India: Fitting HIV/AIDS into a Public Health Strategy

A Report of the Task Force on HIV/AIDS
Center for Strategic and International Studies

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Summary: The Big Picture

More than 20 years after the first AIDS case was diagnosed in the southern city of Chennai, India is still juggling different public health priorities, while maintaining and increasing its spending on HIV/AIDS programs. Numbers collected in 2006, and released in July 2007 by the Indian Health Ministry's National AIDS Control Organization (NACO), estimate the country's adult HIV prevalence at approximately 0.36 percent. This corresponds to an estimated 2 million to 3.1 million people living with the HIV virus. These figures are significantly lower than the previous year's NACO estimate, which put the number of HIV cases at 5.2 million and the prevalence at 0.9 percent. The two surveys were based on different methodologies and are therefore difficult to compare. In any event, the new figures indicate that India still faces a serious public health problem from HIV/AIDS. There remain great uncertainties about the pandemic's trajectory.

The Indian government's strategy for dealing with the pandemic emphasizes a comprehensive, decentralized approach and calls for a massive increase in the number of people on antiretroviral treatment (ART) in the next five years. Two important challenges during this period will be integrating the response to HIV/AIDS with the rest of India's expanding public health goals and raising the budget for HIV/AIDS to levels commensurate with the problem.

The United States remains a unique partner, through both government and private collaborations. To build the kind of dynamic and effective collaboration this problem needs, the United States needs to center its HIV/AIDS work in India on two big ideas: a common pursuit of scientific excellence, and the importance of putting HIV/AIDS into the context of improving public health. U.S. government funding for India's HIV/AIDS program has been basically unchanged

at about $30 million per year since 2006. This needs to be expanded, especially in the area of public health cooperation.

The New Numbers

Until 2006, NACO's estimates of HIV/AIDS prevalence were based exclusively on data collected at the government's sentinel surveillance sites. The surveillance system continues to expand, and the figures released in 2007 reflected an increase in the number of sites from 703 to 1,164. There was a particularly large and welcome increase in coverage in the big states that had not been considered high prevalence, including the very large states of Uttar Pradesh and Bihar in northern India. There is now a surveillance site in nearly every district of India, an important expansion in coverage and in potential ability to track and eventually control the epidemic.

For the survey released in 2007, the Indian Health Ministry, with the help of international organizations like the World Health Organization (WHO) and the Joint United Nations Program on HIV/AIDS (UNAIDS), used a different estimation methodology. In addition to the sentinel surveillance sites, the figures released in 2007 brought in two additional sources: data collected from high-risk groups in the country's high-prevalence states, and the National Family Health Survey (NFHS-3). This was a random population sample survey conducted in 2005–2006 of 100,000 people ages 15 to 54 who agreed to have an HIV test. The new figures produced a prevalence estimate about 40 percent lower than the previous ones. However, the figures are not comparable, and the change in methodology makes it nearly impossible to assess how much of the difference in estimated prevalence is due to India's AIDS control efforts and how much is due to different sampling techniques.

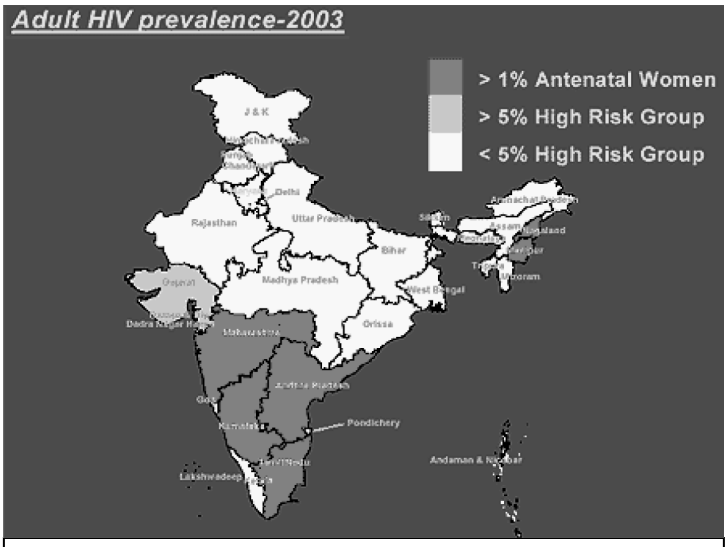
Each sampling technique has its own weaknesses. In the sentinel surveillance technique, pregnant women and patients suffering from sexually transmitted diseases are intensively monitored for the HIV virus, with pregnant women serving as a proxy for the general population. This technique is criticized for exaggerating the absolute numbers by focusing excessively on high-risk groups. The sentinel surveillance sites have historically provided denser coverage in states where prevalence is believed to be high, although the expansion of surveillance sites is mitigating this problem. On the other hand, a household survey like the NFHS-3 has the opposite effect by underrepresenting high-risk groups, possibly creating a bias toward underestimation of the overall numbers.

