

STDS/HIV Cases on the Rise In India: Overcoming or Redeeming?

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India's management of its healthcare problems, especially HIV/AIDS epidemic, is important not just for India but also for the rest of the world. India is a test-case because it holds both the problems and the solutions. India though has the health problems of a developing country but it also has the best scientific talents to confront diseases and create drugs to combat them. In contrast, the resources needed to cope comprehensively with the HIV/AIDS epidemic are not yet available in India; so prioritization is necessary at least in the short-term and possibly beyond. This kind of clarity in the prioritization process would lead to informed decisions about the right balances between interventions, care, and support-related issues, particularly reducing socio-cultural barriers which conduit stigma and discrimination.

In India, the number of heterosexually acquired cases of STD infections is at the rise¹; and many of these cases are the result of sexual intercourse. There is an evidence of increase in risky sexual behaviour in men with increasingly frequent unprotected sex². On the other hand, poor general health due to poor diet, lack of sleep and life stress, which lower the body's resistance to infection; poor genital hygiene which promotes infections (e.g., unclean underwear, failure to change or remove pads, wiping from rear to front after passing stool, unclean/used stones for cleaning the anus after passing stool etc.) add fuel to fire. In addition to this, non-availability, inaccessibility, ill affordability made further 'fire storm' to this infection. The purpose of the study is to cover in some detail the opportunities for STD/HIV/AIDS infection. Alongside, the study also reviews some of the issues of confidentiality and personal privacy that will need to be addressed. While several review papers have called attention to this problem, there has been almost no published empirical behavioral research on STD/HIV/AIDS risk in India and none that has used careful population based study.

The present study largely reflects social and clinical scenario in India and the epidemiological inferences that can be drawn from the data. Aggregation of the data makes it difficult to define or characterize the 'at risk' population, since it is not possible to distinguish individual patients. With a single episode of a specific genital infection and

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 2. Martin IMC, Ison CA and the London Gonococcal Working Group. 2000. Rise in Gonorrhoea in London. UK. Lancet Vol.355:623

revisiting/re-attending with the same condition or multiple infections to the clinic for support and counseling are integral parts of routine management and follow-up. The investigation of repeated attendance has produced enormous opportunity to understand the broader range of behavioral and geographic aspects and also supplied record linkages of case reports.

Disaggregate Data Collection

RTI/STD infections do not only cause acute disease but several of these infections are also associated with serious long-term sequelae: HIV/AIDS infections, human papillomavirus infection and cervical carcinoma, chlamydial infection and pelvic inflammatory disease etc. In India, a major part of public health rationale for the control and prevention of these infections is the reduction in the incidence of HIV/AIDS. The three long years' follow-up study (1 January 2000 30 December 2002) reveals the burden of disease and those most at risk of the long-term sequel. This small-scale study hopes for effective interventions.

Follow-up visits are defined as visits that occurred within three months of an initial visit. Demographic data are collected at clinic registration; other information is recorded on a routinely used standardized form including standard risk assessment for HIV/STD acquisition. For subjects who undergo physical examination (including assessment of external genitalia, vagina, cervix, and bimanual examination), findings, laboratory results, and final diagnosis are recorded. The examination of vaginal fluid includes all measurements, saline preparation to assess the presence of clue cells or trichomonads, and potassium hydroxide preparation to assess the presence of volatile amines and yeast forms.

One of the main difficulties in these types of surveillance, based on clinical reporting, has been the purely pragmatic problem of finding the time or staff resources to record and collate data in the clinical settings on the spot. At the same time, in the case of RTI/STDs, the epidemiology of which is unique in its closeness of association with specific behaviors, there is also a need for a relatively rich set of data on demographic and behavioral characteristics of the clients' trend.

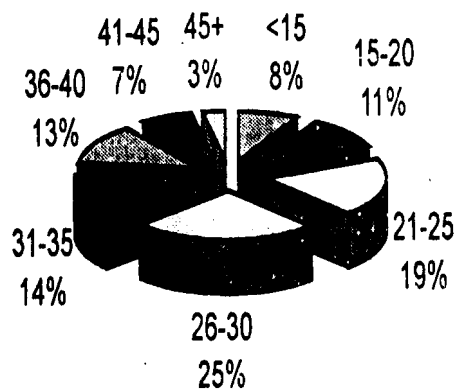
Methods

While a trend has the potential to identify the hidden relationships in personal data and the epidemiology of RTI/STD, it also has the potential for abuse and misunderstanding. There is a notion of an Orwellian big brother overseeing not just patients and their medical conditions but also the clinicians providing the service. Neither of these documents precludes the disclosure of data, even patient identifying data, on patients with STDs, so long as the disclosure is to a qualified or suitably employed individual and

is in the interest of the control or prevention of the disease. Public health surveillance clearly falls within the definition of the purpose of disease control and prevention. More important to the issue of the use of patient data, whatever the disease or the service attended, is the interpretation of current legislation on data protection and human rights and of the common law on confidentiality.

