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Epidemiology of HIV/AIDS in India - development of commercial sex workers as an important strategy to stem the HIV/AIDS epidemic.

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Abstract

India has the highest number of HIV/AIDS cases in the world. Current HIV/AIDS prevention strategies are based on regular and appropriate condom use. However, most commercial sex workers (CSWs), who form the core/ high risk groups towards whom the prevention strategy is directed, are disempowered, and are economically marginalized which does not allow them to insist on 100% condom use by the client, especially in absence of governmental structural support. It is necessary to improve the basic living conditions of CSWs to provide the foundation for using condoms regularly, consistently and appropriately in every encounter and refuse a client who refuses to comply.

This policy paper consists of two chapters. The first chapter draws a situation analysis of the HIV/AIDS epidemic in India in the background of India's current socio-economic scenario, especially as it relates to the quality of available data. The second chapter aims to discuss HIV/AIDS prevention issues that relate to CSW in India and those issues that play a vital role in initiation, perpetuation and expansion of economic activity of CSWs, and those that influence the HIV/AIDS preventive practices of CSWs. This policy paper argues that CSWs can be empowered and emancipated and suggests that HIV/AIDS control and prevention efforts in India must recognize that *ad-hoc* promotion of condom use or similar such programs will not be enough, and that more extensive developmental work aimed at betterment of basic living conditions of CSWs is required to fulfill HIV/AIDS prevention goals.

Chapter 1: Epidemiological and socio-cultural situation analysis of HIV/AIDS in India

General socio-economic and health background in India

India, a "multi-national country", the seventh largest, and arguably the most populated country in the world, represents a society and economy in a state of flux. The Indian political system and economy have been stable since independence in 1947. Since economic liberalization reforms started in 1991, the economy has been growing (current rate about 5%, and inflation rate dropping to 3%), and societal changes have been tremendous. The appendix summarizes the current main economic and health indicators of India. India, unlike many developing countries, possesses a functioning infrastructure for health care delivery and research and also has a stable pharmaceutical industrial base.

Health status in the country is generally low compared to industrialized countries as evidenced by the mortality rates and nutrition indicators.[1] However, compared to most developing countries, immunization rates, antenatal coverage rates, availability of potable water and electricity are satisfactory.[2] Yet, poor physician-population ratio (48/100,000), nurse-population ratio (45/100,000), hospital beds-population ratio (80/100,000) low contraceptive use prevalence (41%),[1] low expenditure for health care [5.2% of Gross domestic product (GDP) and per capita expenditure for health care at $84] [2,3] indicate major system related problems. A direct outcome of this situation is that access to health care is poor for a large section of the society, which lives in poverty and in areas remote from primary health care centers. In general, people spend out of pocket for health care. Over the last few years, health insurance has picked up, though at this stage mostly in the urban centers.

Current estimated number of people with HIV/AIDS in India is 3,500,000, of which about 38% are women.[1, 4-6] Sexually transmitted diseases (STD) prevalence rates are high,[1] and one of the major obstacles to developing estimates is that data are sparse, and worse, much of the data may not be reliable. Other factor that may play a major role in HIV/AIDS is that the commercial sex workers (CSWs) have only recently been officially recognized to exist; making estimation of their true numbers difficult. Therefore, accurate numbers of CSWs are not available making unreliable estimates are major problem in planning and implementing preventive measures. Lack of education, poverty, non-availability of resources (governmental and otherwise), living in areas with few opportunities are major barriers, and those become formidable when existing together for a large section of the society, as in most semi-urban and rural areas. The background of HIV/AIDS in India is set by the realization that India, with population of more than one billion people, has 28 diverse states, and that most of the Indian states have a population greater than majority of the countries in Africa. Tracking the epidemic and implementing effective programs therefore, poses a serious challenge to the authorities.

Course of the HIV/AIDS epidemic in India

India has had a sharp increase in the estimated number of HIV infections since the first HIV-positive person discovered in Chennai in 1986. The variation in prevalence and spread of HIV in different parts of the country is as diverse as the societal patterns between its different regions, states and metropolitan areas, transmission being mainly heterosexual in some states, whereas injecting drug use is the chief mode of transmission in some other states.

