 | 6/21/2007 17:00 | 111 | PE[30] |
| 114 | X12G5 | 6 days | 6/29/2007 8:00 | 7/5/2007 17:00 | 113 | PE[30] |
| 115 | X12G6 | 6 days | 7/6/2007 8:00 | 7/12/2007 17:00 | 114 | PE[30] |
| 116 | X12G7 | 6 days | 7/13/2007 8:00 | 7/19/2007 17:00 | 115 | PE[30] |
| 117 | X12G8 | 6 days | 7/20/2007 8:00 | 7/26/2007 17:00 | 116 | PE[30] |
| 118 | X22 | 48 days | 6/1/2007 8:00 | 7/26/2007 17:00 | | |
| 119 | X22G1 | 6 days | 6/1/2007 8:00 | 6/7/2007 17:00 | 107,70 | ORW[8] |
| 120 | X22G2 | 6 days | 6/8/2007 8:00 | 6/14/2007 17:00 | 119 | ORW[8] |
| 121 | X22G3 | 6 days | 6/15/2007 8:00 | 6/21/2007 17:00 | 120 | ORW[8] |
| 122 | X22G4 | 6 days | 6/22/2007 8:00 | 6/28/2007 17:00 | 121 | ORW[8] |
| 124 | X22G6 | 6 days | 7/6/2007 8:00 | 7/12/2007 17:00 | 123 | ORW[8] |
| 125 | X22G7 | 6 days | 7/13/2007 8:00 | 7/19/2007 17:00 | 124 | ORW[8] |
| 126 | X22G8 | 6 days | 7/20/2007 8:00 | 7/26/2007 17:00 | 125 | ORW[8] |
| 127 | X32 | 48 days | 6/1/2007 8:00 | 7/26/2007 17:00 | | |
| 128 | X32G1 | 6 days | 6/1/2007 8:00 | 6/7/2007 17:00 | 107,80 | COUNSELLOR |
| 129 | X32G2 | 6 days | 6/8/2007 8:00 | 6/14/2007 17:00 | 128 | COUNSELLOR |
| 130 | X32G3 | 6 days | 6/15/2007 8:00 | 6/21/2007 17:00 | 129 | COUNSELLOR |
| 131 | X32G4 | 6 days | 6/22/2007 8:00 | 6/28/2007 17:00 | 130 | COUNSELLOR |
| 132 | X32G5 | 6 days | 6/29/2007 8:00 | 7/5/2007 17:00 | 131 | COUNSELLOR |

| ID | Task Name | Duration | Start Date | Finish Date | Predecessors | Resource Names |
|-----|------------------|----------------|-----------------------|-------------------------|-----------------|----------------|
| 133 | X32G6 | 6 days | 7/6/2007 8:00 | 7/12/2007 17:00 | 132 | COUNSELLOR |
| 134 | X32G7 | 6 days | 7/13/2007 8:00 | 7/19/2007 17:00 | 133 | COUNSELLOR |
| 135 | X32G8 | 6 days | 7/20/2007 8:00 | 7/26/2007 17:00 | 134 | COUNSELLOR |
| 136 | X42 | 48 days | 6/1/2007 8:00 | 7/26/2007 17:00 | | |
| 137 | X42G1 | 6 days | 6/1/2007 8:00 | 6/7/2007 17:00 | 107,108,90 | DEPOT[8] |
| 138 | X42G2 | 6 days | 6/8/2007 8:00 | 6/14/2007 17:00 | 137 | DEPOT[8] |
| 139 | X42G3 | 6 days | 6/15/2007 8:00 | 6/21/2007 17:00 | 138 | DEPOT[8] |
| 140 | X42G4 | 6 days | 6/22/2007 8:00 | 6/28/2007 17:00 | 139 | DEPOT[8] |
| 142 | X42G6 | 6 days | 7/6/2007 8:00 | 7/12/2007 17:00 | 141 | DEPOT[8] |
| 143 | X42G7 | 6 days | 7/13/2007 8:00 | 7/19/2007 17:00 | 142 | DEPOT[8] |
| 144 | X42G8 | 6 days | 7/20/2007 8:00 | 7/26/2007 17:00 | 143 | DEPOT[8] |
| 145 | Y2 | 1 day | 7/27/2007 8:00 | 7/27/2007 17:00 | 144 | |
| 146 | Z2 | 1 day | 7/27/2007 8:00 | 7/27/2007 17:00 | 144 | |
| 147 | H5 | 1 day | 6/29/2007 8:00 | 6/29/2007 17:00 | 140 | PO |
| 148 | H6 | 1 day | 7/27/2007 8:00 | 7/27/2007 17:00 | 144 | PO |
| 149 | M5 | 1 day | 6/29/2007 8:00 | 6/29/2007 17:00 | 140 | PO |
| 150 | M6 | 1 day | 7/27/2007 8:00 | 7/27/2007 17:00 | 144 | PO |
| 151 | Meeting 3 | 54 days | 7/27/2007 8:00 | 9/27/2007 17:00 | | |
| 152 | R3 | 3 days | 7/27/2007 8:00 | 7/30/2007 17:00 | 109,118,127,136 | |
| 153 | W13 | 2 days | 7/31/2007 8:00 | 8/1/2007 17:00 | 152 | |
| 154 | W23 | 2 days | 7/31/2007 8:00 | 8/1/2007 17:00 | 152 | |
| 155 | X13 | 48 days | 8/2/2007 8:00 | 9/26/2007 17:00 | | |
| 156 | X13G1 | 6 days | 8/2/2007 8:00 | 8/8/2007 17:00 | 153,154,109 | PE[30] |
| 157 | X13G2 | 6 days | 8/9/2007 8:00 | 8/15/2007 17:00 | 156 | PE[30] |
| 158 | X13G3 | 6 days | 8/16/2007 8:00 | 8/22/2007 17:00 | 157 | PE[30] |
| 159 | X13G4 | 6 days | 8/23/2007 8:00 | 8/29/2007 17:00 | 158 | PE[30] |
| 160 | X13G5 | 6 days | 8/30/2007 8:00 | 9/5/2007 17:00 | 159 | PE[30] |
| 161 | X13G6 | 6 days | 9/6/2007 8:00 | 9/12/2007 17:00 | 160 | PE[30] |
| 162 | X13G7 | 6 days | 9/13/2007 8:00 | 9/19/2007 17:00 | 161 | PE[30] |
| 163 | X13G8 | 6 days | 9/20/2007 8:00 | 9/26/2007 17:00 | 162 | PE[30] |
| 164 | X23 | 48 days | 8/2/2007 8:00 | 9/26/2007 17:00 | | |
| 165 | X23G1 | 6 days | 8/2/2007 8:00 | 8/8/2007 17:00 | 153,118 | ORW[8] |
| 166 | X23G2 | 6 days | 8/9/2007 8:00 | 8/15/2007 17:00 | 165 | ORW[8] |
| 167 | X23G3 | 6 days | 8/16/2007 8:00 | 8/22/2007 17:00 | 166 | ORW[8] |
| 168 | X23G4 | 6 days | 8/23/2007 8:00 | 8/29/2007 17:00 | 167 | ORW[8] |
| 169 | X23G5 | 6 days | 8/30/2007 8:00 | 9/5/2007 17:00 | 168 | ORW[8] |
| 170 | X23G6 | 6 days | 9/6/2007 8:00 | 9/12/2007 17:00 | 169 | ORW[8] |
| 171 | X23G7 | 6 days | 9/13/2007 8:00 | 9/19/2007 17:00 | 170 | ORW[8] |
| 172 | X23G8 | 6 days | 9/20/2007 8:00 | 9/26/2007 17:00 | 171 | ORW[8] |
| 173 | X33 | 48 days | 8/2/2007 8:00 | 9/26/2007 17:00 | | |
| 174 | X33G1 | 6 days | 8/2/2007 8:00 | 8/8/2007 17:00 | 153,127 | COUNSELLOR |
| 175 | X33G2 | 6 days | 8/9/2007 8:00 | 8/15/2007 17:00 | 174 | COUNSELLOR |
| 177 | X33G4 | 6 days | 8/23/2007 8:00 | 8/29/2007 17:00 | 176 | COUNSELLOR |
| 178 | X33G5 | 6 days | 8/30/2007 8:00 | 9/5/2007 17:00 | 177 | COUNSELLOR |
| 179 | X33G6 | 6 days | 9/6/2007 8:00 | 9/12/2007 17:00 | 178 | COUNSELLOR |
| 180 | X33G7 | 6 days | 9/13/2007 8:00 | 9/19/2007 17:00 | 179 | COUNSELLOR |
| 181 | X33G8 | 6 days | 9/20/2007 8:00 | 9/26/2007 17:00 | 180 | COUNSELLOR |
| 182 | X43 | 48 days | 8/2/2007 8:00 | 9/26/2007 17:00 | | |
| 183 | X43G1 | 6 days | 8/2/2007 8:00 | 8/8/2007 17:00 | 153,154,136 | DEPOT[8] |
| 184 | X43G2 | 6 days | 8/9/2007 8:00 | 8/15/2007 17:00 | 183 | DEPOT[8] |
| 185 | X43G3 | 6 days | 8/16/2007 8:00 | 8/22/2007 17:00 | 184 | DEPOT[8] |
| 186 | X43G4 | 6 days | 8/23/2007 8:00 | 8/29/2007 17:00 | 185 | DEPOT[8] |
| 187 | X43G5 | 6 days | 8/30/2007 8:00 | 9/5/2007 17:00 | 186 | DEPOT[8] |
| 188 | X43G6 | 6 days | 9/6/2007 8:00 | 9/12/2007 17:00 | 187 | DEPOT[8] |
| 189 | X43G7 | 6 days | 9/13/2007 8:00 | 9/19/2007 17:00 | 188 | DEPOT[8] |
| 190 | X43G8 | 6 days | 9/20/2007 8:00 | 9/26/2007 17:00 | 189 | DEPOT[8] |
| 191 | Y3 | 1 day | 9/27/2007 8:00 | 9/27/2007 17:00 | 190 | |
| 192 | Z3 | 1 day | 9/27/2007 8:00 | 9/27/2007 17:00 | 190 | |
| 193 | H7 | 1 day | 8/30/2007 8:00 | 8/30/2007 17:00 | 186 | PO |
| 194 | H8 | 1 day | 9/27/2007 8:00 | 9/27/2007 17:00 | 190 | PO |
| 195 | M7 | 1 day | 8/30/2007 8:00 | 8/30/2007 17:00 | 186 | PO |
| 196 | M8 | 1 day | 9/27/2007 8:00 | 9/27/2007 17:00 | 190 | PO |
| 197 | Meeting 4 | 54 days | 9/27/2007 8:00 | 11/28/2007 17:00 | | |
| 198 | R4 | 3 days | 9/27/2007 8:00 | 9/29/2007 17:00 | 155,164,173,182 | |
| 199 | W14 | 2 days | 10/1/2007 8:00 | 10/2/2007 17:00 | 198 | |
| 200 | W24 | 2 days | 10/1/2007 8:00 | 10/2/2007 17:00 | 198 | |
| 201 | X14 | 48 days | 10/3/2007 8:00 | 11/27/2007 17:00 | | |
| 202 | X14G1 | 6 days | 10/3/2007 8:00 | 10/9/2007 17:00 | 199,200,155 | PE[30] |

| ID | Task Name | Duration | Start Date | Finish Date | Predecessors | Resource Names |
|------------|--------------------------------|-----------------|------------------------|-------------------------|--------------|----------------|
| 203 | X14G2 | 6 days | 10/10/2007 8:00 | 10/16/2007 17:00 | 202 | PE[30] |
| 204 | X14G3 | 6 days | 10/17/2007 8:00 | 10/23/2007 17:00 | 203 | PE[30] |
| 205 | X14G4 | 6 days | 10/24/2007 8:00 | 10/30/2007 17:00 | 204 | PE[30] |
| 206 | X14G5 | 6 days | 10/31/2007 8:00 | 11/6/2007 17:00 | 205 | PE[30] |
| 207 | X14G6 | 6 days | 11/7/2007 8:00 | 11/13/2007 17:00 | 206 | PE[30] |
| 208 | X14G7 | 6 days | 11/14/2007 8:00 | 11/20/2007 17:00 | 207 | PE[30] |
| 209 | X14G8 | 6 days | 11/21/2007 8:00 | 11/27/2007 17:00 | 208 | PE[30] |
| 210 | X24 | 48 days | 10/3/2007 8:00 | 11/27/2007 17:00 | | |
| 211 | X24G1 | 6 days | 10/3/2007 8:00 | 10/9/2007 17:00 | 199,164 | ORW[8] |
| 212 | X24G2 | 6 days | 10/10/2007 8:00 | 10/16/2007 17:00 | 211 | ORW[8] |
| 213 | X24G3 | 6 days | 10/17/2007 8:00 | 10/23/2007 17:00 | 212 | ORW[8] |
| 214 | X24G4 | 6 days | 10/24/2007 8:00 | 10/30/2007 17:00 | 213 | ORW[8] |
| 216 | X24G6 | 6 days | 11/7/2007 8:00 | 11/13/2007 17:00 | 215 | ORW[8] |
| 217 | X24G7 | 6 days | 11/14/2007 8:00 | 11/20/2007 17:00 | 216 | ORW[8] |
| 218 | X24G8 | 6 days | 11/21/2007 8:00 | 11/27/2007 17:00 | 217 | ORW[8] |
| 219 | X34 | 48 days | 10/3/2007 8:00 | 11/27/2007 17:00 | | |
| 220 | X34G1 | 6 days | 10/3/2007 8:00 | 10/9/2007 17:00 | 199,173 | COUNSELLOR |
| 221 | X34G2 | 6 days | 10/10/2007 8:00 | 10/16/2007 17:00 | 220 | COUNSELLOR |
| 222 | X34G3 | 6 days | 10/17/2007 8:00 | 10/23/2007 17:00 | 221 | COUNSELLOR |
| 223 | X34G4 | 6 days | 10/24/2007 8:00 | 10/30/2007 17:00 | 222 | COUNSELLOR |
| 224 | X34G5 | 6 days | 10/31/2007 8:00 | 11/6/2007 17:00 | 223 | COUNSELLOR |
| 225 | X34G6 | 6 days | 11/7/2007 8:00 | 11/13/2007 17:00 | 224 | COUNSELLOR |
| 226 | X34G7 | 6 days | 11/14/2007 8:00 | 11/20/2007 17:00 | 225 | COUNSELLOR |
| 227 | X34G8 | 6 days | 11/21/2007 8:00 | 11/27/2007 17:00 | 226 | COUNSELLOR |
| 228 | X44 | 48 days | 10/3/2007 8:00 | 11/27/2007 17:00 | | |
| 229 | X44G1 | 6 days | 10/3/2007 8:00 | 10/9/2007 17:00 | 199,200,182 | DEPOT[8] |
| 230 | X44G2 | 6 days | 10/10/2007 8:00 | 10/16/2007 17:00 | 229 | DEPOT[8] |
| 231 | X44G3 | 6 days | 10/17/2007 8:00 | 10/23/2007 17:00 | 230 | DEPOT[8] |
| 232 | X44G4 | 6 days | 10/24/2007 8:00 | 10/30/2007 17:00 | 231 | DEPOT[8] |
| 233 | X44G5 | 6 days | 10/31/2007 8:00 | 11/6/2007 17:00 | 232 | DEPOT[8] |
| 234 | X44G6 | 6 days | 11/7/2007 8:00 | 11/13/2007 17:00 | 233 | DEPOT[8] |
| 235 | X44G7 | 6 days | 11/14/2007 8:00 | 11/20/2007 17:00 | 234 | DEPOT[8] |
| 236 | X44G8 | 6 days | 11/21/2007 8:00 | 11/27/2007 17:00 | 235 | DEPOT[8] |
| 237 | Y4 | 1 day | 11/28/2007 8:00 | 11/28/2007 17:00 | 236 | |
| 238 | Z4 | 1 day | 11/28/2007 8:00 | 11/28/2007 17:00 | 236 | |
| 239 | H9 | 1 day | 10/31/2007 8:00 | 10/31/2007 17:00 | 232 | PO |
| 240 | H10 | 1 day | 11/28/2007 8:00 | 11/28/2007 17:00 | 236 | PO |
| 241 | M9 | 1 day | 10/31/2007 8:00 | 10/31/2007 17:00 | 232 | PO |
| 242 | M10 | 1 day | 11/28/2007 8:00 | 11/28/2007 17:00 | 236 | PO |
| 243 | Refrsher Training | 1 day | 7/2/2007 8:00 | 7/2/2007 17:00 | | |
| 244 | J11 | 1 day | 7/2/2007 8:00 | 7/2/2007 17:00 | | |
| 245 | Incentive to best depot | 1 day | 11/29/2007 8:00 | 11/29/2007 17:00 | | |
| 246 | AA | 1 day | 11/29/2007 8:00 | 11/29/2007 17:00 | 237,238 | |
| 247 | Enabling environment | 299 days | 1/17/2007 8:00 | 12/31/2007 17:00 | | |
| 248 | AC1 | 1 day | 1/17/2007 8:00 | 1/17/2007 17:00 | 7,8 | |
| 249 | AC2 | 1 day | 2/2/2007 8:00 | 2/2/2007 17:00 | 248 | |
| 250 | AC3 | 1 day | 2/17/2007 8:00 | 2/17/2007 17:00 | 249 | |
| 251 | AC4 | 1 day | 3/3/2007 8:00 | 3/3/2007 17:00 | 250 | |
| 252 | AC5 | 1 day | 3/19/2007 8:00 | 3/19/2007 17:00 | 251 | |
| 253 | AC6 | 1 day | 4/2/2007 8:00 | 4/2/2007 17:00 | 252 | |
| 254 | AC7 | 1 day | 4/18/2007 8:00 | 4/18/2007 17:00 | 253 | |
| 255 | AC8 | 1 day | 5/4/2007 8:00 | 5/4/2007 17:00 | 254 | |
| 256 | AC9 | 1 day | 5/19/2007 8:00 | 5/19/2007 17:00 | 255 | |
| 257 | AC10 | 1 day | 6/5/2007 8:00 | 6/5/2007 17:00 | 256 | |
| 258 | AC11 | 1 day | 6/20/2007 8:00 | 6/20/2007 17:00 | 257 | |
| 259 | AC12 | 1 day | 7/9/2007 8:00 | 7/9/2007 17:00 | 258 | |
| 260 | AC13 | 1 day | 7/25/2007 8:00 | 7/25/2007 17:00 | 259 | |
| 261 | AC14 | 1 day | 8/13/2007 8:00 | 8/13/2007 17:00 | 260 | |
| 262 | AC15 | 1 day | 8/30/2007 8:00 | 8/30/2007 17:00 | 261 | |
| 263 | AC16 | 1 day | 9/15/2007 8:00 | 9/15/2007 17:00 | 262 | |
| 264 | AC17 | 1 day | 10/1/2007 8:00 | 10/1/2007 17:00 | 263 | |
| 265 | AC18 | 1 day | 10/17/2007 8:00 | 10/17/2007 17:00 | 264 | |
| 266 | AC19 | 1 day | 11/1/2007 8:00 | 11/1/2007 17:00 | 265 | |
| 267 | AC20 | 1 day | 11/16/2007 8:00 | 11/16/2007 17:00 | 266 | |
| 268 | AC21 | 1 day | 11/30/2007 8:00 | 11/30/2007 17:00 | 267 | |
| 269 | AC22 | 1 day | 12/15/2007 8:00 | 12/15/2007 17:00 | 268 | |
| 270 | AC23 | 1 day | 12/31/2007 8:00 | 12/31/2007 17:00 | 269 | |

Table 5. 1.4 Project Budget

| ID | Task Name | Activity Cost |
|-----------|--------------------------------------|----------------------|
| 1 | Baroda AIDS Project | Rs98,500.00 |
| 2 | Organization structure | Rs26,000.00 |
| 3 | A | Rs0.00 |
| 4 | B | Rs0.00 |
| 5 | C | Rs0.00 |
| 6 | D | Rs0.00 |
| 7 | E1 | Rs0.00 |
| 8 | E2 | Rs2,000.00 |
| 9 | E3 | Rs1,000.00 |
| 10 | F | Rs3,000.00 |
| 11 | AB | Rs20,000.00 |
| 12 | Misconception Reduction | Rs4,000.00 |
| 13 | G1 | Rs0.00 |
| 14 | G2 | Rs0.00 |
| 15 | G3 | Rs0.00 |
| 16 | G4 | Rs0.00 |
| 17 | G5 | Rs0.00 |
| 18 | G6 | Rs0.00 |
| 19 | H1 | Rs0.00 |
| 20 | H2 | Rs0.00 |
| 21 | I1 | Rs0.00 |
| 22 | I2 | Rs0.00 |
| 23 | I3 | Rs0.00 |
| 24 | J1 | Rs2,000.00 |
| 25 | J2 | Rs2,000.00 |
| 26 | Meeting of PE's with PSH | Rs0.00 |
| 27 | K1 | Rs0.00 |
| 28 | K2 | Rs0.00 |
| 29 | K3 | Rs0.00 |
| 30 | Meeting of ORWS with ESH | Rs0.00 |
| 31 | L1 | Rs0.00 |
| 32 | L2 | Rs0.00 |
| 33 | L3 | Rs0.00 |
| 34 | M | Rs0.00 |
| 35 | N | Rs0.00 |
| 36 | O | Rs0.00 |
| 37 | Meeting of CORWs with clients | Rs0.00 |
| 38 | P1 | Rs0.00 |
| 39 | P2 | Rs0.00 |
| 40 | P3 | Rs0.00 |
| 41 | Counseling for PSH | Rs0.00 |
| 42 | QA1 | Rs0.00 |
| 43 | QA2 | Rs0.00 |
| 44 | QA3 | Rs0.00 |
| 45 | QA4 | Rs0.00 |
| 46 | Counseling for ESH | Rs0.00 |
| 47 | QB1 | Rs0.00 |
| 48 | QB2 | Rs0.00 |
| 49 | QB3 | Rs0.00 |

| ID | Task Name | Activity Cost |
|-----|-------------------|---------------|
| 50 | S | Rs0.00 |
| 51 | Condom Estimation | Rs0.00 |
| 52 | R | Rs0.00 |
| 53 | S | Rs0.00 |
| 54 | T | Rs0.00 |
| 55 | U | Rs0.00 |
| 56 | V | Rs0.00 |
| 57 | Meeting 1 | Rs3,000.00 |
| 58 | W11 | Rs0.00 |
| 59 | W21 | Rs2,500.00 |
| 60 | X11 | Rs0.00 |
| 61 | X11G1 | Rs0.00 |
| 62 | X11G2 | Rs0.00 |
| 63 | X11G3 | Rs0.00 |
| 64 | X11G4 | Rs0.00 |
| 65 | X11G5 | Rs0.00 |
| 66 | X11G6 | Rs0.00 |
| 67 | X11G7 | Rs0.00 |
| 68 | X11G8 | Rs0.00 |
| 69 | X11G9 | Rs0.00 |
| 70 | X21 | Rs0.00 |
| 71 | X21G1 | Rs0.00 |
| 72 | X21G2 | Rs0.00 |
| 73 | X21G3 | Rs0.00 |
| 74 | X21G4 | Rs0.00 |
| 75 | X21G5 | Rs0.00 |
| 76 | X21G6 | Rs0.00 |
| 77 | X21G7 | Rs0.00 |
| 78 | X21G8 | Rs0.00 |
| 79 | X21G9 | Rs0.00 |
| 80 | X31 | Rs0.00 |
| 81 | X31G1 | Rs0.00 |
| 82 | X31G2 | Rs0.00 |
| 83 | X31G3 | Rs0.00 |
| 84 | X31G4 | Rs0.00 |
| 85 | X31G5 | Rs0.00 |
| 86 | X31G6 | Rs0.00 |
| 87 | X31G7 | Rs0.00 |
| 88 | X31G8 | Rs0.00 |
| 89 | X31G9 | Rs0.00 |
| 90 | X41 | Rs0.00 |
| 91 | X41G1 | Rs0.00 |
| 92 | X41G2 | Rs0.00 |
| 93 | X41G3 | Rs0.00 |
| 94 | X41G4 | Rs0.00 |
| 95 | X41G5 | Rs0.00 |
| 96 | X41G6 | Rs0.00 |
| 97 | X41G7 | Rs0.00 |
| 98 | X41G8 | Rs0.00 |
| 99 | Y1 | Rs500.00 |
| 100 | Z1 | Rs0.00 |

| ID | Task Name | Activity Cost |
|------------|------------------|-------------------|
| 101 | H3 | Rs0.00 |
| 102 | H4 | Rs0.00 |
| 103 | M3 | Rs0.00 |
| 104 | M4 | Rs0.00 |
| 105 | Meeting 2 | Rs3,000.00 |
| 106 | R2 | Rs0.00 |
| 107 | W12 | Rs0.00 |
| 108 | W22 | Rs2,500.00 |
| 109 | X12 | Rs0.00 |
| 110 | X12G1 | Rs0.00 |
| 111 | X12G2 | Rs0.00 |
| 112 | X12G3 | Rs0.00 |
| 113 | X12G4 | Rs0.00 |
| 114 | X12G5 | Rs0.00 |
| 115 | X12G6 | Rs0.00 |
| 116 | X12G7 | Rs0.00 |
| 117 | X12G8 | Rs0.00 |
| 118 | X22 | Rs0.00 |
| 119 | X22G1 | Rs0.00 |
| 120 | X22G2 | Rs0.00 |
| 121 | X22G3 | Rs0.00 |
| 122 | X22G4 | Rs0.00 |
| 123 | X22G5 | Rs0.00 |
| 124 | X22G6 | Rs0.00 |
| 125 | X22G7 | Rs0.00 |
| 126 | X22G8 | Rs0.00 |
| 127 | X32 | Rs0.00 |
| 128 | X32G1 | Rs0.00 |
| 129 | X32G2 | Rs0.00 |
| 130 | X32G3 | Rs0.00 |
| 131 | X32G4 | Rs0.00 |
| 132 | X32G5 | Rs0.00 |
| 133 | X32G6 | Rs0.00 |
| 134 | X32G7 | Rs0.00 |
| 135 | X32G8 | Rs0.00 |
| 136 | X42 | Rs0.00 |
| 137 | X42G1 | Rs0.00 |
| 138 | X42G2 | Rs0.00 |
| 139 | X42G3 | Rs0.00 |
| 140 | X42G4 | Rs0.00 |
| 141 | X42G5 | Rs0.00 |
| 142 | X42G6 | Rs0.00 |
| 143 | X42G7 | Rs0.00 |
| 144 | X42G8 | Rs0.00 |
| 145 | Y2 | Rs500.00 |
| 146 | Z2 | Rs0.00 |
| 147 | H5 | Rs0.00 |
| 148 | H6 | Rs0.00 |
| 149 | M5 | Rs0.00 |
| 150 | M6 | Rs0.00 |
| 151 | Meeting 3 | Rs3,000.00 |

| ID | Task Name | Activity Cost |
|------------|------------------|-------------------|
| 152 | R3 | Rs0.00 |
| 153 | W13 | Rs0.00 |
| 154 | W23 | Rs2,500.00 |
| 155 | X13 | Rs0.00 |
| 156 | X13G1 | Rs0.00 |
| 157 | X13G2 | Rs0.00 |
| 158 | X13G3 | Rs0.00 |
| 159 | X13G4 | Rs0.00 |
| 160 | X13G5 | Rs0.00 |
| 161 | X13G6 | Rs0.00 |
| 162 | X13G7 | Rs0.00 |
| 163 | X13G8 | Rs0.00 |
| 164 | X23 | Rs0.00 |
| 165 | X23G1 | Rs0.00 |
| 166 | X23G2 | Rs0.00 |
| 167 | X23G3 | Rs0.00 |
| 168 | X23G4 | Rs0.00 |
| 169 | X23G5 | Rs0.00 |
| 170 | X23G6 | Rs0.00 |
| 171 | X23G7 | Rs0.00 |
| 172 | X23G8 | Rs0.00 |
| 173 | X33 | Rs0.00 |
| 174 | X33G1 | Rs0.00 |
| 175 | X33G2 | Rs0.00 |
| 176 | X33G3 | Rs0.00 |
| 177 | X33G4 | Rs0.00 |
| 178 | X33G5 | Rs0.00 |
| 179 | X33G6 | Rs0.00 |
| 180 | X33G7 | Rs0.00 |
| 181 | X33G8 | Rs0.00 |
| 182 | X43 | Rs0.00 |
| 183 | X43G1 | Rs0.00 |
| 184 | X43G2 | Rs0.00 |
| 185 | X43G3 | Rs0.00 |
| 186 | X43G4 | Rs0.00 |
| 187 | X43G5 | Rs0.00 |
| 188 | X43G6 | Rs0.00 |
| 189 | X43G7 | Rs0.00 |
| 190 | X43G8 | Rs0.00 |
| 191 | Y3 | Rs500.00 |
| 192 | Z3 | Rs0.00 |
| 193 | H7 | Rs0.00 |
| 194 | H8 | Rs0.00 |
| 195 | M7 | Rs0.00 |
| 196 | M8 | Rs0.00 |
| 197 | Meeting 4 | Rs3,000.00 |
| 198 | R4 | Rs0.00 |
| 199 | W14 | Rs0.00 |
| 200 | W24 | Rs2,500.00 |
| 201 | X14 | Rs0.00 |
| 202 | X14G1 | Rs0.00 |

| ID | Task Name | Activity Cost |
|------------|--------------------------------|--------------------|
| 203 | X14G2 | Rs0.00 |
| 204 | X14G3 | Rs0.00 |
| 205 | X14G4 | Rs0.00 |
| 206 | X14G5 | Rs0.00 |
| 207 | X14G6 | Rs0.00 |
| 208 | X14G7 | Rs0.00 |
| 209 | X14G8 | Rs0.00 |
| 210 | X24 | Rs0.00 |
| 211 | X24G1 | Rs0.00 |
| 212 | X24G2 | Rs0.00 |
| 213 | X24G3 | Rs0.00 |
| 214 | X24G4 | Rs0.00 |
| 215 | X24G5 | Rs0.00 |
| 216 | X24G6 | Rs0.00 |
| 217 | X24G7 | Rs0.00 |
| 218 | X24G8 | Rs0.00 |
| 219 | X34 | Rs0.00 |
| 220 | X34G1 | Rs0.00 |
| 221 | X34G2 | Rs0.00 |
| 222 | X34G3 | Rs0.00 |
| 223 | X34G4 | Rs0.00 |
| 224 | X34G5 | Rs0.00 |
| 225 | X34G6 | Rs0.00 |
| 226 | X34G7 | Rs0.00 |
| 227 | X34G8 | Rs0.00 |
| 228 | X44 | Rs0.00 |
| 229 | X44G1 | Rs0.00 |
| 230 | X44G2 | Rs0.00 |
| 231 | X44G3 | Rs0.00 |
| 232 | X44G4 | Rs0.00 |
| 233 | X44G5 | Rs0.00 |
| 234 | X44G6 | Rs0.00 |
| 235 | X44G7 | Rs0.00 |
| 236 | X44G8 | Rs0.00 |
| 237 | Y4 | Rs500.00 |
| 238 | Z4 | Rs0.00 |
| 239 | H9 | Rs0.00 |
| 240 | H10 | Rs0.00 |
| 241 | M9 | Rs0.00 |
| 242 | M10 | Rs0.00 |
| 243 | Refrsher Training | Rs2,000.00 |
| 244 | J11 | Rs2,000.00 |
| 245 | Incentive to best depot | Rs0.00 |
| 246 | AA | Rs0.00 |
| 247 | Enabling environment | Rs54,500.00 |
| 248 | AC1 | Rs0.00 |
| 249 | AC2 | Rs0.00 |
| 250 | AC3 | Rs0.00 |
| 251 | AC4 | Rs0.00 |
| 252 | AC5 | Rs0.00 |
| 253 | AC6 | Rs0.00 |

| ID | Task Name | Activity Cost |
|-----|-----------|---------------|
| 254 | AC7 | Rs0.00 |
| 255 | AC8 | Rs0.00 |
| 256 | AC9 | Rs0.00 |
| 257 | AC10 | Rs0.00 |
| 258 | AC11 | Rs0.00 |
| 259 | AC12 | Rs0.00 |
| 260 | AC13 | Rs0.00 |
| 261 | AC14 | Rs0.00 |
| 262 | AC15 | Rs0.00 |
| 263 | AC16 | Rs0.00 |
| 264 | AC17 | Rs0.00 |
| 265 | AC18 | Rs0.00 |
| 266 | AC19 | Rs0.00 |
| 267 | AC20 | Rs0.00 |
| 268 | AC21 | Rs0.00 |
| 269 | AC22 | Rs0.00 |
| 270 | AC23 | Rs0.00 |

5.2 Managing Blood Transfusion Services

“Despite all technological marvels that humanity is experiencing, a reliable and safe blood supply is still out of the reach for untold millions of people around the world”.

