

Think Piece on Rural Interventions

As National AIDS Control Programme is entering phase IV of its implementation in India, evidence shows a stabilizing trend in the progression of the epidemic in the country. In several of the high prevalence states the latest surveillance data that is available is showing a decline in the prevalence indicating impact of sustained programme interventions in the country.

One of the major challenges facing the national programme today is to extend the programme out reach to the rural pockets of the country. Rural areas are difficult to reach due to absence adequate infrastructure, communication channels and efficient outreach system. Estimates based on 2007 HSS in the country shows that close to 57% of the HIV positive persons in the country live in the rural areas. This reinforces the need for rural intervention to meet both care and prevention needs of the rural population in the country

Rural HIV Epidemic and Vulnerabilities:

About 69% of India's 1.21 billion people live in rural India and despite the country's growth in the last decade; there remains a rural-urban disparity. Within the context of HIV, the rural vulnerabilities are just becoming understood with regards to high-risk groups and the general population.

Beyond the surveillance data that has shown increased number of positive persons in the rural areas, there are other studies in the country that further establish the fact that HIV is no more concentrated in the urban location. Study in Bagalkot, Karnataka in 2007 showed that HIV prevalence is 3.6 % in the rural area, which was significantly higher than the urban areas, which was 2.4%.¹ As per the Behaviour Sentinel Surveillance done by NACO in 2006, rural India has several factors that increase the vulnerability to HIV. On awareness parameters, rural situation was much worse off than in the urban areas (Knowledge on HIV – Urban 78.5% Rural – 57.3%). This was largely on account of programme focus on the urban area for awareness creation in the earlier phases of NACP. In the recent years efforts have been stepped up to improve access to information even among the rural population on HIV and related risks. On awareness about condom, urban respondent (90%) had significantly better knowledge as compared to their rural counter parts (78%). Even in the case of STD prevalence, the percentage reported in rural areas was higher than urban (incidence of genital discharge: Urban -2.6% Rural - 3.7%, Genital Ulcer: Urban – 2.6%, Rural – 2.8%) At the same time treatment seeking behavior was reported less in the rural (54.6%) than urban (60.7%).

¹ Marissa L. Becker, B.M. Ramesh, Reynold G. Washington, Shiva Halli, James F. Blanchard and Stephen Moses. ***Prevalence and determinants of HIV infection in South India: a heterogeneous, rural epidemic.*** Lippincott Williams & Wilkins 2007. AIDS 2007, 21:739–747

Thus while programme uptake for HIV prevention and care in the rural areas have been slow, the vulnerabilities have been high and the need for rural response is very critical. Besides the above facts, some of the other vulnerabilities of rural areas to HIV are discussed below:

- **Migration:** In the context of globalization and global industrialization, migration for work for extended periods of time is increasing, and migrants, are being taken away from the social stability and security of their families and communities and forced into unfamiliar and often risky contexts that are compromising their health. The migrant workers seeking employment in the destination areas are often from tribal and rural communities with low knowledge on health related issues and high rates of illiteracy, offering a cheap labor force for urban settings.² Migrant workers, including unskilled laborers, construction, and industrial workers, who are leaving behind their families and spouses at their native places, dominate the traditional rural to urban pattern of migration in India.³ In India, the prevalence of HIV amongst Migrants is 3.61%, the highest in any group, after the High Risk Groups of FSW, MSM and IDUs and twelve times higher than that of general population.⁴

A number of studies in India indicate that migration and mobility themselves propel the HIV epidemic by creating living conditions that heighten engagement in risky behaviors (e.g., husbands residing without wives go to FSWs) and by providing a vehicle through which infection can move from high to low epidemic regions.^{5 6,7,8} Studies document that men living without wives, due to lack of marriage or migration away from wives, are engaging in very risky alcohol use and transactional sex involvement.^{9,10,11,12,13} On the other hand, monogamous married women comprise 40% of HIV-positive individuals in India¹⁴, and sex with an infected husband is considered to represent Indian women's greater risk for HIV¹⁴. A recent evidence suggests that more than two-thirds of the total diagnosed HIV-positive cases in the general population in districts

² Patel D, Shankar WS, Alderfer WH, Yourkavitch J. 2002. Mitigating risk of female household workers in India to HIV infection. Intl Conf AIDS, 2002, Jul 7-12; 14: abstract no. G12601.

³ Basu A, Basu K, Basu R. 1987. Migrants and the native bond: An analysis of micro level data from Delhi. Economic and Political Weekly, XXII, 145-154

⁴ Annual HIV Sentinel Surveillance Country Report (2006) - Prevalence among antenatal migrants, India, 2006. NACO Annual Report, 2009-2010.

