



Case Study: Delhi Metro Rail Corporation Limited

Overview

Building the metro rail system in Delhi has been a massive construction project drawing workers from across India.¹² Migrant workers typically are especially at risk for HIV, as a study focusing on the project's workforce confirmed. To help reduce the risk of HIV among this population, Delhi Metro Rail Corporation (DMRC), the public sector company responsible for constructing, operating, and maintaining the metro rail system, initiated an HIV and AIDS program targeted to the laborers working on one of the metro lines.

The program focused mainly on increasing HIV and AIDS awareness and promoting the use of condoms. Lacking the technical capacity to carry out the program, DMRC contracted with an NGO, Modicare Foundation, to do so. The program, originally planned to run from January through June 2005, was extended through September 2005 and covered more than 3,000 workers.

12. The information in the DMRC case study is based on responses by DMRC and Modicare Foundation to questions sent to them by email; personal interviews and interactions with the DMRC official responsible for implementing the program and with Modicare Foundation officials; and a project report by Modicare Foundation (2006). The information is current as of September 2006.

DMRC has used its influence over contractors to further its goals in combating HIV and AIDS: the contracts it signs with these companies now require that they carry out HIV prevention and control activities for employees working on DMRC projects. DMRC has developed an HIV and AIDS policy to guide contractors in implementing these programs.

Business background

DMRC was formed in May 1995 by the national and Delhi state governments to provide a rail-based transport system that will alleviate Delhi's ever growing transport congestion and vehicular pollution. The government of Japan has contributed more than half the cost of this project, through a soft loan disbursed by DMRC's major funding agency, the Japan Bank for International Cooperation (JBIC).

Delhi's metro rail system, to be constructed in four phases covering 245 kilometers, is scheduled to be finished in 2021. Today three functioning lines connect central Delhi to east, north, and southwest Delhi.

DMRC is responsible not only for construction of the system but also for its operation and maintenance. It has 450 personnel in its construction department and 3,000 staff for system operation and maintenance. Supply chain partners provide critical support, including labor, machinery and components, and maintenance services.

Why do something about HIV and AIDS?

The impetus for DMRC's HIV and AIDS program came from a study commissioned by JBIC in accordance with its guidelines for approving loans and investments.¹³ Conducted by the Voluntary Health Association

13. In approving loans and investments, JBIC is required by its guidelines to examine such issues as impact on indigenous peoples and their heritage, gender issues, children's

of India, the study assessed the vulnerability to HIV of the workforce on one line of phase 1 of the Delhi Metro project (VHAI 2003). The study produced disturbing findings:

- In the sample of 1,000 workers surveyed, 59.3 percent had little or no knowledge about HIV and AIDS.
- Around 86.4 percent had little or no knowledge about how HIV is transmitted.
- The practice of using condoms to prevent transmission of HIV was unknown.
- Around 80–90 percent of the workers had a negative attitude toward people living with HIV and AIDS.
- Respondents reported visits to sex workers.

The study highlighted the predominance of migrant workers in the workforce on the Delhi Metro project and the vulnerability of this population to HIV. According to a project document (Modicare Foundation 2006), around 15,000 workers have participated in the Delhi Metro project, a substantial number of them migrant workers from other Indian states—Bihar, Chhattisgarh, Madhya Pradesh, Orissa, Rajasthan, and West Bengal. These migrant workers face conditions that can encourage high-risk sexual behavior: separation from family, alienation from socio-cultural norms, loneliness, and a sense of anonymity that offers greater sexual freedom. In addition, the workers are uneducated, live in unhygienic, often crowded quarters, and are unaware of safe health practices. All these factors increase their vulnerability to communicable diseases such as tuberculosis and also to HIV.

Based on this study, DMRC decided to initiate an HIV and AIDS program and fund it entirely through its own resources. JBIC helped in

rights, and HIV and AIDS. JBIC also actively encourages the mitigation of adverse social impacts and promotes social participation for certain projects. See JBIC (2005).

Our program is a proactive step to safeguard our workers and also uphold our social responsibility as corporate citizens.

—C. B. K. Rao, Director,
Delhi Metro Rail Corporation

creating a strategy for the program through appropriately defined objectives, action plans, and time frame.

The program

The program initiated by DMRC was aimed at preventing HIV by promoting awareness and improved sexual behavior, attitudes, and practices among migrant workers on the Delhi Metro project. Recognizing that it lacked the technical capacity to implement the program, DMRC used a bidding process to recruit the services of an organization with the technical expertise needed. This led to the selection of Modicare Foundation, a well-respected NGO with experience in carrying out HIV and AIDS programs, as the implementing partner.

To extend program activities to future DMRC projects, the company developed an HIV and AIDS policy with expectations for contractors engaged in those projects (box 1).

