



World Bank Global
HIV/AIDS Program

HIV/AIDS M&E - *Getting Results*

These reports describe activities, challenges and lessons learned during the Global AIDS Monitoring and Evaluation Team's (GAMET) work with countries and other partners.

Understanding the HIV/AIDS Epidemic in South Asia

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A new synthesis, analysis and discussion of existing data on HIV and AIDS from South Asian countries provides insights into what is driving the epidemic, what future trends might be, and where programs need stronger emphasis.

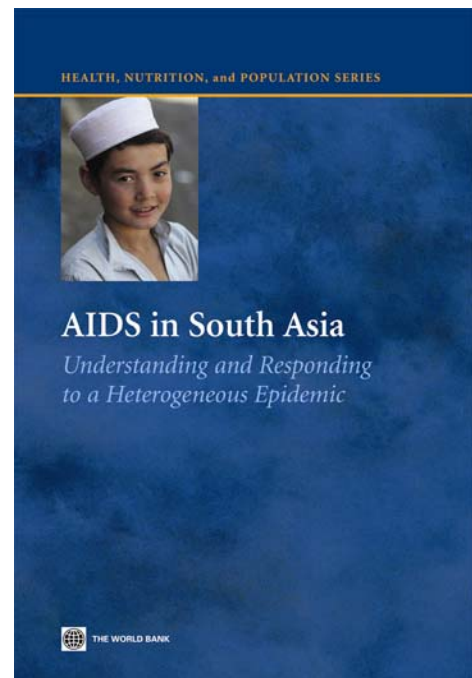
***HIV/AIDS in South Asia: Understanding and Responding to a Heterogeneous Epidemic.* World Bank, 2006**

How will the HIV/AIDS epidemic unfold in South Asia?

In thinking about how to support effective national HIV/AIDS responses in the countries of South Asia, an important starting place is a clear sense of the epidemic's pattern and trends. Three diverging views anticipate very different future trends in the epidemic in South Asia. The "wildfire" view warns that unless a lot more is done, fast, a generalized epidemic will ignite throughout most of South Asia, dramatically increasing the number of people infected. It argues that the HIV/AIDS epidemic is comparable to Africa's in size and potential and requires an immediate, all embracing response. At the other extreme, a complacent view expects the epidemic to remain limited in size and importance with modest increases in infections. The middle view sees many "bush fires", with South Asia facing significant but distinctive concentrated epidemics, requiring urgent action to prevent a many-fold increase in the number of infected people.

The different views have implications for national responses and for Bank support. But which view is right? And how different or similar is the HIV situation in Pakistan, India, Bangladesh, Sri Lanka, Nepal, Afghanistan, the Maldives and Bhutan? Although there are some commonalities culturally across the region, there are enormous differences in size, socio-economic situation, and in their HIV epidemics. There is also diversity within countries, especially in India, which has multiple, varied local epidemics rather than a single national epidemic.

New data and a growing number of biological and behavioral studies in South Asia offer a basis for understanding South Asia's epidemic better. However, these data and studies had not been synthesized, analyzed and interpreted in an integrated way. The World Bank South Asia AIDS team asked a group of researchers to (i) look carefully at the available data, and provide a state-of-the-art assessment of South Asia's HIV epidemic, its major transmission dynamics and potential evolution; and (ii) to propose a rigorously evidence-based, practical and appropriate HIV/AIDS response strategy for the region, highlighting the priorities that need greater emphasis. A consultative review process was used to review the draft report, solicit feedback from national and global experts, and discuss and validate the analysis.



The resulting report is a landmark study that is generating much discussion and informed debate. It has already begun to influence program decisions in countries in the region, and has the potential to lead to better results in preventing new infections.

The study team was drawn from the University of Manitoba (UM), Pakistan's National AIDS Program, Princeton University, and the Bank's South Asia region and Global HIV/AIDS Program.¹ The UM group had a long standing African AIDS research program, as well as five years of work and research with colleagues in India (in Karnataka and Rajasthan), and a huge data base of hundreds of studies on HIV and AIDS in India. Their local presence in India and professional contacts in several other countries was a great asset, added to their strong technical, research and analytic experience. Together, the full team brought together expertise in public health, clinical medicine, epidemiology, social science, and HIV/AIDS program management. Team members brought complimentary perspectives of global experience and local expertise, analytic rigor and pragmatism. In retrospect, it might have been useful also to include skills in behavioral science.

