



World Bank Global  
HIV/AIDS Program

# HIV/AIDS - *Getting Results*

These reports describe activities, challenges and lessons learned during the World Bank's HIV/AIDS work with countries and other partners.

## Combating HIV in the East Asia and Pacific Region Transport Sector: *Success on the Road in China*

*East Asia and Pacific Region Transport Sector and Human Development*

The Bank's Transport Sector is developing and implementing HIV/AIDS responses in all six regions. In East Asia and the Pacific (EAP), the sector has adopted a strategy of incorporating HIV/AIDS education activities on all projects with large civil works components.<sup>1</sup>

Based on learning from the groundbreaking Shiyang-Manchuang Expressway (SME) Project in China, the sector is also developing standard materials for use in HIV/AIDS education campaigns associated with the projects. To date, the strategy has been partially implemented, with most work undertaken in Cambodia, China and Papua New Guinea.

This note shares the experience of the EAP transport sector and the SME Project.

### HIV/AIDS: China at a Crossroad

In China's population of 1.3 billion, the adult (15-49) HIV prevalence rate is about 0.05 percent. In 2007 there were some 700,000 people living with HIV/AIDS, 50,000 new HIV cases and 20,000 AIDS-related deaths.

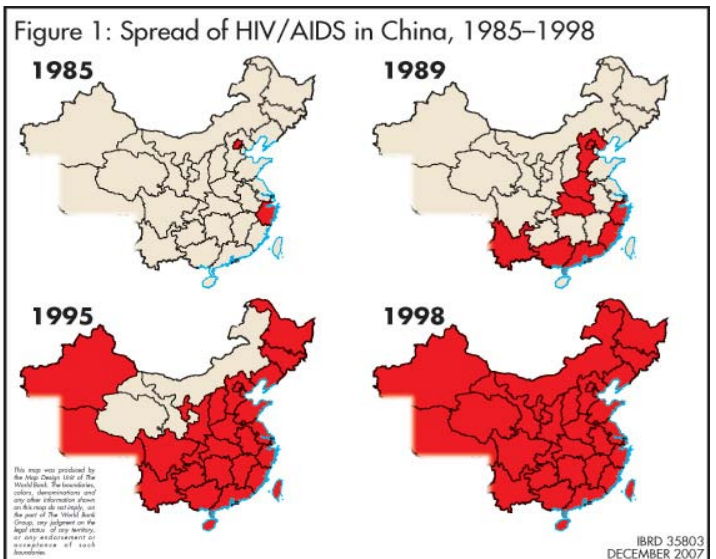
Although detected in all of China's 31 provinces, most HIV cases have been reported in, Yunnan, Henan, Guangxi, Xinjiang, and Guangdong provinces. The epidemic is concentrated among injecting drug users, commercial sex workers, former plasma donors, and their partners, but is gradually spreading from these most at risk groups to the general population. For the first time, in 2007 more sexual transmissions of HIV were reported than transmissions through injecting drug use. For the first half of 2007, 41.1 percent of newly reported HIV infections were believed to be infected by unprotected sex while 29 percent through injecting drugs.

<sup>1</sup> As of November 2004, the World Bank's Standard Bidding Documents for Civil Works require contractors in large projects (>US\$10 million) to implement HIV/AIDS awareness-raising and prevention measures among the contract workforce.

The commercial sex industry in China is very large. In 2000 it was estimated that there were some 1.7 – 6.1 million commercial sex workers and 25 million clients. Condom use in the commercial sex industry has been increasing but is still low. In 2004, only about 33% of commercial sex workers reported constant condom use in the recent month with their commercial sexual partners.

As recently as 2003, awareness of HIV/AIDS was low. A 2003 national survey found that 17% of the nation had never heard of HIV/AIDS and 77% did not know that condoms could prevent transmission.

The populations that concern the EAP Transport Sector are both vast and sexually active. They are migrant workers, estimated at some 200 million; the sex workers who serve them; and the local populations who host them.



Source: World Bank (2007), redrawn from a map used by Prof. Gui Xi'en in a presentation in Wuhan, China, 2006.

## When home is the highway

In China, as elsewhere, it has become clear that new roads and railroads facilitate more than the transport of people and goods. The spread of HIV has tracked alongside the major expansion of the transportation network undertaken in China in recent years. This is not unique to China; throughout the world, the Bank goes as far as calling the infrastructure network “one of the main transmitters” of the virus.

The equation is simple, and too often, deadly. A rail or road project brings thousands of migrant workers together, often in isolated areas. In China, this population is almost 100 percent male, generally under 40, with less than a high school education—and away from their families for 300 – 350 days a year.