⁵ Decosas J, Kane F, Anarfi JK, Sodji KG, Wagner HU. 1995. Migration and AIDS. Lancet, 346(8978), 826-828.

⁶ UNAIDS/WHO. 2007. AIDS Epidemic Update. Retrieved from:

http://data.unaids.org/pub/EPISlides/2007/2007_epiupdate_en.pdf

⁷ Singh, R. 2001. "Labor Issues: Stresses and Risks." Frontline 18(9) (<http://www.flonnet.com/fl1809/index.htm>).

⁸ Rego A, Nadkarni V, Vasundhra D. 2002. HIV/AIDS in India: A Critical Review of Selected Studies (1990-2000). The Gender and Reproductive Health Research Initiative. CREA. New Delhi. 2002

⁹ Sagguri, Niranjana et al. (2009). Migration, Mobility and Sexual Risk Behavior in Mumbai, India: Mobile Men with Non-Residential Wife Show Increased Risk. AIDS and Behavior.

¹⁰ Mishra A. 2004. Risk of sexually transmitted infections among migrant men: Findings from a survey in Delhi. Asian and Pacific Migration Journal, 13 (1), 89-106.

¹¹ Gangakhedkar RR, Bentley M, Divekar A, Gadkari D, Mehendale SM, Shepherd ME, Bollinger RC, Quinn TC. (1997). Spread of HIV infection in married monogamous women in India. JAMA, 278(23), 2090-2, Bentley

¹² Verma, Ravi K et al. (2010). Alcohol and Sexual Risk Behavior among Migrant Female Sex Workers and Male Workers in Districts with High In-Migration from Four High HIV Prevalence States in India. AIDS and Behavior, 14: S31

¹³ Saggurtti, N., Verma, R. K., Jain, A., RamaRao, S., Kumar, K. A., Subbiah, A., et al. (2008). HIV risk behaviors among contracted and non-contracted male migrant workers in India: Potential role of labor contractors and contractual systems in HIV prevention. AIDS (London, England), 22(suppl 5), S1-S10. doi:10.1097/01.aids.0000343771.75023.cc

¹⁴ NACO Annual Report, 2009-2010

with high out-migration can be attributed to migration and that migrants facilitates transmission of HIV from areas of high prevalence to low prevalence rural districts.¹⁸¹⁵

- **Literacy:** While the total literacy rate in the country is 74% (census 2011), 68% of the rural population is literate. Male and female literacy in rural India is 78.57% and 58.75% respectively while compared to the national average of 82.14% for males and 65.46% for females. Lower literacy would impede awareness of and uptake of services available for HIV prevention and treatment.
- **Poverty:** About 30% of Indians live below the poverty line and about 75% of these live in rural India. Agricultural wage earners, small and marginal farmers and casual workers engaged in non-agricultural activities form the bulk of the rural poor. Small land holdings and their low productivity are often a cause for poverty of households dependent on land-based activities. Poor education levels and lack of other vocational skills also aggravates this situation. Migration from villages to towns and cities has become a normal phenomenon and the 2001 census indicates that about 30% of the population can be considered to have migrated. After the high risk groups, the highest burden of HIV is known to be among migrants at 3.6% HIV prevalence.
- **Stigma:** The HIV epidemic in the country is primarily through the sexual transmission mode and driven by the high-risk groups (female sex workers, men who have sex with men and injecting drug users). Tight-knit communities are representative of rural areas and while all high-risk groups live and operate in these areas, they are at the bottom of the pecking order. High levels of stigma and discrimination of FSW, MSM and IDUs coupled with myths about HIV leads to social ostracism and marginalization of these populations. Identification of these individuals for delivery of information and services is challenging and requires working with rigid societal norms. Within this is the inter-play of caste and class distinctions as well; high-risk groups from the lower castes face a double burden.
- **Access to information and services:** Distribution of health care services is highly inequitable across the country, with the rural areas being most deprived. Health care personnel are in short supply and infrastructure is less than adequate. Added to this are often limited transportation services and long distances between facilities.
- **Women's empowerment:** In rural India, along with caste and class, gender is another determinant of vulnerability. Women continue to struggle with social norms, which restrict her decision-making abilities for herself and her family. The inability of women to make informed

¹⁵ Saggurti, N. et al. (2010) "HIV transmission among Married Women in Selected Districts with High out-migration". Population Council.

decisions often leaves them at the mercy of circumstances. The feminization of the epidemic is nowhere more starkly visible than in rural India.