Governmental response

Although the Government of India has designed various programs to help prevent further spread of HIV, lack of funding and poor regulatory systems are barriers to their implementation. India is also at war with poverty, illiteracy, gender inequality, and terrorism, all of which compete with AIDS for scarce resources. Recognizing the seriousness of the situation, the central government constituted a high-powered committee under the Ministry of Health and Welfare, and subsequently, a National AIDS Control Program was launched in 1987.[7-10] The program activities covered surveillance, screening blood and blood products and health education. In 1990, HIV positive proportions were high amongst high-risk groups such as commercial sex workers and STD patients in Maharashtra, and injecting drug users (IDUs) in Manipur; infection rates reached over 5% in these groups. This period saw the beginning of a largely research-based national program. Surveillance activities were launched in 55 cities in three states. The program activities were left to the states and did not have strong central guidance.[8]

The National AIDS Control Organization (NACO) was established in 1992.[8] NACO carries out India's national AIDS program, which includes the formulation of policy, prevention and control programs. In the same year, the government launched a five - year strategic plan for HIV/AIDS prevention under the national AIDS control project.[9] The project established the administrative and technical basis for program management and set up state AIDS bodies in 25 states and 7 union territories. The project was able to make a number of important improvements in HIV prevention such as improving blood safety. To strengthen surveillance the government established 140 centers and 180 sentinel sites across the country, to monitor HIV trends and the geographical spread of HIV among the general population and at-risk groups.[9]

More recently surveillance reports from the southern state of Tamil Nadu with a population of 60 million, suggested that HIV infection rates among pregnant women rose to 1.25% between 1995 and 1997, which attracted attention of the state government. It set up an AIDS society, which worked closely with non-governmental organizations (NGO) to develop an active AIDS prevention campaign.[9] This included hiring a leading international advertising agency to promote condom use for risky sex, without "offending the people who do not engage in risky behavior". The campaign also attacked the ignorance

and stigma associated with HIV infection, encouraging compassion for those affected. The safe-sex campaign targeted young sexually active men. Some reports indicate that the number of visits to sex workers and sex with other irregular partners may have fallen in certain parts of the country, and condom use during risky sexual encounters may have risen.[7-10]

Impact of the Epidemic

Ambiguity about prevalence

In the Indian population-size context, even relatively low-sounding rates may actually imply a huge number of people: for example, prevalence of 0.5% means half a million people. The officially declared HIV prevalence rate in India is low (0.7%).[4] However, recent estimates have contested this claim, and it is generally understood that the real rates, though unknown are much higher[4] with one estimate placing it at about 1.5%.[11] This estimate too is conservative and current WHO figures suggest that about 35 million people in India are living with HIV/AIDS, suggesting a rate of 3.5%.[3] In the most affected state of Maharashtra (in the western side of India), HIV prevalence is 60% among sex workers in Mumbai (Bombay), 14-16% in sentinel STD clinics, and over 2% among women attending anti-natal clinics while it is 6.5% in Namakkai in the southern state of Tamil Nadu and 5.3% in Churachandpur in the north-eastern state of Manipur.[5] The official Indian figures do not reveal the true picture, presumably for political reasons, but there may be many reasons for such ambiguity such as under-reporting due to weaknesses in the surveillance system, bias in targeting groups for testing, and the lack of availability of testing services in several parts of the country. That the polity is sensitive to the issue of prevalence rates became clear when the Indian government contested WHO estimates,[12] and about the same time governmental agencies betrayed confidence in their own estimates.[13]

Modes of transmission

It is generally accepted that HIV infection in India is currently concentrated among the poor, mobile groups such as CSWs, truck drivers, and migrant laborers, groups living at the margins of the society such as men who have sex with men (MSM) and IDUs.[14-17] It is also understood that heterosexual spread is the main mode of HIV transmission.[14-18] Blood borne transmission has been another major source of HIV transmission in India.[15,16,19] Prevalence of HIV-positivity among blood donors in India has been estimated to be 0.21% - 7.0%.[19] However, Choudhury et al.[20] question these figures and suggest a much lower rate at 0.02%. This study[20] has certain limitations that may have resulted in their extremely low prevalence estimate. They did not include professional blood donors, who depend on blood donation for living, and would have higher HIV prevalence. Furthermore, the study was based in a tertiary care hospital, and estimates may be subjected to Berkson's bias.