It is unsurprising that the sex industry flourishes in this fertile soil. For example, there are over 140 “recreation centers” along the 107.8 km project corridor of the Shiyan-Manchuanguan Expressway (SME) in Hubei.

### Workers lack HIV/AIDS knowledge

Adding to the mix, tragically, is the dangerously low level of HIV/AIDS awareness. The numbers from the SME project when work first began in 2004 are considered representative of similar China projects.

#### SME construction worker awareness/attitudes, 2004

- 16% only were aware of HIV transmission methods
- 40% thought HIV is transmitted by mosquito bites
- 71% knew how to use condoms
- 35% never and 26% rarely used condoms
- 33% knew where to go for HIV counseling and blood testing services
- 44% had negative attitude toward HIV carriers

Local populations along the new routes are also drawn into the transmission sequence. As workers arrive and interact with both the local population and sex workers, new carriers are created, who remain in place when the work crews depart.

As roads and railroads are completed, an ever-growing flow of travelers comes into contact with local carriers, then move on, fueling HIV transmission. In a survey around the Poland-Lithuania border,<sup>2</sup> 42% of truck drivers reported paying for sex while traveling; 33% of those who had casual sex did not use condoms. Similar practices are found in many other countries.

<sup>2</sup> Survey results, Poland and Lithuania border areas, (World Bank, 2003).

## Risk is opportunity

The risks inherent in China’s transport transmission hotspots present unique opportunities to combat the spread of HIV. So the EAP regional transport program includes innovative HIV initiatives and practices.

In 2005, following the development of the EAP regional HIV/AIDS Strategy, the EAP region implemented initiatives consistent with the regional strategy to include HIV interventions as part of all new projects.

The focus is on creating and deploying information activities that are simple, easily implemented, effective, low cost and that use readily available resources. The pioneering implementation of this strategy is discussed below.

### EAP Transport and the Shiyan-Manchuanguan Expressway (SME)

The World Bank began an intensive HIV/AIDS education and HIV testing program under the Shiyan-Manchuanguan Expressway (SME) Project in 2004.

The 107.8 km road in Hubei crosses an area with 500,000 residents in 21 counties and townships. The goal in building the road is to help redress income inequalities between coastal and rural China by connecting eastern provinces with the center and west of the country.

The project drew 11,000 construction workers. As mentioned earlier, there is an active sex industry in more than 140 recreation centers along the route—an average of one every 800 meters—although most sex workers were based in Shiyan City where the project road work started.



Construction workers on the Shiyan-Manchuanguan Expressway Project in China read about HIV and how to prevent infection (Photo: Fei Deng)

Recognizing the potential risks of HIV transmission associated with the project, the Bank team and client (Hubei Provincial Communications Department) decided to undertake an HIV/AIDS information and education campaign to inform workers and local residents of the risks. It was hoped this would reduce risky behavior by the workers. As this was the first project of its type in China, the World Bank's Global HIV/AIDS Program provided a \$50,000 grant for the work.

### Creating a new model

There were no models to follow for a project of this size and scope. The lessons learned would provide invaluable guidance toward a template that could be replicated in the future, prevent duplications of effort and make life-saving interventions more affordable, efficient and effective. The Bank team proposed a phased initiative:

#### Phase I: Develop a program

- Co-ordinate with the health sector
- Review local, provincial and national strategies
- Conduct baseline surveys
- Develop or access appropriate educational materials

#### Phase II: Deliver the program

- Develop an effective intervention plan
- Train educators in the health sector
- Set up Voluntary Counseling and Testing (VCT) centers
- Conduct regular field visits and deliver intervention program

#### Phase III: Evaluate results

- Semi-annual monitoring
- Establish an HIV/AIDS strategy/operational manual for replication in similar projects



Posters about HIV being hung at the entrance to one of seven Voluntary Counseling and Testing (VCT) centers set up by the project (Photo: Fei Deng)

Early impediments were overcome by ensuring involvement from some of China's leading HIV/AIDS specialists. Awareness raising tactics included a variety of printed materials, innovative use of cell phone text messages, video, and personal training sessions. Behavior change was encouraged by creating condom distribution and instruction sites, activities and training at sex worker centers and setting up STD testing clinics.

### Evaluation methodology: the key

With support from colleagues in Human Development, the Bank transport team put in place a rigorous monitoring and evaluation system to collect actionable data and ensure that they could conclusively determine the efficacy of this groundbreaking effort.

Prior to program launch, a survey was conducted among several target groups to obtain baseline information on knowledge and behaviors; including:

- How many construction workers and local residents knew about HIV/AIDS?
- How many were aware of risk factors, detection and prevention practices?
- How many engaged in risky behaviors?
- What was the pre-program prevalence of HIV/AIDS and other sexually transmitted diseases (STDs) in each population?
- How prevalent was stigma against people with HIV/AIDS?