Existing Models of Rural Interventions

There are several intervention models that exist in India in the rural areas to address various developmental and health issues. These models have been successful in facilitating and finding solutions to social or health problems. Some of these models are briefly described below

Health Sector Rural Intervention Models

1. **Auxiliary Nurse Midwife (ANMs)** - In the rural health care system, the ANM is the key field level functionary who interacts directly with the community and has been the central focus of all the reproductive child health programs. From the earlier role of a mid-wife the role of ANMs now is one of a Multi-purpose Worker. ANMs are appointed to manage a sub-centre within a PHC and reach a population of 5000.
2. **ASHA** – One of the key components of National Rural Health Mission is to provide every village in the country with a trained Accredited Social Health Activist (ASHA). ASHA is selected from the village itself and is accountable to it, and is trained to work as an interface between the community and the public health system. ASHA is appointed for a 1000 population and is generally a woman resident from the village. She is trained regularly to perform her role and is given performance-based incentive. It is her responsibility to create awareness on determinants of health such as nutrition basic sanitation & hygienic practices, healthy living and working conditions, information on existing health services and the need for timely utilization of health & family welfare services.
3. **Anganwadi Workers:** Anganwadi is a government sponsored child-care and mother-care center in India. It caters to children in the age group of 0-6. The word itself means "courtyard shelter" in Hindi. They were started by the Indian government in 1975 as part of the Integrated Child Development Services program to combat child hunger and malnutrition. The Anganwadi system is mainly managed by the Anganwadi worker. She is a health worker chosen from the community and given 4 months training in health, nutrition and child-care. She is in charge of an Anganwadi, which covers a population of 1000. A Supervisor called Mukhyasevika supervises 20 to 25 Anganwadi workers. A Child Development Projects Officer (CDPO) heads 4 Mukhyasevikas.

There are an estimated 1.053 million anganwadi centers employing 1.8 million mostly-female workers and helpers across the country. They provide outreach services to poor families in need of immunization, healthy food, clean water, clean toilets and a learning environment for

infants, toddlers and preschoolers. They also provide similar services for expectant and nursing mothers.

4. Mitanin: The Mitanin [a community health volunteer] Programme was conceptualized in 2001 in Chhattisgarh, as a way for facilitating people's access to health services at the village and habitation levels. The programme was part of a larger health sector reform initiative, which went beyond creating the cadre of CHWs in the State. Briefly, the Mitanin would be the community's representative in dealing with the formal health system and while the State would take the responsibility for her training, she would be compensated for her services by the village community only; the State would not pay salary or honorarium to her.

HIV Intervention Models in the Rural Areas

5. Community Based/Home Based Care Model for PLHIV: There are several models of home based or community based programmes in the country to support Persons Living with HIV (PLHIV). NAZ Foundation had set up the Home Based Care Program in 2001, to address the need for services and support to families with one or more member living with HIV. The programme looked at ensuring the families and caregivers have the capacity to respond adequately to the specific needs of the HIV infection. The program reached out to families with medical and nursing care, psychosocial support, legal assistance, and capacity building. Under this programme following activities were implemented
 - Counselors visit clients at home to provide counseling and support
 - If needed a nurse/doctor visited the home to provide medical facilities
 - A basic medical kit was provided to the family
 - Nutritional supplements were given to those in need
 - Skill Building Sessions were conducted to enhance the clients ability to cope with the infection and increase their knowledge about HIV/AIDS
 - Project provided prompt referrals to other care providers and services, strengthening networks for people living with HIV and their caregivers
6. SEARO Model of comprehensive community- and home-based health care (CCHBHC): This model places patients/clients at the centre of care and acknowledges the contributions that individuals, groups and communities make in achieving and maintaining their health, and managing illness throughout the lifespan. It, however, builds on the existing health system that is available in the community, and aims to make essential care for priority health problems more accessible to the needy, such as Directly Observed Treatment (DOTS), Short-course for the treatment of tuberculosis (TB) and home-based AIDS care in support of the 3 by 5 Strategy. It places an increased emphasis on health promotion, long- term and palliative care, and rehabilitation in addition to curative care. Within this model the following 3 tier approach is followed

- a. Primary prevention consists of activities for health promotion and prevention of illness at the individual, family and community level.
 - b. Secondary prevention focuses on screening, early detection, provision of treatment and care for common illnesses and ailments, and appropriate referral.
 - c. Tertiary prevention comprises the provision of rehabilitative and palliative care for patients with chronic illness and disability.
7. Link Worker Scheme: The Link Worker Scheme is being implemented in India by NACO for prevention and care of HIV/AIDS in the rural India. The programme envisioned a new cadre of worker, the Link Worker, who was appointed at the village level. Link Workers who were appointed were motivated, community level, paid female and male health workers with a minimum level of education. The Link Workers in the country have covered highly vulnerable villages in Districts selected through mapping exercises. They work in cluster of villages with 5000+ population. In addition, village level volunteers selected from the available groups in the community support the Link Workers. The management of the Link Worker programme at the district level is being facilitated through the NGOs who are responsible for implementing the scheme in the district.