Sexual behavior patterns and AIDS awareness

The HIV-epidemic in India has passed the stage where it was sustained through mobile populations alone. Many studies have focused on the sexual behavioral practices in parts of India where the HIV/AIDS epidemic is centered, i.e. the cities of Mumbai in the west, Chennai in south, and the state of Manipur in the northeast.[8,11,16,19] Cultural, economic and other opportunities and practices vary significantly across the states, and there is a need to have statewide representative studies, at least. Most published reports are from prevalence studies with samples of convenience, which do not allow robust conclusions and are not representative of the local populations, but provide reasonable in-sight into the prevailing conditions. These studies have generally been descriptive in nature, and are hypotheses generating rather than hypotheses testing. These have generally suggested that for many women, monogamous sexual relationship with their husbands remained a significant mode of HIV transmission.[4,14,17,18] Polygamous sexual behavior among women is becoming commoner in India, though monogamy within the marriage still remains the norm.[18] However, the greatest change in sexual habits (pre-marital sex, especially) has come about among the younger age groups. In the western state of Rajashthan, one out of ten married males reported to have had both pre- and extra-marital sex.[21] A male having pre-marital sex was 15 times more likely to have extra-marital sex. Friends, acquaintances and relatives were the important sexual partners whereas role of CSWs was negligible.[21] This study reported that heterosexual act with person other than the legal spouse was common among the evaluated group of middle class professionals and suggested intensification of health education on HIV/AIDS.[21]

Some studies have explored behavioral issues related to HIV/AIDS awareness. Many married women in India have still not heard of AIDS despite increasing risks, intensive health education campaigns and widespread scientific and media attention.[22] A cross-sectional survey of 350 married women in Mumbai, the city with one of the highest HIV/AIDS prevalence rates in the country, revealed that one out of three women had not heard of AIDS. The women who had not heard of AIDS had significantly fewer years of formal education, lower personal and family incomes, less exposure to the mass media and were more likely not to know of condoms in comparison to the women who had heard of AIDS.[22] Another study suggested that in general social context; married women were more likely to discuss HIV/AIDS related issues as social problems with their husbands, followed by their friends and family members. At the same time, they were less likely to discuss personal HIV/AIDS related sexual matters with their husbands.[23]

In the general population, chief sources of information are television, newspapers and physicians. A study of hospital employees in Nagpur found the employees to have some factual knowledge about HIV/AIDS, but to also harbor many misconceptions and myths and having a biased and negative attitude towards people with AIDS.[24] Awareness and knowledge was low among college students and those living

in rural areas,[25] among schoolteachers and school-going adolescents,[26] and was lesser among the illiterate sections of the society.[27] The situation among nursing students was similar[28]: most mentioned that they would feel uncomfortable while talking, hugging, shaking hands, and sharing a room with an HIV positive person. That community level intervention can raise awareness was demonstrated by trials in Kerala[26] and Pune[29]. These studies demonstrated that exposure to intensive promotional intervention can raise awareness of young people on sensitive topics such as STD and AIDS.

Condom use is not very prevalent in India.[1] A convenience-sample study in Mumbai suggested that social stigma, lack of avenue for discussion about sex, and disease awareness and lack of privacy in stores, were major barriers for condom use in India.[30] A testing and counseling study in Pune found that ongoing counseling and testing was positively associated with risk reduction behaviors among men in the study.[29] An intervention program among CSWs in Sonagachi, Calcutta reported increase in condom use from 0% to 70%.[31] Therefore, the need for effective behavior modifying interventions and studies is underlined. In general, there are few studies in this area.