In addition, the survey only generated HIV estimates for a few selected states: Andhra Pradesh, Karnataka, Maharashtra, Manipur, Tamil Nadu, all high-prevalence states; and Uttar Pradesh, India's largest state. According to a UNAIDS press release, for states that did not have a state-specific NFHS-3 estimate, the NFHS estimate for the rest of India was combined with the antenatal clinic prevalence of the specific state to arrive at an estimate of HIV prevalence among adults in those states.

A Complex Epidemic

India's citizens may share one time zone, but they live in vast regions separated by immense distances and customs. They speak 22 officially recognized languages, in addition to English and Hindi, practice different religions and customs, and face diverse HIV/AIDS crises.

Most of the infections are still concentrated in a few parts of India. About two-thirds of reported HIV infections have been in 6 of the country's 28 states—4 large states in the industrialized south and west and 2 small ones in the northeastern tip. According to World Bank data, on average, HIV prevalence in those states is four to five times higher than in the other Indian states. And within those states, prevalence patterns vary.



Source: NACO; http://www.nacoonline.org/facts_overview.htm.

The highest prevalence rates are found in four areas in the south, the Mumbai-Karnataka corridor, the Nagpur area of Maharashtra, the Nammakkal district of Tamil Nadu, and coastal Andhra Pradesh. Parts of two northeastern states, Manipur and Nagaland, are also seriously affected. In the south, infection levels in rural and urban populations tend to be similar. Delhi, although not labeled as a high-prevalence state, also faces a serious HIV/AIDS problem.

Different locations have distinct modes of diffusion. The bulk of HIV infections in India continue to be spread through unprotected heterosexual intercourse, according to NACO. As in many other countries, women account for a growing percentage of infections. But intravenous drug use also drives the spread, particularly in northeastern states such as Manipur. And migrant labor is a vector for both modes of transmission.

Some cities have gone further in preventing the spread than others. Workers in the sex trade in Kolkata (formerly Calcutta) have formed a union to promote condom use, which has kept the prevalence rates well below the 50 percent rates reported in cities such as Pune and Mumbai (formerly Bombay). One study in Karnataka state found significant differences in HIV prevalence among sex workers based on condom use but also major differences based on the structure of the sex trade. Almost one-half (47 percent) of the women operating out of brothels were infected, whereas the prevalence among those operating from street

locations was about 26 percent. Among those operating out of their homes (non-brothel-based sex workers), it was still lower (15.5 percent).[1]

The epidemic also follows different trend lines in different places. NACO's 2005 report showed a drop in HIV prevalence in Tamil Nadu from 2000 onward, in all the populations surveyed except intravenous drug users. This followed a rise in condom use by men and by female sex workers in southern India, which some experts believe reduced the transmission of HIV. In Tamil Nadu, a survey conducted by AIDS Prevention and Control (APAC), an organization that does both studies and projects in the HIV/AIDS field, found that by 2004, 90 percent of sex workers surveyed reported regular condom use.[2] Other studies come up with similar findings for specific populations, and one in particular cites a drop in prevalence among women aged 15 to 24 all over South India.[3]