Awareness and prevention activities at the workplace

The program's target group initially was around 2,000 migrant workers who were employed by DMRC's contractors on the site for phase 1, specifically those working on line 3 from central to southwest Delhi. But when DMRC extended the program by three months, through September 2005, it expanded the target group by 1,000.

Modicare profiled the target group as follows:

Box 1. An HIV and AIDS workplace policy to guide future programs

To provide clear guidelines for HIV and AIDS programs implemented in future projects, DMRC developed the “Workplace Policy on HIV/AIDS Prevention & Control for Workmen Engaged by Contractors,” based on the International Labour Organization’s code of practice on HIV and AIDS. The policy expects DMRC contractors:

- To create awareness about HIV and AIDS among their workers.
- To build institutional capacity for HIV and AIDS programs through training.
- To establish links for diagnosis and treatment of affected workers; for monitoring, implementation, and documentation of program activities; for peer education; and for social marketing of condoms.

DMRC established this policy only after soliciting inputs from its contractors and checking with them on the policy’s feasibility. The company also took into account its own experience in implementing projects. The process was facilitated by Modicare Foundation.

DMRC has incorporated the policy into the contract it signs with its contractors and suppliers. The agreement also expects contractors to extend organizational support to the HIV and AIDS program and identify peer educators. When peer educators who have been trained as part of the program leave a contractor’s employment, the contractor has to identify and train a replacement.

- The age group of the workers was 20–45.
- Two-thirds were married men, living away from their families.
- The workers lived in makeshift rooms at the construction sites or in rented accommodations in nearby slums.
- Even small rooms were usually shared by 10–15 people.

The program had four main components aimed at HIV and AIDS awareness and prevention:

- Advocacy.
- Institutional capacity building.
- Peer education.
- Condom promotion.

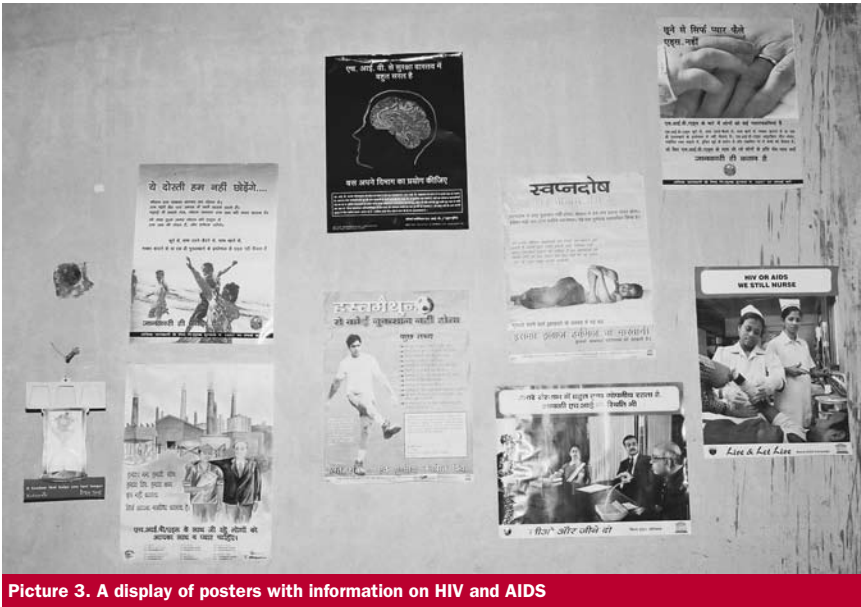
Advocacy

The advocacy efforts began by developing information, education, and communication material suited to the program. This included posters, pamphlets, calendars with messages on HIV and AIDS, and lists of STI clinics, voluntary counseling and testing centers, and outlets distributing condoms. Some posters were developed by Modicare Foundation; others were brought in from the National AIDS Control Organization and other sources (picture 3).

In addition, activities sought to generate awareness among workers in the target group using the behavior change communication model. Modicare developed modules for its facilitators to use in sharing information on HIV and AIDS within groups of 15–20 workers.

Institutional capacity building

To help ensure effective implementation, the program set up a technical advisory committee—formed of representatives from DMRC, JBIC, the ILO, and Modicare—to provide technical support and to monitor the program. It also held an orientation session for DMRC safety managers, safety officers, and engineers and for project managers of construction companies working for DMRC. This was intended to sensitize them to issues relating to HIV and AIDS as well as to ensure their participation and cooperation in future program activities.



Picture 3. A display of posters with information on HIV and AIDS

To help overcome the lack of its own medical facilities, the program worked to develop links with STI clinics and voluntary counseling and testing centers—critical for a successful HIV prevention program. The program succeeded in establishing links with 13 government hospitals close to Delhi Metro project sites where it could encourage the target group to obtain treatment and counseling.

