

Better intervening HIV/AIDS with ICT

The key role of ICT in the prevention and mitigation efforts for HIV/AIDS in India is generating awareness and providing practical information to people and in capacity building.



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Threat on the doorstep

In order to successfully contain the spread of HIV/AIDS, which has such profound socio-economic implications, it is vital that preventive interventions be more effectively targeted. This is all the more pertinent since no amount of local resources and aid money seems enough for the enormous task at hand, not just at the national level but at the regional level as well.

Until recently, government officials and public health experts in India considered HIV/AIDS to be primarily a health problem that could be addressed best through medical intervention and behaviour change. However, there is now widespread recognition that HIV/AIDS is a development problem that has profound implications not just for public health, but also for the economy and society. As a result, there is strong support at the very top of the current political leadership for greater inter-ministerial and inter-sectoral collaboration in the fight against HIV/AIDS and the mainstreaming of HIV/AIDS into development programmes. There is also agreement that more expenditure is required to strike at the root causes of the spread of HIV/AIDS pandemic. These strategic priorities are reflected in the 3rd phase of the National AIDS Control Programme (NACP-III), which will be launched in early 2006. Under NACP-III, one of the main objectives is to prevent new infections by covering all high-risk groups with targeted interventions and scaling up interventions among the general population (especially women, youth, children and migrants). Another key objective is to strengthen care, support and treatment programmes for people affected by HIV/AIDS and link them to prevention activities.

In India, HIV prevalence is low compared to sub-Saharan African countries

like South Africa (0.91% and 21.5%, respectively). However, this figure masks regional epidemics taking place in 6 states where HIV prevalence has surpassed the 1% threshold, indicating that the disease has spread from high-risk groups to the general population. It also does not reflect the very high levels of vulnerability to HIV infection that exist in many of Indian states and Union Territories. India is second only to South Africa in terms of the absolute number of HIV positive cases, estimated at 5.134 million infections as per the latest NACO estimates (NACO, 2004) as compared to 5.3 million in South Africa. The number of full-blown AIDS cases detected in India by 31st July 2005 as reported by NACO stood at 1,11,608 persons, of which 30% were women. The state-wise picture showed Tamil Nadu to have the largest number of AIDS cases at 52,036, followed by Maharashtra (13,747) and Andhra Pradesh (12,349). These numbers are expected to rise steadily over the coming years as the epidemic matures.

One of the biggest challenges of controlling the spread of HIV/AIDS and mitigating its impact in India is to understand who HIV/AIDS affects and how. This process is hampered by the fact that HIV/AIDS is the most underreported disease in the sub-continent. This is largely the result of stigma, which deters people from getting tested (only about 5% know their sero-status), makes doctors disinclined to record AIDS diagnoses, and discourages HIV+ people from accessing care and support services. A weak public health system combined with the size and diversity of the country compounds this problem and results in underreporting and inadequate surveillance. Greater knowledge of who is HIV+ and who is vulnerable to HIV infection is required in order to achieve the

Factor	Indicator
HIV/AIDS prevalence	Data from sentinel surveillance sites; no. of AIDS patients
Socio-economic conditions	Income level; Head Count Ratio of Poverty; Unemployment; Landlessness;
Social Inequality	% SC/ST population; Gender-ratio; level of urbanization; female literacy level; female child undernutrition; female-headed households
Health status and coverage / utilization of health services	Immunization; PHC-population ratio; health expenditures per capita; prevalence rates of STDs; presence of organizations working on HIV/AIDS
Physical Environment	Proneness to droughts/natural disasters; low agricultural productivity
Mobility	Migration rates
Security environment Crime rates	Civil disturbance; domestic violence;

government's objective of scaling-up of prevention programmes to cover all high-risk and vulnerable members within the general population.

ICT in HIV/AIDS prevention

The key role of ICT in the prevention and mitigation efforts for HIV/AIDS in India is generating awareness and providing practical information to people to deal with such problems through the audio-visual and electronic media and also it is helping in capacity building of health functionaries towards counseling and treatment with regard to HIV/AIDS.

UNDP has set up an e-portal and user groups to foster community connectivity and disseminate information on HIV and development issues for the Asia-Pacific region as a part of its regional HIV and Development Programme that provides online counseling and treatment guidance, databases on resources, published and other information from all concerned international organisations, agencies at various levels and NGOs, an online training programme for medical and paramedical staff. UNDP is also supporting an

ICT-based project that enables a consortium of Community Based Organisations and other concerned agencies in South Asia to monitor and evaluate current HIV programmes through online information sharing, assessment of programme performance at the regional and sub-regional levels.

In India, UNDP is supporting a pilot project in Orissa and Chhattisgarh (states of origin of migrant labour) and Gujarat (one of the destination states) to reduce vulnerabilities of migrant workers and their families and communities through e-Kiosks which enable access to relevant information on livelihoods, mobility, facilitating remittances and contact with families. It also includes a training module for PRIs to be used by the southern states initially to strengthen capacities of the PRIs in programme management more effectively.

SAATHII (Solidarity and Action Against The HIV Infection in India), an NGO, received funding from UNDP to set up an Electronic Resource Centre on HIV/AIDS that will include training modules, interactive e-Forums and e-Resources tailored to the needs of organisations working in this field all over India. It will also

Electronic Helpline on HIV/AIDS in Rajasthan

The Manthan award winning project in 2005 under the category of e-Health, Electronic Helpline on HIV/AIDS in Rajasthan is running in Rajasthan (India) since 2000. Health and Social Development Research Centre (HSDRC) based in Jaipur, is the primary facilitator agency for this initiative. The project receives financial support from the National AIDS Control Organisation (NACO), Government of India. The local monitoring and support agency is Rajasthan State AIDS Control Organisation, Jaipur, Rajasthan. HSDRC is using the concept of the Interactive Voice Response System (IVRS) for the Electronic Helpline on HIV/AIDS. The Helpline uses a computer equipped with a four channel voice card, linked to two telephone lines using customised software. This IVRS system operates round the clock.