Three hundred and sixty-four samples were collected from among 11232 adolescent girls and women attending the general OPD, run by a private medical clinic in an urban slum in Delhi. These samples were collected between January 1, 2000 and December 31, 2002. Samples were collected from each group (< 15, 15-20, 21-25, 26-30, 31-35, 36-40, 41-45, 45+) (Figure -1). Out of 364 women, with only elementary school or no formal education, most were housewives (28.8%) and 57.7% were seeking services specifically for reproductive tract infections. Based on the continuum care and repeated diagnosis (53.1%), they had at least one STD (23%) or had multiple infections.

Figure - 1: Age-wise Distribution of the Study Population



The data collected from the selected women (of 364 sample) (whose husband have multiple partners) attending the clinic for serological screening of STD shows that 31% of the women had genital sores or blisters with or without pain; 4.5% had swollen and painful lump glands in the groin; 26.5% had pain or bleeding during intercourse; 2.7% had painful or itching genitals; 12% had changes in menstrual bleeding very little bleeding or heavy bleeding; and 14% reported foul smell and unusual discharge (Table-1). This exclusive follow-up behavioural study reveals that in local residents, the seroprevalence of HIV/AIDS was 3.02% which means 0.98% per 1000 population are infected with HIV/AIDS. Hence further investigation in this area is warranted.

Table 1: Infection according to Sexual Behaviour of the Husbands' of the Study Women Population

Type of Infections	Wife only	Sex workers	Wife + sex worker	Sex workers + other	Wife +Sex workers + Other
Genital sores	6.4	19.8*	21.1*	23.7*	31.0*
Lump slands in the groin	2.3	5.9	6.2	6.3	4.5
Bleeding during intercourse	8.1	4.5^	5.3*	8.4*	26.5*
Itching genitals	3.9	5.8	2.8	9.0	2.7
Menstrual - heavy bleeding	6.8	4.6	6.2	14.1	12.0
Foul smell or unusual discharge	4.3	10.8	14.9	23.0	14.0
Dysuria	2.8	9.8	11.1	19.3*	28.6*
Lower abdominal pain	16.0	6.6*	8.9^	14.9^	17.6^
Cervical friability/motion tenderness	2.1	12.8	20.2	13.5	14.3
Genital lesions/human papilloma virus	3.9	14.1	17.7	20	30.4
Ulcerative infection	7.9	9.9*	10.2	14.2*	9.1*
Others	5.5	8.5	6.90^	2.9^	9.3^

*=<0.01 ^=<0.05 \$=0.10 simulations shows that infections status

Results and Discussion

The risk of transmission varies with the type of bisexual or multi-sexual behaviour: 53.5% with a clinical first episode; 21.1% with an asymptomatic first episode; and 25.4% with no visible symptoms (Table-1). Several studies have shown that STD/HIV/AIDS shows little benefit for clients and has a minimal likelihood of reducing the risk of infection.

Reasons for high prevalence are not clearly known, although a high degree of concordance for the presence of bacterial vaginosis (mainly men who have sex with animals had transmitted to their women) has fostered about a possible role for sexual transmission. However, women who had multi-partners, reported that they had it for money or for bringing up their children.