Approach: 1. First, gather all existing data

The first step was to visit each country to interview key informants – especially people working on surveillance or implementing programs, and to gather all the existing data and information. Countries had widely varying amounts of surveillance data, behavioral survey results, anthropological and ethnographic data, and research on HIV/AIDS.

Pakistan was just beginning a second generation surveillance program when the study began, and the team was able to use the results of the first of two planned waves of integrated bio-behavioral surveillance, as well as results from mapping and estimating the size of the sex worker population in five Pakistani cities.

Nepal began surveillance in 1991, but data collection has been badly disrupted. Current knowledge of Nepal's HIV situation comes mainly from a series of cross-sectional studies commissioned by donors.

India, Bangladesh and Sri Lanka all have fairly well established surveillance systems. However, far more has been written about HIV in India than in any of the other countries, including a great deal of detailed research by the UM group in rural Karnataka. The UM group's mapping and statistical analysis of the data from Karnataka were carefully incorporated and gave good

¹ The study team members were: Han Kang (Princeton University, USA); James F. Blanchard, Stephen Moses, Sushena Reza Paul, and Marissa Becker (University of Manitoba, Canada); Faran Emmanuel (National AIDS Control Program, Pakistan); David Wilson (Global HIV/AIDS Program, World Bank) and Mariam Claeson (South Asia Region, World Bank). The study was initiated by Hnin Hnin Pye and Sandra Rosenhouse (World Bank). Helpful review comments were provided by Susan Stout, Joe Valadez, Olusoji Adeyi (World Bank), Neff Walker (UNAIDS/UNICEF), Tim Brown (East West Center), Ruben del Prado, (UNAIDS), Shanti Conoly (USAID) and Ted Karpf (WHO).

insights into the epidemic. The availability of so much more research and data from India made it difficult to keep an even balance of attention in the study across the countries. However, about 97 percent of all estimated HIV cases in this group of countries are in India, so greater attention to India is warranted.

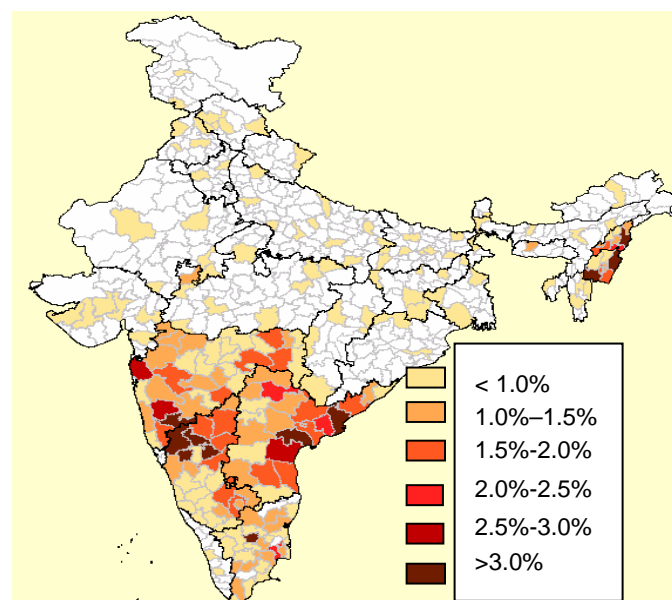
The report focuses mainly on Bangladesh, India, Nepal, Pakistan and Sri Lanka, which had adequate data for analysis. Some comments are also offered on the intriguing strands of information from Afghanistan, Bhutan and the Maldives, but there are too few data for an in-depth analysis in these countries.

2. Next, synthesize the data, and try to understand the epidemic patterns and trends

The HIV epidemic in South Asia is severe: there are already more than five million infected people. However, 99.6% of South Asians are uninfected, and further spread could be prevented.

The epidemic is most severe in India, particularly in a cluster of southern and western states, and some northeastern states, although there are not enough data to characterize the situation in many areas, especially in northern India (Figure 1). HIV prevalence varies greatly between and within districts, and even across villages in the same areas. Female sex work is central to transmission dynamics in most areas, and mobility of sex workers and their clients helps spread the epidemic. Sex between men is probably a more important transmission factor than previously assessed.

Figure 1: HIV Prevalence at antenatal care sites, by district, India, 2005



Source: NACO (India) 2005

The HIV epidemic may be as severe as in India in parts of Nepal, where transmission occurs largely through sex work and injection drug use, and among the sexual partners of injecting drug users. Significant numbers of both men and women have HIV, but the insurgency makes surveillance and response very difficult.