Director General, WHO, World Health Day 2000.

It is not enough to merely ensure inventory of safe blood at the blood banks. We have to make safe blood available for transfusion services wherever it is required. Shortfalls in blood supply have a particular impact on women with pregnancy complications, trauma victims and children with severe life-threatening anemia. Globally, up to 150 000 pregnancy-related deaths could be avoided each year through access to safe blood. In India alone, about 25000 women die every year due to post partum hemorrhages. As per the NFHS survey 1998-99, almost half the pregnant women are moderate to severe anemic. Timely transfusion of blood is thus an important intervention which can save the lives of many such women, if adequate supply of blood is available at all health centres.

In 1975, Resolution WHA 28.72 of the Twenty Eighth World Health Assembly urged Member States to promote the development of a national blood service based on voluntary non-remunerated blood donation. Evidence has shown that a well organized, nationally coordinated blood transfusion service is safer and more cost effective than hospital based or other fragmented systems. This will allow blood and blood products to be equitable, safe, accessible, and adequate to meet the transfusion requirements of the patient population. However, because of a lack of national coordination and the fragmentation of services, only about 60 of the 192 WHO Member States have a national blood policy, relevant legislation, and one specific organization responsible for the national blood program.

An investment in safe and adequate supplies of blood is a cost-effective investment in the health and economic wealth of every nation. Ensuring a safe, source and ethical supply of blood and blood products and the appropriate and rational clinical use of blood are important public health responsibilities of every national government.

Blood is a vital healthcare resource routinely used in a broad range of hospital procedures. Blood is also a potential vector for harmful, and sometimes fatal, infectious diseases such as HIV, HBV, and HCV. Every year, millions of people are exposed to avoidable, life-threatening risks through the transfusion of unsafe blood. Between 5% and 10% of HIV infections worldwide are transmitted through the transfusion of infected blood and blood products.

The human costs of unsafe blood are incalculable. Morbidity and mortality resulting from the transfusion of infected blood have far-reaching consequences, not only for the recipients themselves, but also their families, their communities and the wider society. Since a person

Case prepared by Prof KV Ramani, Prof Dileep Mavalankar and Dipti Govil of the Centre for Management of Health Services (CMHS), Indian Institute of Management, Ahmedabad, as a basis for classroom discussion. Cases are not designed to present illustrations of either correct or incorrect handling of administrative problems. We would like to acknowledge excellent support received from the Maharashtra Blood Transfusion Council and the Gujarat State AIDS Control Society in preparing this case.

can transmit the infection during the asymptomatic phase, it can contribute to an ever-widening pool of infection in the wider population.

The economic costs of a failure to control the transmission of infection have already been demonstrated in countries with a high incidence and prevalence of HIV and AIDS. Increased requirements for medical care, higher levels of dependency and loss of productive labour all place heavy burdens on overstretched health and social services and on the national economy.

More than 60 % of the blood supply in developing countries is collected from family/replacement donors and paid blood donors, who are at a significantly higher risk for transfusion-transmissible infections than voluntary donors. More than 18 million units of blood are not screened for transfusion-transmissible infections. In addition, many transfusions are clinically unnecessary, providing little or no benefit to the patients who receive them and wasting a scarce resource that may result in a shortage of blood products for patients in real need.

Estimating the requirement of safe blood:

There are several ways to estimate the requirements of blood for a given population. WHO bases its estimates on the number of “acute beds” in a given district; this requires a conversion of the total number of beds into equivalent number of acute beds. This conversion depends on the type of medical services available and the location of the health facility. For example, 100 beds in an urban medical college hospital and 100 beds in a rural district hospital do not get converted into the same number of acute beds. As a thumb rule, if one percent of the population in a district can donate blood once a year that would suffice the needs of that district.

The above estimates are based on the assumption that human body needs whole blood. Actually, human body requires blood components¹⁰ most of the time than whole blood. Whole blood consists of several components; Red Blood Cells, Platelets and Plasma, and the plasma itself contains a variety of proteins. All of these components have different uses and patients will need different components depending on their own blood type and on their condition. For instance, an anaemic person will only require RBC, while a haemophiliac needs clotting factors from plasma. The treatment, referred to as “blood component therapy”, allows several patients to benefit from one unit of donated whole blood.

¹⁰ Whole blood contains the following major components:

- Red Blood Cells- probably the most recognizable component of whole blood, red blood cells contain hemoglobin, a complex iron-containing protein that carries oxygen throughout the body and gives blood its red colour.
- White Blood cells-responsible for protecting the body from invasion by foreign substances such as bacteria, fungi and viruses
- Plasma-the liquid portion of blood – a protein-salt solution in which red and white blood cells and platelets are suspended.
- Platelets – very small cellular components of blood that help the clotting process by sticking to the lining of blood vessels.

However, most developing countries depend on whole blood than blood components. Many developing countries have invested in blood component separation facilities¹¹, but these investments (capital expenditure, human resources, materials, equipment, and other infrastructure needs) remain underutilized. Promoting blood component therapy would not only bring down the requirement of safe blood by as much as 60 to 70 % (since one unit of whole blood can give four blood components which could meet the requirements of four patients), it would also ensure optimum utilization of all resources invested in the blood component separation facility.

Blood Banking Services in India:

While the Indian Health sector has made some noteworthy achievements over the last 50 years, it has not responded satisfactorily to meet the national goals on blood transfusion services. In India, blood collection, storage, and delivery occur mainly in blood banks attached to hospitals, most of which are under central and state government controls. Our transfusion services infrastructure is highly decentralized and lacks many critical resources; overall shortage of blood, especially from volunteer donors; limited and erratic testing facilities; an extremely limited blood component production/availability and use; and a shortage of health care professionals in the field of transfusion services (Sardana,1996).

The major objective of the Blood Safety Program of NACO is to ensure easily accessible, adequate supplies of safe and quality blood and blood components for all. Several important steps have been taken to ensure safe blood by modernizing and strengthening of all licensed blood banks. NACO under the Central scheme of assistance provides financial support for blood bank equipment, contingency and purchase of consumables, chemicals and reagents. As of 1996-97 (most recent data on NACO website), about 815 blood banks were modernized; 236 as Major Blood Banks¹², and 579 as District Blood Banks. Nearly 90 % of the modernized blood banks are in the government sector. It is proposed to modernize all the existing public sector blood banks and support at least one licensed blood bank in each district in every state.

A significant portion of blood banking activity is also done by voluntary agencies and private sector blood banks (see Exhibit 5.2.1). It can be seen from Exhibits 5.2.2, 5.2.3 and 5.2.4 that the total blood collection in India has gone up over the last few years and recorded a collection of 4 million units in the year 2004 (NACO records show a collection of only 2.9 million units in 2005). However, 4 million units of blood meets only 40 percent of our needs, as against a requirement of 10 million units (@ 1 % of 1 billion population). Even the total number of blood bags sold in the country in 2004 is only around 6 million.

Below, we summarize in Table 5.2.1 some of the observations on blood banking services in India.

¹¹ The process of blood component separation consists of two steps: In the first step, the whole blood is separated into RBC and Platelets Rich Plasma (PR Plasma) in a centrifuge. The second step involves loading the centrifuge with PR Plasma and separating the Platelets from Plasma (and we get Fresh Frozen Plasma). The process of separating whole blood into blood components takes about 1 hour. The blood components need special arrangements for storage, such as agitators, cold rooms etc and have different shelf lives. For example, RBC can last 35 days, while Platelets can last for only 5 days.

¹² Major blood banks are expected to collect between 5000 to 10,000 units and district blood banks between 3000-5000 units of blood per year.

Table 5. 2.1 Some Blood Bank Statistics in India

| Blood Bank Statistics | 2002 | 2003 | 2004 | 2005¹³ |
|------------------------------|-------------|-------------|-------------|--------------------------|
| Total Blood Collection | 3,197,541 | 4,001,758 | 4,050,128 | 2,886,883 |
| % Voluntary Blood Collection | 45.73 | 50.01 | 51.36 | 55.29 |
| % HIV + | --- | --- | 0.34 | 0.34 |
| % HB + | --- | --- | 1.20 | 1.25 |
| % HCV + | --- | --- | 0.48 | 0.42 |
| % VDRL + | --- | --- | 0.27 | 0.28 |
| Total safe Blood collected | --- | --- | 3957380 | 2820773 |
| % Safe Blood Collected | --- | --- | 97.71 | 97.71 |

Blood Banking in Maharashtra State:

Following the Apex Court Intervention of 4th January 1996, the state government of Maharashtra established its State Blood Transfusion Council (SBTC) on 2nd July, 1996 as a separate entity with the objective to coordinate the fragmented blood supply systems in the state. Its Governing Board consists of Secretary (Medical Education & Drugs) as chairman, DGHS as Member Secretary and Director, and 12 other representatives from Public Health, FDA, IRCS, etc. The Government of Maharashtra provided 2000 sq.ft of office premises, financial assistance and ICT infrastructure for establishing SBTC. SBTC also received a sum of Rs 8.6 million from the Government of India. While Maharashtra established an independent SBTC, many other states have SBTC managed by their State AIDS Control Societies.

Since establishing SBTC, the performance of blood banking services in the state has improved significantly. Total Blood collection has gone up from 360,000 units in 1997 to more than 874,034 units by 2005; voluntary blood donation has gone up from 39 % in 1997 to 75 % by 2005, while the seropositivity in blood units has gone down from 1.77 % in 1997 to 0.66 % by 2005. It is important to mention here that 46 % of the total blood collection in the state comes from four districts: Mumbai, Pune, Thane, and Nagpur (see Exhibit 5.2.5)

The number of blood donation camps has doubled from 5000 in 1998 to more than 10,000 in 2005. Each health facility (PHC, Rural Hospital, District Hospital, etc) is given an annual target for blood donation camps. The SBTC also organizes special camps for creating motivation and removing misconceptions about blood donation.

SBTC provides free blood to all registered Thalasaemia, Haemophilia, and Sickle cell patients. All voluntary blood donors are also entitled for one unit of blood free of charge for use by self or friends and relatives. Approximately, 40000 units of blood are given to Thalasaemia patients and 3000 units to other patients every year, free of charge. Identity cards are issued to identify repeated voluntary blood donors as well as those patients suffering from Thalasaemia, Haemophilia, and Sickle who need blood regularly from the Council.

The state has a total of 285 registered blood banks (including 15 blood banks not operational now), consisting of 73 government blood banks accounting for 31 % of the total blood collection, 155 blood banks managed by Trusts accounting for 52 % of the total collection, 11

¹³ The NACO data on blood collection in 2005 is not consistent with the data from states.

IRCS blood banks accounting for 10 % and 46 private blood banks accounting for the remaining 8 % of the total blood collection. Under the Blood Bank Modernization scheme of NACO, the state has 31 Major blood banks and 41 District level blood banks. A Metropolitan blood bank is being established at J.J. Hospital, Mumbai with an estimated annual collection of 50,000 units at a cost of

Rs.50 million. The state has 92 blood component separation facilities: 66 trust managed blood banks, 9 government blood banks, 4 IRCS and 13 private blood banks. However, only 28 percent of the total blood units collected are separated into components.

SBTC also maintains a reasonably good MIS system. Reports are compiled at the state level by the 5th of every month and feedback given to the regional health officers by the 15th of every month. SBTC plans to computerize all blood banks, promote the use of components, establish a training institute in Mumbai, and to start a PG course in Transfusion Medicine.

Blood Banking in Gujarat State:

During the NACP I period (1992-99) Gujarat was facing a serious problem regarding the transmission rate of HIV through blood and blood products. Gujarat AIDS cell (subsequently Gujarat AIDS Control Society GSACS) took up the Blood Safety program with utmost priority and successfully brought down the HIV transmission rates (through blood) rapidly over the next decade. In 1996, following the directives of the Apex Court, Gujarat government established its SBTC, and appointed the Additional Director of GSACS to head the SBTC. As a result, Gujarat SBTC is not a separate unit, unlike the Maharashtra SBTC which was set up as a separate unit.

Total Blood collection has gone up from 253,000 in 1998 to 513,000 in 2005; voluntary blood donation has gone up from 33 % to 64 % in the same period, while the seropositivity in blood units has come down from 0.36 % to 0.32 %. It can be seen that HIV seropositivity in voluntary blood is not very different from that in replacement blood. Ahmedbad, Surat and Rajkot districts alone account for more than 50 % of the total blood collected in Gujarat state (see Exhibit 5.2.6)

The state has a total of 164 registered blood banks. However, only 110 blood banks are regularly reporting to GSACS regarding their blood collection statistics. Out of the total number of 164 blood banks, 29 are in the government sector, 49 are under the management of various Trusts, 11 under IRCS, and the remaining 75 blood banks are in the private sector. The blood banks managed by the Trusts contribute as high as 64 % of the total blood collection in the state, followed by Government and IRCS each contributing around 13 %, and the private banks only 10 %. Under the NACO Blood Bank Modernization scheme, Gujarat has so far upgraded 15 blood banks as major blood banks and another 42 as district level blood banks. In addition, there are 6 Zonal Blood testing centers in Gujarat.

The state has a total of 23 blood component separation facilities of which 6 are in the Government sector. The percentage of blood units subjected to component separation has gone up from 5.54 % in 1998 to 38 % by 2006.

Table 5. 2.2 Details of Blood Component Separation: Gujarat 2005

| Type of Blood Bank | Number of blood banks | Total blood collection (units) | Total units used for components | % total collection used for components |
|--------------------|-----------------------|--------------------------------|---------------------------------|----------------------------------------|
| Government | 29 | 64228 | 5159 | 8.0 |
| IRCS | 11 | 66806 | 15922 | 23.8 |
| Trusts | 75 | 315654 | 144242 | 45.7 |
| Private | 46 | 66515 | 6116 | 9.2 |

Source: Gujarat State AIDS Control Society

GSACS maintains a comprehensive data base on each blood bank. Gujarat University has this year started a PG course in Blood Transfusion. Plans for the future include strengthening blood storage systems, addressing the needs of special groups such as Thallasaemia, Haemophilia, and Sickle cell patients.

Your role as a management consultant to NACO:

Management is all about planning, monitoring and control. Your role as a management consultant to NACO is to identify the strengths and weaknesses of blood banking in India, and suggest measures to ensure availability and access to safe blood where it is required, when it is required, and for whom it is required. As you are aware, blood center activities comprise donor recruitment and retention, collection, testing, processing, storage, and issue of blood and blood components, for use when clinically needed.

M & E of blood safety is an important component of CMIS. The M & E indicators used in CMIS are the following:

Core Indicators: (1) Collected blood units tested for HIV
(2) Proportion of Voluntary Blood Donors

Additional Indicators: (3) Setting up of component separation facilities in states
(4) Proportion of previous voluntary blood donors who have come back for repeat blood donation

Exhibit 5. 2.1 Number of Licensed Blood Banks* in States and UTIs

| States | Government | Trust# | Private | Total |
|----------------------|------------|------------|------------|-------------|
| India | 826 | 257 | 980 | 2063 |
| Andaman & Nicobar | 2 | -- | -- | 2 |
| Andhra Pradesh | 66 | 25 | 113 | 204 |
| Arunachal Pradesh | 2 | 1 | -- | 3 |
| Assam | 35 | 3 | 20 | 58 |
| Bihar | 42 | 4 | 32 | 78 |
| Chandigarh | 3 | 1 | -- | 4 |
| Chhatisgarh | 12 | 1 | 16 | 29 |
| Dadra & Nagar Haveli | -- | 1 | -- | 1 |
| Daman & Diu | 1 | -- | -- | 1 |
| Delhi | 18 | 3 | 24 | 45 |
| Goa | 5 | -- | -- | 8 |
| Gujarat | 30 | 70 | 67 | 167 |
| Haryana | 17 | 5 | 28 | 50 |
| Himachal Pradesh | 14 | 1 | -- | 15 |
| Jammu & Kashmir | 14 | -- | -- | 15 |
| Jharkhand | 4 | -- | 5 | 9 |
| Karnataka | 39 | 16 | 91 | 146 |
| Kerala | 34 | 5 | 95 | 134 |
| Madhya Pradesh | 42 | 17 | 45 | 104 |
| Maharashtra | 82 | 29 | 153 | 264 |
| Manipur | 3 | -- | -- | 3 |
| Meghalaya | 3 | -- | -- | 5 |
| Mizoram | 3 | -- | -- | 5 |
| Nagaland | 3 | -- | -- | 3 |
| Orissa | 4 | 46 | 12 | 62 |
| Pondicherry | 5 | -- | -- | 11 |
| Punjab | 41 | 5 | 30 | 76 |
| Rajasthan | 44 | 5 | 18 | 67 |
| Sikkim | 3 | -- | -- | 3 |
| Tamil Nadu | 98 | 10 | 113 | 221 |
| Tripura | 3 | -- | -- | 6 |
| Uttar Pradesh | 69 | 4 | 68 | 141 |
| Uttaranchal | 14 | -- | 4 | 18 |
| West Bengal | 71 | 5 | 29 | 105 |

Source: Drug Controller General, Dte, New Delhi. From Health Information of India, 2004

* Blood Bank Licensed as approved by Central License Approval Authority (Claa)

Voluntary Includes Red Cross, Lions Club, Rotary Club, etc.

Exhibit 5. 2.2 Blood Collection Status in India

| SACS/MACS | 2002 | | | 2003 | | | 2004 | | |
|--------------------|-----------------|-----------|------------------------|-----------------|-----------|------------------------|-----------------|-----------|------------------------|
| | Voluntary Units | % | Total Collection Units | Voluntary Units | % | Total Collection Units | Voluntary Units | % | Total Collection Units |
| Ahd MACS | 55049 | 59 | 93276 | 63944 | 59 | 108353 | 58565 | 58 | 100378 |
| A & N Islands | 2387 | 67 | 3543 | 2756 | 73 | 3778 | 1256 | 72 | 1750 |
| Andhra Pradesh | 109702 | 41 | 268814 | 138393 | 47 | 295793 | 166822 | 48 | 348934 |
| Arunachal Pradesh | 608 | 95 | 638 | 1370 | 96 | 1424 | 1491 | 98 | 1524 |
| Assam | 8090 | 30 | 27156 | 19981 | 43 | 46761 | 25640 | 43 | 59364 |
| Bihar | 6592 | 33 | 20004 | 14056 | 30 | 46796 | 8296 | 19 | 43650 |
| Chandigarh | 22720 | 48 | 47543 | 26560 | 56 | 47790 | 30909 | 63 | 49146 |
| Chennai MACS | 162 | 61 | 266 | 65190 | 72 | 90522 | 57875 | 76 | 76299 |
| Chattisgarh | 0 | | 0 | 7266 | 27 | 27008 | 5794 | 28 | 20799 |
| Daman & Diu | 107 | 69 | 156 | 155 | 70 | 223 | 281 | 74 | 379 |
| Delhi | 63641 | 20 | 312742 | 60422 | 25 | 245873 | 46887 | 23 | 199662 |
| Goa | 3321 | 36 | 9223 | 6032 | 36 | 16734 | 5860 | 54 | 10797 |
| Gujarat | 201696 | 53 | 380947 | 239840 | 58 | 411209 | 266789 | 61 | 440396 |
| Haryana | 19347 | 26 | 74494 | 25984 | 28 | 93204 | 28924 | 27 | 107348 |
| Himachal Pradesh | 6075 | 57 | 10601 | 8521 | 55 | 15508 | 9697 | 62 | 15657 |
| J & K | 1927 | 13 | 14949 | 1276 | 24 | 5253 | 3898 | 17 | 23226 |
| Jharkhand | 0 | | 0 | 356 | 8 | 4565 | 15917 | 33 | 48227 |
| Karnataka | 131800 | 46 | 287793 | 165285 | 49 | 335039 | 182376 | 52 | 347595 |
| Kerala | 59105 | 39 | 149913 | 56957 | 39 | 147915 | 42847 | 36 | 117830 |
| Lakshadweep | 14 | 10 0 | 14 | 10 | 100 | 10 | | 0 | |
| Madhya Pradesh | 12083 | 24 | 51360 | 22554 | 30 | 74281 | 50712 | 33 | 153274 |
| Maharashtra | 190048 | 79 | 240477 | 250373 | 82 | 306400 | 130356 | 84 | 154646 |
| Manipur | 1349 | 8 | 16847 | 3919 | 9 | 43086 | 1337 | 11 | 12072 |
| Meghalaya | 119 | 5 | 2424 | 102 | 3 | 3164 | 362 | 10 | 3810 |
| Mizoram | 3994 | 37 | 10748 | 5956 | 49 | 12275 | 7774 | 59 | 13272 |
| Mumb.MACS | 61127 | 46 | 134350 | 100674 | 51 | 195517 | 106033 | 53 | 198786 |
| Nagaland | 921 | 46 | 1981 | 934 | 57 | 1633 | 867 | 56 | 1535 |
| Orrisa | 20807 | 19 | 111280 | 25160 | 29 | 85543 | 44496 | 34 | 131467 |
| Pondicherry | 5166 | 34 | 15011 | 6654 | 38 | 17561 | 2934 | 43 | 6811 |
| Punjab | 13225 | 14 | 94516 | 19886 | 15 | 133946 | 20767 | 17 | 118750 |
| Rajasthan | 492 | 7 | 7474 | 20131 | 17 | 119622 | 13989 | 15 | 93877 |
| Sikkim | 74 | 6 | 1172 | 188 | 13 | 1416 | 238 | 14 | 1670 |
| Tamil Nadu | 101153 | 57 | 176625 | 166443 | 61 | 272101 | 264314 | 72 | 369200 |
| Tripura | 1715 | 38 | 4540 | 7515 | 49 | 15423 | 4627 | 56 | 8227 |
| Uttar Pradesh | 57242 | 24 | 239582 | 77076 | 26 | 296845 | 72510 | 26 | 273894 |
| Uttranchal | 1304 | 14 | 9375 | 2419 | 15 | 15941 | 2900 | 14 | 20171 |
| West Bengal | 299204 | 79 | 377707 | 386781 | 83 | 463246 | 395623 | 83 | 475705 |
| Total | 1462366 | 46 | 3197541 | 2001119 | 50 | 4001758 | 2079963 | 51 | 4050128 |

Source: Report generated from CMIS on 2004 for NACO, MOH&FW

Exhibit 5. 2.3 Blood Units Tested and % Positive for all Diseases, 2004

| States | Total Tested | HIV + | | HB+ | | HCV + | | VDRL + | |
|---------------------------|----------------|--------------|-------------|--------------|-------------|--------------|-------------|--------------|-------------|
| | | N | % | N | % | N | % | N | % |
| Ahd MACS | 100378 | 433 | 0.43 | 1059 | 1.06 | 487 | 0.49 | 445 | 0.44 |
| Andaman & Nicobar Islands | 1750 | 0 | 0.00 | 25 | 1.43 | 0 | 0.00 | 1 | 0.06 |
| Andhra Pradesh | 348934 | 2064 | 0.59 | 5303 | 1.52 | 1824 | 0.52 | 957 | 0.27 |
| Arunachal Pradesh | 1524 | 10 | 0.66 | 22 | 1.44 | 12 | 0.79 | 12 | 0.79 |
| Assam | 59364 | 78 | 0.13 | 246 | 0.41 | 77 | 0.13 | 84 | 0.14 |
| Bihar | 43650 | 66 | 0.15 | 586 | 1.34 | 48 | 0.11 | 86 | 0.20 |
| Chandigarh | 49146 | 96 | 0.20 | 536 | 1.09 | 512 | 1.04 | 170 | 0.35 |
| Chennai MACS | 76299 | 122 | 0.16 | 1202 | 1.58 | 366 | 0.48 | 51 | 0.07 |
| Chhatisgarh | 20799 | 48 | 0.23 | 189 | 0.91 | 24 | 0.12 | 37 | 0.18 |
| Daman & Diu | 379 | 0 | 0.00 | 6 | 1.58 | 1 | 0.26 | 0 | 0.00 |
| Delhi | 199662 | 781 | 0.39 | 2895 | 1.45 | 1160 | 0.58 | 902 | 0.45 |
| Goa | 10797 | 108 | 1.00 | 107 | 0.99 | 92 | 0.85 | 14 | 0.13 |
| Gujarat | 440396 | 1465 | 0.33 | 4706 | 1.07 | 1876 | 0.43 | 1172 | 0.27 |
| Haryana | 107348 | 317 | 0.30 | 1522 | 1.42 | 1036 | 0.97 | 337 | 0.31 |
| Himachal Pradesh | 15657 | 30 | 0.19 | 113 | 0.72 | 13 | 0.08 | 1 | 0.01 |
| J & K | 23226 | 60 | 0.26 | 225 | 0.97 | 120 | 0.52 | 5 | 0.02 |
| Jharkhand | 48227 | 64 | 0.13 | 487 | 1.01 | 58 | 0.12 | 112 | 0.23 |
| Karnataka | 347595 | 1719 | 0.49 | 4190 | 1.21 | 1153 | 0.33 | 705 | 0.20 |
| Kerala | 117830 | 185 | 0.16 | 864 | 0.73 | 437 | 0.37 | 118 | 0.10 |
| Lakshadweep | 0 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Madhya Pradesh | 153274 | 234 | 0.15 | 2211 | 1.44 | 292 | 0.19 | 375 | 0.24 |
| Maharashtra | 154646 | 1181 | 0.76 | 2489 | 1.61 | 871 | 0.56 | 515 | 0.33 |
| Manipur | 12072 | 80 | 0.66 | 61 | 0.51 | 212 | 1.76 | 41 | 0.34 |
| Meghalaya | 3810 | 4 | 0.10 | 49 | 1.29 | 8 | 0.21 | 52 | 1.36 |
| Mizoram | 13272 | 87 | 0.66 | 314 | 2.37 | 264 | 1.99 | 51 | 0.38 |
| Mumbai MACS | 198786 | 1558 | 0.78 | 3511 | 1.77 | 2122 | 1.07 | 935 | 0.47 |
| Nagaland | 1535 | 9 | 0.59 | 12 | 0.78 | 7 | 0.46 | 20 | 1.30 |
| Orissa | 131467 | 175 | 0.13 | 613 | 0.47 | 218 | 0.17 | 101 | 0.08 |
| Pondicherry | 6811 | 21 | 0.31 | 158 | 2.32 | 21 | 0.31 | 32 | 0.47 |
| Punjab | 118750 | 218 | 0.18 | 959 | 0.81 | 1714 | 1.44 | 321 | 0.27 |
| Rajasthan | 93877 | 228 | 0.24 | 1878 | 2.00 | 426 | 0.45 | 532 | 0.57 |
| Sikkim | 1670 | 1 | 0.06 | 13 | 0.78 | 3 | 0.18 | 8 | 0.48 |
| Tamil Nadu | 369200 | 727 | 0.20 | 4050 | 1.10 | 1392 | 0.38 | 392 | 0.11 |
| Tripura | 8227 | 7 | 0.09 | 200 | 2.43 | 19 | 0.23 | 104 | 1.26 |
| Uttar Pradesh | 273894 | 396 | 0.14 | 2321 | 0.85 | 1218 | 0.44 | 451 | 0.16 |
| Uttaranchal | 20171 | 13 | 0.06 | 157 | 0.78 | 59 | 0.29 | 49 | 0.24 |
| West Bengal | 475705 | 1225 | 0.26 | 5218 | 1.10 | 1442 | 0.30 | 1933 | 0.41 |
| Total | 4050128 | 13810 | 0.34 | 48497 | 1.20 | 19584 | 0.48 | 11121 | 0.27 |