Some results from this work cited earlier showed very low levels of information and high rates of risky behaviors and stigma.

Once the education program started, semi-annual reports were prepared which monitored:

- Materials dissemination
- Condom distribution
- Educational training/workshops for construction companies
- Educational training/workshops for residents of villages adjacent to construction sites
- Number of workers and residents using Voluntary Counseling and Testing (VCT) centers
- Number of workers and residents tested for STDs and HIV

These reports also monitored changes in HIV/AIDS awareness and behavior.

## It worked: proven results

The project achieved impressive results:

### HIV services sites set up

- 7 VCT sites along the expressway
- 83 condom and educational material sites

### Testing and counseling

- 2,084 persons tested for HIV and other STDs

### Distributed

- 45,061 copies of handouts
- 17,286 brochures
- 2,624 posters
- 1,237 playing cards (see photo)
- 366 banners with slogans
- 173 copies of videos on CDs
- 25,452 condoms
- 80,000 text messages to all cell phone users (July-Dec 2006)



*Playing cards explaining HIV transmission and prevention methods proved popular*



*Informational CDs and brochure created by EAP Transport*

No new HIV infections were detected in the target communities in the period 2005-07. According to questionnaires distributed in the target communities, general awareness about HIV/AIDS increased 71.4% among the workers and 52.2% among local residents.

Importantly, the program proved effective in driving measurable outcomes (see Table 1) that will reduce this population's risk of contracting and transmitting HIV. Monitoring results showed a decrease in the number of sexually transmitted diseases (19% in 2005 and 38% in

2006)<sup>3</sup> following the project, as well as an increase in condom sales of more than 10% in 2006.

**Table 1 - SME Program Outcomes**

Outcome	2004	2005	2006
<b>STD incidence</b>			
STD cases	2344	1901	1172
Decrease (%)		19	38
<b>Increased awareness</b>			
Among workers (%)		71.4	
Among residents (%)		52.2	
<b>Increased condom sales (%)</b>			10.4

## Success drives rollout

The outcomes showed that the US\$50,000 grant provided by the Global HIV/AIDS program to launch the SME HIV/AIDS program was effectively utilized.

The success of the program enabled the team to secure an Institutional Development Fund (IDF) grant for US\$160,000 to extend the work to the China Fifth Inland Waterways Project, also located at Hubei, and the Jiangxi III Highway Project. A key element of these new projects was to strengthen the capacity of the Hubei and Jiangxi Provincial Communications Departments to address HIV risks in their construction projects.

Additional work was done as part of the Liaoning Medium Cities project, but on a smaller scale due to funding limitations. (It was financed by a US\$20,000 grant out of the UNAIDS Unified Budget and Workplan allocation to the World Bank's EAP HD team.)

## Success factors

The Bank team attributes the project's success to several factors.

1. Funding — the seed grant from Global HIV/AIDS Program allowed this program to be piloted and "sold" to the client.
2. The involvement of good local consultants – the Bank's team believes that handing key responsibilities to a local, authoritative partner should be part of all future efforts.

<sup>3</sup> The decrease was based on China Health Census data and therefore covers the entire population of project-affected areas, not just for the group of people who attended VCT. This is a more representative figure.

3. Commitment by the client – while cautious in the early stages, the client bought into the idea once the work started and offered their full support for the work.
4. Monitoring and evaluation framework – allowed project effectiveness to be monitored.
5. Cross-sectoral support – Collaboration with the Human Development team based in the China country office was instrumental in identifying and involving local consultants and leading HIV/AIDS activists.

## Overcoming obstacles

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**Management support and funding.** As part of a welcome, long-term regional strategy, the World Bank requirement that large transport projects include HIV/AIDS education is a significant step forward. When it achieves full management support throughout the organization—and badly needed funding—it could have the full effect intended.

As noted in the 2007 progress report on the Bank’s HIV/AIDS work to the World Bank Board, current reality finds these efforts without the funds required for the fullest potential impact. Additionally, that Bank staff in the transport sector often do not have time allocated for HIV/AIDS activities in work plans means this needs to be covered from other project budgets. Accomplishments in many regions rely heavily on the commitment and passion of a few staff and some supportive managers.

Bank teams, across the Transport Sector, identify lack of funding as the key obstacle to further success. Amounts as small as US\$50,000 have achieved excellent outcomes, and availability of funding in the future will yield additional positive results.