Other Programme Models

8. Literacy Mission Model: National Literacy Mission was set up on 5th May 1988 to impart a new sense of urgency and seriousness to adult education. Out of 600 districts in the country, 597 districts have already been covered under Total Literacy Campaigns. State Literacy Mission as well as District Literacy Mission has been set up as part of decentralized management of the programme. Partnership with NGOs also have been set up for better outreach and impact, particularly for supporting post literacy and continuing education programme. Continuing Education Centre (CEC) are set up across the country in the villages for a population of 2000 to 2500 to cater to the needs of 500 to 1000 neo-literates. One Prerak and one assistant Prerak is appointed for each of the CECs who is responsible for establishing and running the CECs in the villages.
9. Nehru Yuva Kendra: Nehru Yuva Kendra Scheme was started in 1972 by the Ministry of Education with the objective of providing the non - student rural youth an opportunity to help him grow and involve in the nation-building-activities. In 1987, all the existing kendras under the NYK scheme were re-organized into an autonomous body that was formed by a resolution of Department of Youth Affairs. As a result of this endeavor, Nehru Yuva Kendra Sangathan (NYKS) was formed. NYKS has the privilege of a network of youth clubs at the village level and volunteers with whose assistance, and with whose participation it aims to achieve its objectives. The regular programmes, special programmes and coordination programmes with different agencies are all conducted for the rural youth for their overall development.

10. Women Empowerment Programmes – Kudumbasree, Mahila Samkhya, Velugu etc: Kudumbasree Programme was started in 1998 by Government of Kerala with the objective of eradicating poverty in the state. Currently the programme has 37 lakh members and covers more than 57% of the households in Kerala both in rural and urban areas. Kudumbasree has a three tier structure with Neighbor-hood Groups at the community level, Area Development Societies at the Ward level and Community Development Societies which is the Apex body. The network cut across the state and has good reach in the rural areas.

Mahila Samkhya is a programme that recognizes the centrality of education in women's empowerment. Key strategies are through formation of Mahila Sanghas (Women's Collective). Sahayogini is appointed within the programme as the motivator and guide for 10 villages. She plays the role of mobilizing and organizing women into Sanghas. Key programmatic approach is to help women access already existing government schemes through - DWCRA, ICDS, MSY, IMY, RMK etc

Velugu Project in Andhra Pradesh focuses on poverty alleviation through Common Interest Groups and their Federation at the Village and Mandal level.

Defining Priority Districts for Rural Intervention

Traditionally NACP III had categorized districts into A,B,C,D based on HIV prevalence. This approach did help in programme coverage to a certain extent but has several inherent gaps in terms of addressing the vulnerabilities due to the strong public sector bias in the surveillance system particularly while focusing on the rural areas. Besides, the current system of categorization of district is based on old surveillance data, which was largely urban focused. The approach is not forward looking and constraints interaction with existing structures for intervention linkages. So, there is a need to re-consider categorization of districts and use additional markers for prioritizing interventions based on vulnerabilities to HIV, particularly in the rural areas.

Parameters that is proposed to be used to measure risk to HIV and prioritize Districts as well as GPs/villages will include the following:

- **Demographic markers:** This is mainly focused on those common markers of human population such as size, growth, density and socio-economic factors. The High Risk Group (HRG) mapping studies and other population-based studies in the country has already proven the link between size, density and growth in population to increase in the number of HRG groups in the location, which in turn contributes to the vulnerabilities within the districts to HIV. Some of the demographic markers suggested will include the following depending on availability of data:
 - Population Size

- Number of High Risk Groups (FSW, MSM, IDU)
- % Of other vulnerable population (SC/ST, school drop outs)
- Unemployment
- Illiteracy
- Poverty
- Migration
- **Epidemic markers:** The data available on HIV related epidemiological data in the district
 - Proportion of STI in the district. Mostly this data will be available in the HMIS. Analyze further to look at data coming from the PHC or Taluka hospitals.
 - HIV Prevalence – HSS data. In order to strengthen this further need to have more number of rural sites within HSS. Rural sites means – PHC level and not just at Taluka level.
 - Prevalence of TB and any co-infection reported.
 - Deaths due to HIV reported. How many of these deaths were people from villages.