Different Indian states also vary in their capacity to respond to the epidemic. The southern states have the best health infrastructure, high political awareness, and apparently greater will power to tackle the AIDS pandemic. The intensity of HIV-prevention efforts has been highest in southern India. But some of the northern states have notoriously weak governance and health infrastructure. A number of the 29 districts in which the latest survey estimates that prevalence is high fall into this category, including certain districts in the states of West Bengal, Orissa, Rajasthan, and Bihar. These are not in "high-prevalence states" and, hence, have not been given the extra attention that the high-prevalence states receive. Bihar's high-prevalence districts are along the notoriously porous border with Nepal and could well lead to an acceleration of Nepal's epidemic. Many experts fear that weak surveillance and bad governance masks a much larger HIV/AIDS problem in these states. The results of the new survey point to the need to rapidly ramp up the surveillance systems in these states. The government is trying to scale up its surveillance in these areas.

The epidemic does not differ only from one state to another. Below the level of the state, there may be dramatic differences from one district or village to another. A detailed behavioral survey of one district in Karnataka shows major differences in the size of the sex worker populations and in their behavior from one village to another within the same district.[4] Both Indian and international agencies working in the HIV/AIDS field have found that this makes it essential to customize programs down to the village level, a major operational challenge.

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[1] B. Ramesh et al., "Sex Work Typology and Risk for HIV in FSWs in Karnataka," paper presented at the XVI International AIDS Conference, Toronto, August 13–18, 2006, http://www.aids2006.org/PAG/Abstracts.aspx?AID=9062.

[2] Cited in Stephen Moses et al, *AIDS in South Asia: Understanding and Responding to a Heterogeneous Epidemic* (Washington, D.C.: World Bank, 2006), chapter 5, http://siteresources.worldbank.org/SOUTHASIAEXT/Resources/Publications/448813-1155152122224/southasia_aids_chapter5.pdf.

[3] Rajesh Kumar et al., "Trends in HIV-1 in Young Adults in South India from 2000 to 2004: A Prevalence Study," *The Lancet* 367 (2006), pp. 1164–72, http://www.thelancet.com/journals/lancet/article/PIIS0140673606684353/fulltext.

[4] Moses et al, *AIDS in South Asia*.

Social and Cultural Taboos Remain Entrenched

Deep-rooted stigma against AIDS and HIV-infected patients, especially within the medical community, makes the fight against the pandemic difficult. The middle class, by and large, has yet to acknowledge the danger posed by the virus. Very few hospitals in India are equipped to treat HIV/AIDS patients, and even in these hospitals HIV patients are often held at arm's length. The majority of "AIDS wards" in Indian hospitals consist of 1 to 2 beds relegated to a dingy and often filthy corner of the hospital. Not surprisingly, most nongovernmental organizations (NGOs) involved with AIDS work in India have multiple horror stories of discrimination and harassment by doctors and nurses in both public and private hospitals.

Though these issues are present in every developing country, India's complicated social norms and conservative attitude toward sex make it more visible and harder to address. For instance, prostitution is illegal yet widespread. Fear of retribution by local police, pimps, and families prevent many sex workers from coming forward for testing and treatment. Fear of losing their clients and thus their livelihood leads many sex workers to refrain from demanding the use of condoms by their customers. Discussions about sex remain off limits in most Indian households and even in elite private schools in big cities like Delhi.

India's HIV/AIDS Strategy

On April 1, 2007, India launched a new phase of its National AIDS Control Program (NACP), which will extend till 2012. The new phase, NACP-III, is the most ambitious launched by the Indian government so far. The emphasis of NACP-III will be on the following:

- Decentralizing HIV/AIDS programs
- Establishing a regulatory authority to ensure safe blood
- Increasing targeted intervention programs to cover 80 percent of high-risk groups
- Extending outreach programs to migrants and truckers
- Increasing community care centers
- Putting 300,000 people on antiretroviral treatment (ART)
- Training 380,000 health personnel.

The goal of covering 300,000 people on ART is a very important step. In 2004, India set a goal of putting 100,000 patients on ART within the year. It had reached 60,000 people as of mid-2007. NACO wants to dramatically increase this number and also introduce second-line ART drugs for patients whose HIV infection has become resistant to the first-line antiretroviral drugs. One of the major impediments to expanding coverage has been the difficulty of setting up the community outreach and follow-up programs required for an effective medication program.