Peer education

The program used peer education to encourage the flow of information on HIV and AIDS and related issues from informed workers to their colleagues. Informal communication has been found to create greater acceptance of information than more formal ways of communication. The



Picture 4. Explaining sexually transmitted infections using pictorial flashcards



Picture 5. A peer educator during a session at a construction site

use of peer education was also aimed at creating a nondiscriminatory and nonstigmatizing environment.

The program identified peer educators on the basis of their literacy, sensitivity, leadership qualities, communication skills, and popularity with colleagues. Modicare carried out an intensive training program for peer educators to ensure that they were sufficiently knowledgeable about HIV transmission and prevention and equipped to address issues related to sexual health. It also gave each one a kit containing material on HIV and other sexually transmitted infections and condoms for demonstration and distribution.

Peer educators were asked to reach out to their colleagues through both one-on-one and group discussions, addressing queries about HIV and other sexually transmitted infections (picture 4), encouraging safe sexual behavior by promoting and distributing condoms, and distributing information, education, and communication material. Peer educators also referred people to STI clinics and voluntary counseling and testing centers. Settings for peer education sessions included the construction site (picture 5).

Condom promotion

Promoting the correct and consistent use of condoms as an essential factor in preventing HIV and other sexually transmitted infections was an important part of the program. The program found that distributing condoms was a major factor in increasing the demand for them and resulted in correct and habitual use by the members of the target group. Some 90 percent of the workers covered by Modicare, and 67 percent of those covered by the peer educators, accessed condoms.

During one of my sessions a boy shared with me that he had been suffering from an STI and that he had had sex with an unknown woman a few months back. On my advice he underwent [HIV] testing and was found to be negative. He took treatment for STI and is leading a normal life, free of infection now.

—Mahesh Kumar, peer educator

Project monitoring, reporting, and documentation

The program put into place a systematic monitoring plan, under the technical advisory committee, to track implementation. Modicare Foundation used forms soliciting feedback from its facilitators to assess effectiveness. Monthly reports consolidated information on activities conducted, including street plays and informal sessions by peer educators. Peer educators and Modicare Foundation coordinators and facilitators met regularly. Periodic meetings were also held between DMRC officials, the technical advisory committee, and the project team leader from Modicare Foundation.

Funding

The program budget was close to Rs 6.5 lakhs (US\$14,500), funded entirely from DMRC's own resources.

Outreach

The program reached 3,270 workers, exceeding the target of 3,000 (table 3). In addition, nearly 3,000 workers obtained condoms from Modicare.

Following up with workers contacted as part of the program proved difficult, since the workers changed jobs often. But Modicare Foundation conducted follow-up discussions with 10 percent of the workers to assess their information recall after their initial information session with a facilitator, usually 10–15 days after that session.

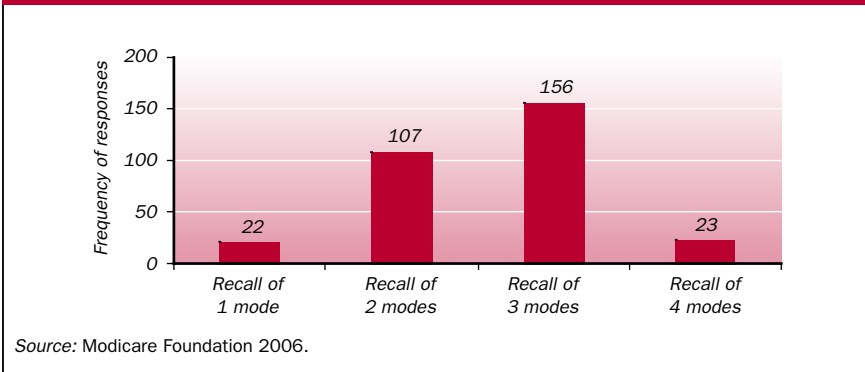
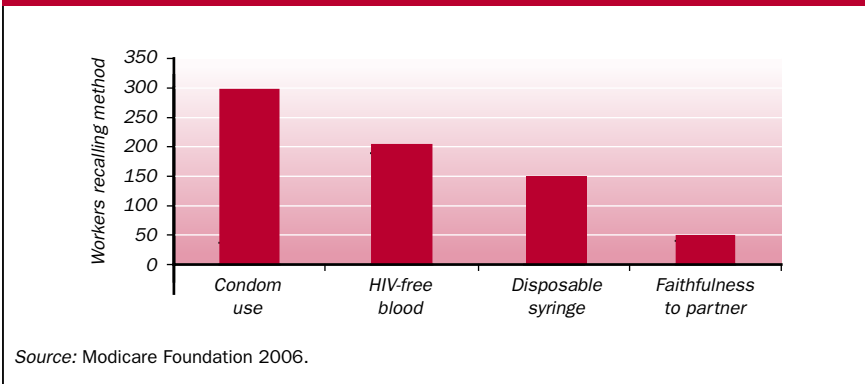
Results of this follow-up, based on 308 questionnaires, showed that:

- About half the workers questioned recalled three modes of HIV transmission, and more than a third recalled two (figure 4).
- Almost all the workers recalled use of a condom as a method for preventing transmission of HIV (figure 5).