The district shortlisting process can happen based on demographic markers as mentioned above. Following table is a template that can be used for analysis and short listing.

Sl No	Districts	Indicators - Scoring							Type of districts - I, SI, M
		Total Population in the Districts	Number of HRG. > than 100 (Yes or No)	% of SC/ST - > 40% (Yes or No)	Migration Pattern (> 40%) short or long term	HIV Prevalence more than 1% in the last 3 years	Incidence of STI	Number of HIV death	
									I - Intensive SI - Semi Intensive M - Mainstream

The above table will give the final list of category of districts as given below:

- Intensive – These are the high priority districts for the rural interventions based on risk parameters
- Semi-intensive – These are medium priority districts for the rural interventions based on the risk parameters
- Mainstreamed – Needed low intensity intervention in the rural areas since the priority level is low as the risk levels are low.

Key Strategies and Approaches

1. Intensive Model: Intensive districts would be the top priority districts characterized by high migration pattern, high HIV prevalence, high STI prevalence, increases cases death reported due to AIDS particularly from

the villages, higher number of vulnerable groups (HRG, SC/ST). In these districts the delivery model will be through NGOs with a vertical structure similar to the existing Link Worker Programme with District Resource Persons, Supervisors and Link Workers and Peer Volunteers. Selection of Village will be based on similar system used for district selection, but keep in mind the data gap and therefore requiring accurate markers based on some of the demographic markers where data would be available. Intensive models will be covering highly vulnerable villages achieving 100% coverage of target groups over a period of 3 years. Service package should include access to both prevention as well as treatment, care and support services through linkages.

Key delivery models are proposed in these districts in order to saturate coverage of high risk and vulnerable population.

- a. Link Worker Couple per Gram Panchayath (GP) – In this approach 100% of all GPs with high vulnerabilities within the district will be covered. (Number of villages will be between 5-10 in a GP) Link Worker will ensure access of target groups to all the key services – both prevention and care and support. Geographical unit will be the Gram Panchayath – saturating all the villages under the GP. LW will also create adequate number of Peer Volunteers particularly in the HRGs to provide condoms and do referral to STI clinics, ICTC etc. Peer Volunteers will also be made among the PLHIVs identified in the village and facilitate services such as PPTCT, ART, LFU etc.

Primary focus in this kind of models will be to address high risk groups and saturate coverage of high risk population. In addition to that also reach out to other vulnerable sections (school drop outs, women etc refer to guideline.) Link Worker also will make effort to facilitate the target groups to access various social protections schemes that are being listed.

2. Semi-Intensive Model: In districts with comparatively much lesser vulnerabilities, programme focus will be less intensive, compared to what is suggested in the intensive model. The intervention will be with a local NGO to manage the project. Following will be semi intensive delivery approaches:

- a. Single Person Link Worker per GP – GPs with comparatively lower intensity will have only one person covering the vulnerable GPs within the district. Peer Volunteer strategy will also be adopted here.

Through Existing Infrastructure or New: Where vulnerabilities are still found in GPs within these moderate districts, 100% of the villages will be covered within the vulnerable GPs through existing health delivery infrastructure and systems such as PHC, GP,

Continuing Education Centre etc coordinated through NGO support and facilitated by Link Worker. The Link Worker will coordinate with out reach worker of these programs and motivate them to include information on HIV and refer high risk individuals to prevention services and PLHIV to care and support facilities. Functionaries like ANMs, ASHA, Preraks, NYK Volunteers will be motivated to provide additional support. Capacity of these workers will be further enhanced to deal with high-risk population and link them to service provisions without stigmatizing.

- b. GPs with Social infrastructure: GPs with adequate social infrastructure such as facility for health, education, arts and culture, information, sports and recreation etc exist, these will be utilized for intervention support for HIV prevention. Utilize these centres for providing awareness and besides, space can be utilized for clinic support and project office.
3. Mainstreamed Model: The third model for intervention is the mainstreamed model, where in, the existing health care workers in the villages will be given additional training input and incentives to address the specific vulnerabilities to HIV within the villages. Their work will be either coordinated through the health department or through NGOs who will coordinate with ANMs and ASHA workers to also reach out to the village with prevention and care messages. This will be done in those villages where the work load to address the vulnerability will be comparatively very low and therefore use the part time support of ASHA, ANMs, AWWs etc.

Incase of Gram Panchayaths with known vulnerabilities and high risk can also link up the villages with existing TI interventions in the nearby towns with additional human resources and operational budget provided.