Source: Report generated from CMIS on 2004 for NACO, MOH&FW

Exhibit 5. 2.4 Details of all Components of Blood Bank: Year 2005

| States | Vol. | Repl | Total Donors | % Vol | % Repl | No. of donors counseled | Voluntary blood donation camps | Voluntary donors come back for repeat blood donation | HIV + | % HIV + |
|----------------------|---------|---------|--------------|-------|--------|-------------------------|--------------------------------|------------------------------------------------------|-------|---------|
| India | 1596173 | 1290710 | 2886883 | 55 | 45 | 1278954 | 36855 | 69618 | 9923 | 0.34 |
| Ahmedabad MACS | 61909 | 34044 | 95953 | 65 | 35 | 79574 | 687 | 6255 | 362 | 0.38 |
| Andaman & Nicobar | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 0 | 0.00 |
| Andhra Pradesh | 154450 | 159165 | 313615 | 49 | 51 | 109752 | 2730 | 1960 | 1636 | 0.52 |
| Arunachal Pradesh | 683 | 0 | 683 | 100 | 0 | 0 | 0 | 0 | 2 | 0.29 |
| Assam | 18430 | 23806 | 42236 | 44 | 56 | 27480 | 34 | 3 | 84 | 0.20 |
| Bihar | 1298 | 10008 | 11306 | 11 | 89 | 5516 | 250 | 27 | 28 | 0.25 |
| Chandigarh | 36223 | 14096 | 50319 | 72 | 28 | 20324 | 514 | 8906 | 97 | 0.19 |
| Chennai MACS | 92203 | 9966 | 102169 | 90 | 10 | 39895 | 1265 | 1901 | 139 | 0.14 |
| Chhatisgarh | 5163 | 11389 | 16552 | 31 | 69 | 6015 | 40 | 0 | 36 | 0.22 |
| Dadra & Nagar Haveli | 738 | 0 | 738 | 100 | 0 | 267 | 6 | 0 | 6 | 0.81 |
| Daman & Diu | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0.00 |
| Delhi | 28552 | 85361 | 113913 | 25 | 75 | 25912 | 219 | 0 | 388 | 0.34 |
| Goa | 4231 | 4045 | 8276 | 51 | 49 | 4887 | 97 | 36 | 71 | 0.86 |
| Gujarat | 254930 | 133927 | 388857 | 66 | 34 | 186443 | 7567 | 37370 | 1350 | 0.35 |
| Haryana | 25466 | 65884 | 91350 | 28 | 72 | 54831 | 847 | 0 | 191 | 0.21 |
| Himachal Pradesh | 7288 | 4476 | 11764 | 62 | 38 | 9705 | 88 | 0 | 24 | 0.20 |
| Jammu & Kashmir | 173 | 2214 | 2387 | 7 | 93 | 222 | 3 | 0 | 1 | 0.04 |
| Jharkhand | 8652 | 25295 | 33947 | 25 | 75 | 7621 | 2913 | 1487 | 47 | 0.14 |
| Karnataka | 75536 | 69987 | 145523 | 52 | 48 | 61849 | 527 | 0 | 547 | 0.38 |
| Kerala | 30954 | 45943 | 76897 | 40 | 60 | 3593 | 517 | 13 | 91 | 0.12 |
| Lakshadweep | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| Madhya Pradesh | 43893 | 66659 | 110552 | 40 | 60 | 37750 | 283 | 446 | 198 | 0.18 |
| Maharashtra | 126144 | 23173 | 149317 | 84 | 16 | 62132 | 1985 | 3534 | 1008 | 0.68 |
| Manipur | 818 | 9503 | 10321 | 8 | 92 | 0 | 17 | 0 | 72 | 0.70 |
| Meghalaya | 99 | 1473 | 1572 | 6 | 94 | 880 | 1 | 6 | 2 | 0.13 |
| Mizoram | 1578 | 2049 | 3627 | 44 | 56 | 1499 | 31 | 772 | 19 | 0.52 |
| Mumbai MACS | 77132 | 69857 | 146989 | 52 | 48 | 32383 | 845 | 3933 | 1095 | 0.74 |
| Nagaland | 69 | 124 | 193 | 36 | 64 | 15 | 1 | 5 | 0 | 0.00 |
| Orissa | 61575 | 51592 | 113167 | 54 | 46 | 31077 | 637 | 214 | 117 | 0.10 |
| Pondicherry | 3519 | 5109 | 8628 | 41 | 59 | 3610 | 35 | 36 | 27 | 0.31 |
| Punjab | 10978 | 65574 | 76552 | 14 | 86 | 46359 | 176 | 29 | 149 | 0.19 |
| Rajasthan | 2167 | 9184 | 11351 | 19 | 81 | 3981 | 61 | 1 | 35 | 0.31 |
| Sikkim | 81 | 389 | 470 | 17 | 83 | 470 | 2 | 20 | 2 | 0.43 |
| Tamil Nadu | 111262 | 41858 | 153120 | 73 | 27 | 57327 | 1136 | 1605 | 238 | 0.16 |
| Tripura | 5647 | 2561 | 8208 | 69 | 31 | 3807 | 136 | 0 | 8 | 0.10 |
| Uttar Pradesh | 59130 | 178135 | 237265 | 25 | 75 | 91489 | 7614 | 565 | 338 | 0.14 |
| Uttaranchal | 2969 | 18612 | 21581 | 14 | 86 | 9688 | 45 | 27 | 31 | 0.14 |
| West Bengal | 282233 | 45252 | 327485 | 86 | 14 | 252601 | 5518 | 467 | 1484 | 0.45 |

Source: CMIS, NACO

Exhibit 5. 2.5 Blood Units Tested: Maharashtra

| SR. NO | District | YEAR-2005 | | | | | | | | | |
|--------------|--------------------------|-------------------|---------------------|---------------|-------------|-------------|-------------|--------------|-------------|---------------|--------------|
| | | Voluntary (Units) | Replacement (Units) | Total | | | | | | Safe Blood | |
| | | | | Units | % HIV+ | % HBs AG+ | % HCV+ | % VDRL+ | % Malaria+ | Units | % |
| 1 | Akola | 16226 | 3181 | 19407 | 0.41 | 1.33 | 0.08 | 0.19 | 0.00 | 19017 | 97.99 |
| 2 | Amravati | 20836 | 2486 | 23322 | 0.52 | 1.26 | 0.67 | 0.02 | 0.00 | 22746 | 97.53 |
| 3 | Buldhana | 6110 | 1589 | 7699 | 0.31 | 1.31 | 0.21 | 0.19 | 0.00 | 7543 | 97.98 |
| 4 | Yavatmal | 4727 | 5850 | 10577 | 1.07 | 1.58 | 0.08 | 0.41 | 0.02 | 10243 | 96.84 |
| | Akola Circle | 47899 | 13106 | 61005 | 0.55 | 1.35 | 0.32 | 0.16 | 0.00 | 59553 | 97.62 |
| 5 | Aurangabad | 32620 | 4492 | 37112 | 1.21 | 2.31 | 0.14 | 0.05 | 0.02 | 35728 | 96.27 |
| 6 | Jalna | 4063 | 186 | 4249 | 0.49 | 1.77 | 0.35 | 0.35 | 0.00 | 4123 | 97.04 |
| 7 | Parbhani | 3672 | 1271 | 4943 | 0.49 | 1.78 | 0.63 | 0.57 | 0.00 | 4771 | 96.53 |
| | Aurangabad Circle | 40355 | 5949 | 46304 | 1.07 | 2.21 | 0.21 | 0.14 | 0.02 | 44614 | 96.35 |
| 8 | Kolhapur | 30851 | 4750 | 35601 | 0.88 | 1.85 | 0.22 | 0.05 | 0.00 | 34533 | 97.00 |
| 9 | Sangli | 30615 | 3224 | 33839 | 0.84 | 1.52 | 0.42 | 0.25 | 0.00 | 32814 | 96.97 |
| 10 | Sindhudurga | 403 | 66 | 469 | 0.43 | 1.71 | 0.64 | 0.00 | 0.00 | 456 | 97.22 |
| 11 | Sindhurga | 2712 | 55 | 2767 | 0.33 | 0.69 | 0.29 | 0.00 | 0.00 | 2731 | 98.69 |
| | Kolhapur Circle | 64581 | 8095 | 72676 | 0.84 | 1.65 | 0.32 | 0.14 | 0.00 | 70532 | 97.05 |
| 12 | Beed | 5570 | 1395 | 6965 | 0.86 | 1.69 | 0.70 | 0.01 | 0.00 | 6738 | 96.74 |
| 13 | Latur | 11996 | 4273 | 16269 | 0.61 | 2.71 | 0.47 | 0.12 | 0.00 | 15633 | 96.09 |
| 14 | Nanded | 9060 | 2629 | 11689 | 0.59 | 2.97 | 0.27 | 0.02 | 0.00 | 11239 | 96.15 |
| 15 | Osmanabad | 1932 | 616 | 2548 | 0.63 | 1.61 | 0.35 | 0.08 | 0.00 | 2480 | 97.33 |
| | Latur Circle | 28558 | 8913 | 37471 | 0.65 | 2.53 | 0.44 | 0.07 | 0.00 | 36088 | 96.31 |
| 16 | Mumbai Circle | 119548 | 111728 | 231276 | 0.66 | 1.76 | 0.75 | 0.41 | 0.01 | 222973 | 96.41 |
| 17 | Bhandara | 2289 | 647 | 2936 | 0.58 | 0.47 | 0.14 | 0.03 | 0.00 | 2900 | 98.78 |
| 18 | Chandrapur | 8639 | 4468 | 13107 | 0.60 | 0.68 | 0.08 | 0.12 | 0.03 | 12909 | 98.49 |
| 19 | Gadchiroli | 2510 | 375 | 2885 | 0.90 | 1.46 | 0.45 | 0.10 | 0.00 | 2801 | 97.09 |
| 20 | Gondia | 3997 | 1583 | 5580 | 0.04 | 0.00 | 0.00 | 0.05 | 0.00 | 5575 | 99.91 |
| 21 | Nagpur | 45285 | 21733 | 67018 | 0.72 | 1.31 | 0.20 | 0.18 | 0.01 | 65396 | 97.58 |
| 22 | Wardha | 7322 | 1081 | 8403 | 1.13 | 2.15 | 0.86 | 0.43 | 0.00 | 8019 | 95.43 |
| | Nagpur Circle | 70042 | 29887 | 99929 | 0.70 | 1.20 | 0.24 | 0.18 | 0.01 | 97601 | 97.67 |
| 23 | Ahmednagar | 20836 | 4698 | 25534 | 0.49 | 1.79 | 0.42 | 0.17 | 0.00 | 24801 | 97.13 |
| 24 | Dhule | 10274 | 5265 | 15539 | 0.49 | 1.66 | 0.28 | 0.21 | 0.01 | 15127 | 97.35 |
| 25 | Jalgaom | 15702 | 3522 | 19224 | 0.57 | 1.89 | 0.38 | 0.19 | 0.01 | 18640 | 96.96 |
| 26 | Nandurbar | 3574 | 21 | 3595 | 0.53 | 1.31 | 0.31 | 0.31 | 0.03 | 3505 | 97.51 |
| 27 | Nasik | 32708 | 2780 | 35488 | 0.37 | 1.47 | 0.16 | 0.10 | 0.00 | 34743 | 97.90 |
| | Nasik Circle | 33094 | 16286 | 99380 | 0.46 | 1.66 | 0.29 | 16.00 | 0.01 | 81074 | 81.58 |
| 28 | Pune | 90353 | 11833 | 102186 | 0.51 | 1.53 | 0.44 | 0.17 | 0.00 | 99478 | 97.35 |
| 29 | Satara | 15157 | 1093 | 16250 | 0.46 | 2.03 | 0.22 | 0.13 | 0.00 | 15789 | 97.16 |
| 30 | Olapur | 50669 | 3751 | 54420 | 0.87 | 2.54 | 0.89 | 0.55 | 0.00 | 51781 | 95.15 |
| | Pune Circle | 156179 | 16677 | 172856 | 0.62 | 1.90 | 0.56 | 0.29 | 0.00 | 167031 | 96.63 |
| 31 | Riagad | 7206 | 1498 | 8704 | 0.47 | 1.17 | 0.21 | 0.10 | 0.00 | 8534 | 98.05 |
| 32 | Ratnagiri | 3792 | 140 | 3932 | 0.28 | 0.84 | 0.03 | 0.03 | 0.00 | 3886 | 98.82 |
| 33 | Thane | 28211 | 9633 | 37844 | 0.58 | 1.90 | 0.60 | 0.28 | 0.01 | 36569 | 96.63 |
| | Thane Circle | 39209 | 11271 | 50480 | 0.54 | 1.69 | 0.49 | 0.23 | 0.01 | 48986 | 97.04 |
| TOTAL | | 643465 | 221912 | 871377 | 0.66 | 1.73 | 0.48 | 0.25 | 0.01 | 844103 | 96.87 |

Exhibit 5. 2.6 Blood Units Tested: Gujarat

| SR. NO | District | YEAR-2005 | | | | | | | | | | | |
|----------------|---------------|---------------|-------------|---------------|-------------|---------------|-------------|-------------|-------------|-------------|-------------|---------------|--------------|
| | | Voluntary | | Replacement | | Total | | | | | | Safe Blood | |
| | | Units | % HIV+ | Units | % HIV+ | Units | % HIV+ | % HBs AG+ | % HCV+ | % VDRL+ | % Malaria+ | Units | % |
| 1 | Ahmedabad | 82623 | 0.35 | 52868 | 0.27 | 135491 | 0.32 | 1.01 | 0.27 | 0.27 | 0.00 | 132953 | 98.13 |
| 2 | Amreli | 3195 | 0.59 | 1889 | 0.00 | 5084 | 0.37 | 0.63 | 0.08 | 0.00 | 0.00 | 5029 | 98.92 |
| 3 | Anand | 7505 | 0.27 | 6214 | 0.16 | 13719 | 0.22 | 0.47 | 0.23 | 0.27 | 0.00 | 13555 | 98.80 |
| 4 | Banaskhatha | 5045 | 0.20 | 2818 | 0.25 | 7863 | 0.22 | 0.59 | 0.08 | 0.04 | 0.03 | 7789 | 99.06 |
| 5 | Bharuch | 4315 | 0.23 | 5116 | 0.29 | 9431 | 0.27 | 1.16 | 0.07 | 0.04 | 0.00 | 9286 | 98.46 |
| 6 | Bhavnagar | 13089 | 0.17 | 12676 | 0.50 | 25765 | 0.33 | 1.47 | 0.27 | 0.35 | 0.01 | 25139 | 97.57 |
| 7 | Dahod | 293 | 0.00 | 212 | 0.00 | 505 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 505 | 100.00 |
| 8 | Dang | 5 | 0.00 | 45 | 0.00 | 50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 50 | 100.00 |
| 9 | Gandhinagar | 3318 | 0.12 | 6139 | 0.11 | 9457 | 0.12 | 0.81 | 0.05 | 0.57 | 0.05 | 9305 | 98.39 |
| 10 | Jamnagar | 5671 | 0.16 | 8950 | 0.36 | 14621 | 0.28 | 1.07 | 0.19 | 0.64 | 0.00 | 14302 | 97.82 |
| 11 | Unagadh | 8654 | 0.25 | 2486 | 0.12 | 11140 | 0.22 | 0.48 | 0.06 | 0.04 | 0.00 | 11049 | 99.18 |
| 12 | Kheda | 5015 | 0.16 | 6579 | 0.26 | 11594 | 0.22 | 0.48 | 0.09 | 0.74 | 0.00 | 11416 | 98.46 |
| 13 | Kutch | 3574 | 0.08 | 11620 | 0.16 | 15194 | 0.14 | 0.47 | 0.03 | 0.07 | 0.00 | 15086 | 99.29 |
| 14 | Mehsana | 9990 | 0.15 | 6719 | 0.30 | 16709 | 0.21 | 0.57 | 0.40 | 0.34 | 0.00 | 16454 | 98.47 |
| 15 | Narmada | 0 | --- | 0 | --- | 0 | --- | --- | --- | --- | --- | 0 | --- |
| 16 | Navsari | 8910 | 0.48 | 2061 | 0.53 | 10971 | 0.49 | 2.34 | 0.75 | 0.36 | 0.00 | 10538 | 96.05 |
| 17 | Panchmahal | 2859 | 0.10 | 2336 | 0.30 | 5195 | 0.19 | 0.40 | 0.13 | 0.27 | 0.00 | 5143 | 99.00 |
| 18 | Patan | 4231 | 0.14 | 6172 | 0.26 | 10403 | 0.21 | 0.75 | 0.10 | 0.15 | 0.00 | 10277 | 98.79 |
| 19 | Porbandar | 2742 | 0.29 | 3364 | 0.18 | 6106 | 0.23 | 0.44 | 0.05 | 0.00 | 0.00 | 6062 | 99.28 |
| 20 | Rajkot | 49332 | 0.31 | 4801 | 0.60 | 54133 | 0.34 | 1.11 | 0.22 | 0.18 | 0.01 | 53126 | 98.14 |
| 21 | Sabarkhatha | 5094 | 0.22 | 5119 | 0.33 | 10213 | 0.27 | 1.06 | 0.37 | 0.19 | 0.00 | 10020 | 98.11 |
| 22 | Surat | 60173 | 0.27 | 16219 | 0.27 | 76392 | 0.27 | 1.21 | 0.16 | 0.13 | 0.04 | 75005 | 98.18 |
| 23 | Surendranagar | 510 | 0.39 | 2845 | 0.21 | 3355 | 0.24 | 0.77 | 0.09 | 0.48 | 0.03 | 3301 | 98.39 |
| 24 | Vadodara | 21320 | 0.20 | 16835 | 0.48 | 38155 | 0.32 | 1.02 | 0.19 | 0.26 | 0.00 | 37473 | 98.21 |
| 25 | Valsad | 20310 | 1.18 | 1347 | 0.97 | 21657 | 1.16 | 2.47 | 0.56 | 0.28 | 0.00 | 20688 | 95.53 |
| GUJARAT | | 327773 | 0.34 | 185430 | 0.31 | 513203 | 0.32 | 1.07 | 0.23 | 0.25 | 0.01 | 503551 | 98.12 |

Source: Gujarat State AIDS Control Society, 2005

Teaching Note:

This teaching note is prepared for those who are aware of blood banking services, such as officers working in SACS, SBTC, NACO etc.

The case instructor should initiate the case discussion by asking a few general questions about the situational analysis of blood banking services in India, tasks in managing blood banks, etc and focus the discussions on managerial issues.

It is expected that the participants will bring out most of the managerial issues mentioned below, but not all. The case instructor should steer the discussions so as to bring out any remaining issue(s).

Management is all planning, monitoring and control. The discussion should therefore focus on planning, monitoring and control of blood banking services. Discussions on the existing indicators (for planning, monitoring and control), their effectiveness or otherwise, should be the central theme. Also identify new indicators wherever required.

Also emphasize that managers should not be burdened with many indicators. Management calls for monitoring and interventions (like doctors monitor the health of patients in ICU and intervene when necessary). Management does not deal with Evaluation, which is an audit function (Post Mortem)

It is also necessary to realize that managers at each level require different indicators at different frequencies. Top level managers (eg: PDs, Sr. NACO officers) need indicators for policy and strategic planning decisions (may be once in three months/quarterly statements), senior managers (eg: SBTC, SACS, District Collectors) need indicators for operational planning and implementation decisions (may be monthly), while middle level managers (eg: Blood Bank managers, VCTC managers) need indicators for monitoring and control/interventions (daily).

Managerial issues: Blood centre activities comprise donor recruitment and retention, collection, testing, processing, storage and issue of blood to ensure an adequate supply of safe blood and blood components, for use when clinically indicated.

A prerequisite for blood safety is the existence of a national blood transfusion system, based on voluntary non-remunerated donation and with every aspect governed by quality management. Such systems should be nationally coordinated, financially sustainable and able to respond to any newly emerging blood safety threat (WHO, 2004)

National Blood Transfusion Services: The provision of safe and adequate blood supply at national level is the responsibility of the government/national health authority of each country. Blood Transfusion Services (BTS) should be established in accordance with the agreed national blood policy and plan and within a legislative framework. It should be responsible for establishing and maintaining a national quality system, including the development of guidelines and standards, staff training, a data/information management system and a system for monitoring and evaluation of all blood transfusion activities.

Some of the major issues are listed below. It is possible that participants will mention a few more major issues.

1. Inadequate Government Commitment

Government support for blood transfusion services in several countries in the SE Asia region is still not adequate. Some blood transfusion services continue to rely on donor funding for basic operations, such as procuring test kits or carrying out donor recruitment activities. These essential activities often have to be stopped when cooperation programmes end or donor agencies withdraw.

2. Lack of Blood Donors

Lack of voluntary non-remunerated blood donors is still the main constraint for blood safety in the region. Family replacement donors still provide the bulk of blood for the services. Donors are still paid in some countries.

3. Poor Organization of Blood Supply System

Blood transfusions rely on very fragmented blood supply systems. Such systems mean that control is exercised by different players of layers of government, which makes it very difficult to assure the quality of blood and blood products. More resources as well as stronger political will and leadership are needed if systems are to be reformed.

India has a large number of independent and hospital based blood banks of different levels of sophistication, serving different types of hospitals and patients. Central, state and autonomous government institutes, municipal corporations, cantonment boards, railway services, ESI authorities, armed forces etc are among the public bodies concerned with the organization and administration of blood services. In addition, there is a spectrum of trusts, independent commercial and private blood banks, with IRCS holding a primary position.

4. Low Status of Blood Banks

Hospital based blood banks usually have a low status within laboratories and are usually run by a laboratory technologist, who is often inappropriately trained and inadequately supervised.

5. Inadequate Coverage of Blood Screening

We have policies to screen donated blood for HIV and HBV and HCV. However, coverage of all blood units in the country and the sustainability of screening depend on the availability of testing reagents. Because some blood services have not achieved full coverage, in rural areas or in emergencies blood transfusion sometimes has to take place with blood that not been tested at all.

6. Lack of quality Control

Quality control is considered to be less an essential component of routine work than a luxury that adds costs to under-resourced blood banks. A lack of quality assurance measures (including manuals of standard operating procedures, appropriate training and competency certification programs, and continuous assessment systems) often hinders the implementation of good laboratory and manufacturing practices.

7. Inappropriate use of Blood

The inappropriate use of blood is widespread. This includes the transfusion of blood or blood products when it is not strictly needed or when safer alternative therapies are available. In addition, whereas in most developed countries 75% -100% of the blood collected is transfused as components, in developing countries most of the blood is transfused without being separated.

8. Blood Component Therapy

It is necessary to promote blood component therapy. Some of the advantages are

- One unit of whole blood gives four components. As the human body requires blood components most of the time, we should provide only the required component to the body, and not the whole blood. The unused components from one unit of blood can possibly save three other lives.
- Investments in blood component separation should be utilized fully. If government cannot address this concern satisfactorily, it may be worthwhile to explore public private partnerships.

9. MIS Indicators

Blood Centre activities comprise the following:

Donor recruitment and retention (repeat volunteer blood donors)

Blood collection (camps, walk-ins, volunteer, replacement)

Testing (ensure safe blood, window period for HIV+)

Processing

Storage (whole blood Vs components)

Issue to health centers

Usage in health centers (beneficiaries, transfusion within a time period)

So as to ensure an adequate supply of safe blood and blood components, for use when clinically needed.

5.3 Managing ICTC/VCTC Services

The 45th World Health Assembly, to which all countries were signatory, noted that “there is no public health rationale for any measures that limit the rights of the individual, notably measures establishing mandatory screening” [World Health Assembly Resolution, 45.35, 14 May, 1992]

Voluntary Counseling and Testing (VCT) is the strategic response to HIV/AIDS from the Public Health point of view. The concept of voluntary HIV testing is based on public health strategy that emphasizes the importance of the client's free will and conscious decision to get tested at VCT. In this approach the aim is to create an environment that encourages as many people as possible to avail the services on a voluntary basis to know their HIV status and to learn how to protect themselves and others in the larger interest of public health. Studies and Public Health experience have shown that HIV testing carried out on a voluntary basis and with appropriate counseling is more likely to promote behavior change than mandatory testing (Jai P Narain, S. Pattanayak and N.K. Shah, 1993).

Voluntary participation is the key underlying principle in VCT intervention. VCT provides for all segments of the population, an opportunity to access complete and accurate information on HIV/AIDS. This is a critical entry point to prevention, control, treatment, care and support for all people, and particularly for those already infected and affected. VCT services enable the 'client', with the help of a trained counselor, to confidentially explore and understand his or her risk of HIV infection, and to learn several strategies for preventing HIV and reducing the risk of acquiring or transmitting HIV infection.

Counseling in VCT consists of pre-test and post-test counseling. Pre-test counseling presents the counselor with the challenge of balancing the provision of information, assessing the risk and responding to the clients emotional needs. Good pre-test counseling is a necessary and sufficient condition for good post- test counseling. Post –test counseling focuses on helping the client to identify and understand the implications of a negative or a positive result. HIV negative clients can take necessary actions for adherence to stable, non-risky behavior patterns. In the event of a positive HIV test result, counseling strengthens the strategies for coping with the immediate stress, possible stigma, psychological and social impacts. It provides referrals to appropriate facilities for care, support and treatment and promotes more informed choices for the future.

Case prepared by Prof KV Ramani, Rajiv Bhardwaj, Vidya BK, and Jeram Parmar of the Centre for Management of Health Services (CMHS), Indian Institute of Management, Ahmedabad, as a basis for classroom discussion. Cases are not designed to present illustrations of either correct or incorrect handling of administrative problems. We would like to acknowledge excellent support received from Gujarat State AIDS Control Society in preparing this case.

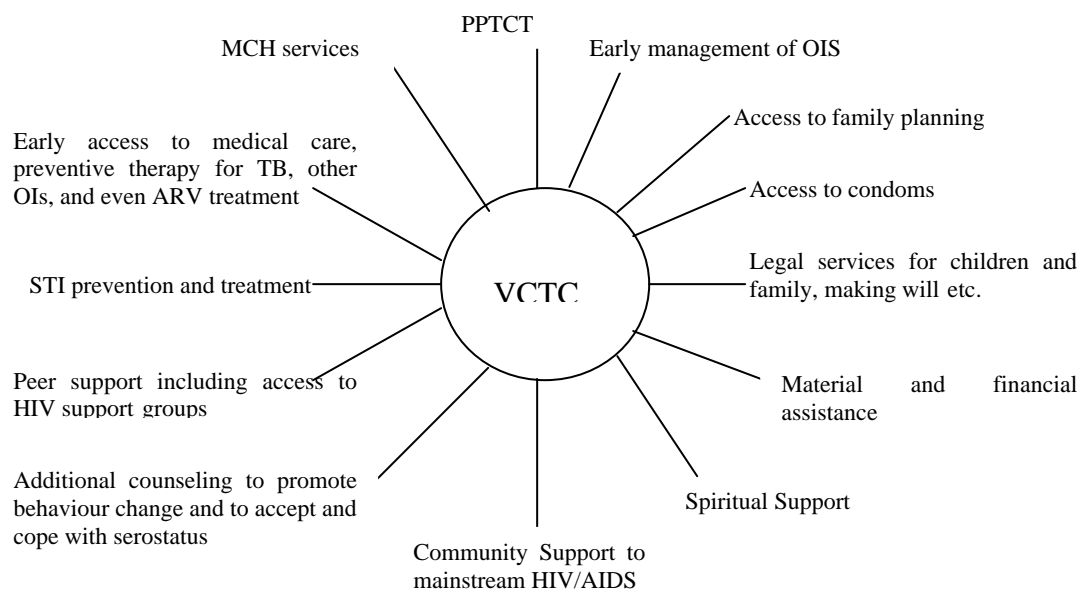
Some of the expected benefits of VCT for the Society are:

- Generates greater awareness and knowledge of HIV/AIDS, potentially leading to reduced transmission in the wider community
- Contributes to a more supportive environment for mainstreaming HIV/AIDS
- Encourages openness and reduces fear and stigma surrounding HIV
- Stimulates a community response in support of people with HIV, including the development of care and support for people living with HIV/AIDS
- Supports human rights

VCTC also provides ethical data for understanding the prevalence of HIV/AIDS. The percentage of HIV positive people estimated from VCTC data can be used to arrive at a more reliable estimate of HIV prevalence, as this estimate is derived from the general population based on voluntary testing unlike estimates from sentinel surveillance which are anonymous, unlinked and based on only pregnant women who come for ANC check ups.

As mentioned in the NACO Guidelines on Voluntary Counseling and Testing (NACO, 2004), VCT provides a key entry point to the ‘continuum of care in HIV/AIDS’. At the very least, VCT should facilitate the early and appropriate uptake of services for both HIV positive and HIV negative people. Accordingly, linkages to a range of other services need to be identified.

Figure 5. 3.1 Linkages between VCTC and HIV Prevention, care and support services



Source: Voluntary Counseling and Testing: Operational Guidelines, National AIDS Control Organization, Ministry of Health and Family Welfare, Government of India, 2004

We explain below some of the VCTC linkages.

PPTCT: VCT is the most ethical way to address the transmission of HIV from parent-to-child, which can occur during pregnancy, at the time of delivery or through breast feeding. There is a 25-30% chance that the child of an HIV positive mother will also be infected with HIV. In India parent-to child transmission of HIV (perinatal transmission), accounts for more than 2 percent of the country's HIV/AIDS cases. HIV transmission from parent-to-child can be prevented with combination of low-cost, short-term preventive drug during treatment, safe delivery practices, counseling and support, and safe infant-feeding methods.

Management of OIs: TB is the most common Opportunistic Infection (OI) in people infected with HIV. TB may accelerate the progression of HIV and shorten the survival of patients with HIV infection. TB is the cause of death for 1 out of every 3 people with AIDS worldwide. India has 1/5th of the global incidence of TB, 1.8 million new cases are reported every year of which 800,000 are sputum positive TB. TB alone kills about 40,000 people in India every year. It is estimated that 50-60% of people living with HIV in India will develop TB in their lifetime. Currently, 2 million persons in India are co-infected with Micobacterium tuberculosis and HIV (Central TB Division and NACO, 2005).

STI Prevention and Treatment: Sexually Transmitted Infections (STI) and HIV epidemiology are behaviorally linked. The presence of STI characterized by genital ulcers and discharge, enhances the chance of HIV infection manifold. The control and prevention of STIs is a priority strategy to reduce the spread of HIV. Strong referral linkages between VCTC and STI clinics must be established

VCT Centres: Starting with 62 VCT centres in 1997, NACO has now established 1455 ICTCs in India (October 2007). There are many VCTC models: Free-standing VCT sites, Mobile/ outreach VCT services, and Integrated VCT sites. Each model has its own strengths and weaknesses. They can all work well depending on access to client populations and the quality of services provided. Experience the world over demonstrates that integrated VCT centres that serve multiple functions (such as sites for vaccinations, TB testing and treatment, and STI treatment) are often more acceptable to clients because these provide a higher degree of anonymity. A client could be visiting the centre for several services including an HIV test. There is an overall preference for VCT services to be integrated within functioning ongoing health facilities.

NACO support to VCTC based on the size of VCTC includes the following:

- Consolidated Salary for one VCTC In-charge/VCTC Manager (often a Microbiologist), two trained counselors (one male and one female: trained psychologists, social workers or psychiatrists) or ideally as per client load @ one counselor per 8-10 counseling sessions per day, one trained laboratory technician and a few administrative support staff . The necessary qualifications for each post can be found in the NACO website.
- Consumables, reagents, transportation of samples to state reference laboratories Rs. 52,500/- (per annum)
- Contingency for furniture and refurbishing of VCTC Rs. 24,000/- (a one time grant)

In addition to the above resources, each VCTC is also authorized by NACO to collect user charges of Rs. 10/ for the tests, and to retain this revenue for the maintenance and upkeep of the VCTC. The VCTC head is empowered to waive these charges as per his/her discretion.

Some VCTCs also have peer counselors. Peer counseling is based on the assumption that an HIV infected individual who has achieved a certain degree of insight and is able to deal with relevant issues is suitable for assisting other similarly affected persons. Peer counselors are not trained psychologists, social workers or psychiatrists. They are individuals from the same community, and act as facilitators for behavior change and are looked upon as role-models by the target groups.

As per NACO Guidelines, each VCTC is required to report every month the estimates of following indicators:

- Number of clients per pre-test counseling
 - Number of voluntary clients for pre-test counseling
 - Number of referred clients from within hospital for pre-test counseling
 - Total number of clients in VCTC pre-test counseling per week/month
- Number of clients consent to HIV testing
 - Number of Voluntary clients consent to HIV testing
 - Number of referred clients from within hospital consent to testing
- Post Test counseling
 - Number of voluntary client pick- up test results
 - Total number of client pick- up test results
- Follow-up Counseling
 - Number of clients for follow up counseling (after post test counseling)
- Referrals:
 - Number of clients referred from PPs
 - Number of clients referred from STI
 - Number of clients referred from TB
 - Number of clients referred to TB
 - Number of clients who brought their partners in for counseling
 - Number of clients referred to ART clinics

VCTCs in Guajart: An illustration : Below we give some data on VCTCs in Gujarat presented at the annual meeting of GSACS in 2006. Your role, as a NACO consultant is to analyze the data and give your observations. Please use the GSACS data only for illustrating your data analysis, and base your recommendations on VCTC management applicable to all SACS. Refrain from making any performance appraisal of GSACS.

Figure 5. 3.2 Progression of VCTC in the state.