The objective of the project is to disseminate technically sound information on HIV/AIDS along with details of related health services, and to as many people as possible while maintaining the anonymity of the client. In its present form the software provides a client with the following options: (i) general information on what is HIV/AIDS, causal factors and prevention possibilities, (ii) symptoms, (iii) testing and treatment facilities and (iv) support to HIV positives. An additional option is for recording the personal queries and facility for hearing answer to recorded queries. Since its inception in March 2000, more than 0.2 million callers have used the service despite various operational problems from time to time. For further information contact Contact hsdrc@datainfosys.net

Adolescence education programme in India

The Adolescence Education programme (AEP) is positioned by the Department of Education and the National AIDS Control Organisation (NACO) as a key intervention in preventing new HIV infections and reducing social vulnerability to the infection. The programme is implemented in all states across India through the Department of Education (DoE) in collaboration with the State AIDS Control Societies (SACS). The objective of the AEP is to provide 100 per cent quality coverage for all senior schools in the country so that students in Grades IX–XI have adequate and accurate knowledge about HIV in the context of life-skills.

The AEP is conducted by the nodal teacher using a minimum of 16 hours /academic year. Evaluation and preliminary analysis of 2005 coverage has indicated that although planned nationwide, coverage for 2005-2006 is 86 per cent. A Teachers Awards/Recognition has been mooted to strengthen the quality of implementation of the programme. The objective is to give recognition/appreciation to teachers implementing the Adolescence Education Programme effectively. Three teachers will be identified in each of the four categories at the District, State and National level.

Source: http://www.unicef.org/india/media_966.htm

include online databases and forums that cater to knowledge sharing and the dissemination of best practices. A needs assessment survey carried out by SAATHII pointed out that ICT has the largest potential for building the capacity of organisations that are difficult to reach through conventional means.

ICT and targeting interventions

ICT can play a pivotal role in the identification of vulnerability zones for focusing HIV/AIDS intervention programmes, but this hasn't received much operational focus in the Indian context. The ICT with the help of GIS tools, can be used as an effective means of not only identifying vulnerable populations and regions, but also tracking and monitoring the vulnerability profiles of the target regions.

ADB is providing technical assistance to an ICT-based HIV/AIDS preventive education project in the cross-border areas of the Greater Mekong Sub-Region (GMSR - comprising parts of Yunnan province of China and the countries of Vietnam, Laos, Cambodia and Thailand), which is being implemented jointly by UNESCO and SEAMEO (South East Asian Ministers of Education Organisation). One of the components of this project is a GIS network for monitoring the interventions for vulnerable populations and direct targeted interventions for high risk groups and interstitial populations (population falling between those who have established permanent residency in a specific location/area and those that are migrant, and move from home to work constantly).

The GIS database includes information on HIV/AIDS epidemiological incidence and surveillance data, distribution of known risk population, migration and transportation routes, economic risk factors, education indicators, ICT availability information, health indicators and organisational coverage. The best way to reduce the vulnerability to HIV would be to strike at the very roots of the causes that lead people to migrate out, leaving their families and dependants behind. This would include a direct action against poverty, low productivity, lack of livelihoods and social infrastructure in these regions.

In the Indian context, there are several causal factors, which define the vulnerability of districts to HIV/AIDS, presented in the table below. This information can then be mapped to provide a similar GIS-based database for HIV/AIDS in India.

HIV/AIDS prevalence data as an indicator presents many limitations if one wishes to carry out a district-level analysis. NACO estimates HIV burden based on anonymous blood sample testing from different sentinel surveillance centers. These centres include those attended by high-risk groups, such as STD clinics, sex worker intervention centers and drug de-addiction centers, and also ANC clinics to represent the general population. In 2004 there were a total of 659 sentinel surveillance centres in India, but they did not cover all the districts in the country, and hence the data is not available for all the districts. Moreover, these sites are not representative as they tend to be located in urban areas and areas where there is a known problem.

The goal in the larger context of successfully contributing to the efforts towards arresting the growth of HIV/AIDS in India is to develop a comprehensive GIS-based tracking and monitoring system, on the lines of the ADB project. This would not only identify the hot spots with high-risk behaviour but also vulnerability hot spots.

A monitoring system would basically strengthen planning and management of HIV programming. ICT-based HIV initiatives must be (a) cost-effective; (b) easily accessible; (c) user-friendly; (d) presented in the vernacular to reach out to the largest number of people; (e) multi-disciplinary, and (f) easily comprehensible in content. This seems to be a tall order, but it is necessary in order to realise the full potential of ICT, especially in a diverse and multi-cultural country like India.

Future opportunities

Despite the challenges to be faced because of the infrastructural constraints in applying ICT as a tool, mainstreaming HIV/AIDS into other ICT projects can be a cost-effective solution to increasing the outreach of the medium. MSSRF is taking forward its initiative, 'Mission 2007', which aims to make every village a knowledge centre by 2007. This includes providing an internet kiosk in every village, which can also be utilised for accessing HIV/AIDS related information as well. Such a facility can also be built into successful ICT initiatives such as ITC's e-Chaupal project. This would be in keeping with NACP-III strategic priorities of mainstreaming HIV/AIDS into other development initiatives and building partners among government, civil society and private sector. ■