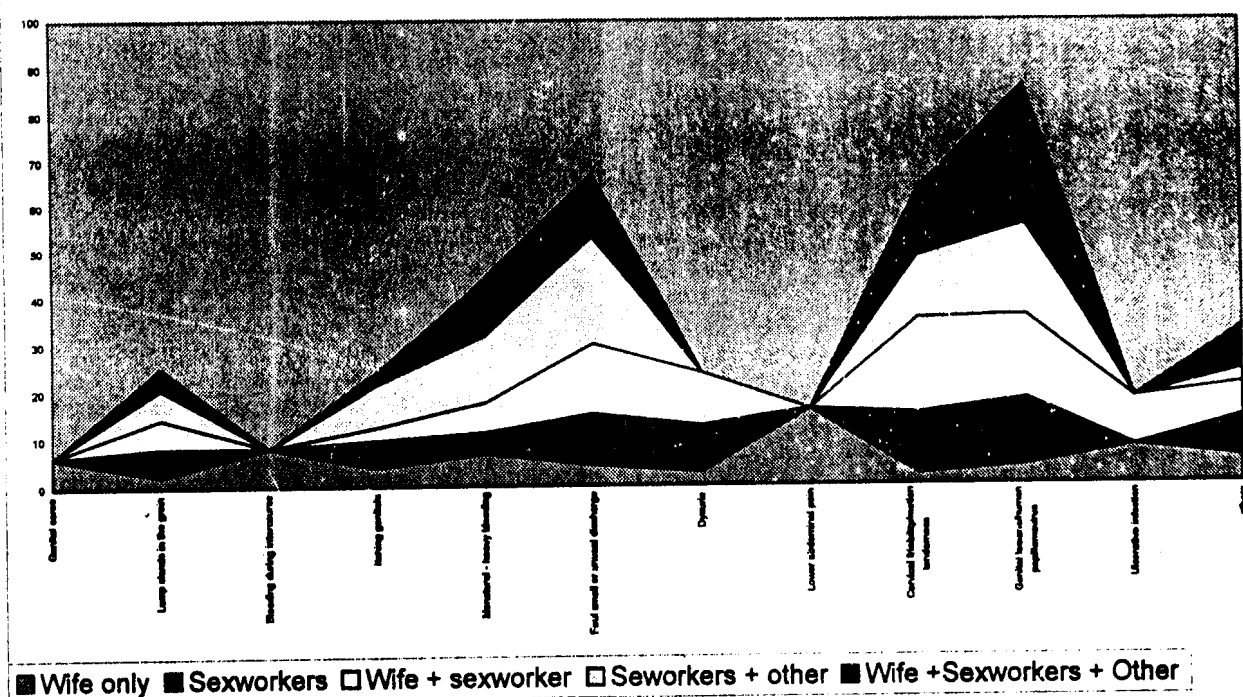
This data revealed that almost 28.3% reported that their husbands are not monogamous and that they are not sure about their husbands' fidelity. Reported non-monogamous behaviour was indeed found to be significantly associated with chlamydial infection ($P<0.05$), although sensitivity and positive predictive value were low, and it was not associated with trichomoniasis. Over 24% of women, reported symptoms in their partners like unusual discharge and/or sores/lumps on the genitals, and 32.8% had husbands/partners working as drivers. Looking at clinical symptoms, we found that unusual vaginal discharge was unassociated with chlamydial infection and, therefore, not a sound bases for presumptive treatment. Similarly, the study found that reported bleeding after intercourse was also unassociated with chlamydial infection.

On the other hand, reported dysuria was significantly associated ($P<0.01$) and lower abdominal pain showed a weak association ($P<0.05$). Clinical figures from pelvic examination indicate that only cervical friability and motion tenderness were significantly associated ($P<0.05$) while cervical inflammation showed only a weak association with

chlamydial infection. Presence of genital lesions was associated ($P < 0.01$) and was almost 55% sensitive (Figure-2). However, during the risk behaviour assessment, it was found that 125 women most frequently referred to cuts perceived after intercourse, probably due to failure of fore play before intercourse or without any stimuli before intercourse owing to dry vaginal intercourse. These lesions, therefore, are bigger risk factors for infection than a sign of actual ulcerative infection.

Sixty-one women had vaginal STD trichomoniasis; however, trichomoniasis was found to be significantly associated with polygamy with the expected reported symptoms like vaginal discharge, vulval itching or pain during urination. Risk behavioural assessment thus was helpful. Significant associations for trichomoniasis were low and poor hygiene practices unclean underwear, failure to change or remove pads. Nevertheless, genital

Figure -2: Sexual Behaviour with type of Infections



infections (31%) with the human papilloma virus (HPV) are known to be the most frequent viral STDs. In most cases, the infection takes a latent course without clinical manifestations (Figure-2).

Most genital warts are seen in young with high prevalence in women under 30 years of age. External anogenital warts in females are mostly in the vulva and the peri-anal area. An effective treatment of the disease is of great importance from the medical, psychological, and economic perspectives. This is especially true due to a strong correlation between HPV infections caused by certain virus types and the development of dysplasia and intrepithelial neoplasia, which may lead to the development of

carcinomas. To date, none of the common treatments have proved to be curative for these 364 cases; this reflected that patients visited the clinic very often to get timely cure. In other words, recurrence is very high in three-fourths of the cases. Despite this evidence, there is limited (evidence) understanding of the frequency and range of behaviours at risk for STDs and HIV/AIDS. Beyond clinical observations, the high level of symptoms and clinical signs found among the study sample is indicative of an unmet need for reproductive health information and services to prevent and/or cure symptoms.