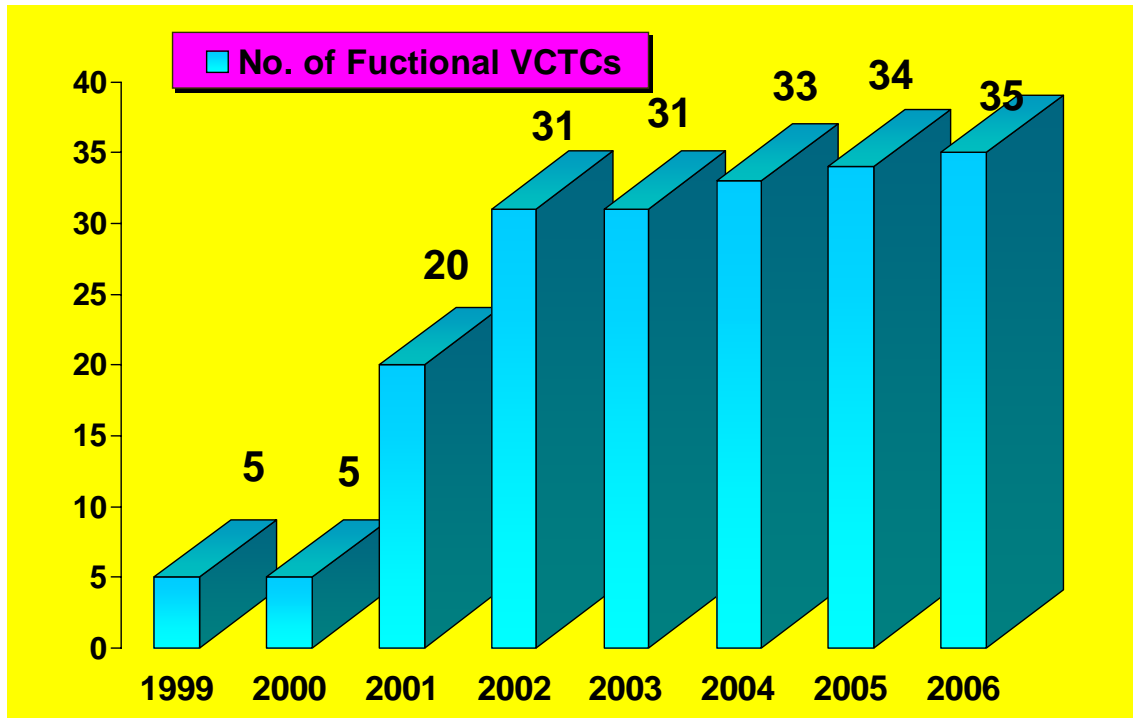


Figure 5. 3.3 Persons Counseled at VCTC (Gujarat)

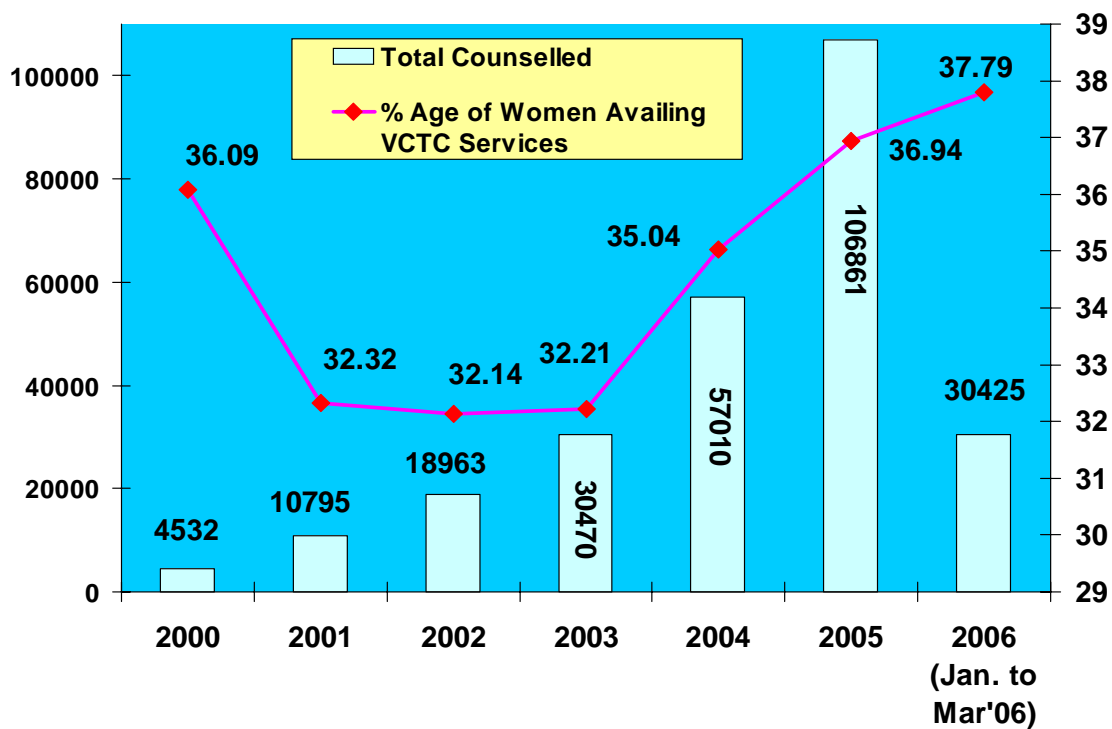


Table 5. 3.1 Total Counseled at VCTC (Center wise)

| Sr. No. | Name of VCTC | Total Coun. (2004) | Total Couns. (2005) | Total Couns. (Jan. to Mar'06) |
|----------------|--------------------------|---------------------------|----------------------------|--------------------------------------|
| 1 | Civil Hospital Ahmedabad | 13180 | 45893 | 11158 |
| 2 | Civil Hospital Rajkot | 3700 | 3896 | 911 |
| 3 | Gen Hosp. Surendranagar | 481 | 526 | 153 |
| 4 | Gen Hospital Ahwa | 191 | 683 | 328 |
| 5 | Gen Hospital Amreli | 1313 | 1757 | 489 |
| 6 | Gen Hospital Bharuch | 514 | 514 | 158 |
| 7 | Gen Hospital Bhuj | 231 | 835 | 275 |
| 8 | Gen Hospital Dahod | 825 | 1058 | 192 |
| 9 | Gen Hospital Gandhinagar | 818 | 1941 | 1020 |
| 10 | Gen Hospital Godhara | 502 | 1280 | 344 |
| 11 | Gen Hospital Himmatnagar | 209 | 796 | 320 |
| 12 | Gen Hospital Jamkhabalia | 530 | 503 | 76 |
| 13 | Gen Hospital Junagadh | 781 | 1108 | 367 |
| 14 | Gen Hospital Mehsana | 910 | 1435 | 948 |
| 15 | Gen Hospital Nadiad | 530 | 630 | 121 |
| 16 | Gen Hospital Navsari | 3519 | 4140 | 1430 |
| 17 | Gen Hospital Palanpur | 2078 | 2325 | 667 |
| 18 | Gen Hospital Patan | 1296 | 1422 | 566 |
| 19 | Gen Hospital Petlad | 331 | 714 | 25 |
| 20 | Gen Hospital Porbandar | 642 | 905 | 259 |
| 21 | Gen Hospital Rajpipla | 0 | 0 | 244 |
| 22 | Gen Hospital Sola | 300 | 819 | 274 |
| 23 | Gen Hospital Valsad | 1930 | 2350 | 794 |
| 24 | Gg Hospital Jamnagar | 3353 | 3394 | 864 |
| 25 | Jamnabai Hosp. Vadodara | 379 | 652 | 215 |
| 26 | L.G. Hospital A'bad | 1021 | 1468 | 512 |
| 27 | New Civil Hospital Surat | 9725 | 6253 | 1967 |
| 28 | Old Civil Hospital Surat | 2275 | 2858 | 536 |
| 29 | Pk Hospital Rajkot | 1135 | 2374 | 684 |
| 30 | Shardaben Hosp. A'bad | 2061 | 2516 | 774 |
| 31 | Sir Pratap Hos Baroda | 0 | 430 | 251 |
| 32 | Sir T Hospital Bhavnagar | 1798 | 2369 | 525 |
| 33 | SSG Hospital Vadodara | 2245 | 3372 | 919 |
| 34 | Vs Hospital Ahmedabad | 4827 | 5645 | 2059 |
| TOTAL | | 63630 | 106861 | 30425 |

Table 5. 3.2 Total Counseled at VCTC (District Wise)

| Sr. No | District | Total Counseled at VCTC | | | |
|--------------|-------------|-------------------------|--------------|---------------|---------------------|
| | | 2003 | 2004 | 2005 | 2006 (Jan to March) |
| 1 | Ahmedabad | 8843 | 21389 | 56341 | 14777 |
| 2 | Amreli | 208 | 1313 | 1757 | 489 |
| 3 | Anand | 32 | 331 | 714 | 25 |
| 4 | Banaskantha | 1699 | 2078 | 2325 | 667 |
| 5 | Bharuch | 408 | 514 | 514 | 158 |
| 6 | Bhavnagar | 1131 | 1798 | 2369 | 525 |
| 7 | Dahod | 376 | 825 | 1058 | 192 |
| 8 | Dang | 112 | 191 | 683 | 328 |
| 9 | Gandhinagar | 381 | 818 | 1941 | 1020 |
| 10 | Jamnagar | 3641 | 3883 | 3897 | 940 |
| 11 | Junagadh | 420 | 781 | 1108 | 367 |
| 12 | Kheda | 363 | 530 | 630 | 121 |
| 13 | Kutch | 79 | 231 | 835 | 275 |
| 14 | Mehsana | 258 | 910 | 1435 | 948 |
| 15 | Narmada | 0 | 0 | 0 | 244 |
| 16 | Navsari | 1373 | 3519 | 4140 | 1430 |
| 17 | Panchmahal | 134 | 502 | 1280 | 344 |
| 18 | Patan | 888 | 1296 | 1422 | 566 |
| 19 | Porbandar | 204 | 642 | 905 | 259 |
| 20 | Rajkot | 2607 | 4835 | 6270 | 1595 |
| 21 | Sabarkantha | 320 | 209 | 796 | 320 |
| 22 | Surat | 7814 | 12000 | 9111 | 2503 |
| 23 | Sur'nagar | 231 | 481 | 526 | 153 |
| 24 | Vadodara | 1483 | 2624 | 4454 | 1385 |
| 25 | Valsad | 1009 | 1930 | 2350 | 794 |
| TOTAL | | 34014 | 63630 | 106861 | 30425 |

Table 5. 3.3 Average OPD Attendance Vs. Mean Attendance in VCTC per day

| Sr. No. | Name of VCTC | Year 2004 | | | Year 2005 | | |
|--------------|--------------------------|-----------|------------|------|-----------|------------|------|
| | | Gen. OPD | VCTC | % | Gen. OPD | VCTC | % |
| 1 | Gen Hosp. Surendranagar | 779 | 2 | 0.21 | 807 | 2 | 0.22 |
| 2 | Gen Hospital Ahwa | 304 | 1 | 0.21 | 298 | 2 | 0.77 |
| 3 | Gen Hospital Amreli | 762 | 4 | 0.57 | 647 | 6 | 0.91 |
| 4 | Gen Hospital Bharuch | 790 | 2 | 0.22 | 741 | 2 | 0.23 |
| 5 | Gen Hospital Bhuj | 1687 | 1 | 0.05 | 1588 | 3 | 0.18 |
| 6 | Gen Hospital Dahod | 658 | 3 | 0.42 | 675 | 4 | 0.52 |
| 7 | Gen Hospital Gandhinagar | 1826 | 3 | 0.15 | 1534 | 6 | 0.42 |
| 8 | Gen Hospital Godhara | 985 | 2 | 0.17 | 1079 | 4 | 0.40 |
| 9 | Gen Hospital Himmatnagar | 1075 | 1 | 0.06 | 1156 | 3 | 0.23 |
| 10 | Gen Hospital Jamkhamalia | 525 | 2 | 0.34 | 535 | 2 | 0.31 |
| 11 | Gen Hospital Junagadh | 2368 | 3 | 0.11 | 1802 | 4 | 0.20 |
| 12 | Gen Hospital Mehsana | 634 | 3 | 0.48 | 663 | 5 | 0.72 |
| 13 | Gen Hospital Nadiad | 419 | 2 | 0.42 | 460 | 2 | 0.46 |
| 14 | Gen Hospital Navsari | 711 | 12 | 1.65 | 683 | 14 | 2.02 |
| 15 | Gen Hospital Palanpur | 471 | 7 | 1.47 | 721 | 8 | 1.08 |
| 16 | Gen Hospital Patan | 767 | 4 | 0.56 | 823 | 5 | 0.58 |
| 17 | Gen Hospital Porbandar | 910 | 2 | 0.24 | 916 | 3 | 0.33 |
| 18 | Gen Hospital Rajpipla | 445 | 0 | 0.00 | 384 | 0 | 0.00 |
| 19 | Gen Hospital Sola | 358 | 1 | 0.28 | 384 | 3 | 0.71 |
| 20 | Gen Hospital Valsad | 337 | 6 | 1.91 | 343 | 8 | 2.28 |
| 21 | Jamnabai Hosp. Vadodara | 1653 | 1 | 0.08 | 1102 | 2 | 0.20 |
| 22 | Old Civil Hospital Surat | 323 | 8 | 2.35 | 328 | 10 | 2.91 |
| 23 | Pk Hospital Rajkot | 994 | 4 | 0.38 | 859 | 8 | 0.92 |
| 24 | Civil Hospital Ahmedabad | 0 | 44 | | 0 | 153 | |
| 25 | Civil Hospital Rajkot | 0 | 12 | | 0 | 13 | |
| 26 | Gen Hospital Petlad | 0 | 1 | | 0 | 2 | |
| 27 | Shardaben Hosp. A'bad | 0 | 7 | | 0 | 8 | |
| 28 | Sir Pratap Hos Baroda | 0 | 0 | | 0 | 1 | |
| 29 | Sir T Hospital Bhavnagar | 0 | 6 | | 0 | 8 | |
| 30 | SSG Hospital Vadodara | 0 | 7 | | 0 | 11 | |
| 31 | VS Hospital Ahmedabad | 0 | 0 | | 0 | 19 | |
| 32 | Gg Hospital Jamnagar | 0 | 11 | | 0 | 11 | |
| 33 | L.G. Hospital A'bad | 0 | 3 | | 0 | 5 | |
| 34 | New Civil Hospital Surat | 0 | 32 | | 0 | 21 | |
| TOTAL | | | 194 | | | 355 | |

Figure 5. 3.4 Voluntary walk-in individuals tested at VCTC

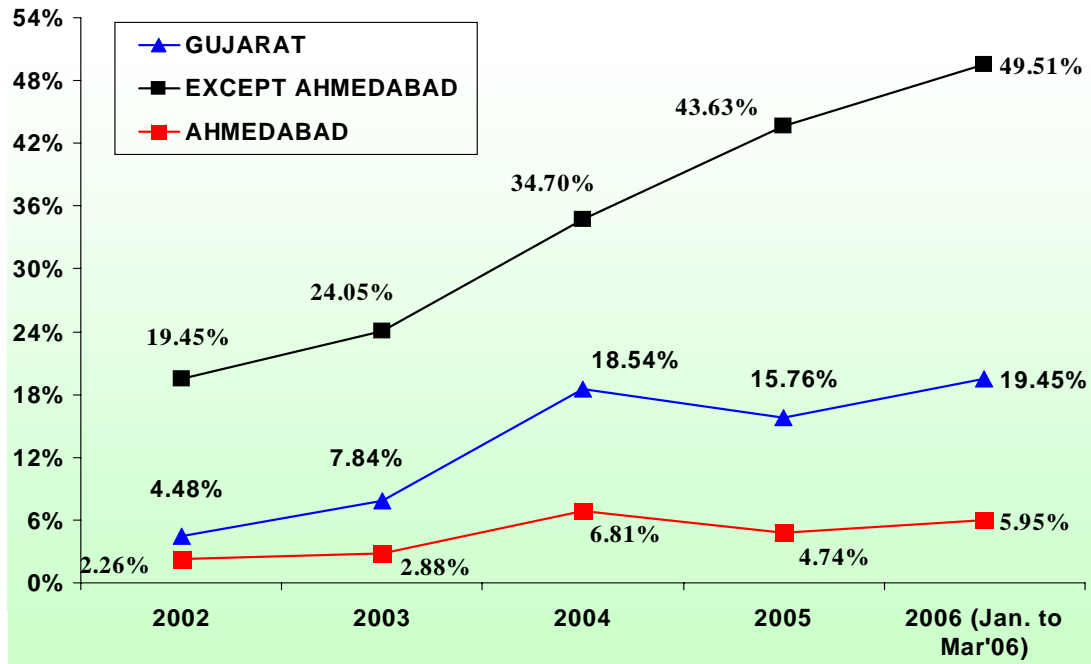


Table 5. 3.4 Voluntary walk-in individuals tested at VCTC

| Sr. No. | District | Total tested | Vol. Walk-in tested | % of Direct Walk-in | Total tested | Vol. Walk-in tested | % of Direct Walk-in | Total tested | Vol. Walk-in tested | % of Direct Walk-in |
|--------------|-------------|--------------|---------------------|---------------------|--------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | | 2004 | | | 2005 | | | 2006 (Jan to March) | | |
| 1 | Ahmedabad | 23002 | 1566 | 7 | 45566 | 2158 | 5 | 12061 | 718 | 6 |
| 2 | Amreli | 351 | 204 | 58 | 360 | 246 | 68 | 168 | 96 | 57 |
| 3 | Anand | 104 | 56 | 54 | 129 | 71 | 55 | 21 | 13 | 62 |
| 4 | Banaskantha | 878 | 233 | 27 | 969 | 282 | 29 | 285 | 149 | 52 |
| 5 | Bharuch | 166 | 48 | 29 | 186 | 99 | 53 | 45 | 24 | 53 |
| 6 | Bhavnagar | 553 | 266 | 48 | 709 | 302 | 43 | 145 | 52 | 36 |
| 7 | Dahod | 404 | 118 | 29 | 499 | 39 | 8 | 93 | 15 | 16 |
| 8 | Dang | 72 | 14 | 19 | 226 | 50 | 22 | 113 | 28 | 25 |
| 9 | Gandhinagar | 303 | 190 | 63 | 401 | 239 | 60 | 218 | 103 | 47 |
| 10 | Jamnagar | 1892 | 282 | 15 | 1866 | 472 | 25 | 452 | 134 | 30 |
| 11 | Junagadh | 291 | 208 | 71 | 427 | 357 | 84 | 107 | 88 | 82 |
| 12 | Kheda | 205 | 95 | 46 | 271 | 122 | 45 | 54 | 32 | 59 |
| 13 | Kutch | 212 | 61 | 29 | 383 | 191 | 50 | 120 | 64 | 53 |
| 14 | Mehsana | 177 | 160 | 90 | 363 | 313 | 86 | 148 | 129 | 87 |
| 15 | Narmada | 65 | 0 | 0 | 11 | 2 | 18 | 72 | 15 | 21 |
| 16 | Navsari | 532 | 262 | 49 | 700 | 389 | 56 | 235 | 177 | 75 |
| 17 | Panchmahal | 482 | 41 | 9 | 536 | 198 | 37 | 158 | 77 | 49 |
| 18 | Patan | 352 | 188 | 53 | 463 | 332 | 72 | 144 | 102 | 71 |
| 19 | Porbandar | 281 | 200 | 71 | 389 | 245 | 63 | 110 | 71 | 65 |
| 20 | Rajkot | 2316 | 302 | 13 | 2361 | 663 | 28 | 594 | 177 | 30 |
| 21 | Sabarkantha | 206 | 26 | 13 | 213 | 136 | 64 | 113 | 61 | 54 |
| 22 | Surat | 4750 | 2197 | 46 | 3293 | 2075 | 63 | 997 | 695 | 70 |
| 23 | Sur'agar | 239 | 200 | 84 | 248 | 190 | 77 | 73 | 71 | 97 |
| 24 | Vadodara | 1583 | 268 | 17 | 2597 | 555 | 21 | 752 | 166 | 22 |
| 25 | Valsad | 278 | 173 | 62 | 427 | 298 | 70 | 200 | 143 | 72 |
| TOTAL | | 39694 | 39694 | 7358 | 19 | 63593 | 10024 | 16 | 17478 | 3400 |

Figure 5. 3.5 Persons Tested at 34 VCTCs in Gujarat

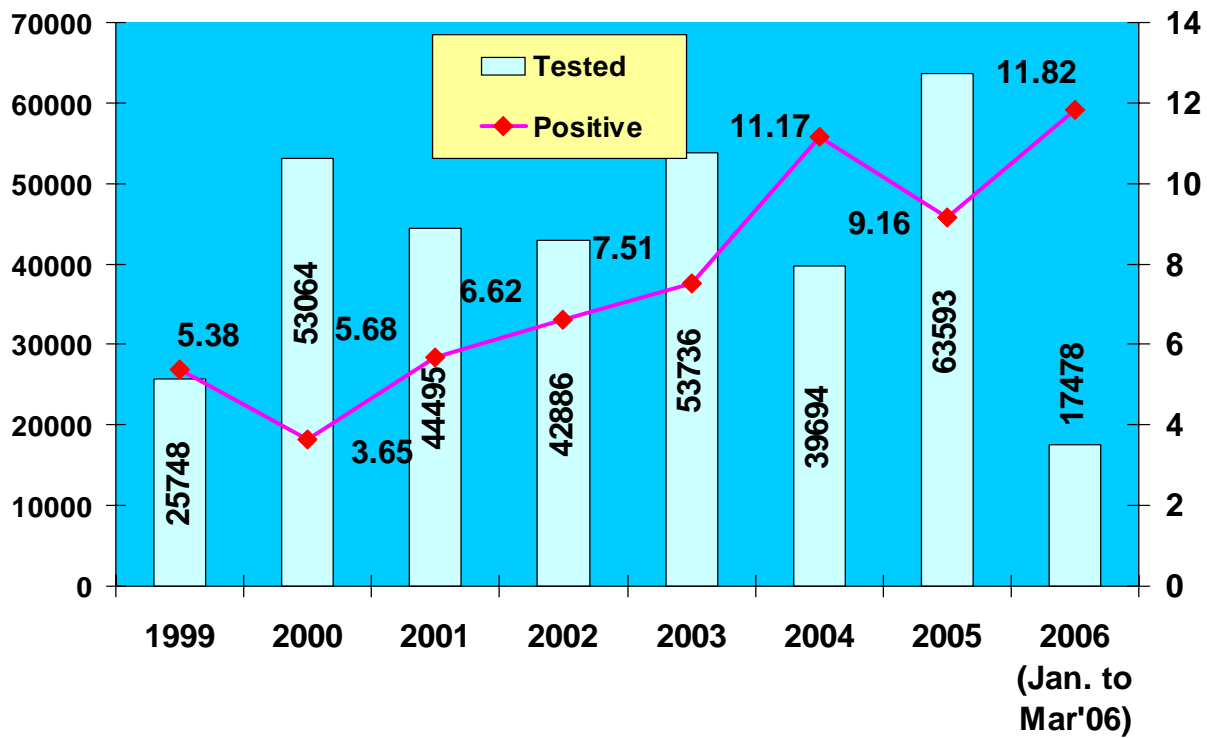


Table 5. 3.5 Persons Tested for HIV in VCTCs (Centre Wise)

| Sr. No. | Name Of VCTC | 2004 | | | 2005 | | | Jan. to Mar' 06 | | |
|--------------|---------------------------------|----------------|----------|----------|----------------|-------------|----------|-----------------|-------------|-----------|
| | | Samples Tested | Sero +ve | % | Samples Tested | Sero +ve | % age | Samples Tested | Sero +ve | % age |
| 1 | Civil Hospital, Ahmedabad | 19219 | 607 | 3 | 40910 | 2364 | 6 | 10467 | 1047 | 10 |
| 2 | V.S. Hospital, Ahmedabad | 2339 | 487 | 21 | 2714 | 205 | 8 | 1007 | 77 | 8 |
| 3 | L.G. Hospital, Ahmedabad | 509 | 194 | 38 | 732 | 89 | 12 | 259 | 30 | 12 |
| 4 | Shardaben Hospital, Ahd | 827 | 228 | 28 | 1021 | 62 | 6 | 295 | 23 | 8 |
| 5 | General Hospital, Sola | 108 | 50 | 46 | 189 | 32 | 17 | 33 | 5 | 15 |
| 6 | General Hospital, Amreli | 351 | 204 | 58 | 360 | 70 | 19 | 168 | 27 | 16 |
| 7 | General Hospital, Petlad | 104 | 56 | 54 | 129 | 19 | 15 | 21 | 2 | 10 |
| 8 | General Hospital, Palanpur | 878 | 233 | 27 | 969 | 114 | 12 | 285 | 24 | 8 |
| 9 | General Hospital, Bharuch | 166 | 48 | 29 | 186 | 43 | 23 | 45 | 11 | 24 |
| 10 | Sir T Hospital, Bhavnagar | 553 | 266 | 48 | 709 | 167 | 24 | 145 | 38 | 26 |
| 11 | General Hospital, Dahod | 404 | 118 | 29 | 499 | 23 | 5 | 93 | 3 | 3 |
| 12 | General Hospital, Ahwa | 72 | 14 | 19 | 226 | 9 | 4 | 113 | 0 | 0 |
| 13 | General Hospital, Gandhng. | 303 | 190 | 63 | 401 | 31 | 8 | 218 | 20 | 9 |
| 14 | G. G. Hospital, Jamnagar | 1686 | 232 | 14 | 1650 | 236 | 14 | 407 | 80 | 20 |
| | General Hospital, Jamkhambalia | 206 | 50 | 24 | 216 | 21 | 10 | 45 | 6 | 13 |
| 16 | General Hospital, Junagadh | 291 | 208 | 71 | 427 | 99 | 23 | 107 | 29 | 27 |
| 17 | General Hospital, Nadiad | 205 | 95 | 46 | 271 | 49 | 18 | 54 | 8 | 15 |
| 18 | General Hospital, Bhuj | 212 | 61 | 29 | 383 | 81 | 21 | 120 | 10 | 8 |
| 19 | General Hospital, Mehsana | 177 | 160 | 90 | 363 | 56 | 15 | 148 | 27 | 18 |
| 20 | General Hospital, Navsari | 532 | 262 | 49 | 700 | 109 | 16 | 235 | 35 | 15 |
| 21 | General Hospital, Rajpipala | 65 | 0 | 0 | 11 | 0 | 0 | 72 | 9 | 13 |
| 22 | General Hospital, Godhara | 482 | 41 | 9 | 536 | 11 | 2 | 158 | 6 | 4 |
| 23 | General Hospital, Patan | 352 | 188 | 53 | 463 | 42 | 9 | 144 | 17 | 12 |
| 24 | General Hospital, Porbandar | 281 | 200 | 71 | 389 | 32 | 8 | 110 | 7 | 6 |
| 25 | Civil Hospital, Rajkot | 1440 | 238 | 17 | 1518 | 335 | 22 | 331 | 98 | 30 |
| 26 | P.K. Hospital, Rajkot | 876 | 64 | 7 | 843 | 85 | 10 | 263 | 26 | 10 |
| 27 | General Hospital, Himmatnagar | 206 | 26 | 13 | 213 | 64 | 30 | 113 | 33 | 29 |
| 28 | New Civil Hospital, Surat | 3958 | 1496 | 38 | 2377 | 701 | 29 | 797 | 201 | 25 |
| 29 | Old Civil Hospital, Surat | 792 | 701 | 89 | 916 | 170 | 19 | 200 | 28 | 14 |
| 30 | General Hospital, Surendranagar | 239 | 200 | 84 | 248 | 34 | 14 | 73 | 4 | 5 |
| 31 | SSG Hospital, Vadodara | 1394 | 195 | 14 | 2049 | 365 | 18 | 542 | 104 | 19 |
| 32 | Jamnabai Hospital, Vadodara | 189 | 73 | 39 | 322 | 43 | 13 | 106 | 7 | 7 |
| 33 | General Hospital, Valsad | 278 | 173 | 62 | 427 | 55 | 13 | 200 | 20 | 10 |
| 34 | Railway Hosp., Baroda | -- | --- | -- | 226 | 8 | 4 | 104 | 4 | 4 |
| TOTAL | | 39694 | | 0 | 63593 | 5824 | 9 | 9 | 2066 | 12 |

Note : The - indicates that VCTC Center was not established/working during that period.

Table 5. 3.6 Sero-Positivity of HIV at VCTCs (DISTRICT WISE)

| Sr. No. | Name of District | 2004 | | | 2005 | | | 2006 (Jan To March) | | |
|--------------|------------------|--------------|--------------|-------------|--------------|--------------|-------------|---------------------|--------------|-------------|
| | | Units Tested | Sero +Ve | % Age | Units Tested | Sero +Ve | % Age | Units Tested | Sero +Ve | % Age |
| 1 | Ahmedabad | 23002 | 1533 | 7 | 45566 | 2752 | 6 | 12061 | 1182 | 10 |
| 2 | Amreli | 351 | 72 | 21 | 360 | 70 | 19 | 168 | 27 | 16 |
| 3 | Anand | 104 | 19 | 18 | 129 | 19 | 15 | 21 | 2 | 10 |
| 4 | Banaskantha | 878 | 89 | 10 | 969 | 114 | 12 | 285 | 24 | 8 |
| 5 | Bharuch | 166 | 25 | 15 | 186 | 43 | 23 | 45 | 11 | 24 |
| 6 | Bhavnagar | 553 | 171 | 31 | 709 | 167 | 24 | 145 | 38 | 26 |
| 7 | Dahod | 404 | 36 | 9 | 499 | 23 | 5 | 93 | 3 | 3 |
| 8 | Dang | 72 | 7 | 10 | 226 | 9 | 4 | 113 | 0 | 0 |
| 9 | Gandhinagar | 303 | 41 | 14 | 401 | 31 | 8 | 218 | 20 | 9 |
| 10 | Jamnagar | 1892 | 282 | 15 | 1866 | 257 | 14 | 452 | 86 | 19 |
| 11 | Junagadh | 291 | 100 | 34 | 427 | 99 | 23 | 107 | 29 | 27 |
| 12 | Kheda | 205 | 33 | 16 | 271 | 49 | 18 | 54 | 8 | 15 |
| 13 | Kutch | 212 | 50 | 24 | 383 | 81 | 21 | 120 | 10 | 8 |
| 14 | Mehsana | 177 | 29 | 16 | 363 | 56 | 15 | 148 | 27 | 18 |
| 15 | Narmada | 65 | 1 | 2 | 11 | 0 | 0 | 72 | 9 | 13 |
| 16 | Navsari | 532 | 105 | 20 | 700 | 109 | 16 | 235 | 35 | 15 |
| 17 | Panchmahal | 482 | 15 | 3 | 536 | 11 | 2 | 158 | 6 | 4 |
| 18 | Patan | 352 | 42 | 12 | 463 | 42 | 9 | 144 | 17 | 12 |
| 19 | Porbandar | 281 | 38 | 14 | 389 | 32 | 8 | 110 | 7 | 6 |
| 20 | Rajkot | 2316 | 383 | 17 | 2361 | 420 | 18 | 594 | 124 | 21 |
| 21 | Sabarkantha | 206 | 18 | 9 | 213 | 64 | 30 | 113 | 33 | 29 |
| 22 | Surat | 4750 | 927 | 20 | 3293 | 871 | 26 | 997 | 229 | 23 |
| 23 | Suren'agar | 239 | 18 | 8 | 248 | 34 | 14 | 73 | 4 | 5 |
| 24 | Vadodara | 1583 | 342 | 22 | 2597 | 416 | 16 | 752 | 115 | 15 |
| 25 | Valsad | 278 | 56 | 20 | 427 | 55 | 13 | 200 | 20 | 10 |
| TOTAL | | 39694 | 39694 | 4432 | 11 | 63593 | 5824 | 9 | 17478 | 2066 |

Table 5. 3.7 Budget and Expenditure

| Sr. | Budget | Expenditure | % |
|-----|-----------|-------------|-------|
| 1 | 93,15,000 | 73,38,864 | 78.78 |

5.4 IEC/BCC Management

Dr. Verma, Director of Varsha State AIDS Control Society (VSACS), was reviewing the status of his state's Behavior Change Communication strategies. A recent press report on the Third Conference on HIV Pathogenesis and Treatment he was reading made the point that though AIDS treatment was more widely available, efforts to stop people becoming infected in the first place were showing mixed results. New prevention techniques were still a long way off—in any case transmission-prevention initiatives had to accompany preventive drug regimes. Fidelity and condoms seemed to be the best option available—he wondered how seriously people took the guideline of abstinence. Even these two relied on behavioral change for their success. The earlier information-education-communication approach had played an important initial role, but now Behavior Change Communication (BCC) was expected to help in developing, promoting and sustaining individual, community and societal behavior change and in creating an “enabling and supportive” environment. He relied on partnerships with nongovernmental organizations (NGOs had communicated clearly the 7-step approach to behavior change: unaware stage, awareness, concern about ill effects, knowledge, creating motivation to change, implementing change on trial basis, and sustaining behavior change. Dr. Verma believed that three principles were essential: segmentation of the target group so that reasonably homogeneous groups became the targets for communication, avoiding a one shot or a standardized procedure for BCC, and keeping in mind the needs and sensitivities of the segmented target population. However, he had two concerns. While positive results were no doubt visible, the pace of achievement seemed to be slow. Secondly, weak systematic and reflective documentation was perhaps leading to missing out some process level insights that could help refine BCC strategies. He knew that BCC outcomes needed a long time to become visible and so he decided to begin with his second concern. He had with him a report on five of his best NGO partners, “NGOs and BCC”. Exhibit 5.4.1 presents the introduction of this report.