Table 3. Outreach indicators for DMRC program, January–September 2005

<i>Item</i>	<i>Number</i>
Workers covered	3,270
Peer educators trained	47
Metro stations covered	29
Construction companies covered	13
Street plays and puppet shows arranged	48
Magic shows arranged	27
Condom demonstrations held	229
Persons obtaining condoms from Modicare Foundation	2,946

Source: Modicare Foundation, 2006.

Figure 4. Workers' recall of modes of HIV transmission in the DMRC program**Figure 5. Workers' recall of methods of preventing HIV transmission in the DMRC program**

Even more important, the sessions led to changes in behavior among the workers:

- Some 25 percent (78 out of 308) reported using condoms after sessions.
- Referrals and visits to HIV and STI clinics increased.
- Some peer educators reported changing their own formerly high-risk behavior and attitudes after being sensitized by peer educator training.

The feedback from program participants has been positive. The workers have expressed a desire for the program to be continued, and the peer educators continue to counsel their colleagues even though the program has ended.

Lessons learned

The program identified several success factors, challenges, and other lessons based on its results.

Key success factors

- *Partnership of multiple stakeholders.* A key factor in the program's success was its access to diverse expertise through a partnership of multiple stakeholders—with Modicare Foundation as the implementing partner, the International Labour Organization as the technical adviser, and the Japan Bank for International Cooperation as a strategy adviser.
- *Peer education.* Involving peer educators helped both expand outreach and establish contact with sex workers, who were persuaded to keep condoms for clients. Around 20 percent of the peer educators are still active and have been in regular touch with Modicare Foundation.
- *Cooperation from contractors.* The special effort made to sensitize the contractors to the issues was key in gaining their support for the program. Contractors even gave their workers time off to participate in the meetings on issues relating to HIV and AIDS.
- *Informal outreach to workers.* Using informal means to reach out to migrant workers—such as meeting them on their home ground

or using their dialect when conversing with them—made the workers feel comfortable and helped immensely in achieving the targets.

Key challenges

- *Poor access to health services.* With government medical and testing facilities unavailable on weekends, laborers often ended up going to fake doctors. Good health services, including mobile health facilities, need to be made more accessible to the workers.
- *Mobility of workers.* The high mobility of workers made it difficult for Modicare Foundation to follow up with the target group after the initial information session. Even so, the agency achieved a follow-up rate of 10 percent. The high mobility also created a challenge for peer education: trained peer educators could leave their jobs, and training replacements was costly. To help strengthen and stabilize the peer education system, DMRC has incorporated a clause into its agreement with contractors and suppliers requiring that they identify a peer educator likely to stay for a long time. If a peer educator leaves a contractor, the contractor has to get a replacement trained at its own cost.
- *Access to condoms.* The unpredictability of workers' job locations made getting condoms to the workers a challenge. Modicare Foundation suggests that DMRC could work with Hindustan Latex Limited (an Indian government enterprise) or another manufacturer of condoms to provide condom vending machines at selected sites. These machines could be kept under the custody of the contractor in charge of the construction site. Alternatively, DMRC could rely on peer educators and nontraditional outlets such as tea and cigarette vendors to distribute condoms.

Other lessons learned

- *Importance of links with health services.* DMRC found that creating links with existing health services is important: it enables the target group to gain access to services not provided by the program and also avoids duplicating services.
- *Programs for all cadres of employees.* Modicare Foundation believes that HIV and AIDS programs should cover all cadres of employees, not just contract workers. Awareness among senior employees will ensure that they appreciate the need for such programs, support activities, encourage peer educators, and help create a nonthreatening environment for dealing with HIV and AIDS. And greater awareness among all workers will reduce the stigma associated with HIV and AIDS.
- *Importance of monitoring and evaluation.* The program's monitoring system was an important feature, allowing the company to track progress in implementation and assess the program's effectiveness.

Future plans

DMRC plans to implement a similar program in the next phase of the Delhi Metro construction, identifying a new implementing partner for this program. The company's HIV and AIDS policy for contract workers, to be implemented in this next phase of construction, is further evidence that DMRC has taken the risks posed by HIV and AIDS to this population seriously.