Lack of separate bathing facilities or place to take a bath or using a common bath room leads to women in general not paying much attention to wash their private parts properly. In addition, the practices of vaginal douching and intercourse during menstruation were common. Surprisingly 25.6% of women reported that they used condoms only during menstruation and 17.8% of women had delayed visiting clinics for several days since symptoms first appeared leaving open the possibility of enhanced rates of STD transmission measures to promote early presentation for treatment, including increasing awareness of the factors and co-factors of STD/HIV/AIDS transmission.

Keeping in view the above scenario, efforts should be aimed at early diagnosis and prompt treatment, which should take priority for resources over routine testing. From amongst the women under study, 3.8% are found to be susceptible to high-risk behaviour to primary HIV/AIDS infection. Thus 3.8% of 44002 populations in the urban slum are at risk (1672), and 1.4% acquired infection (616), at any point in time. This conclusion emerges from the clients or their partners having multiple sexual behavioural aspects and drug use, and a history of unprotected sexual intercourse, which is extremely common in the urban slum areas.

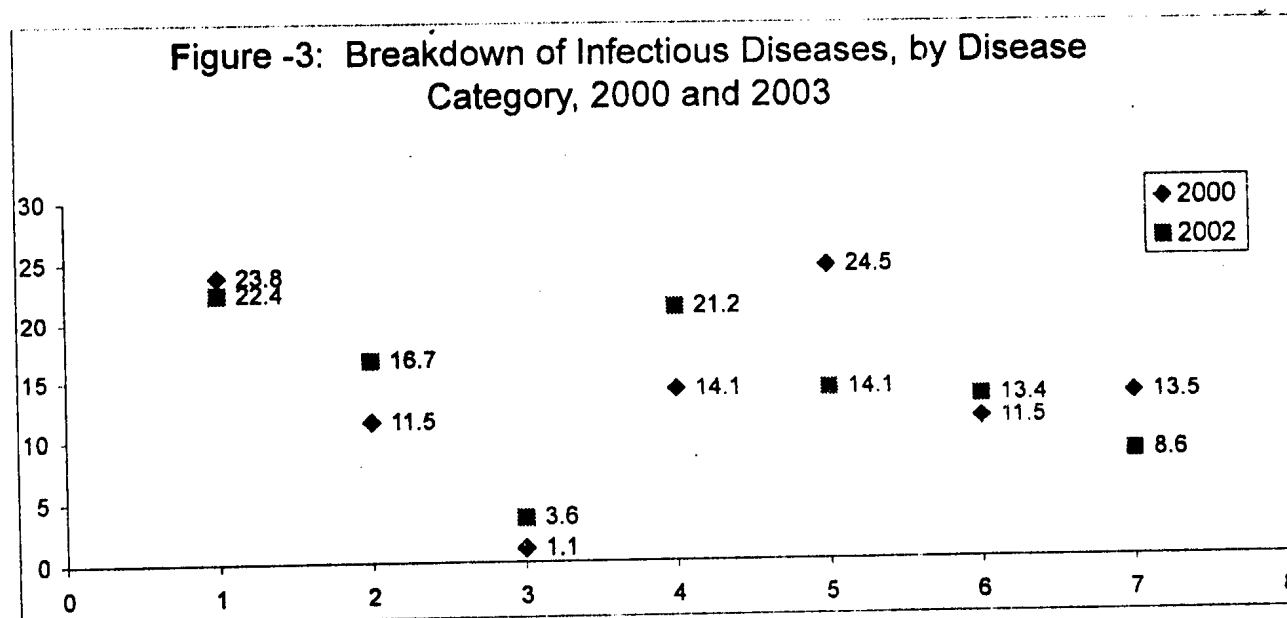
The study findings also suggest that this virus is not easily spread through bisexual intercourse. As the unlinked anonymous design of the study, limited the amount of epidemiological data that could be collected, we could not assume that any of the infected non-infectors acquired their infection sexually. The findings are in keeping with the prevailing view that STDs can be acquired through unprotected sexual intercourse but for most people, the risk of contacting them is extremely high.