Situation concerning other STDs

STDs are major health problems in the Indian population but no reliable estimates are available. UNAIDS estimates published from NACO sources suggest prevalence rates of 1.5% - 3.8% for various STDs in different parts of the country.[32] The spectrum of STDs may be changing. One small study suggested that with the spread of the HIV epidemic, atypical muco-cutaneous manifestations of secondary syphilis may be seen more frequently than before and may pose problems in diagnosis.[31] The study reported, six patients with atypical manifestations, and three of them were HIV seropositive.[33] Some studies have reported Chlamydia prevalence up to 33% and HIV prevalence in STD cases up to 40%.[34] HIV prevalence among attendees of STD clinics has been reported to be high.[35] A study of truck-drivers reported prevalence of HIV infection, syphilis, hepatitis-B infection and gonorrhoea to be 15.2%, 21.9%, 5.1% and 6.7% respectively.[36] Most estimates are rough, and imprecise. Cultural taboo and social stigmatization have traditionally been the reason for under-estimation of STD prevalence rates in India. Even in the current days, STD treatment “sector” is often controlled by untrained “quacks”, who advertise their services in billboards and audio-visual media. Their success in attracting STD patients is based on assured privacy due to their discrete mode of functioning, something that government hospitals cannot match and due to lack of awareness and education among the poor and illiterate.

Cultural impacts of HIV/AIDS

AIDS is generally perceived as a disease of "others" - of people living on the margins of society, whose lifestyles are considered “perverted” and “sinful”, leading to denial, discrimination, and

stigmatization. Recently, UNAIDS reported different levels of discrimination and stigmatization among people living with HIV/AIDS in India.[6] The study revealed existence of widespread labeling and stereotyping and a lack of care throughout the health sector, with the possible exception of a small number of hospitals where good practice and policies have been established. This report further suggested that parents and in-laws often blame women for infecting their husbands, or for not controlling their partners' urges to have sex with other women. Children of HIV-positive parents, whether positive or negative themselves, are often denied the right to go to school or are separated from other children.[6] People in marginalized groups [female sex workers, hijras (transgender) and gay men] are often stigmatized in India on the grounds of not only HIV status but also being members of socially excluded group.[6]

The question of homosexuality is a very sensitive issue in the Indian cultural context. In India, notions of gender and power play a dominant role in shaping sexual lives and sexual identities. In a highly patriarchal society, the Indian family remains a crucial institution that defines both gender and sexual relations.[14] Recognizing the difficulties of using the term "homosexual" in the Indian context, the NACO now groups this category under "sexual activity". This acknowledges the fact that, because relatively few MSM identify as homosexuals self-identified rates (which have tended to account for less than 1% of screened HIV positives) significantly underestimate the percentage of MSM who have contracted HIV and AIDS.[14]

People living with HIV and AIDS continue to be burdened by poor care and inadequate services, whilst those with the power to help do little to make the situation better.[37] A study from Bangalore reported that depression, serious suicidal intent, pain, concurrent alcohol abuse, poor family relations were common in these people.[37] Another study from Mumbai reported that social and family support for these people were patterned after the usual social norms implying low tolerance and that between the sexes; men received preferential treatment.[38] The study could not distinguish biased interviews from the unbiased ones, though.

Excess deaths due to HIV/AIDS have been reported in Mumbai.[39] A surveillance report from the northern state of Punjab found increasing sero-prevalence among high-risk groups between 1987 and 1998.[17] Though the study did not elaborate on its methods, it suggested that heterosexual spread was the predominant mode of transmission. Recent years have seen a broadening of the epidemic across the southern and western states of India, as well a concentration of HIV among the IDUs in the Northeastern states. The sharp increases in HIV prevalence in the states of Andhra Pradesh and Karnataka reveal that these two states have overtaken Tamil Nadu as states with the highest prevalence rates.[8] In other parts of the country, the overall levels are probably still low with some areas reporting no cases at all. Another

opinion could be that most of these states have low prevalence due to inadequate surveillance and the low rates are far from real.