Pakistan and Bangladesh's epidemics are centered among injecting drug users, and are expanding among men who have sex with men (MSM) and *hijra*² communities. HIV infection among sex workers in Pakistan and Bangladesh is still generally low, but there is substantial potential for the epidemic to grow among sex workers and clients, especially among sex workers who inject drugs or whose sexual partners inject drugs. The high levels of male circumcision in both countries may curtail substantial heterosexual epidemics.

The data from Afghanistan indicate rapidly growing HIV infection in the large population of injecting drug users, and especially where injection drug use and the sex trade intersect. Bhutan and the Maldives' epidemics are in an early phase, with relatively low potential. In Sri Lanka, HIV remains low even among high risk groups.

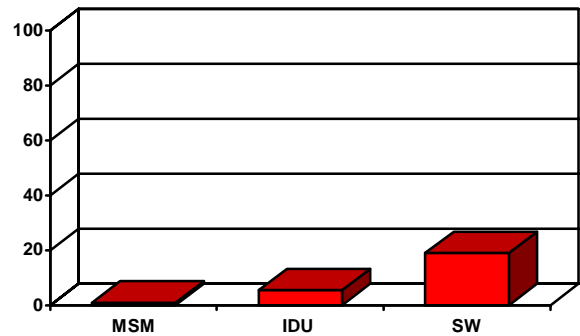
3. Draw out the implications for programs and practical recommendations

The analysis points to the need for a two pronged approach to HIV prevention: (a) most important are effective large-scale programs for sex workers and clients, injecting drug users and their sexual partners, and men who have sex with men and their other sexual partners. (b) To support these programs, there need to be widespread HIV prevention and stigma reduction campaigns for the general population and for individuals and groups who can facilitate or impede program implementation.

Programs could be more effective if they combine a laser focus on the highest prevalence areas and communities, with expanded coverage nationwide. Wider coverage of adequate interventions would have more impact than low coverage of perfect interventions – small behavior change on a large scale has more effect than large behavior change on a small scale. Figure 2 shows how low program coverage is among key groups. It is critical to scale up prevention programs among key populations to “saturation” level, to reach as close to full coverage as possible.

² Hijra see themselves as neither male nor female, most are “born with a male body but with a feminine gender identity”, and they dress and behave in feminine ways. (<http://www.geocities.com/leylasuhagi/hijradef.html>)

Figure 2: Coverage of interventions for high risk groups is very low in South East Asia

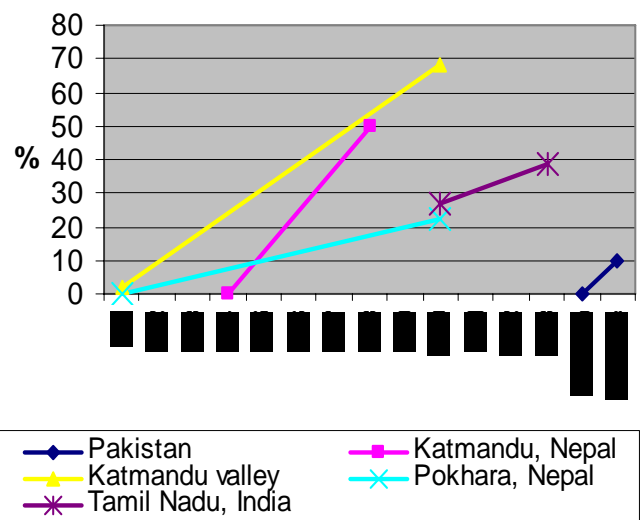


Source: USAID, UNAIDS, WHO, UNICEF and the Policy Project, 2004. Coverage of selected services for HIV/AIDS prevention, care and support in low and middle income countries in 2003. Available at www.FuturesGroup.com

Some of the other recommendations and specific implications for programs:

- Surveys document high levels of unsafe behavior such as sharing contaminated needles among IDUs, and instances of rapid, explosive spreading of HIV through injection drug use from negligible levels to 50% or higher prevalence in just a few years (Figure 3). Prevention programs among IDUs need to give more attention and resources to comprehensive harm reduction approaches, including needle exchange and drug substitution. There is a short window of opportunity and a critical need for concentrated prevention and treatment programs among IDUs. The epidemic potential in Pakistan, Bangladesh, Afghanistan, Nepal and north-eastern India depends greatly on implementing effective harm reduction programs now.