Reflection and Reaction

Thus the above experiences reveal that urban slum population is at direct risk of STD/HIV/AIDS infection via confirmed general practices and suspected non-monogamy, and that almost one-fourth are confirmed to have an STD. The rate of risk of having HIV/AIDS would increase from 1.012.6 in the coming 3-year span (*Figure-3*). The reasons for these sharp increases are complex and multifaceted. The social and political changes and the economic disorder decreased the quality of life of a majority of the population. The human development report³ shows a great increase in the spread and

3. Human Development Report.1996. UNDP. New York: Oxford University Press

the level of poverty in India confirms this fact. This is related to social and economic problems such as a decline of GDP, increased unemployment, fall in enterprise benefits, inadequate social protection and high levels of inflation. Thus the increase of STDs among young people has occurred against a background of problems related to poverty, compelled migration due to a series of caste/class conflicts, increased social differentiation, reduced availability and quality of medical and health services and limited resources for prevention and healthcare. Besides this, these people cannot afford the money required for private and anonymous STD treatment and, therefore, they rely on general public clinics. Owing to the acceptability of the authoritarian approach used by public health center deliveries, the average time of presentation for STD treatment increases and thus the risk of people with infection may actually increase.



HIV/AIDS and STD epidemics are closely interconnected. High STD prevalence is an indicator of high-risk sex. However, high STD prevalence also biologically facilitates the efficiency of HIV/AIDS transmission and it is often possible to use STDs rates to forecast HIV/AIDS transmission. This clearly reveals that there is a great need for integrated preventive and curative STD services in urban slum areas (in India), which poses a huge threat. This highlights the need to create a well-equipped healthcare system, which should be affordable, accessible and available, to all. In addition, high-risk behavioural assessment and counseling to address the common symptoms is needed.

Conclusion

In general, urban slums have very young population and their number is growing. Because of their youth, they are sexually active. This study of urban slum population was transit-in-culture in nature and accepted prostitution as a norm and popular among the youths. The limited knowledge and skills concerning sexual hygiene and the low value placed on personal health might further contribute to the risk of STD. Rapid acceptance

of western culture prompted temporary sexual relationships. Wide scale VCT centers, educational campaigns, condom promotion on television have been appropriate steps in public education but this is not enough⁴. The behavioral, social and economic circumstances that gave rise to these alarming patterns have not changed since the intrusion of HIV/AIDS in 1985.

Out of 364 patients, 151 clients visited the study clinic at a regular interval of two months, 142 cases even visited once in three months, and 90 cases were once in four months in the last three years of the study period. However, those who stated that they visited the clinic once in four months were living with steady partners but not cohabiting regularly. In contrast 151 cases who reportedly visited every two months revealed that they did not follow the clinical advices or suggestions by the counsellors. This shows that there is a need for non-judgmental prevention messages explicitly targeting people with multiple partners and emphasizing protection for all partners. However, it is very difficult to change the behaviour of this study population who has lived a part of their sexual life without having to deal with the risk of HIV/AIDS transmission.

On the other hand, a substantial minority of the study population attending the clinics failed to have their infection diagnosed or provided adequate preventive or curative measures. This may be because no test was ever offered to those at high risk of HIV/AIDS, or because of a lack of resources, which prevented clinics from increasing their level of quality services. This suggests that failure to involve patients actively in their treatment may be associated with adverse outcomes such as subsequent non-compliance⁵.

Voluntary counselling and testing programmes have been demonstrated to increase condom use. However, these interactions are typically one-to-one programmes and they do not assess the effects of repeated testing and multiple counselling sessions that are possible when women can be followed for longer periods of time. One of the primary effects of counselling and testing programmes is to increase the level of awareness that individuals have concerning the risk of HIV/AIDS infection/transmission.

The clinics should change from clinical perspectives to socially preventive approach for behavioural change (of people) rather than simply working with one member of the relationship. The study reflects clearly that most of those women who were married or were in steadily cohabiting unions, reported that their male partners made most or all of the decisions about their sexual activities. This made the clinical approach futile where most of the suggestions to the women or to both the partners wanted them to use

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 5. Lassen LC. Connection between the Quality of Consultations and Patient Comprehensive in General Practice. Fam Pract. 1991. 8:154-160.

condom or play safe. This resulted in all women with HIV/AIDS positive male partners who had not been tested or counseled previously had sexual relations outside of the primary relationship.

The reason why India needs to develop an effective health care mechanism is to treat and save the children from orphanhood and keep households, social cohesion and business intact; to improve returns on social investment such as education and development; to increase growth and security; and to keep to a minimum exacerbation of poverty. This holds true for every country in the world.

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