INITIATING INVOLVEMENT WITH BCC

The needs assessment survey work of VSACS and the role of the Technical Assistant Unit (TAU) have been crucial in getting the NGOs involved in BCC programs. In the case of WORD, an NGO, when one of its employees joined the TAU at the state headquarters, he convinced the NGO to take up needs assessment work since the migrant industrial workers with whom they were working were prone to HIV risk. The first six months of the needs assessment work did not result in a happy experience. With the help of another NGO in a neighboring city, WORD learned to focus on immediate interventions against HIV and on the target population's culture, beliefs and behavior. In SWAR's case, the reluctance of the Chairman to discuss sexuality, sexual behavior and HIV/AIDS openly was a barrier that VSACS had to overcome. With PRERNA, VSACS identified an at-risk fishing community and persuaded the NGO to undertake a needs assessment. PRERNA, over a six-month period, collected extensive information about socio-cultural profiles, condom use, STD prevalence, sexual networks, levels of awareness, and the potential of peer education. A

Case prepared by Prof Vijaya Sherry Chand and Rajiv Bhardwaj of the Centre for Management of health Services (CMHS), Indian Institute of Management Ahmedabad, as a basis for classroom discussion. Cases are not designed to present illustrations of either correct or incorrect handling of administrative problems. The name of the NGOs which collaborated in the study have been changed. We thank all the NGOs and state level staff who helped us in the preparation of this case. We are grateful to Manish Patel for his help in data collection.

diesel pump owner who supplied diesel to the fishermen helped it greatly. In the case of LAMP, VSACS's identification of an important city as a high-risk city because of the location on an important national highway route, the surrounding industrial centres that attracted migrant workers, and an extensive unorganized chain of CSWs, was the starting point for a needs assessment with CSWs. In the case of GOAL, the founder had identified a large number of high-risk behavior (HRB) people and the high prevalence of infection due to casual sex. Though the NGO started with action for the legal status for gays, the right to an identity and countering social ostracism, the realization that the persons it had been fighting for were dying of HIV/AIDS was a shock. Since VSACS was not familiar with strategies to reach out to MSM, GOAL's involvement was critical. The segmentation of the target population seemed to have been done well (Table 5.4.1). This was the first step in reaching out (the unawareness stage) to HRB people.

Table 5. 4.1 Target Population and its Segmentation

| NGO | Target | Basis of Segmentation |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WORD | Migrant industrial workers | Native states: mainly Bihar, UP, Maharashtra and Orissa |
| SWAR | Fishermen community identified by TAU and NGO accepted the decision of VSACS/TAU | Traditional division of roles: Mathiya, Moilee, Maitraanee, Mehta, drivers, cooks, side tandel, danga owner, tandel (Figure 5.4.1) |
| LAMP | CSWs (key role in unsafe sex practices but also their control) | Segmentation on the basis of their work and their availability (Figure 5.4.2) |
| GOAL | VSACS at a loss on how to proceed, but NGO had experience of organizing conferences of MSM and building chains of MSM, with each member identifying a number of similar people (snowballing effect) | No prior information available with government and NGO's contribution has been critical. Three years experience before BCC involvement helped in segmentation (Figure 5.4.3) |

STRATEGIES

WORD: The first step was to identify the areas where unsafe sex practices were likely to be high. A study of the behavior and culture of the families living there followed. These in turn helped in identifying the high-risk behavior people and the people with whom they had contact. The first state of reaching out to HRB people corresponded to the unawareness stage of the 7-step model of behavior change. However, HIV alone was not the focus—other health care activities like polio immunization, and malaria and filarial eradication, were discussed to avoid resistance to discussion about other diseases. More importantly, HIV/AIDS information (the second step of creating awareness) was provided in such camps. The result was the establishment of good rapport with the community, with the people seeing the NGO personnel as some kind of “doctors” who are interested in helping them. This stage was refined by directly communicating to the target population primary information about

HIV/AIDS, so that familiarity with the features of the infection could become the starting point for more concrete BCC initiatives. The target continued to be HRB persons and in many cases, their families as well. The key message focused on the role of the condom as a safe sex measure. The HGO health workers did encounter resistance, mainly because of the complaint about loss of feeling. They had to talk to the individuals constantly, and demonstrate “the feeling of touching” by putting a condom on their finger and biting it. WORD also found that excessive use of liquor was a contributory factor in promoting unsafe sex practices. It contracted local liquor shops and identified the people who were habitual drunkards. Then the NGO workers started meeting these people to communicate the links between losing one’s senses through liquor (forgetting to use condoms), unsafe sex and its dangerous consequences. One-to-one discussions were the main method used. Some of these individuals were also MSM. The NGO also relied on local cultural activities to win the trust of the target population. People from Bihar celebrated the Chhatha pooja; navaratri was important for Bengalis and Ganesh Chaturthi for Maharashtrians. The participation of the NGO in community celebrations sent strong signals regarding the NGO’s seriousness. The need for acceptability led to such participation.

Peer educators are selected from the community. When ORWs are in the field, they look for a person who is supportive, attentive, and curious to know about new happenings, educated and in a position to influence the community. For becoming a full-fledged peer educator, one has to work as a voluntary PE for at least two months. There are at present 45 PEs, 16 females and 29 males. WORD takes care of the safety and motivation of PEs through insurance cover from a leading insurance company and celebrating the birthdays of PEs.

Another aspect of WORD’s strategy has been its networking with other organizations like the Regional Industrial Association and some banks. These organizations help in organizing programs by providing space or other forms of assistance. The collaboration with such large organizations or associations motivates smaller organizations to help. The role of such organizations has been providing facilities. Otherwise, they are not involved in direct communication with the target population.

While there have been positive results, problems in developing and implementing BCC have been abundant. In the initial stages, talking of sex, sexual behavior and condoms was very difficult. Making a breakthrough with individuals has been a problem. Language is another problem. ORWs are generally from the local state and do not know the language of the target population. In the beginning, when health workers went to the community and talked about STD and HIV, the people got scared; there was a lot of resistance from some segments of the population. Local forms of treatment and superstitions also proved to be important and underrated obstacles. An important belief is that HIV/AIDS is the result of past sins, and hence superstitious response, spoke their language and were more acceptable to HRB people. They used antibiotics indiscriminately, compounding the medical problem. As and when these problems arose, the NGO workers brought them up with the population.

Stigma attached to HIV and discrimination against HIV positive people continue to pose problems. Recently, when a woman was found to be HIV positive the owner threw her out of the house. She was pregnant as well. When she approached the PHC, she was not entertained. A few people suggested to her that she remove the HIV report before going to the next hospital. When WORD came to know about this, it intervened. The woman was treated and delivered an HIV negative baby. However, the potential of this incident for message development concerning stigma removal has not been exploited.

STD treatment of partners is also a problem. Some of the people go to nearby places for commercial sex. Such people do not accept that they have done this and this comes in the way of preventing partner infection. The “Bhabhi system” is also a problem. When a person goes out for work, some bachelors or married males living in the nearby houses have sex with the person’s wife who is alone at home. This increases the chance of STD and the need for partner treatment becomes indispensable. The NGO has developed a Yellow Card called Case Recording Sheet. There are three copies of this sheet, one is with the patient, the second copy is with the doctor and the third copy is with the NGO. The NGO allots a secret number on this sheet, which is the identification of that patient. Another problem is the time spent on report preparation by the health workers. Frequent changes in the report formats also add to the confusion.

SWAR: High illiteracy levels and a population that is considered resistant to change have been key barriers. The first step in the strategy adopted was the identification of a basic problem of the community. Drinking water had been a major problem. SWAR constituted Self Help Groups (SHGs) under a local, but well-known, woman leader from a neighboring area. She had a good track record in solving drinking water problems and belonged to the same religious community as the target community did. The success of this effort had a positive impact. Secondly, the health workers started observing the daily routines of the community members and gradually introduced themselves as health workers, without focusing on HIV/AIDS. Talking about HIV/AIDS openly was not acceptable to a majority of the community, and so the tactic adopted was to discuss the common diseases and gradually introduce primary information about HIV/AIDS. After further rapport was established, it was easier to talk about the causes of HIV/AIDS and STI. During these discussions, the health workers identify the high-risk behavior (HRB) of various people. From here, the seven steps model of BCC learned during training is followed. The identified HRB people are followed up by the health workers regularly to create awareness of and concern about the consequences of HIV/AIDS.

SWAR has also realized that their acceptability to individuals is dependent on the NGO’s rapport with the community in which HRB persons live. SWAR participates in the community’s cultural programs, and uses events like the monthly savings meetings or co-operative meetings to disseminate information about HIV/AIDS. The NGO relies on PEs for further dissemination of the messages but how these messages work out at the level of the individual sufferer needs to be understood. The NGO has also been forced to adopt a community approach (for instance, through the Matsya-Rath, which resonates with fishermen’s lives) to attract people. To ensure condom availability, depots were set up at the shops of betel sellers and grocery shops. When SWAR noticed that the demand for condoms went up during blue film shows in a video centre, everyone was given a packet of condoms. The service availability was introduced along with creating awareness. The NGO has taken the help of influential people like religious leaders. Given that the community with which the NGO worked followed Islam, the interest shown by the religious head helped in dissemination of HIV/AIDS information.

Some special problems faced during the intervention include migrating populations which can be followed up for only nine to ten months in a year. This creates inconsistency in the intervention program. Secondly, there is inconsistency in the treatment of STDs as fishermen take medicines for a few days, and then stop taking them, as they are in the sea for an

uncertain period. Staff turnover is also disturbing. When a trained staff leaves, the pace of the program slows as a new staff member takes time to learn.

PRERNA: The experience of the initial six months of the need assessment was not a happy one for the NGO. The team felt that the people were not responding in the expected manner. If then went to the community with 5000 condoms and adopted an aggressive distribution strategy. The condoms were given to those identified as high-risk behavior (HRB) people and when people were reluctant to accept the condoms, the team members put the condoms into the people's pocket. Even khalasis and others who were going to sea for fishing were given the condoms. This tactic was repeated two more times. The aggressive distribution strategy, called 'Operation Condom', may have helped in removing some hesitation to discuss the use of condoms. The NGO then created about 70 condom depots, some for males and the others for females. They were located in high-risk behavior areas; unmanned condom depots were also opened. Some were located in local liquor shops. To remove shyness among the people, alternative local names were developed for condoms ("Bakas" for females and "Topi" for males). Some females considered condoms as a pregnancy control measure and did not see the need to substitute Mala D. The health workers thus had to develop messages that combined STD prevention and birth spacing as twin functions of condoms. It is likely that developing such messages needs more professional guidance. Some people protested against the opening of the condom depots. The health workers approached these protestors repeatedly and persuasion was the only tool used. Over time, they were convinced. Every month, at least one meeting was held with the depot holders to take stock of the situation and identify those who were not using condoms regularly. The NGO also distributed condoms to local doctors for distribution to their patients. A variety of condom demonstration activities was organized, focusing on condom use and destruction of the condom after use.

As with other NGOs, initially, staff were not comfortable talking about condoms. Similarly, the target population was also not ready to accept the condom. So repeated contact was necessary. However, fishermen were not available for weeks on end when they went fishing. Another problem was the belief of the fishermen that, since when something would happen to their lives was not certain, nothing was important. Though PEs are involved in talking with the community, women who work as PEs may be ostracized by society. Superstitions abound, as the people believe that "this is result of sins committed by us so it can't be treated by medicines. It can be treated only by ojhas (bhuaas)".

LAMP: The first task was to identify the CSWs and their networks. Therefore reaching out was the first stage in BCC. The LAMP personnel first interacted with street sex workers, as they were easily identifiable at public places like the bus terminus, the railway station, and certain locations in the city. Betel sellers and hawkers who sat at these places were instrumental in identifying the women and their networks. The next step was to focus on the highway girls who were involved in sex work with the truckers. Brokers control the sex work profession, and the fate of the girls who are mostly outsiders and from the lower socio-economic strata of society, depends on the brokers. The health workers took the help of another NGO from a nearby city to identify the brokers based in that city and their own city. These brokers provided the NGO with the phone numbers of call girls and the addresses of brothels. Given the extremely difficult circumstances under which the sex work operated, the NGO had to adopt a very risky trick to establish contact. The health workers posed as clients and established contact on the phone to enquire about the charges and meeting place. During the conversation, the source of the phone number was not revealed. At the meeting, the place for sexual intercourse was finalized. Once the health workers confirmed that the girls they

were talking to were indeed sex workers, they revealed their true identity and apologized to them for the deception. Though the risk and the chances of adverse consequences were extremely high, the strategy has been successful. The LAMP people meet the sex workers four to five times and identify the routes the girls have taken to get into the profession. What come to avail of guidance and services. Once the initial breakthrough is achieved, girls start coming to the NGO's office for advice. At this stage, it is possible to provide primary information about HIV/AIDS. After one visit to the office, a sex worker usually brings her friends who are in the same profession.

Brokers constitute another target segment. These brokers have a strong network. Whenever a broker brings new girls for sex work into the city, other brokers come to know about it and they spread the information amongst themselves. It has become necessary for the NGO to stay in touch with this network to know about the new girls who enter the city so that they can be approached and told about safe sex practices. For the guesthouse based sex workers the health workers have approached the guesthouse owners to educate them about the consequences of unsafe sex and the benefits of using condoms. At the same time, they have emphasized the "condom negotiation skills" of sex workers-once a client is ready for sex, the worker can negotiate with the client for condom use. The results have been mixed, and the approach has not been successful to the extent desired.

Some CSWs are married and so the NGO has had to approach the husbands. They are educated about the adverse effects of unsafe sex practices and motivated to use condoms. A major problem here is that the sex workers may adopt double standards-with the clients condoms may be all right, but with the other circle which may include the husbands and friends, the workers do not understand the need to, or do not want to, use condoms. Some of the sex workers are HIV positive, but his information is confidential, known only to the NGO and the sex workers concerned. STI and HIV may spread because of the two sets of standards regarding condom use.

The police used to harass the sex workers as well as health workers. The health workers have started interacting with the local police stations and have had meeting with the police commissioner about their program. A lot more work needs to be done in this area. Other local stakeholders include the local media (which is more interested in 'stories' and sensationalism) and local political leaders, who do not want to be associated with such causes for fear of "damaging their reputation".

One aspect of the service provision is ensuring adequate availability of condoms. LAMP has opened condom depots at various places including police stations. The depots are usually located in places where CSWs are commonly seen. Another aspect has been counseling. The NGO has established counseling centres where sex workers are counseled and provided with medicines. Mobile clinics have also been started for treating STD among sex workers.

To interact with sex workers, especially high society call girls, is difficult. Guesthouse and flat-based sex workers are under the control of guesthouse owners or brokers. Sometimes hotel or guesthouse owners see the NGO staff as police informers, and so they try to avoid them or threaten them. The guesthouse owners think that the NGO is out to destroy their business and instigate the sex workers against the NGO. Another problem is that flat-based sex workers are not fixed to one place. They have sex with a client and desert the place over their mobile phones and so it becomes more difficult to tract them. Call girl's husbands or partners sometimes blackmail them for money and do not allow the health workers to meet

them. Sometimes, as the NGO workers left a place after meeting the sex workers, police raids took place. The sex workers and brothel owners thought these had been organized through the health workers while on the other hand the police thought that the health workers were a part of the nexus. Brokers who operated on a wide scale were not easily traceable. Guesthouse owners were reluctant to keep the condoms, because of fear of unwittingly giving the police evidence that the guesthouses were indeed brothels.

Inconsistent and irregular use of STD medicines is also a problem. Sometimes, these STDs become asymptomatic and the women think they have been cured; but the disease recurs in more serious form. Some of the sex workers look at their profession as a way of making easy money and just do not care about the dangers of HIV/AIDS. Some of the sex workers go back to their villages during the agricultural season and when they return after a few months, do not seem to remember anything at all from their previous education. All these problems pose formidable communication challenges.

GOAL: Since the strategy has been to reach the highest number of people in the MSM segment, the staff employed are also those who have good contacts in the target community. The first step is to identify the high-risk behavior people within the MSM category. Two approaches followed are one-to-one interaction and visits at cruising sites (sites where MSM identify partners, usually public gardens, bus stands, and picnic spots). The staff are aware of the gestures, style of conversation and gait of MSM and so can identify them easily. Having identified these MSM, health workers never talk directly of HIV/AIDS and BCC. The health workers show concern for the MSM's sensitivity and sentiments when they are talking about these topics. Firstly, they interact with them and win their trust by listening to their problems. These problems may be partner's desertion, no conversation with the partner, no importance given to the partner, and so on. The health workers fix a meeting between the partners and try to sort out the problems. Once a breakthrough is achieved, they are told about safe sex, more of safe sex like use of condoms etc. Secondly, the health workers bring up the subject of HIV prevention through consistent use of condoms. The usual resistance is through a complaint about loss of feeling or sense of touch.

Since having a large number of partners is seen as a status symbol and has become the dominant culture among MSM, the health workers do not directly promote reduction of the number of partners. The health workers use live examples and use fear about the consequences as a tool. They tell the MSM about real cases and the consequences of having multiple partners. This strategy takes a long time and is "really tough". Suppose an MSM has four partners and he has four encounters a week, the health workers first try to bring down the number of partners to two, while maintaining four encounters. The possibility of infection is reduced. This strategy is repeated, with the aim being to bring down the number of partners further.

For confidence building, the NGO has adopted a novel method. It organizes "Savitri Vrata" in which an MSM binds a sacred thread around the Peepal tree. The people pray for the longevity of their partners by doing all these rituals. They wear saris and perform all the rituals with the help of a Brahmin. This has led to greater trust and confidence in the NGO among the target population. In another attempt, GOAL celebrates its foundation day every year by assembling MSM and giving them an opportunity to interact with each other. This formal get together acts as a forum for a free discussion of their problems. Health workers tell them about STDs, identify infected people and send them to counselors. After counseling, the STD patients are taken to medicine shops by the counselor.

An MSM can have both female and male partners. When he comes for the treatment, he is told about the importance of treatment and the dangers of STDs and is motivated to get his partner treated. He is also cautioned that until his partner is free from STDs, he should not have sexual intercourse with that infected partner. For STD counseling one-to-one interaction method is adopted. If a counselor determines that the patient should be referred to a VCTC, the counselor accompanies the patient to the VCTC.

When GOAL started, everybody was apprehensive of the success or acceptability of the concept of organized effort in this field. However, it targeted “co-habitation”, rather than acceptance, as a goal. It was motivated by the success of the Sonagachhi project and the founding principle was “be safe and empower yourself”. Initially, grappling with the legal system and police was difficult. Over time, the problems have lessened.

MESSAGE DEVELOPMENT

WORD: language has been a major concern and problem while developing messages. Most of the people among the target population are from the Hindi belt and so most of the messages have to be developed in Hindi. This creates problems. Since most of the target members are laborers who are far from their families, they maintain telephone numbers of their home contacts. WORD has developed a diary to help them in this task. Its cover has a catchy slogan with a photo. The slogan is “Kaun Banega AIDS Pati”, an obvious take on the “Kaun Banega Crorepati” TV quiz program. On the front and back of the diary, information about HIV/AIDS is printed. Another idea, based on a principle borrowed from a newspaper, Divya Bhaskar, is the AIDS sticker. When the NGO workers visit a house for BCC, they put up a sticker on the door of the house. It contains an HIV/AIDS message. It reminds the health workers that they have visited the house when they visit the area next time. The NGO has also borrowed ideas from Kodak film and Click tobacco, and created catchy and humorous sketches to tell the people about the availability of condoms at the place. Messages for women contain additional information on menstruation and reproductive elements. In addition, the NGO staff come up with innovative ideas to overcome shyness. For instance, when talking about reproductive organs was difficult, they developed pieces of cloth with diagrams of the reproductive organs. During group meetings, the workers wear these around their waists and people would glance at the drawing. This strategy is reported to be successful.

WORD has also created a self-help group, which assists in the dissemination of messages among the community, and in organizing cultural programs and plays. During the breaks in such programs, messages pertaining to HIV/AIDS are given. Video shows and street plays are also organized, drawing on popular stories like the monkey and its master (Madaari Bandar), and puppet shows. The shows observed are very attractively produced and touched on people’s basic necessities while propagating HIV/AIDS messages. Other ideas used include a big umbrella (for shade) with HIV/AIDS messages where laborers gather, the “Garbha on wheel” in which NGO members move around in a vehicle for garbha dances and dissemination of information about HIV/AIDS. Most of the messages have high pictorial content. This overcomes the problem of lack of literacy. Another method the NGO has aggressively adopted is wall painting in which messages are written on a variety of walls. The target of most of these messages is a general audience.

In **SWAR**, the criteria that are used to develop messages are level of literacy, local language and idiom, culture of the fishermen, mock demonstrations by peer educators. The pictorial content is high. Elements from the daily life of fishermen (like boats and fish) are included. Catchy slogans like “*Log jaage, AIDS bhaage*”, have also been developed. PRERNA believes that not hurting the sentiments of the target population is the key consideration while developing messages. The health workers have developed a variety of games (like Snakes and ladders containing HIV/AIDS information) and songs based on popular movie tunes. Musical nights for fishermen which are developed around songs related to the fishing community and to HIV/AIDS, are another commonly used medium. Bullock cart races and cricket competitions are also organized and the interest of the people attending directed towards HIV-related messages during the breaks. In addition to using popular culture-related practices, the NGO has also developed literature on HIV/AIDS, which can be used as labels on matchboxes. The messages and the material developed are also displayed at larger functions like the coastguard fair.

At **LAMP**, sex workers and peer educators play a key role in message development. The language and practices of sex workers are kept in mind during the development of these messages. Pre-testing checks whether the tone and content of the messages are appropriate and sensitive to the sentiments of sex workers. The messages are designed to be brief and striking. Lack of adequate literacy is one of the biggest problems of the sex workers. They hail from the poorer socio-economic strata and have very little education. Hence, the focus has been on pictorial messages with short texts in the form of general conversations. Since Bangla speakers constitute a large proportion of the CSWs, it has become necessary to employ a person proficient in Hindi and Bangla. Prevention of mother to child transmission has been a major concern for the sex workers who are HIV positive and can become pregnant. Particularly effective messages that focus on preventing mother to child transmission through condoms (preventing unintended pregnancy and transmission of HIV) have been developed. The message provides an emotional touch, so that the CSWs come to realize that their children should not suffer from HIV. The CSWs are also taught to share the information they receive from the NGO with their colleagues and acquaintances. The messages have been developed in the form of booklets and fliers which explain how clients are reluctant to wear condoms and how a CSW persuades him to do so by her knowledge and negotiation skills. Another issue is the demand for oral sex from clients. A message has been particularly appreciated by the CSWs; the NGO’s surveys also indicate a number of problems among the CSWs related to the high demand of oral sex. A whole range of messages focuses on the use of condoms to prevent STD and HIV transmission. These have attempted to improve the condom knowledge and negotiation skills of CSWs. The health workers who have to communicate these messages to the CSWs themselves have to undergo training to change their own discomfort in matters like the feel of rubber in their own mouths.

GOAL has developed material keeping in mind its focus on a one-to-one contact strategy. Messages are in English as well as in the local language. The content includes primary information on HIV/AIDS, condom use and other methods of prevention and treatment of STD. The vernacular version is captioned “*Tamara Prashnona Uttaro*” (Answers to Your Questions). Another set of pictorial messages includes information on condoms, and the myths and misconceptions associated with condoms and STD. The NGO has also produced articles like key rings with printed messages on spreading awareness about AIDS. In general the reliance on printed matter (leaflets, for instance) is high and the material is meant for use by PEs. What messages do the wider media and transmission-oriented channels convey, and

how PEs can weave and interpret them into the local social networks through which they communicate, are issues of media-handling education which need attention.

TRAINING AND MONITORING

I WORD, newly appointed ORWs are given primary information about HIV/AIDS, need assessment and the project structure, for about three days. The TAU provides training assistance. PEs are exposed to the use of the materials developed. ORWs are trained in how to develop relationships and in communication. Both ORWs and PEs are trained in conducting one-to-one meetings. PEs are also sent to other organizations for training and on their return, they educate other PEs about their new learning. The format used for tracking focus group discussions, small meetings and other events, includes the extent of discussions on STD and HIV, partner reduction, condom use and availability of condoms, medium of discussion and mode of discussion (play, conversation, story, role play, demonstration, video show) and the people involved in the events. For monitoring there is a format, "Rating of PE's interest", which provides assessments of components like STD care, BCC, condom promotion and building an enabling environment. Rating A implies satisfactory interest, B means medium interest and C denotes low interest. A PE's capacity assessment report is prepared every three months. The monthly meetings of ORWs review target achievements, and if any ORW has not achieved the target, the field officer helps. Annual targets are fixed only for nine months as the remaining three months are kept exclusively for BCC. The focus is on quantitative tracking of some indicators directly related to the HRB population, and the formats are usually derived or replicated from those provided by the state agencies.

In SWAR, the TAU has been instrumental in the training of the staff. Counselors are trained separately. An ORW is given a target as per the population of the area. He/she maintains record of new contacts, old contacts, repeat reach, condom demonstration details, group meeting, one to one meetings etc. The project officer checks these reports on a daily basis and crosschecks the data through field visits. A General Register is also maintained in which details of a high risk behavior person is maintained (age, sex, STD, partner treatment). The Project officer ensures that the ORWs are not only in touch with HRB people, but also open to meeting low risk behavior individuals.

PRERNA uses the following criteria for selecting a PE: gregarious nature, respectable, HRB and educated. The ORW makes this assessment. Formal meetings of PEs and ORWs are used for one-to-one training, group discussion training, STD identification training, partner treatment etc. The project officer provides training to field officers, ORWs and counselors. If project officer has any problem he/she can contact the TAU. The project officer is trained by the TAU in financial management; training of trainers, project management etc. The ORWs are given five days of training by TAU and AIDS programs, need assessment, condom negotiation and communication skills etc. Specialists are also invited to train the staff from time to time. For monitoring, the NGO has prepared a format titled "Location Type of Counseling", comprising clinic reports and field reports. It contains information on counseling given HRBs, pre-STD and post-STD care, pre and post HIV developments, and follow up of these categories, month wise. The daily work formats of the counselors indicate new and repeat counseling, condom distribution, partner treatment, number of beneficiaries; this information is consolidated on a monthly basis. The "ORW achievement sheet" mentions new contacts, repeat contacts, HRB identification, talk on sexual behavior, STD identification and treatment of HRB, partner treatment, re-infection etc.

At LAMP, when a new staff member joins he/she is first told about the entire project structure and field work, and sensitized about HIV/AIDS. Training focuses on enhancing observation skills, group identification and communication skills. Communication and observation are important, as the sex workers have to be identified and their trust has to be won. There are 15 volunteers and 5 ORWs who are trained in the organization and by the TAU. An outside trainer also trains the staff. Some ORWs are trained to contact brokers. They are also trained in keeping the health status of a sex worker confidential. The field officer and project officer trains all the 25 peer educators. PEs and ORWs make the sex workers aware of the consequences of HIV/AIDS. The entire fieldwork staff is trained in MSM, bisexuals and transvestite activities. Counselors are trained in STD patient identification and their post test counseling. They are also trained to provide solace to the patients and take them to the panel doctors or VCTC. If a patient is HIV positive, he or she is sent to an organization of HIV positive people based in the city. LAMP has created a panel of sex worker when they visit a brothel with the health workers. The project officer (Figure 5.5.4) does monitoring and sets the monthly targets for the ORWs. The TAU has provided LAMP the formats to record the relevant quantitative data for tracking progress.

At GOAL, an NGO based in a large metropolitan city provided the initial guidance and primary training in need assessment. The role of VSACS in facilitating this training and supplementing it is appreciated by GOAL's founder. GOAL is a member of Indian Networks for Sexual Minority (INFOSEM), a group of community-based organizations across India. This organization helped them initially in MSM message development, but the support has not been sustained. Monthly meetings of the 43 PEs are used for training. The training emphasizes the identification of MSM, which is a major problem. Every PE has to move to an area not allotted to her/him, to solve problems in a different context. The workers also visit schools and colleges and so are trained in how to handle these environments. When a new staff member joins, he/she is trained by the project officer and then by VSACS. This training includes basic information on HIV/AIDS, status of MSM, identification of MSM, STD treatment, partner reduction, safe sex practices like proper and consistent use of condoms. A special area of focus is the role of inebriation and drug addiction in increasing the chance of transmission of HIV. Counselors are specially trained in this aspect. The PEs also take care of the stocks of the condoms in the 90 condom depots, 40 of which are in toilets. The records of the contacts, when to contact the next time, and target achieved by the staff in condom distribution, are noted carefully. There are no targets in terms of new person contact, but condom distribution, targets are always fixed. The entire reporting documents are provided by VSACS/TAU (monthly information system, which includes HRB identification, STD treatment, condom distribution, enabling environment activities).

ISSUES AND CONCERNS

Dr. Verma then noted some of the positive results mentioned in the "NGOs and BCC" report. It appeared that the field workers intuitively rated the one-to-one contact strategy as very useful. It struck him that perhaps the interpretation and discussion of messages in local workers was more important in the Indian and non-western cultural context. He also noted that though there were problems in areas where mobility of CSWs was high; increase in condom use had been cited as a success. Reducing multiple partners has been hard to address, but a positive sign was the use of condoms during most encounters. Dr. Verma was happy to note that in many areas, safe sex practices appear to have increased substantially, as reflected in the sharp increase in condom consumption. There was also less hesitation in asking for treatment of STD at the STD clinics. In the case of GOAL, NGO has organized a

gay mass marriage, and the public and police have welcomed this. These incidents reflect changes in the attitude of society.