India's AIDS programs are implemented through NACO, a small, semiautonomous organization within the Ministry of Health initially set up in 1992 with financial assistance from the World Bank. NACO's autonomy was intended to prevent bureaucratic delays from retarding India's HIV/AIDS prevention work. NACO works with a network of fairly autonomous state offices, which are more generously staffed and are intended to be the real operating arm of the AIDS program. NACO also works closely with NGOs and is allowed to accept money from international donors, as well as private organizations, a significant change from standard government regulations.

One potentially important force multiplier for India's AIDS strategy is the newly founded Public Health Foundation of India. This institution was launched in 2006, with funding from the Indian government, foreign donors, and the private sector, and is an autonomous governance structure. It is well on its way to establishing the first two of seven planned schools of public health, intended to serve as centers of world-class expertise on public health as a whole. These schools will have specialized departments dealing with India's major public health problems, including HIV/AIDS. The intellectual and capacity-building leadership this institution is intended to provide should help develop a strategy that anchors a strong response to HIV/AIDS in a larger public health policy, to the benefit of both.

In addition to national and state AIDS-control programs, the Indian government uses a number of health care programs established for government employees as vehicles for HIV/AIDS prevention and treatment. The government's Indian Railways, which operates the largest health care system in the country, as well as the military and the Central Government Health Scheme, all provide testing and counseling as well as treatment.

India's plan for dealing with the pandemic so far has focused mainly on prevention of HIV infection. But as it expands treatment, the financial and technical resources required are growing exponentially, putting an enormous strain on its frail public health infrastructure. India has excellent small targeted awareness and successful intervention programs among high-risk groups. Indian policymakers are still grappling with different approaches to scale up these successful programs, which can then be implemented country wide with modifications to suit local characteristics.

Besides the government's programs, an effective response to the HIV/AIDS epidemic in India requires the active participation of employers, NGOs, and the media. A few businesses have provided real leadership in providing HIV/AIDS programs for their employees and families, notably Tata. Both Tata and Reliance have run HIV/AIDS programs in the context of broader employee health programs. Several other businesses have undertaken prevention activities such as peer counseling. The Confederation of Indian Industry (CII), India's most prominent business group, has developed "good governance" norms on AIDS programs for its member companies. But the stigma of AIDS still keeps this kind of program in the shadows.

India boasts a tremendous array of dynamic NGOs, some of which have developed very creative AIDS programs. Some of the most creative of these are aimed at populations little served by regular government programs, such as adolescents. Others involve specialized work, such as the Lawyers Collective, which has developed tools for addressing the legal disabilities suffered by HIV-positive people and has worked to introduce antidiscrimination legislation. Still others have worked with the media or with people living with HIV/AIDS. The NGOs, in India as elsewhere, have been a laboratory for new approaches, especially in the area of prevention, where it is critical to get beyond medical tools and delivery systems. Their problem is the difficulty of moving from small-scale experimentation to large-scale implementation—and of obtaining the funds to make that leap.

While many of India's programs have focused on high-risk populations, two groups have been underserved by the official programs: intravenous drug users and men who have sex with men. The activities that make both these populations high risk are either illegal or widely stigmatized, and official outreach to these groups is therefore controversial. They are furthermore probably underrepresented in the various surveillance mechanisms used by the government to measure the epidemic.

Impact on the Economy Could Be Substantial

The New Delhi–based National Council of Applied Economic Research (NCAER) released in 2007 the first attempt to measure the macroeconomic impact of HIV/AIDS in India. The report, *Socio-economic Impact of HIV/AIDS in India*,[5] partly funded by the Indian government and the UN Development Program (UNDP), argues that if present trends continue, the HIV/AIDS epidemic is likely to reduce the country's average annual growth rate during the next 14-year period by 1 percentage point per year, with a corresponding reduction in per capita GDP. In addition, the authors expect a sizable reduction in the output of the manufacturing, agricultural, and tourism sectors.