Figure 3: HIV prevalence among injecting drug users can rise sharply, very quickly



Sources: National data

- Surveillance needs to be expanded and further supported in all countries, especially to monitor behaviors and HIV among high-risk groups, such as sex workers, IDUs and MSM. Expanded and more comprehensive mapping at district level and below for the main risk groups would indicate the reach needed from prevention programs.
- In India, female sex workers are much less likely to use condoms with non-paying sexual partners than with paying clients. This suggests that they misperceive non-paying partners as less likely to transmit HIV. Prevention programs among sex workers should emphasize correct and consistent condom use with both paying clients and non-paying partners.
- The role of MSM/MSWs in the HIV epidemic needs to be better delineated through focused research in the region, and programs developed accordingly.
- The course of the HIV epidemic and HIV transmission dynamics in rural areas need to be researched, particularly in India. Questions remain about whether and under what circumstances substantial rural epidemics can be maintained on their own, or the extent to which they reflect urban epidemics; as well as the role of local sex workers and other risk networks in maintaining rural epidemics. The importance of rural-based interventions and community driven programs needs to be better understood, as well as practical approaches developed to reduce risk and vulnerability among rural populations.
- Some of the major challenges in South Asia require regional and cross-border collaboration, transcending national boundaries and bureaucratic regions. For example, harm reduction in Afghanistan and Pakistan would benefit from coordination with similar initiatives in Iran and Central Asia. HIV prevention among sex workers in Nepal could be enhanced by coordinated efforts with India, with a focus on migration and trafficking, especially to Mumbai. Drugs and sex are extensively traded across the borders between the highest prevalence districts in northeastern India, parts of Bangladesh and bordering Myanmar, calling for collaboration across borders, regions and sectors.

4. Discuss the draft report extensively before finalizing it

Discussing and finalizing the report was a valuable and integral part of the work. Once an initial draft was completed, in addition to the usual peer review to solicit and incorporate views from colleagues within the World Bank and an external reviewer, three consultations were held with country experts and donors, to discuss the preliminary findings. Videoconferences linked people

from Bangladesh, India, Nepal, Pakistan, Sri Lanka, and from many stakeholder organizations: National AIDS managers, people living with AIDS, other government and NGO partners, researchers, UNAIDS, UNICEF, USAID, WHO and the World Bank. Given India's size and complexity, one videoconference focused specifically on India, where the Global Development Learning Network and the India National Informatics Center³ worked together to connect 70 people in five cities for a rich exchange. In addition to national experts and development partners, the participants in India included representatives of associations of women living with HIV/AIDS, and university students. In each session, a presentation of the study results and comments by panelists were followed by general discussion.

"This was my first VC and it was wonderful. It was so good to be able to discuss like this ..."
(Anandi Yuvaraj, International HIV/AIDS Alliance, India).

The opportunity to provide feedback and debate points made in the draft report was greatly appreciated. Participants at each consultation provided additional data and insights, enriching the final report. The study conclusions were validated, and those that were challenged stimulated constructive discussion, and helpful guidance for refining and finalizing the report.

There was robust discussion on areas where received wisdom, assumptions and beliefs were not fully consistent with the data analyzed in the report. For example, the report noted that HIV transmission among female sex workers in Pakistan was close to zero, but many people believed that sex worker prevalence was 7%. The discussion clarified that the 7% rate referred to male sex workers, not women, a very important distinction for prevention programs.

The report also generated debate on the role of treatment of other sexually transmitted infections (STIs) in preventing HIV. This has long been believed to be an important part of prevention programs, but experience from Africa challenges the orthodoxy. In four out of five carefully evaluated programs, STI treatment had a clear impact on STIs – but not on HIV transmission. In a fifth study, STI treatment reduced HIV transmission, but not the incidence of STIs. These findings are not well known in Asia, suggesting scope for much more sharing of data and results across the globe, with appropriate caution about generalizing results from one place to another. The implication of the Africa STI studies is that treating STIs appears not be an effective intervention against HIV transmission, although it remains an important part

³ NIC, the information technology agency for the Government of India, provides a wide range of e-government services to central, state and district government departments, including the Indian Government Portal (<http://india.gov.in/>).

of the broader reproductive health agenda. When considering investing in STI treatment programs, the first step would be to check the prevalence and profile of STIs, before deciding how to proceed.