Another indicator of success noted in passing was that a person who had been treated for STD now took his/her friends or acquaintances directly to the health care providers. Some success had been achieved with a fishing group, with the Maitranees now bringing fewer girls into the sex work profession. The Report also noted that women in general have been more influenced than men have and have shown greater insistence on sexual intercourse with condoms. They were also reported to be more prompt in seeking STD treatment.

Some individual success stories also illustrated the importance of changing behavior. Raju (name changed) a kerosene dealer and liquor supplier, was an HRB person as wherever he used to go he indulged in unsafe sex. His meeting with the NGO during the need assessment and the role of peer educator that he was offered helped him realize the risky behavior he was engaging in. When he went to jail, he got involved in peer education, and now works as a PE in one of the jails. Raju cites his own case as an example of successful BCC, and speaks of the danger to his life that he was facing. Naina (name changed) was married to a drunkard and this pushed her into sex work. She married second time, but whenever her husband went out of town, when indulged in unsafe sex with various people. The NGO team contacted Naina and started involving her in every meeting. The interaction made her realize her risky sexual behavior. She started using condoms with her partners. The change in her behavior is attributed to repeated contacts and playing some role in the meetings that the NGO conducted. The NGO believed that repeated contact and formation of self-help groups were the primary factors in BCC success.

At the same time, Dr. Verma knew that more cases of infection were being reported. His NGOs were covering at the most 40 to 50 percent of the persons known to indulge in high risk behavior. Perhaps even this was an optimistic estimate. Some of the problems noted in the report were the following:

- Information provided to PEs should be updated regularly. ORWs training and knowledge updating by TAU (as in the case of project officers) should improve. ORWs also need some counselor training. In general, the cadres closest to the target populations could do with more attention.
- There is scope for a more “bottom-up” approach. Planning is best when it relies on the knowledge of local NGOs and local people. Though transmission of information and messages was necessary, how the PE level could tap into this messaging was an issue to be addressed. In addition, many field personnel felt that the messages that should help in creating a supportive environment (in contrast to helping direct contact with HRB people) were not adequate or targeted properly.
- Materials should be available in the non-local languages like Hindi because migrants are mostly from the Hindi and other languages belts. The IEC experience had helped in creating attractive material, but designing materials keeping in mind specific segmentation of the population could do with more professional inputs.
- The understanding of BCC has to be sharpened since very often BCC tends to get confused with IEC. Sometimes the exclusive focus on condom promotion can hinder the

broader BCC goals. At the same time, it must be noted that condom use is not up to satisfactory levels in many areas, and so the condom focus may still be required.

- Treatment for STD among males continues to be underemphasized and poor; there were many instances of stigma and discrimination, indicating that building an enabling environment was easier said than done.
- Though unsafe sex is the main mode of transmission of HIV/AIDS in the areas, other modes have to be anticipated and discussed.
- Interaction among NGOs working on HIV/AIDS and specifically on BCC needs to improve. The advances in BCC are very rapid, but access to the latest information, that too in multiple languages remains poor. If certain new ideas come up, there should be some interaction among NGOs to share their ideas and experiences. Perhaps partnerships with media professionals could also be built into such interactions.
- Meetings of PEs from the different areas can be good mechanisms for sharing experiences and successes and failures in community or local social networks as media for transmitting and interpreting messages at the target population level.
- Advocacy programs have generally not been successful with organs of the state like the police, though there are notable exceptions. In additions, the links among BCC, advocacy and social mobilization are yet to be understood and converted into programmatic interventions.
- There should be uniform and consistent monitoring systems, and frequent changes in the indicators should be avoided.
- Program related problems could come in the way of BCC. For instance, problems in the timely and smooth flow of funds can upset schedules. Suppose an NGO has to organize a camp, but if there are no funds, it has to postpone or cancel the activities.
- Some goals are difficult to achieve. For instance, reducing the number of partners among MSM has been tough. When the organization addresses this issue, it has to face the cultural norms of the MSM, which value multiple partnerships. This, along with the problem of stigma and discrimination against MSM, is formidable barrier, which BCC is supposed to address. Added to that is the stigma attached to HIV+ people among the target population itself. At the moment, strategies to counter these norms effectively are not evident.

After going through these points, Dr. Verma went through an interesting comparison of top-down and participatory approaches to communication (Exhibit 5.4.2). It stressed the importance of integrating social advocacy, mobilization and behavior change in an overall communication framework. The synergy among the three appeared to be critical for effectiveness. Many of these points were reiterated in an additional note that had an operational framework of BCC strategy development and the challenges to BCC (Exhibit 5.4.3). Dr. Verma was reminded about several sensitive programs made on PLHAs in various countries and telecast on respected channels like BCC. Could not something similar be made for the local context, if only to create a more understanding environment?

Dr Verma felt that he had to at least answer three questions

(1) Given the 7-step model, which step could be considered strong and which ones weak in the experience of the NGOs?

(2) Enabling environment indicators seemed to be a weak are. Could he come up with a list of indicators that would help tract enabling and supportive environment creation?

(3) A key problem area seemed to be a weakness in integrating social mobilization, advocacy and BCC. PEs and ORWs were doing a reasonably good job. But, how would media-handling education work out in practice, so that an integrated communication framework could shape BCC strategies?

Figure 5. 4.1 PRERNA: Segmentation of migrant fishermen

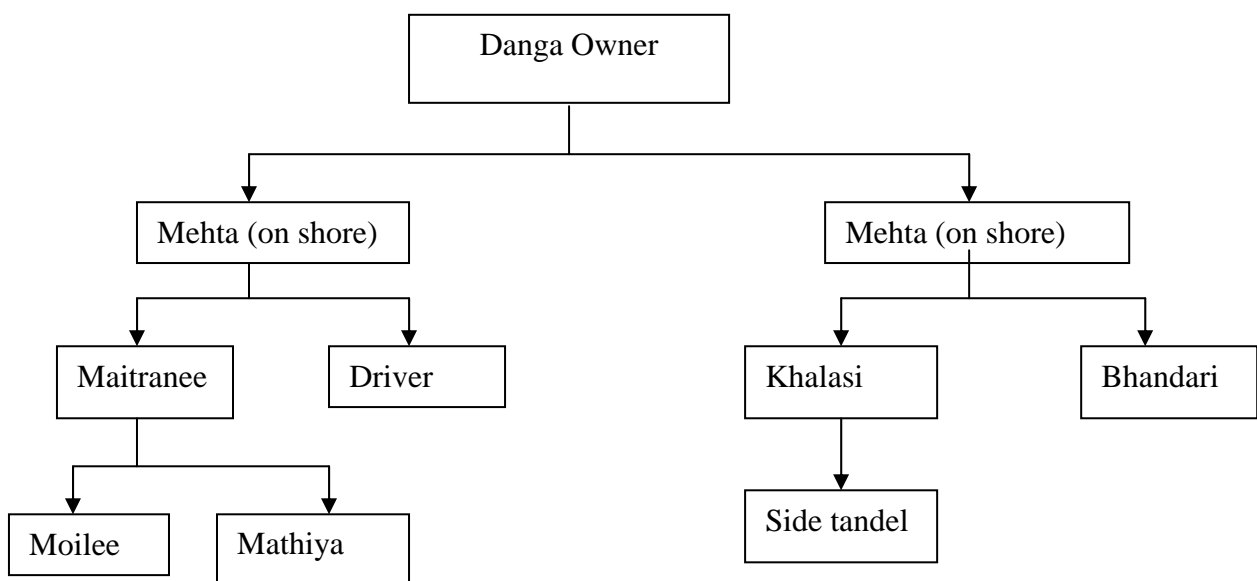


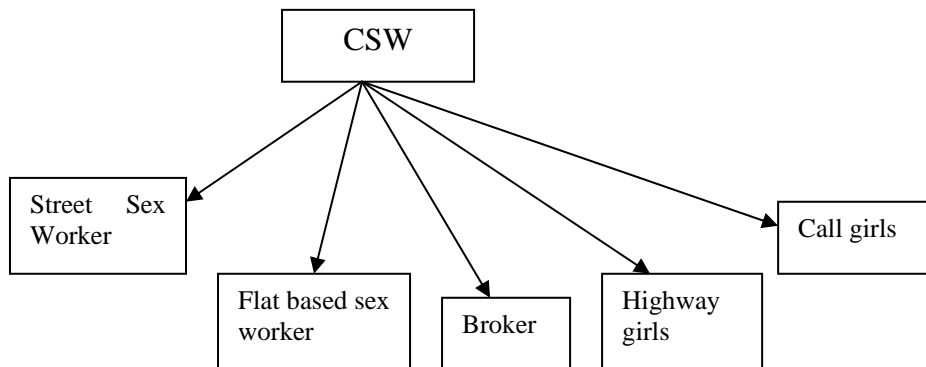
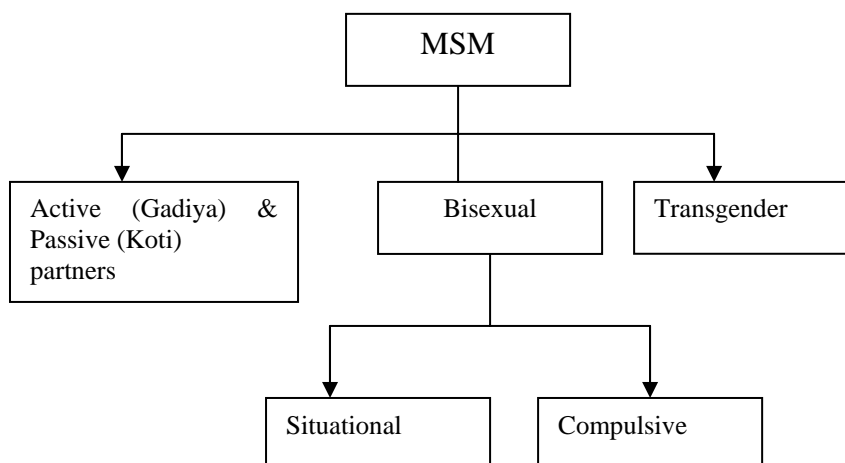
Figure 5. 4.2 LAMP Segmentation of CSWs**Figure 5. 4.3 GOAL: Segmentation of MSM**

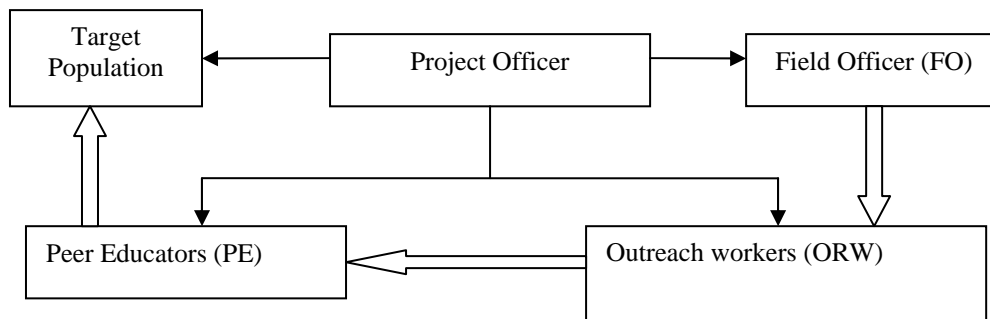
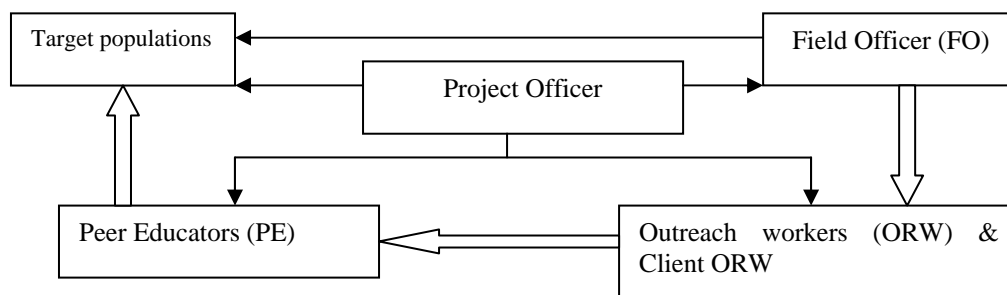
Figure 5. 4.4 Monitoring and Reporting Structure, LAMP**Figure 5. 4.5 Monitoring and Reporting Structure, GOAL**

Exhibit 5. 4.1 Report on “NGOs and BCC”: Introduction

Behavior change Communication (BCC) is one of the dimensions of a broader communication framework that, through its programs, aimed at reducing the prevalence of HIV/AIDS and providing appropriate care and support to the affected. Simply put, “Behavior Change Communication (BCC) is an interactive process with communities to develop tailored messages and approaches using a variety of communication channels to develop positive behaviors; promote and sustain individual, community and societal behavior change; and maintain appropriate behaviors” (FHI, 2004). It is thus an integral part of an overall control program, and seeks to provide a foundation for responsible and caring interventions. The main goals of BCC programs include: increasing knowledge about HIV/AIDS; stimulating community dialogue on high risk behavior/settings; addressing cultural practices related to sexuality; promoting healthcare-seeking behaviors for prevention, care and support; advocating for reduction of stigma and discrimination against HIV/AIDS affected; promoting services for prevention, care and support, and, at the individual and community levels, improving a sense of self -efficacy.

This report draws on the experiences of five (WORD, SWAR, PRERNA, LAMP, GOAL) of the approximately 100 NGOs which are implementing BCC programs in Varsha state, to identify field level process issues that support or can refine some of the guidelines laid down in the national level BCC Strategic Framework for HIV/AIDS control programs (NACO, 2007). In so doing, it will seek to examine these issues in the light of the two goals of the national framework; reducing transmission and prevalence of HIV/AIDS through effective prevention activities and improving the care and support and access to treatment of PLHAs through effective communication initiatives. All the selected NGOs have prior developmental or social work experience in the areas where they work. WORD has been working on health issues of migrant industrial laborers; SWAR has been implementing development projects for about 30,000 fishermen; PRERNA has been working on issues related to social and personal problems of women and girls (family welfare, vocational training, financial help, and shelter to women who have been spurned by their families). LAMP, which has been working with CSWs since 2000, had about 30 years of developmental experience prior to its association with VSACS. GOAL had already started working for the rights of MSM when it took up AIDS control work. In other words, the NGOs brought with them well-established rapport with local communities and high credibility in the geographical areas they covered.

Exhibit 5. 4.2 Behavior Change Communication in the framework of Development Communication

Two Perspectives on Underdevelopment

| | Model I | Model II |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Causes | Backwardness of the individuals in the target population, lack of information or absence of modernization | Power or structural inequalities |
| Explanations | Cultural, individual psychological, behavioral/attitude change | Social, socio-political issues have to be addressed for sustaining change |
| Communication | Individual, sender-receiver transmission focus is strong | Community-centered, participatory communication is an end |
| Dominant models | Behavior change models Provide information/ideas to change behavior (communication as an instrument of information transfer) Stages of adoption or change | Participatory theories: communication channels have to be used to promote people's participation in their development |
| Media | Mass media as a tool for modernizing attitudes | Mass media messages to supplement messages spread through local discussions, networks, direct interaction |
| Key assumptions | Pro-persuasion; development support communication is necessary (leaflets, posters etc.); flow is from media to opinion leaders +opinion leaders to masses Individuals are in a position to take autonomous action based on intent to perform, as determined by cost benefit analysis | Transforming social conditions (which are the target of interventions); communication as process of exchange or ideas for improvement/evaluation Barriers to communication process (illiteracy for instance) critical |

Main examples in Practice of Model I:

Social Marketing: An important example of Model I is Social Marketing-a field which originally developed as a response of the discipline of marketing to pressures for social relevance and social responsibility. It uses the techniques or marketing to promote pro-social behavior or voluntary behavior to improve personal and social welfare. Examples of such techniques are theories of consumer behavior, understanding consumer needs and how they can be met. It is based on an "exchange model", that is, individuals, groups and

organizations exchange resources for the perceived benefits of purchasing products. Its basis is similar to that of modernization theories: behavior change, persuasion and top-down approach to change, and a sequential model of behavior change (acquisition of knowledge, revision of attitudes, behavior change). Some of the useful concepts it has brought into health communication are segmentation and formative assessments through small group and focus group discussions. The focus on behavior change distinguishes social marketing from education, which may be more concerned with knowledge. Criticisms of social marketing centre around the possibility of manipulating populations and an excessive focus on goals. However, if product or concept positioning and the program design are not done carefully, social marketing can fail, implying that audiences are not easily manipulated. It also holds that the kind of participation it seeks is based on informal awareness among the target groups, and is where market research and positioning in a traditional belief system play a role. In other words, social marketing's focus on customer feedback and orientation implies that the process is consumer driven. Social marketing works best when it takes a long-term perspective; relies on careful segmentation of the population; maps target groups appropriately; and focuses on the role of incentives and developing skills that support behavior change.

Health promotion and health education: Health promotion relies on the view that individual behavior is largely responsible for health problems and thus interventions have to focus on changing personal behavior through an attention to the “personal choice” element. It usually ignores social conditions that facilitate unhealthy behaviors, resulting in underemphasizing the wider social and political processes. In combination with “health education”, it can lead to an integration of individual and social actions. “Health education” refers to learning experiences that facilitate individual adoption of healthy behaviors. It includes various activities like traditional education, social marketing, health communication, empowerment actions, peer education, training of health workers, and community mobilization. Thus, it is a broader framework that includes health promotion and countering social conditions that sustain unhealthy behaviors.

Entertainment- education: Entertainment-education draws on social cognitive theory to emphasize behavior change through the dissemination of information. The theory sees three interacting elements: behavior, personal factors and the environment. While the consequences of response mediate behavior, behavior itself is regulated by cognitive processes that are the response consequences of a behavior are used to form ‘expectations of behavioral outcomes’. This ability to form expectations (positive outcome expectance, to be more specific) is the key to the programmatic interventions. Secondly, the role of vicarious learning is critical in this process—individuals learn behavior by observing role models (especially in the mass media), and imitate socially desirable behavior. Messages have to include role models that are good, bad transitions from bad to good. Thirdly, the expected changes result from ‘self-efficacy’, a belief among individuals that they have the skills and abilities to complete specific tasks. As in social marketing and health education, it deals with social change at individual and community levels, but with systematic research and implementation of educational, pro-social messages through entertainment media as the main area of focus. Entertainment-education strategies can attract large audiences, trigger interpersonal communication and motivate individuals to change behavior. Research shows that they are more effective in stimulating people predisposed to change behavior to engage in a new behavior.

Model II: Participatory theories and approaches

Participatory approaches rely on the systematic utilization of communication channels and techniques to increase people's participation in development, and to inform and motivate rural populations. They believe in a more human, rather than media-centred, approach. The focus is on creating understanding and motivating participation in change, rather than transmitting information. They rely on what is labeled "small group media", through which small groups are enabled to speak to one another and organize themselves. Community-based communication formats such as songs, theater, radio, video (group based) are seen as more useful, since these tools, their use program design and discussion, are under the control of community members themselves. While there may be some key individuals, people in general, are seen as the "agents" of community participation. Some researchers would label this ability to act as their own agents of development as "empowerment", which the key expectations being that the results are sustainable beyond the timeframe of a specific project.

The main criticism of these approaches is that they do not provide an operationalizable format. They demand a fairly long timeframe, which may be difficult when time is of essence. They also address long-term issues, which may be embedded in socio-political inequalities and hence more difficult to tackle. They also usually downplay the importance of mass media. In some contexts, for instance when the local community itself is deeply divided or political contexts are very authoritarian, these approaches do not seem to be suitable. One way of addressing the shortcomings is the involvement of honest brokers like NGOs, who have knowledge of the dynamics of the community and an understanding of community problems. Even in such situations, the ability to handle media inputs and negative media influences (media education) has not received much attention.

Media Advocacy: Media advocacy is the strategic use of mass media to advance social or public policy initiatives, and to promote debate and responsible coverage of health issues. It has to be supplemented by the mobilization of resources and groups in support of issues and policies so that public opinion and decisions can be modified. Like education entertainment, media advocacy includes socially relevant themes in entertainment. However, unlike education entertainment, which directly influences audiences, media advocacy seeks to shape public debate. It is not information-centered, but it tries to build social themes into the content it uses. It relies less on social psychological analyses of individual change, and promotes social changes in the social environment that legitimize certain behaviors. In other words, social conditions are the target of interventions.

Social mobilization: Mobilization is a process through which community members become aware of a problem, and then identify steps for action. The outcome of this process of people taking control over their lives and environment may also be termed "empowerment". Social mobilization differs from social marketing in that it does not target individual interest in changing, but relies on interpersonal channels that can combine with some form of media intervention or advocacy. It seeks to counter simple information transmission with communication as a process in which there is discussion and exchange of ideas on the progress of individual and community improvement.

What is important to understand is that strategies in practice have to draw on a variety of approaches that may be relevant to the situation at hand. Evaluation of the progress towards behavior change is an important managerial challenge-irrespective of donor-driven pressures for short-term, concrete results. While it has been easy to develop some indicators

of short-term behavioral change, assessing the enabling environment does not lend itself easily to development of measurement indicators. If individual behavioral changes have to be induced and sustained in a community context, what indicators would help in tracking that context? Even the long-term impact of behavior change are difficult to assess-the sustainability dimension does not allow easy measurement.

While combining “top-down” and “bottom-up” interventions may be necessary, meshing media advocacy and building the wider enabling environment with local processes that peer educators engage in (changing community-level social conditions) needs more attention. Mass media are no doubt important in disseminating messages, but it is local social networks that play an important role in the diffusion and understanding of new ideas. Similarly, entertainment-education can activate social networks and peer educator approaches in relaxing some of the social conditions like a discussion-inhibiting environment or stigma and discrimination. Local community-based programming, with the help of local networks, local governments and NGOs may have crucial role to play in making messages enter social networks in order to become part of everyday interaction.

Exhibit 5. 4.3 Key features of approach to BCC and challenges

HIV is mainly a sexually transmitted infection, though transmission through injections is also of concern. While transmitting information about HIV/AIDS to the at-risk population is important creating an enabling or supportive environment is also necessary. This requires society and community-wide discussion of relationships, sex and sexuality, risky behaviors and factors that support such behaviors. An enabling environment also addresses stigma and discrimination against HIV/AIDS sufferers. Not addressing stigma can lead to undesirable consequences like ignoring messages of HIV prevention, a sense of complacency (“It will not happen to me”), reluctance to seek treatment services, and perpetuation of discriminatory policies and practices.

BCC goals should be integrated with overall program goals of HIV prevention, and care and support initiatives. In reality this has often been difficult to practice. Target populations should participate in BCC development and implementation. Stakeholders may include policymakers, opinion leaders, community leaders, local families and communities, service providers and PLHA. Identifying target populations is another key task. Primary target populations are those groups that influence the ability of the primary population to maintain appropriate behaviors. Segmentation of the target populations helps in targeting messages. The population segments are defined by psychosocial characteristics (knowledge, attitudes and practices, role in society, authority) and demographic characteristics (age, place of birth, religion etc.). The task of involving target groups becomes difficult in highly diverse countries, communities and cultures.

BCC objectives have to be derived from behavior change objectives. For instance, some change objectives are safer sex practices like specified levels of condom use and reduction in number of partners; seeking treatment; better persistence with specified drug treatment regimes. Other change objectives are harder to define, implying greater difficulty in developing programs for BCC and in deriving indicators to measure behavior change. Examples include reduction of stigma; and discrimination against PLHA; improved attitudes among service delivery personnel; increased involvement of politicians and policymakers; community mobilization for HIV/AIDS prevention. A clear understanding of BCC needs and objectives should result in an overall theme that will hold all the BCC messages together.

BCC initiatives should rely on multiple communication channels and the materials developed should be pre-tested for effectiveness. Current wisdom indicates that the theme and messages should be positive, since the previous generation messages that relied on fear and damnation tended to reduce the emphasis on what vulnerable populations could do. Positive messages also avoid the tendency to blame specific groups and the tendency to believe that it can happen “only to others”. In other words, positive messages can also be seen as the further refinement of “benefit statements”. Given the new emphasis on interpretation of messages by social networks, messages need to be targeted clearly at segments of the population. Therefore, the importance of peer education can not be overemphasized. Peer educators not only have more acceptability, but they can also model positive behaviors.

A monitoring and evaluation plan would address questions relating to reach, coordination of messages with service and supply delivery; the fit (Scope) between messages audiences, and services, the quality of the messages, media and channels, and feedback on implementation. This is easier said than done, because the needs of target populations change constantly and

resources have to be pumped in steadily. Also, the number of new infections usually outpace prevention activities.

Communication capacity-building among partners, counselors and peer educators is essential. Especially, peer educators need to be skilled in integrating messages from the wider media into local discussion networks. Advocacy training is important in creating a supportive environment. The use of trained media professionals perhaps needed to be emphasized more.

5.5 MIS For Targeted Interventions

It is estimated that more than 68% of HIV transmission in Gujarat is through unprotected sexual intercourse or sharing of injecting equipment (GSACS, 2007). Such a behavior aspect has to be addressed with specific Target Interventions (TIs).

TIs are aimed to effect behaviour change through awareness raising among the high risk groups (HRGs) and clients of sex workers or bridge populations. Given the HRG's (MSM, FSW, IDUs) special vulnerabilities, prevention strategies include five elements:

- Peer-led NGO supported outreach interpersonal behaviour change communication,
- Linkages to STI services (sexually transmitted infection),
- Monitoring access to and utilisation of condoms,
- Building community ownership and
- Creating an enabling environment.

Currently in Gujarat, about 52 NGO are working under more than 80 targeted interventions programmes (as of January 2008). For purpose of understanding the TIs in MSM and FSW programs, two cities in Gujarat; namely, Rajkot and Vadodara have been selected for illustration.

Vikas Jyot Trust Vadodara is a registered trust organisation since 1974. Its activities are mainly focused on women and child empowerment. The organisation is managing two major projects, namely, UNICEF initiated 'Street Children Project' (since 1994), supported by the Ministry of Social Welfare, and NACO initiated TI for FSW (Since 2000).

Vikas Jyot's operations are mainly in and around Vadodara city. It is in regular contact with about 1500 FSWs, since January 2008. This NGO has taken several initiatives like education of children of FSW, creating a bank account for them, doing a police advocacy programme, motivational activities such as celebrating Navratri function with them, organising a fashion show event for them, and so on.

Apart from TIs, Vikas Jyot is also managing a working women's hostel, 19 day care centres across the city, training on production of bakery items, legal aid centre, women advice centre 'Mahila Maagdarshan Kendra' and women development centre. The NGO sites are also participating in the sentinel surveys since 2004.

Life line Health Organisation, Rajkot was registered in 1999 and has been working on public health issues in general. Since 1st May 2004, it is involved in a project for FSW, besides managing a trust based 'Suvidha' medical store, Consumer welfare project funded by central govt, and so on.

For the FSW project, Lifeline Health organises social meetings 'Sneh Milan' on Diwali, celebrates 'Rakshabandhan' with HIV positive people (FSW) network, vocational courses like photography training, micro- insurance for FSWs, and advocacy meetings for lawyers to

Case prepared by Prof KV Ramani and Dr. Amar Shah of the Centre for Management of Health Services (CMHS), Indian Institute of Management, Ahmedabad, as a basis for classroom discussion. Cases are not designed to present illustrations of either correct or incorrect handling of administrative problems. We would like to acknowledge excellent support received from Gujarat State AIDS Control Society in preparing this case.

sensitise them with the FSW issues and concerns. It is also one of the sentinel sites for HIV since year 2004. This NGO is in regular contact with about 1500 FSWs since January 2008.

Lakshya Trust Vadodara is a registered organization and CBO (Community Based Organization) since 2000. It operates from Baroda, Rajkot and Surat cities, with a staff of 60 and more than 200 Peer Educators. The main activities include looking after the legal, social, sexual and mental health of the sexual minority population. It also is active in RCH activities in 11 villages in Chota Udaipur taluka, working towards awareness creation for facilities and services available at the health centers. The organization is also one of the sentinel sites since 2004. Its various activities for sexual minority community include:

- Creating awareness through sending postcards to community , advocacy programmes with lawyers, media involvement in removing the social stigma attached to MSM (for example changing the terminology abnormal sexuality to gay)
- Working for transgender population on mental health (counseling, family quarrel, hypnotherapy..)
- Creating HIV+ve people network among MSMs; Registration, ART services etc

As per the information given by the Project officer, this NGO is in regular contact with 8000 bisexual and homosexuals out of about 20000 such people.

Lakshya Trust Rajkot was established in 2004 following the need assessment done by GSACS. It is in regular contact with about 755 MSMs, and 150 transgender population. Its main activities are similar to the Lakshya Trust, Vadodara.

Reporting system: All the above mentioned NGOs report their activities to PSUs every month; see Exhibits 5.5.1 to 5.5.4 on their financial expenditures. The monthly reports submitted by these NGOs to GSACS for the month of January 2008 are given in Exhibits 5.5.5 to 5.5.8

Fund allocation: GSACS and PSU do the annual evaluation of the NGOs based on NACO guidelines (Exhibit 5.5.9). On the basis of evaluations, each NGO gets the funding. Fund is released through 4 instalments on the basis of targets achieved each quarter.

Can you comment on the performance of these NGOs?