The economic impact of HIV/AIDS results from loss of productivity and efficiency of operations, absenteeism, and the cost of care and treatment. In addition, HIV/AIDS also degrades morale and workplace cohesion and forces companies to hire and train substitute workers. Episodes of illness have a negative impact on other members in the work team and on the work process in general that cannot be quantified. Industries that rely heavily on unskilled labor or on labor mobility, such as trucking, are particularly vulnerable. Some of them have responded with vigorous workplace programs. Tata Steel, which sees HIV/AIDS not only as a social scourge but as a threat to their bottom line, is widely recognized as a leader. (For a more detailed discussion on this topic, please see Pramit Mitra, "AIDS Threatens India's Prosperity."[6])

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[5] Basanta Pradhan, *Socio-economic Impact of HIV/AIDS in India* (New Delhi: NCAER, 2007).
[6] Pramit Mitra, "AIDS Threatens India's Prosperity," *YaleGlobal Online* (November 30, 2006), http://yaleglobal.yale.edu/display.article?id=8486.

A reduction in growth of 1 percentage point is significant, especially at a time when India is on the cusp of major economic advancement and a larger role in the world. However, it may not sound dramatic enough to trigger a major expansion in the budget for HIV/AIDS work, which has historically been inadequate to achieve the goals the government has set. This argues for developing an approach that integrates AIDS work into the larger public health agenda. The strategy outlined above is certainly compatible with a public health–oriented approach; what is missing is the explicit linkage.

U.S. Engagement

The United States to date has been India's most significant partner in meeting the challenge of HIV/AIDS, especially when one includes the full range of government and private programs. India is not a focus country under the U.S. President's Emergency Program for AIDS Relief (PEPFAR), but outside of the focus countries, it is the largest U.S. bilateral HIV program. Funding under PEPFAR has been steady at just under $30 million since 2005, and the administration's request for 2008 is at the same level. Over two-thirds of the funding comes from the U.S. Agency for International Development (USAID), followed by the Centers for Disease Control and Prevention (CDC). Other U.S. donors with smaller contributions included in this total are the Department of Health and Human Services (HHS), the Department of Defense (DOD) and the Department of Labor. The U.S. government also contributes to HIV control in India through organizations such as the World Bank, UNAIDS, and the Global Fund to Fight AIDS, Tuberculosis, and Malaria, which obtain a substantial portion of their funding from the U.S. government.

The U.S.-India partnership goes beyond bilateral assistance. In fact, one of the striking differences between India and other "second wave" countries affected by the HIV/AIDS pandemic is the broad and deep-rooted U.S. involvement in the health sector.

U.S. government agencies such as USAID and its predecessor agencies have been working in India almost since India's independence and have made a significant investment in building up India's scientific education capacity. HHS, working through a variety of different agencies, is another key player. The CDC, a major operating component of HHS, has supported improvements in important laboratories and other facilities, as well as operational research connected with both prevention and treatment. Major programs of the National Institutes of Health (NIH) include research grants, vaccine development through the U.S.-India Vaccine Action Program, and the HIV Prevention Trials Network. India is one of the major participants in the AIDS International Training and Research Program of the Fogarty International Center, which helps build capacity in Indian and U.S. universities, as well as create valuable linkages between Indian and U.S. scientific institutions.

Outside the government, private U.S. philanthropic organizations have invested significant resources to shore up India's expenditures on public health.

The Bill and Melinda Gates Foundation has spent $258 million over five years on its HIV-prevention project in India, making it currently the largest single donor to India's HIV/AIDS program. The foundation's *Avahan* program (Sanskrit for "call to action") has devoted most of its resources to focused interventions in the six states known to have high HIV prevalence and along national highways.

The William J. Clinton Foundation is partnering directly with NACO to improve capacity and systems. For example, the foundation will help develop and implement a uniform patient information system, accreditation standards for HIV care and treatment facilities and providers, laboratory testing capabilities for antiretroviral treatment, and training for health professionals in high-quality HIV care and treatment.