Economic Impact

Recently, a study attempted to estimate India's economic burden arising out of HIV/AIDS[40] under three possible prevalence rates. At 1.5 million HIV/AIDS cases, the study reported annual cost of $1.43 billion, at 2.5 million cases, the annual cost estimate was $43 billion and at 4.5 million cases, the estimate was $125 billion (current foreign-exchange rates). These figures are enough to scare any government, as India's, especially because the GDP growth rate is only about 3.5%. The estimates from this study[40] however are under-estimates as the study failed to take into consideration many important sources of HIV/AIDS associated costs such as costs associated with vertical transmission and costs of anti-retroviral treatment and costs related to communication among others. Furthermore, the cost estimates were based on many assumptions about incidence/prevalence of HIV/AIDS, an assumption that AIDS affects the poor predominantly, and assumptions based on "expert opinion" regarding in-patient care costs. Clearly, the estimates are substantially low and the "true" costs would be much greater that may drag the economy down. It is clear that the government would want to "under-report" AIDS prevalence as a short-term political ploy because the epidemic is not yet evident in its full-blown form.

Implications for national response to the epidemic

India's socio-economic status, traditional social ills, cultural myths about sex and sexuality, and a huge population of marginalized people make it extremely vulnerable to the HIV/AIDS epidemic. The central and state governments have launched prevention programs to reduce high-risk sex and there is evidence that in some states, these programs are resulting in safer behavior. However, that rampant corruption in the society is a major impediment is emphasized by events such as the one where condoms meant for disease prevention programs were diverted to the toy industry.[41] Certainly, the Indian government has a major task ahead,[42] the first of which is exhibit political will to tackle the epidemic, starting with obtaining reliable data. As prevention strategy, the main areas to affect should include: prevention of further spread of the disease increasing awareness among people, especially the high risk groups; control of STDs among sexually active, economically productive groups together with promotion of condom use a measure; to provide an enabling socio-economic environment so that individuals and families at high risk/affected with HIV/AIDS, can become part of the mainstream society, and manage their lives themselves with their family and community support; and improving services for the care of people living with AIDS in times of sickness both in hospitals and at homes through community health care. The key word is political win, and the key issue is reliable data.

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APPENDIX

Basic Facts about India including selected economic and health indicators[1,2,3,32]

Area:	3.3 million square kilometers; Coast line is 7,600 km
Languages:	17 major languages, 844 dialects
Major Religion:	Hinduism, Islam, Christianity, Buddhism, Sikhism, and Jainism
Political system:	Sovereign, Socialist, Secular, Democratic Republic Parliamentary system, based on universal adult franchise. 28 States and seven centrally administered Union Territories Judiciary Independent of executive
Population:	1027 million [2001]
Exports as % of imports:	79.6
Man-days lost :	352

2000-2001	***GNP***	***GDP***	***Agr Prod Index***	***Indust Prod Index***	***Electrc Genreration***
(Base: 1993)	6.0	6.0	1.5	6.0	4.5 Bn MW

Wholesale Price Index	***CPI***	***Money Supply***	***Imports***	***Exports***
6.5	7.0	15.0	21.0	18.4

Baseline mortality

Infant Mortality rate (deaths/1000 live births)	72
Maternal mortality ratio (deaths/100,000 live births)	440
Under-five mortality rate (deaths/1000 live births)	105
Crude death rate (deaths/1,000/year)	9

Water/Sanitation

% of urban water supply coverage	92	% of urban sanitation coverage	73
% of rural water supply coverage	86	% of rural sanitation coverage	14

Nutrition

% of children exclusively breastfed (0-3 months)	51
Wasting (%wt/ht <-2 Zscores)	15.5
Severe wasting (%wt/ht <-3 Zscores)	2.8
Stunting (%ht/age< -2 Zscores)	45.5
Underweight (%wt/age < -2 Zscores)	47

Iron Deficiency Anaemia is caused by inadequate iron reserves at birth and aggravation by poor dietary intake, hookworm infestation, particularly in rural agriculture populations, and other infections.
Cretinism: 2.2 million people