**Exhibit 5. 5.1 Vikas Jyot
Vadodara**

1-January 2008 to 31-January 2008

| Particulars | Expenditure (Rs.) |
|-----------------------------------|-------------------|
| Programme Management | |
| Project Officer salary | 8480 |
| Accountant | 5040 |
| Office running expenses | 5951 |
| Office space | 800 |
| Programme Delivery | |
| Client outreach worker | 1200 |
| Community events | 37 |
| Condoms | 2545 |
| Cost of drugs | 1528 |
| Cost of Treatments | 600 |
| Honorarium GIPA | 500 |
| Influencing Community Influencers | 1275 |
| Local Conveyance | 7108 |
| Peer Educators | 17900 |
| PLWHA support | 400 |
| Recruitment Cost | 906 |
| Salary Counselor | 6580 |
| Salary Out Reach Worker | 25586 |
| Salary Senior ORW | 7430 |
| Total | 93866 |

Source : GSACS ,Ahmedabad

**Exhibit 5. 5.2 Lakshya Trust
Vadodara**

1-January 2008 to 31-January 2008

| Particulars | Expenditure (Rs.) |
|-------------------------------|-------------------|
| Programme Management | |
| Accountant/Office Asst. | 4980 |
| Computer Peripherals | 4610 |
| Field Officer | 14270 |
| Internet Exp. | 730 |
| Office Maintenance | 2963 |
| Office Rent | 5000 |
| Office Running Exp. | 1098 |
| Office Setting Up Cost | 2389 |
| Phone, Fax, Postage & Courier | 5851 |
| Project Officer | 8760 |
| Stationary & Photocopies | 6076 |
| Travelling General-Accountant | 800 |
| Water & Electricity | 790 |
| Programme Delivery | |
| BCC | 36350 |
| Enabling Environment | 66600 |
| Desirable Cost | |
| DIC Rent | 5000 |
| Maintenance of Equip | 500 |
| Social Mktg. Condoms | 2685 |
| Rolling Fund | |
| Total | 169452 |

Source : GSACS Ahmedabad

Exhibit 5. 5.4 Lakshya Trust Rajkot

1-January 2008 to 31-January 2008

| Particulars | Expenditure (Rs.) |
|------------------------------------|----------------------|
| Programme Management | |
| Project Officer salary | 8000 |
| Accountant | 5500 |
| Office running expenses | 4424 |
| Office space | 5500 |
| Programme Delivery | |
| Desirable Cost | |
| Condom Procurement | 60 |
| Documentation | 1375 |
| STD | 10976 |
| Enabling Environment | |
| Advocacy | 499 |
| Monitoring & Evaluation | |
| PLWA Support | 343 |
| Networking | |
| NACP NGO meeting | 780 |
| Peer Educator | 67500 |
| Salary Counselor | 6500 |
| Salary Out Reach Worker | 35500 |
| Traveling | 11100 |
| Total | 158057 |

Source : GSACS ,Ahmedabad

Exhibit 5.5.3 Life Line Health Organization Rajkot

1-January 2008 to 31-January 2008

| Particulars | Expenditure (Rs.) |
|---------------------------------|----------------------|
| Office Expenses | 6258 |
| A-Video Show Expenses | 150 |
| Big Meeting Exp | 200 |
| Condom Pouch for CSWS | 7500 |
| DIC Rent Expenses | 3505 |
| Honorarium to Project Manger | 10000 |
| Material for clients | 4000 |
| Office Rent Expenses | 4500 |
| P E Meeting Expenses | 280 |
| Salary of Accountant | 5000 |
| Salary of Counselor Exp | 6825 |
| Salary of ORW Exp | 30250 |
| Salary of Peer Educator | 23200 |
| Salary of Project Officer | 8400 |
| Small Meeting Exp | 152 |
| Social Marketing Exp | 3048 |
| Travel Cost for Program Purpose | 8400 |
| Traveling General-Accountant | 800 |
| Total | 122468 |

Source : GSACS ,Ahmedabad

Exhibit 5. 5.5 Vikas Jyot Trust, Vadodara Monthly CMIS report, Jan 2008

| PROPOSED Monthly CMIS DATA ENTRY FORMAT for NGOs | | | | | | | | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------|---------|---|---|---|--------|------------------|---------------------|--------|-------------|-----|
| Unique ID No of NGO TI | | NACO | State | | | | | | District | TI-HRG | Project Cod | CID |
| NAME of NGO | | Vikas Jyot, Baroda | | | | | | | | | | |
| Reporting Period (MM/YYYY) | 1 | 2008 | E-mail: | | | | | | | | | |
| Name of Officer in charge | | | Phone | | | | | | | | | |
| A.OUTREACH COVERAGE | | | | | | | | | | | | |
| 1.Outreach Coverage: | | FSW | | | | | | New | Repeat | Total | | |
| 1.1 Number of FSW registered/contacted individually through outreach activities this month by NGO staff/ORW using BCC materials | | | | | | | 18 | 558 | 576 | | | |
| 1.2 Number of FSW contacted by peer educators using counselling material | | | | | | | 10 | 1457 | 1467 | | | |
| | | | | | | | Number | Total Attendance | | | | |
| 1.3 Number of group meetings held with communication aids & Demonstration of Condoms. | | | | | | | 14 | 63 | | | | |
| 2.Outreach Coverage: | | MSM | | | | | | New | Repeat | Total | | |
| 2.1 Number of MSM registered/contacted individually through outreach activities this month by NGO staff/ORW using BCC materials | | | | | | | 0 | 0 | 0 | | | |
| 2.2 Number of MSM contacted by peer educators using counselling material | | | | | | | 0 | 0 | 0 | | | |
| | | | | | | | Number | Total Attendance | | | | |
| 2.3 Number of group meetings held with communication aids & Demonstration of Condoms. | | | | | | | 0 | 0 | | | | |
| 6.Outreach Coverage: | | Clients of SW | | | | | | New | Repeat | Total | | |
| 6.1 Number of Clients of SW registered/contacted individually through outreach activities this month by NGO staff/ORW using BCC materials | | | | | | | 0 | 0 | 0 | | | |
| 6.2 Number of SW contacted by peer educators using counselling material | | | | | | | 0 | 0 | 0 | | | |
| | | | | | | | Number | Total Attendance | | | | |
| 6.3 Number of group meetings held with communication aids & Demonstration of Condoms. | | | | | | | 0 | 0 | | | | |
| 6.Outreach Coverage: | | Others | | | | | | New | Repeat | Total | | |
| 6.1 Number of Others registered/contacted individually through outreach activities this month by NGO staff/ORW using BCC materials | | | | | | | 25 | 38 | 63 | | | |
| 6.2 Number of Others contacted by peer educators using counselling material | | | | | | | 248 | 131 | 379 | | | |
| | | | | | | | Number | Total Attendance | | | | |
| 6.3 Number of group meetings held with communication aids & Demonstration of Condoms. | | | | | | | 0 | 0 | | | | |
| B. Other IEC activities and advocacy | | | | | | | | | | | | |
| Type of event | Number of events | Type of Participants * (Code1-7) | | | | | | | No. of Participants | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | | |
| Awareness camps | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Health camps | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Street plays | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Drama/Songs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Exhibition | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Advocacy meetings | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Other | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2000 | | | |
| * Type of Participants | | 1.FSW, 2.MSM, 3.IDU, 4. Trucker, 5. Migrants, 6. Clients of SW, 7.Others (Please use the relative box e.g. First Box for FSW) | | | | | | | | | | |
| Source :NACO | | | | | | | | | | | | |

| C . Details of CBO formations | | | | | | | | | | |
|---------------------------------------------------------------------------------------|-----------------|---------------------|--------------------|-----|-----|----------|----------|---------------|------------------------------|-----------------------------|
| | | | HRG Category | | | | | | | |
| | | | FSW | MSM | IDU | Truckers | Migrants | Clients of SW | Others | |
| 1. No. of groups seeking endorsement from community | | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2. No. of groups having road map/work plan | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3. No. of groups completing structural adjustments | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4. No. of groups initiating leadership development | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5. No. of groups involved in community mobilization | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6. No. of groups initiating the process of transition | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7. Number of groups functional | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D . LINKAGES WITH FACILITIES | | | | | | | | | | |
| | | | HRG Category | | | | | | | |
| | | | FSW | MSM | IDU | Truckers | Migrants | Clients of SW | Others | |
| 2.1 No of individual attended at STD clinic this month | | | 10 | 0 | 0 | 0 | 0 | 2 | 0 | |
| a. NGO STD Clinic | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| b. Govt.STD Clinic | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| C. Any other (specify) | | | 10 | 0 | 0 | 0 | 0 | 2 | 0 | |
| 2.1 No of individual treated at STD clinic this month | | | 10 | 0 | 0 | 0 | 0 | 2 | 0 | |
| a. NGO STD Clinic | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| b. Govt.STD Clinic | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| C. Any other (specify) | | | 10 | 0 | 0 | 0 | 0 | 2 | 0 | |
| 2.2 No. of individual provided individual/ family counseling by counsellor this month | | | 26 | 0 | 0 | 0 | 0 | 2 | 0 | |
| 2.3 No. of referrals to ICTC this month | | | 26 | 0 | 0 | 0 | 0 | 7 | 0 | |
| 2.4 No. actual visiting ICTC this month | | | 12 | 0 | 0 | 0 | 0 | 5 | 0 | |
| 2.5 No of Person Found Positive | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2.6 No of referred to other facility (mention) | | | | | | | | | | |
| a. Drug deaddiction | | | | | | | | | | |
| b. DOT Centre | | | | | | | | | | |
| c. Drop in Centre of PLHA | | | | | | | | | | |
| d. ART Centre | | | | | | | | | | |
| f. Any other (specify) | | | | | | | | | | |
| E.a Commodity distribution : Condoms (For all HRG) | | | | | | | | | | |
| | | | Distributed to HRG | | | | | | | |
| Type | Opening Balance | Received this month | FSW | MSM | IDU | Truckers | Migrants | Clients of SW | Distribution through outlets | Balance at the end of month |
| Free | 60938 | 0 | 22679 | 0 | 0 | 0 | 0 | 700 | 11575 | 25984 |
| Social Marketing | 2392 | 4140 | 1666 | 0 | 0 | 0 | 0 | 0 | 569 | 4297 |
| Total | 63330 | 4140 | 24345 | 0 | 0 | 0 | 0 | 700 | 12144 | 30281 |
| Was there any stock out of condoms this month ? (1=Yes/2=No) | | | | | | | | | | |
| E.b Commodity Distribution: For IDUs | | | | | | | | | | |
| Source NACO | | | | | | | | | Numbers / (Y/N) | |

| E.c Commodity Distribution: For MSM | | | | |
|----------------------------------------------------------------|-------------------------------------------------------------------------------|-----------------|----------------------------------------------------------------------|------------------------------|
| No of person receiving tube lubricants | | | | |
| E.d Commodity Distribution: IEC Material | | | | |
| 3.1 Whether IEC Material available in adequate quantity? (Y/N) | | yes | | |
| 3.2 If not,has the request been sent ? (Y/N) | | | | |
| E.e Commodity Distribution: STI Drugs | | | | |
| 3.1 Whether STI Drugs available in adequate quantity? (Y/N) | | yes | | |
| 3.2 If not,has the request been sent ? (Y/N) | | No | | |
| F. Incidents of violence and discrimination during month | | | | |
| 1. Number of incidents of violence and harassment | | | | |
| HRG Category * | Violence by whom # | No of incidents | Brief Description | Brief action taken |
| FSW | Police Staff | 1 | During raid they were on road verbally harassment police arrest them | got bail & relea on same day |
| | | | | |
| | | | | |
| | | | | |
| G. Details of trainings under taken during month | | | | |
| Name of the training | Type \$* | Duration (days) | Participants Category | No. of Participants |
| | | | | |
| | | | | |
| H.a Staff | | | | |
| Staff | Position Sanctioned | Position Filled | No.of trainings during month | Details of training |
| Project Coordinator | 1 | 1 | 1 | 0 |
| Office Administrator/Assistant | 0 | 0 | 0 | 0 |
| Outreach Staff | 6 | 6 | 1 | 0 |
| Peer Educators | 32 | 32 | 0 | 0 |
| Doctor | 0 | 0 | 0 | 0 |
| Nurse | 0 | 0 | 0 | 0 |
| Counsellor | 1 | 1 | 0 | 0 |
| Any other--1(_____) | 1 | 1 | 0 | 0 |
| Any other--2(_____) | 0 | 0 | 0 | 0 |
| H.b Programme Mangement | | | | |
| 4.1 No. of Review Meeting held with staff: | | | 2 | |
| 4.2 No.of Supervisory visits Undertaken during the month | | | 1 | |
| | | | a.Project Coordinator | 5 |
| | | | b.Supervisor (NGO) | 2 |
| | | | c.District Govt. Office | 0 |
| | | | d.SACS Officials | 0 |
| * HRG Category | 1. FSW, 2. MSM, 3.IDU, 4. Others | | | |
| # Violence by whom | 1. Local Gundas, 2. Pimps, 3. Police, 4. Family Members | | | |
| \$ Discrimination by whom | 1. Health Facilities, 2. Family Members, 3. Local Gundas, 4. Pimps, 5. Police | | | |
| \$* Type of training | 1. Induction, 2.Refresher, Or type Type of Training as others | | | |
| CMIS NACO | | | | |

Exhibit 5. 5.6 Life Line Health Organization, Rajkot, monthly CMIS report Jan,2008

| PROPOSED Monthly CMIS DATA ENTRY FORMAT for NGOs | | | | | | | | | | | | | |
|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------|---|---|----------------------|---|---|---------------------|------------------|--------|-------------|-----|
| Unique ID No of NGO TI | | NACO | State | | | | | | | District | TI-HRG | Project Cod | CID |
| | | | Gujarat | | | | | | | Rajkot | FSW | | |
| NAME of NGO | Life Line Health Organization | | | | | | | | | | | | |
| Reporting Period (MM/YYYY) | 1 | 2008 | E-mail: | | | | | | | | | | |
| Name of Officer in charge | | | Phone: | | | | | | | | | | |
| A.OUTREACH COVERAGE | | | | | | | | | | | | | |
| 1.Outreach Coverage: | | | | | | FSW | | | New | Repeat | Total | | |
| using BCC materials | | | | | | | | | 8 | 1 | 9 | | |
| 1.2 Number of FSW contacted by peer educators using counselling material | | | | | | | | | 1 | 0 | 1 | | |
| | | | | | | | | | Number | Total Attendance | | | |
| 1.3 Number of group meetings held with communication aids & Demonstration of Condoms. | | | | | | | | | 0 | 0 | | | |
| 2.Outreach Coverage: | | | | | | MSM | | | New | Repeat | Total | | |
| using BCC materials | | | | | | | | | 8 | 618 | 626 | | |
| 2.2 Number of MSM contacted by peer educators using counselling material | | | | | | | | | 9 | 1487 | 1496 | | |
| | | | | | | | | | Number | Total Attendance | | | |
| 2.3 Number of group meetings held with communication aids & Demonstration of Condoms. | | | | | | | | | 24 | 140 | | | |
| 6.Outreach Coverage: | | | | | | Clients of SW | | | New | Repeat | Total | | |
| NGO staff/ORW using BCC materials | | | | | | | | | 0 | 0 | 0 | | |
| 6.2 Number of SW contacted by peer educators using counselling material | | | | | | | | | 0 | 0 | 0 | | |
| | | | | | | | | | Number | Total Attendance | | | |
| 6.3 Number of group meetings held with communication aids & Demonstration of Condoms. | | | | | | | | | 0 | 0 | | | |
| 6.Outreach Coverage: | | | | | | Others | | | New | Repeat | Total | | |
| staff/ORW using BCC materials | | | | | | | | | 0 | 0 | 0 | | |
| 6.2 Number of Others contacted by peer educators using counselling material | | | | | | | | | 0 | 0 | 0 | | |
| | | | | | | | | | Number | Total Attendance | | | |
| 6.3 Number of group meetings held with communication aids & Demonstration of Condoms. | | | | | | | | | 0 | 0 | | | |
| | | | | | | | | | | | | | |
| B. Other IEC activities and advocacy | | | | | | | | | | | | | |
| Type of event | Number of events | Type of Participants * (Code1-7) | | | | | | | No. of Participants | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | | | |
| Awareness camps | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Health camps | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Street plays | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Drama/Songs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Exhibition | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Advocacy meetings | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| * Type of Participants | 1.FSW, 2.MSM, 3.IDU, 4. Trucker, 5. Migrants, 6. Clients of SW, 7.Others (Please use the relative box e.g. First Box for FSW) | | | | | | | | | | | | |
| CMIS NACO | | | | | | | | | | | | | |

| C . Details of CBO formations | | | | | | | | | | |
|---------------------------------------------------------------------------------------|-----------------|---------------------|--------------------|----------|----------|---------------|----------|---------------|------------------------------|-----------------------------|
| | HRG Category | | | | | | | | | |
| | FSW | MSM | IDU | Truckers | Migrants | Clients of SW | Others | | | |
| 1. No. of groups seeking endorsement from community | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| 2. No. of groups having road map/work plan | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| 3. No. of groups completing structural adjustments | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| 4. No. of groups initiating leadership development | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| 5. No. of groups involved in community mobilization | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| 6. No. of groups initiating the process of transition | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| 7. Number of groups functional | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| D . LINKAGES WITH FACILITIES | | | | | | | | | | |
| | HRG Category | | | | | | | | | |
| | FSW | MSM | IDU | Truckers | Migrants | Clients of SW | Others | | | |
| 2.1 No of individual attended at STD clinic this month | 31 | 0 | 0 | 0 | 0 | 1 | 0 | | | |
| a. NGO STD Clinic | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| b. Govt.STD Clinic | 8 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| C. Any other (specify) | 23 | 0 | 0 | 0 | 0 | 1 | 0 | | | |
| 2.1 No of individual treated at STD clinic this month | 31 | 0 | 0 | 0 | 0 | 1 | 0 | | | |
| a. NGO STD Clinic | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| b. Govt.STD Clinic | 8 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| C. Any other (specify) | 23 | 0 | 0 | 0 | 0 | 1 | 0 | | | |
| 2.2 No. of individual provided individual/ family counseling by counsellor this month | 77 | 0 | 0 | 0 | 0 | 10 | 0 | | | |
| 2.3 No. of referrals to ICTC this month | 6 | 0 | 0 | 0 | 0 | 1 | 0 | | | |
| 2.4 No. actual visiting ICTC this month | 1 | 0 | 0 | 0 | 0 | 1 | 0 | | | |
| 2.5 No of Person Found Positive | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| 2.6 No of referred to other facility (mention) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| a. Drug deaddiction | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| b. DOT Centre | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| c. Drop in Centre of PLHA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| d. ART Centre | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| f. Any other (specify) | 1 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| E.a Commodity distribution : Condoms (For all HRG) | | | | | | | | | | |
| Type | Opening Balance | Received this month | Distributed to HRG | | | | | | Distribution through outlets | Balance at the end of month |
| | | | FSW | MSM | IDU | Truckers | Migrants | Clients of SW | | |
| Free | 59670 | 0 | 32617 | 0 | 0 | 0 | 0 | 0 | 8000 | 19053 |
| Social Marketing | 2677 | 5665 | 1163 | 0 | 0 | 0 | 0 | 0 | 1375 | 5804 |
| Total | 62347 | 5665 | 33780 | 0 | 0 | 0 | 0 | 0 | 9375 | 24857 |
| Was there any stock out of condoms this month ? (1=Yes/2=No) | | | | | | | | | | |
| source NACO | | | | | | | | | | |

| E.c Commodity Distribution: For MSM | | | | |
|-----------------------------------------------------------------------------------|---------------------------|-----------------|------------------------------------------------------------------------------|---------------------|
| No of person receiving tube lubricants | | | | |
| E.d Commodity Distribution: IEC Material | | | | |
| 3.1 Whether IEC Material available in adequate quantity? (Y/N) | | | | yes |
| 3.2 If not,has the request been sent ? (Y/N) | | | | |
| E.e Commodity Distribution: STI Drugs | | | | |
| 3.1 Whether STI Drugs available in adequate quantity? (Y/N) | | | | yes |
| 3.2 If not,has the request been sent ? (Y/N) | | | | |
| F. Incidents of violence and discrimination during month | | | | |
| 1. Number of incidents of violence and harassment | | | | |
| HRG Category * | Violence by whom # | No of incidents | Brief Description | Brief action taken |
| fsw | police | 1 | 2 FSW & 1 client travel by bike sliped, charged for drunken driving | |
| 2. Number of incidents of Discrimination | | | | |
| HRG Category | Discrimination by whom \$ | No of incidents | Brief Description | Brief action taken |
| | | | | |
| G. Details of trainings under taken during month | | | | |
| Name of the training | Type \$* | Duration (days) | Participants Category | No. of Participants |
| ORW training | O G NACP-III | 2 days | ORW | 7 |
| PE training | Out reach planning | 1 day | PE | 29 |
| H.a Staff | | | | |
| Staff | Position Senctioned | Position Filled | No.of trainings during month | Details of training |
| Project Coordinator | 2 | 0 | 0 | 0 |
| Office Administrator/Assistant | 0 | 0 | 0 | 0 |
| Outreach Staff | 7 | 6 | 1 | 0 |
| Peer Educators | 30 | 25 | 1 | 0 |
| Doctor | 0 | 0 | 0 | 0 |
| Nurse | 0 | 0 | 0 | 0 |
| Counsellor | 2 | 1 | 1 | 0 |
| Any other--1(_____) | 1 | 0 | 0 | 0 |
| Any other--2(_____) | 0 | 0 | 0 | 0 |
| H.b Programme Mangement | | | | |
| 4.1 No. of Review Meeting held with staff. | | | | |
| 4.2 No. of Review Meeting held with staff in presence of NGO in charge (Director) | | | | |
| 4.3 No.of Supervisory visits Undertaken during the month | | | | |
| | | | a.Project Coordinator | 1 |
| | | | b.Supervisor (NGO) | 1 |
| | | | c.District Govt. Office | |
| | | | d.SACS Officials | |
| * HRG Category | | | | |
| 1. FSW, 2. MSM, 3.IDU, 4. Others | | | | |
| # Violence by whom | | | | |
| 1. Local Gundas, 2. Pimps, 3. Police, 4. Family Members | | | | |
| \$ Discrimination by whom | | | | |
| 1. Health Facilities, 2. Family Members, 3. Local Gundas, 4. Pimps, 5. Police | | | | |
| \$* Type of training | | | | |
| 1. Induction, 2.Refresher, Or type Type of Training as others | | | | |
| CMIS NACO | | | | |

Exhibit 5. 5.7 Lakshya Trust, Vadodara Monthly CMIS report Jan,2008

| PROPOSED Monthly CMIS DATA ENTRY FORMAT for NGOs | | | | | | | | | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------|-------|---------------|---|---|---|--------|---------------------|--------|-------------|-----|--|
| Unique ID No of NGO TI | | NACO | State | | | | | | District | TI-HRG | Project Cod | CID | |
| | | | | | | | | | Vadoda | MSM | | | |
| NAME of NGO | | Lakshya Trust Vadodara | | | | | | | | | | | |
| Reporting Period (MM/YYYY) | | 1 | 2008 | E-mail: | | | | | | | | | |
| Name of Officer in charge | | Phone: | | | | | | | | | | | |
| A.OUTREACH COVERAGE | | | | | | | | | | | | | |
| 1.Outreach Coverage: | | | | FSW | | | | | New | Repeat | Total | | |
| 1.1 Number of FSW registered/contacted individually through outreach activities this month by NGO staff/ORW using BCC materials | | | | | | | | 0 | 0 | 0 | | | |
| 1.2 Number of FSW contacted by peer educators using counselling material | | | | | | | | 0 | 0 | 0 | | | |
| | | | | | | | | Number | Total Attendance | | | | |
| 1.3 Number of group meetings held with communication aids & Demonstration of Condoms. | | | | | | | | 0 | 0 | | | | |
| 2.Outreach Coverage: | | | | MSM | | | | | New | Repeat | Total | | |
| 2.1 Number of MSM registered/contacted individually through outreach activities this month by NGO staff/ORW using BCC materials | | | | | | | | 3 | 179 | 182 | | | |
| 2.2 Number of MSM contacted by peer educators using counselling material | | | | | | | | 1 | 156 | 157 | | | |
| | | | | | | | | Number | Total Attendance | | | | |
| 2.3 Number of group meetings held with communication aids & Demonstration of Condoms. | | | | | | | | 2 | 210 | | | | |
| 6.Outreach Coverage: | | | | Others | | | | | New | Repeat | Total | | |
| 6.1 Number of Others registered/contacted individually through outreach activities this month by NGO staff/ORW using BCC materials | | | | | | | | 0 | 0 | 0 | | | |
| 6.2 Number of Others contacted by peer educators using counselling material | | | | | | | | 0 | 0 | 0 | | | |
| | | | | | | | | Number | Total Attendance | | | | |
| 6.3 Number of group meetings held with communication aids & Demonstration of Condoms. | | | | | | | | 0 | 0 | | | | |
| | | | | | | | | | | | | | |
| B. Other IEC activities and advocacy | | | | | | | | | | | | | |
| Type of event | Number of events | Type of Participants * (Code1-7) | | | | | | | No. of Participants | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | | | |
| Awareness camps | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Health camps | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Street plays | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Drama/Songs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Exhibition | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Advocacy meetings | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Other | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1500 | | | | |
| * Type of Participants | | 1.FSW, 2.MSM, 3.IDU, 4. Trucker, 5. Migrants, 6. Clients of SW, 7.Others (Please use the relative box e.g. First Box for FSW) | | | | | | | | | | | |
| CMIS NACO | | | | | | | | | | | | | |

| C . Details of CBO formations | | | | | | | | | | |
|---------------------------------------------------------------------------------------|-----------------|---------------------|--------------------|-------|-----|----------|----------|---------------|------------------------------|-----------------------------|
| | | | HRG Category | | | | | | | |
| | | | FSW | MSM | IDU | Truckers | Migrants | Clients of SW | Others | |
| 1. No. of groups seeking endorsement from community | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2. No. of groups having road map/work plan | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3. No. of groups completing structural adjustments | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4. No. of groups initiating leadership development | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5. No. of groups involved in community mobilization | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6. No. of groups initiating the process of transition | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7. Number of groups functional | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D . LINKAGES WITH FACILITIES | | | | | | | | | | |
| | | | HRG Category | | | | | | | |
| | | | FSW | MSM | IDU | Truckers | Migrants | Clients of SW | Others | |
| 2.1 No of individual attended at STD clinic this month | | | | | | | | | | |
| a. NGO STD Clinic | | | | | | | | | | |
| b. Govt. STD Clinic | | | | | | | | | | |
| c. Any other (specify) | | | | 33 | | | | | | 8 |
| 2.1 No of individual treated at STD clinic this month | | | | | | | | | | |
| a. NGO STD Clinic | | | | | | | | | | |
| b. Govt. STD Clinic | | | | | | | | | | |
| c. Any other (specify) | | | | 33 | | | | | | 8 |
| 2.2 No. of individual provided individual/ family counseling by counsellor this month | | | | 121 | | | | | | 11 |
| 2.3 No. of referrals to ICTC this month | | | | 8 | | | | | | |
| 2.4 No. actual visiting ICTC this month | | | | 8 | | | | | | |
| 2.5 No of Person Found Positive | | | | 1 | | | | | | |
| 2.6 No of referred to other facility (mention) | | | | | | | | | | |
| a. Drug deaddiction | | | | | | | | | | |
| b. DOT Centre | | | | | | | | | | |
| c. Drop in Centre of PLHA | | | | | | | | | | |
| d. ART Centre | | | | | | | | | | |
| f. Any other (specify) | | | | | | | | | | |
| E.a Commodity distribution : Condoms (For all HRG) | | | | | | | | | | |
| | | | Distributed to HRG | | | | | | | |
| Type | Opening Balance | Received this month | FSW | MSM | IDU | Truckers | Migrants | Clients of SW | Distribution through outlets | Balance at the end of month |
| Free | 31620 | 180000 | 0 | 23611 | 0 | 0 | 0 | 0 | 52426 | 135583 |
| Social Marketing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 31620 | 180000 | 0 | 23611 | 0 | 0 | 0 | 0 | 52426 | 135583 |
| Was there any stock out of condoms this month ? (1=Yes/2=No) | | | | | | | | | | |
| source NACO | | | | | | | | | | |

| E.c Commodity Distribution: For MSM | | | | |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-----------------|------------------------------|---------------------|
| No of person receiving tube lubricants | | | | 260 |
| 1 | | | | |
| 3.1 Whether IEC Material available in adequate quantity? (Y/N) | | | | 1 |
| 3.2 If not,has the request been sent ? (Y/N) | | | | 0 |
| E.e Commodity Distribution: STI Drugs | | | | |
| 3.1 Whether STI Drugs available in adequate quantity? (Y/N) | | | | 1 |
| 3.2 If not,has the request been sent ? (Y/N) | | | | 2 |
| F. Incidents of violence and discrimination during month | | | | |
| 1. Number of incidents of violence and harassment | | | | |
| HRG Category * | Violence by whom # | No of incidents | Brief Description | Brief action taken |
| | | | | |
| 2. Number of incidents of Discrimination | | | | |
| HRG Category | Discrimination by whom \$ | No of incidents | Brief Description | Brief action taken |
| | | | | |
| G. Details of trainings under taken during month | | | | |
| Name of the training | Type \$* | Duration (days) | Participants Category | No. of Participants |
| Bcc Training | 2 | 1 | Peer Educators | 21 |
| | | | | |
| H.a Staff | | | | |
| Staff | Position Sanctioned | Position Filled | No.of trainings during month | Details of training |
| Project Coordinator | 1 | 1 | 1 | 0 |
| Office Administrator/Assistant | 0 | 0 | 0 | 0 |
| Outreach Staff | 9 | 9 | 0 | 0 |
| Peer Educators | 62 | 34 | 0 | 0 |
| Doctor | 0 | 0 | 0 | 0 |
| Nurse | 0 | 0 | 0 | 0 |
| Counsellor | 2 | 2 | 0 | 0 |
| Any other--1(_____) | 1 | 1 | 0 | 0 |
| Any other--2(_____) | 2 | 2 | 2 | 0 |
| H.b Programme Mangement | | | | |
| 4.1 No. of Review Meeting held with staff: | | | | |
| 4.2 No. of Review Meeting held with staff in presence of NGO in charge (Director) | | | | |
| 4.3 No.of Supervisory visits Undertaken during the month | | | | |
| | | | a.Project Coordinator | 10 |
| | | | b.Supervisor (NGO) | 6 |
| | | | c.District Govt. Office | |
| | | | d.SACS Officials | 1 |
| | | | | |
| * HRG Category | 1. FSW, 2. MSM, 3.IDU, 4. Others | | | |
| # Violence by whom | 1. Local Gundas, 2. Pimps, 3. Police, 4. Family Members | | | |
| \$ Discrimination by whom | 1. Health Facilities, 2. Family Members, 3. Local Gundas, 4. Pimps, 5. Police | | | |
| \$* Type of training | 1. Induction, 2.Refreshers, Or type Type of Training as others | | | |
| CMIS NACO | | | | |