India's wealth of scientific talent has attracted an impressive list of U.S. universities to carry out HIV/AIDS research with Indian counterparts. Some of this work is funded by NIH; some is privately funded. The work runs the gamut from development of new medications or vaccines to economic, social, and operational research that broadens understanding of the dynamics of the epidemic. Many U.S. universities bring a multidisciplinary approach to their work in India, which is especially valuable since many of the Indian institutions involved in AIDS research have found it difficult to build bridges across disciplinary boundaries.

The 2-million strong Indian-American community is also mobilizing to give a helping hand to the fight against AIDS. One of the key players in this effort is the American Association of Physicians of Indian Origin (AAPI). It is affiliated with two hospitals, a medical school, and a nursing school in India through which it provides outreach, education, research, and treatment services. Although this may sound small compared with India's population and geographic size, its impact will be felt in the coming years. Indians or students of Indian origin comprise approximately 12 percent of medical students in the United States, vastly exceeding their percentage of the population at large. Even if a small fraction of these students are convinced to make a contribution to India's fight against the disease, it can result in significant mobilization of resources.

The Scope of U.S. Engagement

U.S. engagement in India on HIV/AIDS has a number of strengths. U.S. program managers and scholars are respected for their professionalism and expertise. A number of joint scientific programs over the years, including many in the health sector, have allowed U.S. researchers to build relationships of mutual professional respect with their Indian counterparts. Hundreds of Indian medical professionals have been trained in the United States through NIH-sponsored programs. U.S. degrees are highly sought after and command enormous respect in India.

In return, India brings important strengths to the table as well. Its scientific talent and vibrant civil society are well known. Even the best Indian medical schools cannot compete with the resources of ordinary medical schools in the West, but they graduate well-qualified medical professionals.

Another strength that India enjoys is its world-class pharmaceutical industry. Indian drug manufacturers have had a major impact on the market for antiretroviral drugs (ARVs), and several Indian-made ARVs are currently being reviewed by the U.S. Food and Drug Administration (FDA). They are also significant manufacturers of bulk pharmaceutical inputs. Companies like Ranbaxy and Cipla are playing a major role in the international fight against HIV/AIDS, especially in African and Caribbean countries. Ironically, the number of people receiving ARVs in India is still small, though it is expected to grow sharply in the next few years, with much of the drug supply coming from these companies.

The contribution of the U.S. business community is still rather modest, mirroring the relatively slow progress toward establishing HIV/AIDS programs in much of Indian business. More disturbingly, in a country where close to 80 percent of medical care is provided by the private sector, outside the government program, the HIV/AIDS program has made few inroads into the private medical sphere. There are some shining exceptions, notably the nongovernment YRG Care organization in Chennai, whose director identified the first HIV case in India and has remained one of the national leaders in fighting the epidemic ever since. Another exception is the network of hospitals and health clinics working with AAPI in Andhra Pradesh. But this is clearly an area where much more needs to be done.

Another challenge involves fitting India's HIV/AIDS-specific programs into the larger public health agenda and into the government's "national health mission." Indian policymakers consider integration essential but have not yet figured out the most effective ways to implement it. This integration needs to go beyond the medical field. HIV/AIDS-prevention messages need to be part of school curricula, the legal system, public communications, and other aspects of daily life.

India's current surveillance system is impressive given the sheer size and population of the country, and its expansion has helped fill in gaps in coverage. This process needs to continue, to provide more fine-grained data for smaller geographic units, so India's health managers can get an accurate picture of the pandemic in India. The big northern-belt states with enormous populations and weak infrastructure, such as Uttar Pradesh and Bihar, are particularly worrisome.

India's medical institutions and universities are hampered because of their long-standing practice of relying primarily on government funding. Private-sector money for university research is small and restricted to a few elite engineering colleges. As a result, researchers may leave in frustration to seek better opportunities in the West—mostly in U.S. universities.

Capacity building is also an issue in India. Even in a country with the professional talent that India has, lack of capacity—medical, managerial, and infrastructure—often puts a speed bump in the way of an effective response to the AIDS pandemic. India's public health system desperately needs effective managers to run large-scale programs. Outside the government, NGOs that do operational work also need management talent as well to run their projects effectively and to scale up successful programs. Very few students from India's

top management schools opt to work for the nonprofit sector. India also needs to train more doctors, nurses, and medical professionals to care for HIV-infected people.