Another important point, based on data, is the recommendation that much more attention needs to be given to injecting drug use. HIV infection among injecting drug users is clearly a problem in several of the countries, and quite likely in others as well although data are too patchy to give a clear sense of its magnitude or potential. Data from some areas – north east India, Pakistan and Afghanistan – show HIV prevalence rates rising very rapidly among communities of IDUs. Although IDUs are difficult to reach, effective harm reduction programs involving peer educators are showing results. This calls for multi sector approaches, including working on the legal framework and seeking agreements with local police to effectively reach vulnerable groups at high risk. Good practices are emerging from Bangladesh and India. Likewise intensified efforts across sectors are needed to reduce stigma associated with HIV and AIDS among IDUs, MSM and sex workers throughout the region.

The discussion also focused on migration, which the report touches on, but does not deal with in detail. The data suggest that migration is often associated with other risky behaviors: many IDUs in Afghanistan began injecting while living in other countries; Nepalese sex workers who have worked in Mumbai have much higher HIV rates than sex workers who have worked in other parts of India, and both groups are much more likely to be infected than Nepali sex workers who have not worked outside the country. Migration warrants more careful thought and discussion, including differentiating among migrants (e.g. people who have been trafficked, transport workers, seasonal migrants) to understand better which groups might be at risk and how to reduce the risk.

The videoconferences touched on just some of the important issues raised in the report. No other disease has generated so many certainties and orthodoxies, but less progress. This suggests a huge need for continued well informed debate and discussion – one of the main objectives of this report – to try and ensure that global, national and local responses achieve stronger results.

Impact

Long before the study's formal launch in August 2006 at the XVI International AIDS Conference in Toronto, its impact had begun to be felt, for example, in the preparation for the third national AIDS program of work in India. One outcome of the work has been to provide solid evidence to justify support to local groups in implementing outreach programs for high risk groups, including men who have sex with men (MSM) where the coverage of effective preventive interventions is the lowest in the region. Building local capacity to train peer

educators, manage and solicit financing, and monitor impact among vulnerable groups at high risk is a key recommendation of the report, guiding programming and planning in World Bank supported operations in South Asia. The foundation has been laid for achieving results – impacting the AIDS epidemic in South Asia – based on more solid evidence.

The report's assessment of the trend that the epidemic appears to be following in South Asia is consistent with important new analysis of data from India (Kumar et al., Lancet 3/30/06). Contrary to some earlier predictions of major increases in HIV in India, data from women attending antenatal clinics and men attending sexually-transmitted infection clinics indicate declining HIV prevalence between 2000 and 2004 among young women and men in South India, and stable prevalence in North India, although at lower levels. The researchers suggest that the decline may be due primarily to high levels of condom use during commercial sex, and conclude that expanding peer-based condom programs for sex workers remains a top priority to control HIV-1 growth in India.

Sharing the experience

Is the study replicable elsewhere?

The South Asia region has some unusual characteristics that facilitated the study. Because the region comprises only a few countries, detailed analysis for the different countries and cross-country comparisons were possible; many more countries would have made the task daunting. The country analysis that had already been done was also very helpful. If a similar study were being considered in countries with less existing data and research, it would probably make sense to trade off geographic reach for intensive investigation, and do detailed analysis on selected areas of the countries. Criteria for inclusion and for grouping countries should also be carefully considered, since countries of very different size, availability of data, and epidemics will inevitably get uneven attention. But even if the study cannot be precisely replicated in other regions or subregions, the analytic approach certainly can be adopted within or across other countries.

Sharing experiences, building skills

To build on the work done and having seen how useful the analysis is proving to countries, the Bank's Global AIDS Program is developing a skill-building clinic on how to do this kind of analysis. The 3-5 day clinic will be aimed at people who need to understand the epidemic in their country, as a basis for making program decisions. This would include, for example, Ministry of Health epidemiologists, staff in national AIDS programs, as well as researchers and analysts, although the orientation will be practical rather than academic.

Preparatory work will be important, and participants will be asked to bring their national HIV/AIDS data with them, so that the clinic can be hands-on and “real world”, not theoretical. Having seen the kinds of data sources that countries can draw on, and brought them to the clinic, participants will then work on using the various types and sources of data to build a composite picture of the epidemic. The final topic will be to talk about the implications for HIV/AIDS programs. A better understanding of the patterns and trends in transmission, risk and infection could inform more strategic programs, that are more likely to achieve results in preventing infections and providing care and treatment to those who need it most.

For more information:

“HIV/AIDS in South Asia: Understanding and Responding to a Heterogeneous Epidemic”, available on line (from 08/15/06) at www.worldbank.org/sar aids and www.worldbank.org/aids > publications

For more information on the report, or World Bank support for the response to HIV in the South Asia region, please contact:

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