*“The transport sector could do much more to prevent HIV infections,”* says Christopher Bennett, Senior Transport Specialist, East Asia and Pacific Region Transport and Energy Unit and Task Team Leader for the SME project. *“We have many unique opportunities, contact and involvement with sub-populations at higher risk. Unfortunately, the lack of funding in EAP has limited our work to only a few projects. We have had to turn down requests from several clients to assist with HIV/AIDS activities similar to the SME project due to unavailability of funding—even though the amounts are not large.”*

**Local support.** A more local obstacle was initial resistance from the client and local contractors to the Bank’s efforts to integrate HIV/AIDS education and HIV prevention into the infrastructure work. The prevailing attitude, not unexpectedly, was “My business is building

this road, not sex education and providing condoms.” The contractual clauses requiring HIV/AIDS education provide a mechanism to ensure that education will be done, but they do not ensure that the education will be done well or will be effective.

This is where small grants of ‘seed money’ were useful. Since the client was not expected to pay for the work, they were not opposed to it being done. The only responsibility of the contractors was to make staff available for training, which was often done on rainy days when teams could not work.

The obstacles were further overcome by hiring well respected local consultants as their ability to bridge cultural and organizational divides were crucial. Indeed, this was found to be very effective in opening doors and minds that reticence often turned to willing support and participation.

## Effective and affordable

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The Hubei SME program required a US\$50,000 grant to launch. All three projects undertaken in China came in at US\$50,000 - US\$80,000 over a 2-3 year period.

## Learning and advice

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*“The process was a learning exercise for all involved—the Bank team, the Client, and the consultant,”* says Christopher Bennett.

*“We found very high rates of sexually transmitted diseases (STDs) in our workers, and a very poor understanding of HIV: how it is transmitted and how to mitigate the risks. The team worked very hard at running education programs, testing, counseling, etc. and this has had a very positive impact. We have seen a decrease in the incidence of STDs and an increase in condom sales.”*

A wealth of actionable, replicable learning has emerged from the SME project. While the paramount requirement is the need to secure a regular source of funding, others of critical importance include:

- Secure participation of local health partners;
- Ensure the project complements existing activities;
- Target both workers and residents;
- Use innovative communication channels that are heavily used by the target audience (e.g. playing cards, text messaging);
- Ensure timing and location are right—the window of opportunity is brief;
- Focus on behavior change;

- Train 'peer educators' among highly mobile workers;
- Secure government and contractors' buy-in early;
- Monitor the effectiveness of the interventions; and,
- Set practical monitoring indicators – stigmatized attitude will not change overnight.



*Instruction and training provided through the Hubei SME program raised awareness of HIV/AIDS by 71% among construction workers and 52% among local residents (Photo: Fei Deng)*

## Follow-up

The success of the SME program led the Hubei Provincial Communications Department to ask the Bank to co-sponsor a seminar on HIV/AIDS and transport in October, 2006 (see [www.worldbank.org/eaptransport](http://www.worldbank.org/eaptransport) for details). More than 60 international HIV/AIDS experts, Chinese government officials, and transportation and health sector professionals attended. They made the following recommendations for HIV/AIDS awareness and education efforts among China's transport workers:

- Provide additional training to primary project staff for better results;
- Locate HIV/AIDS educational materials and condom distribution sites in places other than managers' offices, to provide better accessibility to the construction workers;
- Develop peer education among workers, with appropriate compensation, and put workers in charge of distribution of condoms and educational materials;
- Get project owners and management officials at construction sites to be more supportive and

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discourage negative attitudes towards the intervention program;

- Clearly define responsibilities and obligations of contractors to ensure they are active participants in the program;
- Extend the Bank's initiative on HIV/AIDS interventions to all construction projects in China through standard contract clauses; and
- Extend HIV/AIDS awareness among workers to drive behavioral change that will reduce high risk behavior and HIV and other STD incidence.

In addition, guidelines on AIDS Prevention in Communication Programs were prepared, to be used by the Communication Departments in other provinces. These will specify the respective responsibilities and obligations of the transport sector and the health sector, and describe how to evaluate the outcomes of prevention efforts. Professor Xi'en Gui, who prepared the AIDS prevention guidelines advised that "*project safety should not only refer to construction safety, but also to the general health of construction workers*".

The EAP Transport Team has recently secured a grant from the Global HIV/AIDS Program to develop a generic training course to be used for educating workers and local residents about HIV/AIDS, its transmission and its prevention. This will be completed with the help of the Human Development sector in early 2008 and pilot-tested in a number of EAP countries. Potentially, it could be applicable for World Bank-financed projects in all regions.



*Community information and education efforts reached a wide audience. (Photo: Fei Deng)*