India also faces the problem of scale and needs to expand, adapt, and replicate successful programs and target high-risk populations currently not under the microscope. For instance, most of India's success stories involve work done with sex workers and truckers. Coverage of other vulnerable populations, such as intravenous drug users and homosexuals, is much thinner. Migrant workers, another important vector for the transmission of the disease, also have not gotten the required attention. Finally, the complexity of both U.S. and Indian government procedures makes it hard to provide a response with the flexibility needed to combat this pandemic.

There is no doubt that by working together the United States and India can make a substantial contribution to the fight against AIDS, not just in India but in other parts of the world as well. Such collaboration serves the national interests of both these countries. Since 9/11, the United States has paid more attention to events in South Asia than it has for decades. India, a vibrant secular democracy with a significant capacity to mount relief operations, as witnessed during the Tsunami disaster, can play an important role to ensure stability in the region. Therefore it is in the national interest of the United States to ensure that India's economic growth is not jeopardized by the AIDS epidemic. For Indian policymakers, a full-blown AIDS epidemic is a serious potential danger to the nascent economic expansion that has a chance to lift millions of Indians out of poverty and increase the status and influence of the country.

Summing up India's Epidemic

India's epidemic, in short, still poses dangers for India and the region, but recent evidence shows that it can be brought under control and that this may be starting to happen in some of India's severely affected areas. There are signs that HIV prevalence is slowly declining among sex workers in southern states that have gone through targeted intervention programs. There are also tentative signs of a decline in HIV prevalence among the general population in states like Tamil Nadu, though more analysis is required to confirm this claim.

India's health minister and other top health officials have been quick to reassure their citizens and the world that they will not let down their guard. There is a lot of anxiety among nongovernmental organizations and policy communities that the new and lower estimates of HIV prevalence will provide fresh ammunition to lawmakers and other critics in India who question whether the country faces an HIV/AIDS epidemic at all. However, debating which numbers are "right" is the wrong argument and risks distracting policymakers and international aid donors from the important challenges at hand.

Recommendations for U.S.-India Engagement

There is already significant interaction between India and the United States on HIV/AIDS and other health issues. This collaboration needs to be expanded. It takes place against the background of an expanding and deepening U.S.-India partnership and should draw on this broader relationship. To do this, it needs to be structured as a partnership among equals, it needs to make full use of the resources and connections outside the two governments, and the direct programmatic work on HIV/AIDS should be complemented by a regular dialogue between the governments on the global response to the challenge of public health.

- *Center U.S.-India cooperation on HIV/AIDS on a commitment to scientific excellence.* Scientific cooperation is a well-established and highly prized aspect of U.S.-Indian relations, and India has a wealth of scientific talent. U.S. involvement with Indian scientific institutions over the years has created a network of Indians and Americans with a strong commitment to working together. They have produced results. HIV/AIDS work should be a showcase for this kind of top-flight professional collaboration. The U.S. government is already supporting this type of work; we recommend that it continue to seek out new opportunities, and that links between private institutions also be expanded. The United States should approach India not just as the recipient of resources but also as a major contributor to the global fight against AIDS.
- *Build U.S.-India cooperation on HIV/AIDS around improving the public health system.* India's top leadership understands the importance of the HIV/AIDS problem but is also deeply conscious of the wide variety of health problems India faces. India's HIV/AIDS prevention and control effort will need to be sustained over a long time. The only way to accomplish this is to create a public health system that is responsive to India's larger needs and to make sure that the challenge of HIV/AIDS is anchored in this larger strategy. The recent launch of the Public Health Foundation of India, which plans to make HIV/AIDS one of its focus areas, provides an opportunity to integrate public health strategy and HIV/AIDS programs. The experience of both the U.S. government and a number of U.S. universities in India suggests that building up an institution is the most effective way of creating durable change. The work of U.S. institutions with the Public Health Foundation could be the flagship of the new model of India-U.S. cooperation. It would also be an ideal way to institutionalize an Indian leadership role in creating expertise and training people from the rest of the world as well.
- *Increase U.S. government funding for India's HIV/AIDS work.* The magnitude of India's population and of its HIV/AIDS problem requires a larger response than is currently in place. Some of these additional funds need to come from India's own resources. However, the U.S. government's contribution has not changed in three years, at a time when India's plans call for a massive increase in some of the most expensive aspects of the program, notably a quintupling of patients receiving antiretroviral drugs. The U.S. government needs to increase its funding.