Exhibit 5. 5.8 Lakshya trust, Rajkot Monthly CMIS report, Jan 2008

| PROPOSED Monthly CMIS DATA ENTRY FORMAT for NGOs | | | | | | | | | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------|---------|---|---|---|---|--------|---------------------|--------|-------------|-----|--|
| Unique ID No of NGO TI | | NACO | State | | | | | | District | TI-HRG | Project Cod | CID | |
| NAME of NGO | | Lakshya Trust , Rajkot | | | | | | | | | | | |
| Reporting Period (MM/YYYY) | 1 | 2008 | E-mail: | | | | | | | | | | |
| Name of Officer in charge | | | Phone | | | | | | | | | | |
| A.OUTREACH COVERAGE | | | | | | | | | | | | | |
| 1.Outreach Coverage: | | FSW | | | | | | | New | Repeat | Total | | |
| 1.1 Number of FSW registered/contacted individually through outreach activities this month by NGO staff/ORW using BCC materials | | | | | | | | 0 | 0 | 0 | | | |
| 1.2 Number of FSW contacted by peer educators using counselling material | | | | | | | | 0 | 0 | 0 | | | |
| | | | | | | | | Number | Total Attendance | | | | |
| 1.3 Number of group meetings held with communication aids & Demonstration of Condoms. | | | | | | | | 0 | 0 | | | | |
| 2.Outreach Coverage: | | MSM | | | | | | | New | Repeat | Total | | |
| 2.1 Number of MSM registered/contacted individually through outreach activities this month by NGO staff/ORW using BCC materials | | | | | | | | 14 | 741 | 755 | | | |
| 2.2 Number of MSM contacted by peer educators using counselling material | | | | | | | | 0 | 535 | 535 | | | |
| | | | | | | | | Number | Total Attendance | | | | |
| 2.3 Number of group meetings held with communication aids & Demonstration of Condoms. | | | | | | | | 114 | 298 | | | | |
| 3.Outreach Coverage: | | IDU | | | | | | | New | Repeat | Total | | |
| 3.1 Number of IDU registered/contacted individually through outreach activities this month by NGO staff/ORW using BCC materials | | | | | | | | 0 | 0 | 0 | | | |
| 3.2 Number of IDU contacted by peer educators using counselling material | | | | | | | | 0 | 0 | 0 | | | |
| | | | | | | | | Number | Total Attendance | | | | |
| 3.3 Number of group meetings held with communication aids & Demonstration of Condoms. | | | | | | | | 0 | 0 | | | | |
| 6.3 Number of group meetings held with communication aids & Demonstration of Condoms. | | | | | | | | 0 | 0 | | | | |
| 6.Outreach Coverage: | | Others | | | | | | | New | Repeat | Total | | |
| staff/ORW using BCC materials | | | | | | | | 0 | 0 | 0 | | | |
| 6.2 Number of Others contacted by peer educators using counselling material | | | | | | | | 0 | 0 | 0 | | | |
| | | | | | | | | Number | Total Attendance | | | | |
| 6.3 Number of group meetings held with communication aids & Demonstration of Condoms. | | | | | | | | 0 | 0 | | | | |
| B. Other IEC activities and advocacy | | | | | | | | | | | | | |
| Type of event | Number of events | Type of Participants * (Code 1-7) | | | | | | | No. of Participants | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | | | |
| Awareness camps | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Health camps | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Street plays | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Drama/Songs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Exhibition | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Advocacy meetings | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Other | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 226 | | | |
| * Type of Participants | | 1.FSW, 2.MSM, 3.IDU, 4. Truckee, 5. Migrants, 6. Clients of SW, 7.Others (Please use the relative box e.g. First Box for FSW) | | | | | | | | | | | |
| CMIS NACO | | | | | | | | | | | | | |

| C . Details of CBO formations | | | | | | | | | | |
|---------------------------------------------------------------------------------------|-----------------|---------------------|--------------------|-------|-----|----------|----------|---------------|------------------------------|-----------------------|
| | | | HRG Category | | | | | | | |
| | | | FSW | MSM | IDU | Truckers | Migrants | Clients of SW | Others | |
| 1. No. of groups seeking endorsement from community | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2. No. of groups having road map/work plan | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 3. No. of groups completing structural adjustments | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 4. No. of groups initiating leadership development | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 5. No. of groups involved in community mobilization | | | | | | | | | | |
| 6. No. of groups initiating the process of transition | | | | | | | | | | |
| 7. Number of groups functional | | | | | | | | | | |
| D . LINKAGES WITH FACILITIES | | | | | | | | | | |
| | | | HRG Category | | | | | | | |
| | | | FSW | MSM | IDU | Truckers | Migrants | Clients of SW | Others | |
| 2.1 No of individual attended at STD clinic this month | | | | 56 | | | | | | |
| a. NGO STD Clinic | | | | | | | | | | |
| b. Govt.STD Clinic | | | | 10 | | | | | | |
| c. Any other (specify) | | | | 46 | | | | | | |
| 2.1 No of individual treated at STD clinic this month | | | | 56 | | | | | | |
| a. NGO STD Clinic | | | | 0 | | | | | | |
| b. Govt.STD Clinic | | | | 10 | | | | | | |
| c. Any other (specify) | | | | 46 | | | | | | |
| 2.2 No. of individual provided individual/ family counseling by counsellor this month | | | | 35 | | | | | | |
| 2.3 No. of referrals to ICTC this month | | | | 164 | | | | | | |
| 2.4 No. actual visiting ICTC this month | | | | 152 | | | | | | |
| 2.5 No of Person Found Positive | | | | 5 | | | | | | |
| 2.6 No of referred to other facility (mention) | | | | 11 | | | | | | |
| a. Drug deaddiction | | | | 0 | | | | | | |
| b. DOT Centre | | | | 1 | | | | | | |
| c. Drop in Centre of PLHA | | | | 5 | | | | | | |
| d. ART Centre | | | | 2 | | | | | | |
| f. Any other (specify) | | | | 3 | | | | | | |
| E.a Commodity distribution : Condoms (For all HRG) | | | | | | | | | | |
| | | | Distributed to HRG | | | | | | | |
| Type | Opening Balance | Received this month | FSW | MSM | IDU | Truckers | Migrants | Clients of SW | Distribution through outlets | Balance at the end of |
| Free | 118705 | 0 | 0 | 10926 | 0 | 0 | 0 | 0 | 31862 | 75917 |
| Social Marketing | 7430 | 0 | 0 | 1719 | 0 | 0 | 0 | 0 | 0 | 5711 |
| Total | 126135 | 0 | 0 | 12645 | 0 | 0 | 0 | 0 | 31862 | 81628 |
| Was there any stock out of condoms this month ? (1=Yes/2=No) | | | | | | | | | | |
| source NACO | | | | | | | | | | |

| E.c Commodity Distribution: For MSM | | | | |
|----------------------------------------------------------------|-------------------------------------------------------------------------------|-----------------|-------------------------------------------------------------------|---------------------|
| No of person receiving tube lubricants | | | | 132 |
| E.d Commodity Distribution: IEC Material | | | | |
| 3.1 Whether IEC Material available in adequate quantity? (Y/N) | | | | Y |
| E.e Commodity Distribution: STI Drugs | | | | |
| 3.1 Whether STI Drugs available in adequate quantity? (Y/N) | | | | N |
| 3.2 If not,has the request been sent ? (Y/N) | | | | Y |
| F. Incidents of violence and discrimination during month | | | | |
| 1. Number of incidents of violence and harassment | | | | |
| HRG Category * | Violence by whom # | No of incidents | Brief Description | Brief action taken |
| 2 | 1 | 1 | Physical harassment when active partner taken for sexual activity | under process |
| 2. Number of incidents of Discrimination | | | | |
| HRG Category | Discrimination by whom \$ | No of incidents | Brief Description | Brief action taken |
| | | | | |
| trainings under taken during month | | | | |
| Name of the training | Type \$* | Duration (days) | Participants Category | No. of Participants |
| Operational guidelines of CMIS | 1 | 3 | PO | 1 |
| counselor skills | 1 | 3 | ORW,FO | 4 |
| Advocacy,Lobbying | 1 | 5 | FO | 1 |
| H.a Staff | | | | |
| Staff | Position Senctioned | Position Filled | No.of trainings during month | Details of training |
| Project Coordinator | 1 | 1 | 1 | 0 |
| Office Administrator/Assistant | 1 | 1 | 0 | 0 |
| Outreach Staff | 8 | 8 | 1 | 0 |
| Peer Educators | 45 | 45 | 2 | 0 |
| Doctor | 10 | 10 | 0 | 0 |
| Nurse | 0 | 0 | 0 | 0 |
| Counseller | 1 | 1 | 0 | 0 |
| Any other--1(_____) | 1 | 1 | 1 | 0 |
| Any other--2(_____) | 0 | 0 | 0 | 0 |
| H.b Programme Mangement | | | | |
| 4.1 No. of Review Meeting held with staff: | | | | 1 |
| 4.2 No.of Supervisory visits Undertaken during the month | | | | |
| | | | a.Project Coordinator | 2 |
| | | | b.Supervisor (NGO) | 2 |
| | | | c.District Govt. Office | 0 |
| | | | d.SACS Officials | 0 |
| * HRG Category | 1. FSW, 2. MSM, 3.IDU, 4. Others | | | |
| # Violence by whom | 1. Local Gundas, 2. Pimps, 3. Police, 4. Family Members | | | |
| \$ Discrimination by whom | 1. Health Facilities, 2. Family Members, 3. Local Gundas, 4. Pimps, 5. Police | | | |
| \$* Type of training | 1. Induction, 2.Refresher, Or type Type of Training as others | | | |
| CMIS NACO | | | | |

Exhibit 5. 5.9 Evaluation tool for programme delivery

| Area | Indicators | Definition | Frequency of Reporting |
|------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| Peer Engagement | Ratio of HRGs to peer educators | A key measure of adequate resources for peer engagement in outreach. Derived by dividing the size estimation of HRGs into the number of active, paid peer educators. | Quarterly |
| | Proportion of outreach contacts made by peers | Key measure of extent of peers leading outreach activities. Derived by dividing the number of individuals contacted through peers during the month by the number of individuals contacted during the month. | Monthly |
| | Proportion of peers receiving STI consultations during the month | Key measure of peers as role models. Derived by dividing the number of peers receiving STI consultations during the month by the number of active, paid peer educators. | Monthly |
| | Proportion of peers receiving STI consultations who underwent internal/speculum exams | Key measure of peers as role models and early adopters of prevention behaviour. Derived by dividing the number of peers receiving STI consultations who undergo an internal exam with the number of peers receiving an STI consultation. | Monthly |
| | Proportion of peers receiving STI consultations | Key measure of peers as role models and early adopters of prevention behaviours. Derived by dividing the number of peers receiving at least one STI consultation during the quarter, by the number of active, paid peer educators with the programme at the end of the quarter. | Quarterly |

Source: NACO operational guidelines for core TI high risk groups.
http://nacoonline.org/About_NACO/Policy_Guidelines/. Last accessed 16th Jan 2008.

| Area | Indicators | Definition | Frequency of Reporting |
|----------------|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| Service Uptake | Denominator: Number of individual HRGs mapped (as per broad mapping estimate) | Total estimate of individual HRGs mapped in a specific geographical coverage area. Methods of size estimation studies include: mapping, PSA, capture and recapture methods. The standardised methodology used to conduct an estimation must be articulated by the group doing the size estimation, and the updated figure should be entered along with target group, source, month, and year of study. | One-time |
| | Proportion of denominator who are being contacted monthly | Measure of proportion of mapped high risk groups who are being contacted by the programme (through outreach) - the expectation is that all High Risk Group members should be contacted at least once a month. Derived by dividing the number of <i>individuals</i> contacted during the month by the denominator (the number of individual HRGs mapped by the project as per a broad mapping estimate). | Monthly |
| | Proportion of monthly risky sexual acts covered by free condom distribution through peers and depots | Key measure for determining coverage of risky sexual acts through free condom distribution, and if free condom distribution matches up with estimated need. Derived by dividing the number of condoms distributed through free condom distribution by the number of estimated monthly sex acts with clients. If there is a particularly high wastage factor in a particular area due to double usage and breakage of condoms, then the demand can be adjusted accordingly. | Monthly |
| | Proportion of denominator who have ever attended a programme, referral or outreach clinic | Key measure of broad coverage of STI services for HRGs. Derived by dividing the number of high risk group individuals who have visited all types of clinic (programme, referral and outreach) at least once from the beginning of the programme establishment, by the denominator (number of high risk group individuals who were mapped as per a broad mapping estimate). | Cumulative |

Source: NACO operational guidelines for core TI high risk groups.

http://nacoonline.org/About_NACO/Policy__Guidelines/. Last accessed 16th Jan 2008.

| Area | Indicators | Definition | Frequency of Reporting |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| Service Uptake (continued) | Proportion of denominator who come to the clinic every month | Key measure of monthly coverage of STI services for HRGs. Derived by dividing the number of high risk group individuals who have visited the all types of clinic (programme, referral and outreach) at least once during the specified month, by the denominator (number of high risk group individuals who were mapped as per a broad mapping estimate). | Monthly |
| | Proportion of HRGs who come for STI check ups during the quarter | Measure of health seeking behaviour of community with respect to STI care. Derived by dividing the number of high risk group population individuals who received an STI consultation during the quarter by the denominator (number of high risk group individuals who were mapped as per a broad mapping estimate). | Quarterly |
| | Proportion of HRGs who come for STI check ups during the quarter who were treated (as % of those who came during the quarter) | Derived by dividing the number of high risk group population individuals who received an STI consultation during the quarter and received treatment by the number of individuals who received an STI consultation during the quarter. | Quarterly |
| | Proportion of monthly clinic visitors who are "repeat" (vs. first time) | Derived by dividing the number of clinic visitors who are repeat visitors (not making their first visit) during the month by the total number of clinic visitors during the month (sum of first-time and repeat visitors) | Monthly |
| | Proportion of individuals with repeat STI symptoms who visit with symptom duration of less than 7 days | Individuals making repeat visit for STI symptom (not first-time STI symptom visit) who report symptom duration as >7 days. This is a key indicator for assessing treatment seeking behaviour in the HRG population. | Monthly |
| | Proportion of HRGs receiving STI consultations who underwent internal exams | Key measure of adoption of prevention behaviour. Derived from dividing the number of high risk group individuals receiving STI consultations who undergo an internal exam by the denominator (number of high risk group individuals who were mapped as per a broad mapping estimate). | Monthly |

Source: NACO operational guidelines for core TI high risk groups.

http://nacoonline.org/About_NACO/Policy_Guidelines/. Last accessed 16th Jan 2008.

| Area | Indicators | Definition | Frequency of Reporting |
|----------------------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| Enabling Environment | Number of reported incidents of rights violations against HRGs | Rights violations include any incident that violates Indian law where one or more community members are subject to extortion, abuse, violence or unlawful arrest by police or goondas. This does not include incidents where the police might have acted as per provisions of Indian law. Tracking should be done regularly through peers and consolidated by NGO in a separate register and the NGO should determine, in consultation with community, if the reported incident is a rights violation before reporting it here. | Monthly |
| | Proportion of reported incidents of rights violations or violence addressed within 24 hours | Derived by dividing the number of reported incidents of rights violations or violence by the number of reported incidents that are addressed within 24 hours. Addressal of cases means that peers and/or NGO staff should meet with affected community members and the concerned police officials within 24 hours to register a complaint and arrange for appropriate legal help; in case of rights violations by goondas a desired action is to get a police case registered within 24 hours. | Monthly |
| | Proportion of denominator referred to VCTC | Derived by dividing the number of individuals referred to voluntary counselling and testing centres (VCTCs), by the denominator (number of high risk group individuals who were mapped as per a broad mapping estimate). | Monthly |
| | Proportion of denominator referred to ART | Derived by dividing the number of individuals referred for provision of antiretroviral therapy (ART), by the denominator (number of high risk group individuals who were mapped as per a broad mapping estimate). | Monthly |

Source: NACO operational guidelines for core TI high risk groups.
http://nacoonline.org/About_NACO/Policy__Guidelines/. Last accessed 16th Jan 2008.

| Area | Indicators | Definition | Frequency of Reporting |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| Enabling Environment (continued) | Proportion of denominator referred to DOTS | Derived by dividing the number of individuals who were referred to TB DOTS centres by the denominator (number of high risk group individuals who were mapped as per a broad mapping estimate). | Monthly |
| | Number of HRGs who have been assisted by TI to access any government service (e.g., ration card, voter id card, BPL card, school admission, housing, etc.) | Approved government ID cards include ration card, voter ID card, or PAN cards. This is only meant to report cases where the project has directly facilitated the issuance of the ID card - where individuals might have more than one ID card, please count as one. This indicator is to be monitored for increases over time. | Monthly |
| Community Mobilisation | Number of community groups or SHGs formed | The number of groups primarily organised to address issues important to the community (e.g. violence, financial security, education, advocacy, welfare, cultural arts, etc). Includes Self Help Groups, Community Based Organisations, and other community committees. | Cumulative |
| | Number of members who are part of SHGs or community groups | Includes membership of high risk group individuals in various groups that are primarily organised to address issues important to the community (e.g. violence, financial security, education, advocacy, welfare, cultural arts, etc). Individuals who are members of multiple groups should be counted only once. | Monthly |
| | Proportion of denominator who are part of SHGs/community groups | This is a gross indicator for community participation across the entire high risk group denominator. Derived by dividing the number of membership of high risk group individuals in various groups by the denominator (number of high risk group individuals who were mapped as per a broad mapping estimate). | Monthly |
| | Number of meetings/events held for >50 HRGs | The number of meetings or events held in one month for more than 50 high risk group individuals. | Monthly |

Source: NACO operational guidelines for core TI high risk groups.
http://nacoonline.org/About_NACO/Policy__Guidelines/. Last accessed 16th Jan 2008.

Exhibits

Exhibit 4. 1 Number of Sentinel sites by year from 1998 to 2006, India

| Site type/year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|--------------------|-----------------------------|-----------------------------|-----------------------------|------------|------------|------------|------------|------------|-------------|
| STD | 76 | 75 | 98 | 133 | 166 | 163 | 171 | 175 | 251 |
| ANC | 92 | 93 | 111 | 172 | 200 | 266 | 268 | 267 | 470 |
| IDU | 5 | 6 | 10 | 10 | 13 | 18 | 24 | 30 | 51 |
| MSM | - | - | 3 | 3 | 3 | 9 | 15 | 18 | 31 |
| FSW | 1 | 1 | 2 | 2 | 2 | 32 | 42 | 83 | 138 |
| ANC (Rural) | - | - | - | - | - | 210 | 122 | 124 | 158 |
| TB | 2 | 2 | - | - | - | - | 7 | 4 | - |
| Migrant | - | - | - | - | - | - | - | 1 | 6 |
| Eunuchs | - | - | - | - | - | - | - | 1 | 1 |
| Truckers | - | - | - | - | - | - | - | - | 15 |
| Fisher Folk | - | - | - | - | - | - | - | - | 1 |
| Others (Seamen) | - | - | - | - | - | 1 | - | - | - |
| Total | 176* (180) | 177* (180) | 224* (232) | 320 | 384 | 699 | 649 | 703 | 1122 |

Source: National AIDS Control Organization. [http://www.nacoonline.org/upload/Documents/HIV Sentinel Surveillance and HIV Estimation, 2006.pdf](http://www.nacoonline.org/upload/Documents/HIV_Sentinel_Surveillance_and_HIV_Estimation,_2006.pdf).

Exhibit 4. 2 State-wise sentinel sites, year 2006

| States/UTs | Sites | | | Total |
|---------------------|------------|------------|------------|-------------|
| | STD | ANC | HRG | |
| Andaman and Nicobar | 2 | 3 | 0 | 5 |
| Andhra Pradesh | 11 | 44 | 8 | 63 |
| Arunachal Pradesh | 7 | 5 | 2 | 14 |
| Assam | 9 | 15 | 14 | 38 |
| Bihar | 24 | 23 | 14 | 61 |
| Chhattisgarh | 6 | 19 | 4 | 29 |
| Chandigarh | 2 | 1 | 5 | 8 |
| Dadra Nagar Haveli | 0 | 1 | 0 | 1 |
| Daman & Diu | 0 | 2 | 0 | 2 |
| Delhi | 5 | 5 | 11 | 21 |
| Goa | 2 | 2 | 1 | 5 |
| Gujarat | 10 | 25 | 6 | 41 |
| Haryana | 9 | 12 | 9 | 30 |
| Himachal Pradesh | 6 | 10 | 4 | 20 |
| Jammu and Kashmir | 7 | 16 | 2 | 25 |
| Jharkhand | 11 | 16 | 8 | 35 |
| Karnataka | 7 | 54 | 7 | 68 |
| Kerala | 5 | 6 | 14 | 25 |
| Lakshadweep | 1 | 2 | 0 | 3 |
| Madhya Pradesh | 13 | 36 | 3 | 52 |
| Maharashtra | 11 | 73 | 18 | 102 |
| Manipur | 2 | 14 | 8 | 24 |
| Meghalaya | 3 | 7 | 1 | 11 |
| Mizoram | 3 | 4 | 9 | 16 |
| Nagaland | 1 | 19 | 9 | 29 |
| Orissa | 7 | 23 | 15 | 45 |
| Pondicherry | 3 | 2 | 5 | 10 |
| Punjab | 3 | 11 | 11 | 25 |
| Rajasthan | 15 | 25 | 8 | 48 |
| Sikkim | 1 | 3 | 2 | 6 |
| Tamil Nadu | 11 | 64 | 15 | 90 |
| Tripura | 7 | 2 | 1 | 10 |
| Uttar Pradesh | 28 | 62 | 9 | 99 |
| Uttaranchal | 7 | 9 | 0 | 16 |
| West Bengal | 12 | 13 | 20 | 45 |
| India | 251 | 628 | 243 | 1122 |

Source: National AIDS Control Organisation

http://www.nacoonline.org/upload/NACO%20PDF/HIV_Fact_Sheets_2006.pdf

Exhibit 4. 3 State-wise status of Targeted Intervention, 2006

| Sr. No. | State | Total TI projects | CSW | Truckers | MSM | IDUs | Migrant | Street Children | Prisons | Other |
|---------|---------------------|-------------------|-----|----------|-----|------|---------|-----------------|---------|-------|
| 1 | Andaman and Nicobar | 4 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 2 | Ahmedabad | 21 | 1 | 0 | 1 | 0 | 3 | 1 | 0 | 13 |
| 3 | Andra Pradesh | 96 | 25 | 24 | 3 | 0 | 4 | 6 | 4 | 30 |
| 4 | Arunachal Pradesh | 3 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 |
| 5 | Assam | 29 | 7 | 8 | 0 | 1 | 7 | 2 | 0 | 4 |
| 6 | Bihar | 11 | 4 | 6 | 1 | 0 | 0 | 0 | 0 | 0 |
| 7 | Chandigarh | 9 | 0 | 1 | 0 | 0 | 6 | 1 | 1 | 0 |
| 8 | Chattisgarh | 10 | 2 | 7 | 0 | 0 | 1 | 0 | 0 | 0 |
| 9 | Chennai | 20 | 5 | 1 | 2 | 3 | 4 | 1 | 0 | 4 |
| 10 | Dadra | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 11 | Diu and Daman | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 | Delhi | 29 | 2 | 3 | 2 | 1 | 17 | 4 | NA | NA |
| 13 | Goa | 10 | 1 | 1 | 1 | 0 | 5 | 0 | 0 | 2 |
| 14 | Gujarat | 76 | 6 | 0 | 3 | 0 | 39 | 3 | 9 | 16 |
| 15 | Haryana | 11 | 1 | 4 | 0 | 0 | 2 | 0 | 2 | 2 |
| 16 | Himachal Pradesh | 12 | 0 | 6 | 0 | 0 | 5 | 0 | 0 | 1 |
| 17 | Jammu and Kashmir | 4 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 0 |
| 18 | Karnataka | 20 | 3 | 11 | 1 | 0 | 4 | 1 | 0 | 0 |
| 19 | Kerala | 56 | 46 | 0 | 3 | 0 | 4 | 1 | 1 | 1 |
| 20 | Lakshwadeep | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 21 | Madhya Pradesh | 8 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| 22 | Maharashtra | 24 | 9 | 11 | 0 | 0 | 4 | 0 | 0 | 0 |
| 23 | Mumbai (MC) | 16 | 5 | 4 | 3 | 1 | 1 | 0 | 0 | 0 |
| 24 | Avert | 20 | 3 | 1 | 0 | 0 | 16 | 0 | 0 | 0 |
| 25 | Manipur | 39 | 5 | 2 | 1 | 28 | 3 | 0 | 0 | 0 |
| 26 | Meghalaya | 3 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 |
| 27 | Mizoram | 20 | 3 | 2 | 0 | 10 | 1 | 0 | 2 | 2 |
| 28 | Nagaland | 22 | 1 | 1 | 0 | 17 | 0 | 2 | 1 | 0 |
| 29 | Orissa | 21 | 1 | 6 | 0 | 0 | 11 | 1 | 1 | 1 |
| 30 | Pondicherry | 5 | 1 | 1 | 1 | 0 | 2 | 0 | 0 | 0 |
| 31 | Punjab | 15 | 3 | 8 | 0 | 0 | 4 | 0 | 0 | 0 |
| 32 | Rajasthan | 9 | 3 | 2 | 0 | 0 | 4 | 0 | 0 | 0 |
| 33 | Sikkim | 4 | 0 | 1 | 0 | 0 | 2 | 0 | 1 | 0 |
| 34 | Tamil Nadu | 82 | 23 | 17 | 2 | 0 | 35 | 0 | 3 | 2 |
| 35 | APAC | 38 | 10 | 9 | 0 | 0 | 14 | 0 | 0 | 0 |
| 36 | Tripura | 19 | 10 | 9 | 0 | 0 | 14 | 0 | 0 | 0 |
| 37 | Uttar Pradesh | 35 | 6 | 14 | 0 | 0 | 6 | 0 | 9 | 0 |
| 38 | West Bengal | 33 | 15 | 6 | 0 | 1 | 9 | 1 | 1 | 0 |
| | Total | 835 | 199 | 171 | 24 | 63 | 226 | 27 | 37 | 88 |

Source: National AIDS Control Organization http://www.nacoonline.org/prg_Sche_targetint.htm

Exhibit 4. 4 State-wise number of ICTC centres in India in year 2007

| Regions | ICTC centres |
|---------------------|---------------------|
| Ahmedabad | 16 |
| Andaman and Nicobar | 9 |
| Andhra Pradesh | 752 |
| Arunachal Pradesh | 21 |
| Assam | 51 |
| Bihar | 99 |
| Chhattisgarh | 43 |
| Chandigarh | 9 |
| Chennai MACS | 42 |
| Dadra Nagar Haveli | 1 |
| Daman & Diu | 2 |
| Delhi | 62 |
| Goa | 11 |
| Gujarat | 211 |
| Haryana | 60 |
| Himachal Pradesh | 21 |
| Jammu and Kashmir | 9 |
| Jharkhand | 19 |
| Karnataka | 564 |
| Kerala | 51 |
| Madhya Pradesh | 55 |
| Maharashtra | 606 |
| mumbai | 74 |
| Manipur | 54 |
| Meghalaya | 6 |
| Mizoram | 13 |
| Nagaland | 112 |
| Orissa | 119 |
| Pondicherry | 10 |
| Punjab | 33 |
| Rajasthan | 72 |
| Sikkim | 12 |
| Tamil Nadu | 710 |
| Tripura | 4 |
| Uttar Pradesh | 121 |
| Uttaranchal | 29 |
| West Bengal | 72 |
| Total | 4155 |

Source: National AIDS Control Organisation.

<http://www.nacoonline.org>

Exhibit 4. 5 Number of Licensed Blood Banks* in States and UTIs

| States | Government | Trust# | Private | Total |
|----------------------|------------|--------|---------|-------|
| India | 826 | 257 | 980 | 2063 |
| Andaman & Nicobar | 2 | -- | -- | 2 |
| Andhra Pradesh | 66 | 25 | 113 | 204 |
| Arunachal Pradesh | 2 | 1 | -- | 3 |
| Assam | 35 | 3 | 20 | 58 |
| Bihar | 42 | 4 | 32 | 78 |
| Chandigarh | 3 | 1 | -- | 4 |
| Chhatisgarh | 12 | 1 | 16 | 29 |
| Dadra & Nagar Haveli | -- | 1 | -- | 1 |
| Daman & Diu | 1 | -- | -- | 1 |
| Delhi | 18 | 3 | 24 | 45 |
| Goa | 5 | -- | -- | 8 |
| Gujarat | 30 | 70 | 67 | 167 |
| Haryana | 17 | 5 | 28 | 50 |
| Himachal Pradesh | 14 | 1 | -- | 15 |
| Jammu & Kashmir | 14 | -- | -- | 15 |
| Jharkhand | 4 | -- | 5 | 9 |
| Karnataka | 39 | 16 | 91 | 146 |
| Kerala | 34 | 5 | 95 | 134 |
| Madhya Pradesh | 42 | 17 | 45 | 104 |
| Maharashtra | 82 | 29 | 153 | 264 |
| Manipur | 3 | -- | -- | 3 |
| Meghalaya | 3 | -- | -- | 5 |
| Mizoram | 3 | -- | -- | 5 |
| Nagaland | 3 | -- | -- | 3 |
| Orissa | 4 | 46 | 12 | 62 |
| Pondicherry | 5 | -- | -- | 11 |
| Punjab | 41 | 5 | 30 | 76 |
| Rajasthan | 44 | 5 | 18 | 67 |
| Sikkim | 3 | -- | -- | 3 |
| Tamil Nadu | 98 | 10 | 113 | 221 |
| Tripura | 3 | -- | -- | 6 |
| Uttar Pradesh | 69 | 4 | 68 | 141 |
| Uttaranchal | 14 | -- | 4 | 18 |
| West Bengal | 71 | 5 | 29 | 105 |

Source: Drug Controller General, New Delhi. From Health Information of India, 2004

* Blood Bank Licensed as approved by Central License Approval Authority (Claa)

Voluntary Includes Red Cross, Lions Club, Rotary Club, etc.

Exhibit 4. 6 Number of ART centres in India as on 31st October 2007.

| Region | ART centres |
|-------------------|-------------|
| Tamilnadu | 18 |
| Maharashtra | 18 |
| Andhra Pradesh | 17 |
| Karnataka | 16 |
| Manipur | 5 |
| Nagaland | 4 |
| Delhi | 8 |
| Rajasthan | 2 |
| Chandigarh | 1 |
| Gujarat | 2 |
| West Bengal | 2 |
| Uttar Pradesh | 3 |
| Goa | 1 |
| Kerala | 5 |
| Himachal Pradesh | 1 |
| Pondicherry | 1 |
| Bihar | 2 |
| Madhya Pradesh | 2 |
| Assam | 2 |
| Mizoram | 1 |
| Punjab | 2 |
| Jharkhand | 2 |
| Haryana | 1 |
| Uttaranchal | 1 |
| J & K | 2 |
| Orissa | 1 |
| Chhattisgarh | 1 |
| Tripura | 1 |
| Meghalaya | 1 |
| Sikkim | 1 |
| Arunachal Pradesh | 1 |
| Total | 125 |

Source: www.nacoonline.org

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Acronyms

| | |
|---------|-------------------------------------------------|
| AIDS | Acquired Immunodeficiency Syndrome |
| ANC | Ante Natal Care |
| ANM | Auxiliary Nurse Midwife |
| ART | Antiretroviral Therapy |
| BCC | Behavior Change Communication |
| CBO | Community Based Organization |
| CHC | Community Health Centre |
| CSW | Commercial Sex Worker |
| CORW | Client Out Reach Worker |
| ESH | External Stake Holder |
| FGD | Focus Group Discussion |
| FP | Family Planning |
| FSW | Female Sex Worker |
| GOI | Government of India |
| GSACS | Gujarat State AIDS Control Society |
| HAART | Highly Active Antiretroviral Therapy |
| HIV | Human Immunodeficiency Virus |
| HSS | HIV/AIDS Sentinel Surveillance |
| ICTC | Integrated Counseling & Testing Centre |
| IEC | Information, Education and Communication |
| INFOSEM | Indian Networks for Sexual Minority |
| IRCS | Indian Red Cross Society |
| MIS | Management Information System |
| MO | Medical Officer |
| MSM | Men having Sex with Men |
| NACO | National AIDS Control Organization |
| NACP | National AIDS Control Program |
| NFHS | National Family Health Survey |
| NGO | Non-Governmental Organization |
| NIHFW | National Institute of Health and Family Welfare |
| OI | Opportunistic Infections |
| OPD | Outdoor Patients Department |
| ORW | Out Reach Workers |
| PE | Peer Educator |
| PHC | Primary Health Centre |
| PMTCT | Prevention of Mother-to-Child Transmission |

| | |
|--------|-------------------------------------------------------|
| PO | Project Officer |
| PPTCT | Prevention of Parent-to-Child Transmission |
| PSH | Primary Stake Holder |
| PSU | Project Support Unit |
| RCH | Reproductive Child Health |
| RH | Reproductive Health |
| RTI | Reproductive Tract Infection |
| SACS | State AIDS Control Society |
| SBTC | State Blood Transfusion Council |
| SRH | Sexual & Reproductive Health |
| STI | Sexually Transmitted Infection |
| TI | Targeted Intervention |
| UAT | Unlinked Anonymous Testing |
| UNDP | United Nations Development Project |
| UNESCO | United Nations Education Social Cultural Organization |
| UNFPA | United Nations Population Fund |
| UNICEF | United Nations Children Fund |
| VCTC | Voluntary Counseling and Testing Centre |
| VDRL | Venereal Disease Research Laboratory |
| WHA | World Health Assembly |
| WHO | World Health Organization |