Within the U.S.-Indian collaboration, U.S. priorities should include:

- *Maintaining an interdisciplinary bias in U.S.-Indian work on HIV/AIDS.* It has become commonplace to say that HIV/AIDS cannot be handled strictly as a medical problem and that it requires a response that will span many different fields—social support, economic development, marketing, not to mention the different aspects of medicine, epidemiology, and public health that touch the epidemic. Many observers have found that the Indian universities and health research organizations are structured in a way that increases the difficulty of working across disciplinary boundaries. A U.S. commitment to scientific excellence could usefully include a focus on interdisciplinary research.
- *Deepening the engagement of the business community in both countries.* There is widespread recognition that this is an important issue, but many businesses in both countries hesitate to get too deeply or publicly involved in HIV/AIDS prevention and treatment because they fear being contaminated by the stigma connected with the disease. Moreover, only a handful of businesses really see HIV/AIDS prevention as something that will benefit their bottom line. India's business organizations have tried to create a new norm for "good business behavior," in which HIV/AIDS prevention and treatment is part of the expected package of social benefits. This effort needs to be continued and intensified, and international businesses need to recognize that it applies to them as well. There is also a business opportunity here: the business community is uniquely placed for exploring more effective ways to bring India's pharmaceutical sector to bear on the epidemic in other countries.
- *Expanding partnerships with India's private medical sector.* Members of the Indian-American community have made some pioneering efforts, but there is enormous scope for expanding these. There is tremendous need for free or low-cost clinics serving the urban and rural poor. There is also demand for increased capacity in institutions that service better-off patients. Working with high-end medical providers may have another spin-off: it may be a good way to reduce stigma.

About the CSIS Task Force on HIV/AIDS

The CSIS Task Force on HIV/AIDS seeks to build bipartisan consensus on critical U.S. policy initiatives and to emphasize to senior U.S. policymakers, opinion leaders, and the corporate sector the centrality of U.S. leadership in strengthening country-level capacities to enhance prevention, care, and treatment of HIV/AIDS. J. Stephen Morrison, director of the CSIS Africa Program, manages the overall project, in cooperation with the CSIS Freeman Chair in China Studies, the CSIS Russia/Eurasia Program, and the CSIS South Asia Program.

The honorary cochairs of the task force are Senator Russell Feingold (D-Wis.) and Senator John E. Sununu (R-N.H.). Former senator William H. Frist remains an active partner of the task force. The CSIS Task Force on HIV/AIDS is funded principally by the Bill and Melinda Gates Foundation, with project support and input from the Henry J. Kaiser Family Foundation, the David and Lucile Packard Foundation, and Merck and Co. The task force outlines strategic choices that lie ahead for the United States in fighting the global HIV/AIDS pandemic and comprises a core network of experts drawn from Congress, the administration, public health groups, the corporate sector, activists, and others. This panel helps to shape the direction and scope of the task force and disseminate findings to a broader U.S. audience.

Now in its seventh year, the task force's principal focus is on two critical issues: first, raising the profile and improving the effectiveness of U.S. support to global prevention efforts and facilitating a bipartisan discussion of global HIV prevention policy; and second, examining how U.S. leadership can facilitate the sustainability of HIV/AIDS programs, both in terms of resource flows and in situating HIV/AIDS responses within a broader strategy to address gaps in gender equity, health infrastructure, human capacity, and international collaboration on global health. The task force continues to engage on the emerging dynamics of the epidemic in Russia, China, and India with recent delegation visits in mid-2007.