Immunisation

BCG	80%
DPT3	78%
Measles	60%
Polio	78%

Reproductive health

Total fertility rate	3.1
% of antenatal care coverage	62
% of skilled attendant at delivery	35
Contraceptive prevalence rate	41%

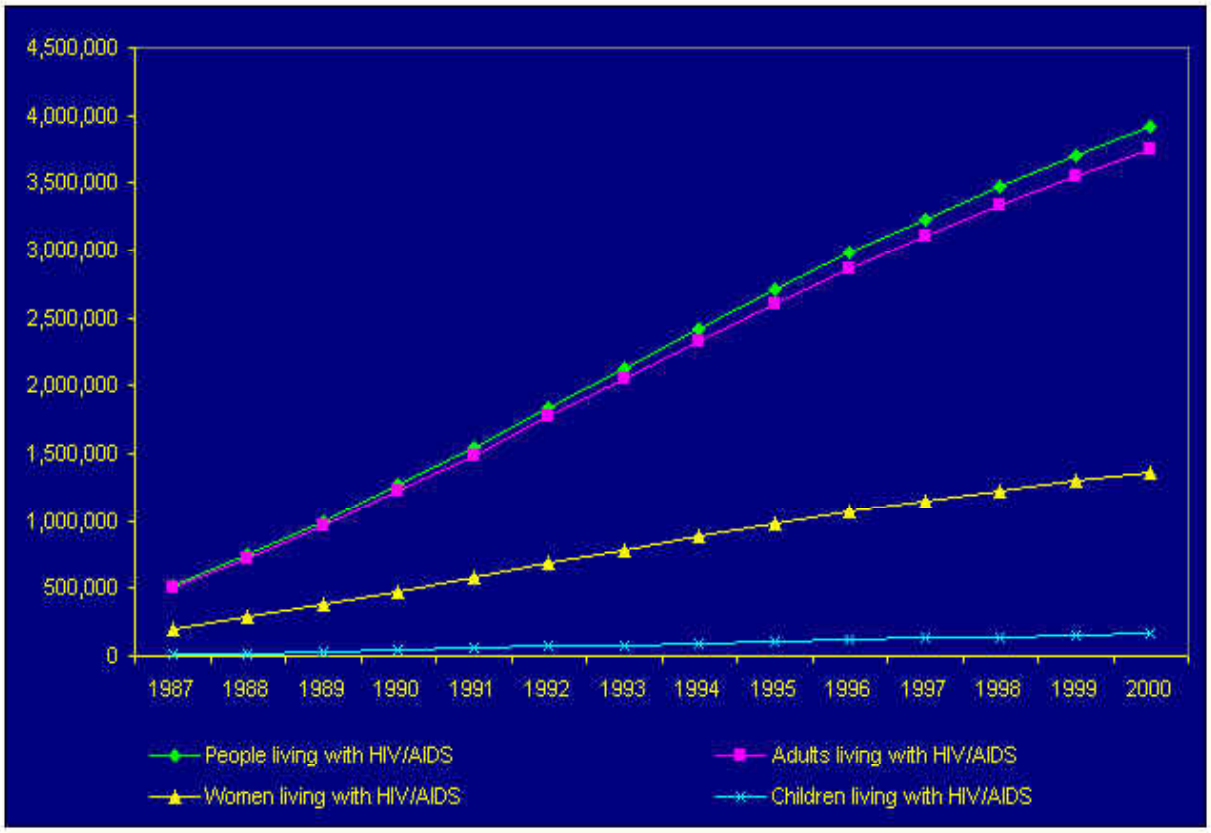
Appendix contd:
Basic Facts about India selected including economic and health indicators

HIV/AIDS

Estimated number of adults living with HIV/AIDS	3,500,000
Estimated number of women living with HIV/AIDS	1,300,000

Health Systems Profile

Total expenditure on health as % of GDP	5.2
Total per capita health expenditure in international dollars	84
Physicians rate per 100,000 population	48
Nurses rate per 100,000 population	45
Midwives rate per 100,000 population	Not Available
Hospital Beds per 100,000 population	80
% of essential drugs available in a sample of remote facilities	Not Available
Laboratory Facilities	Not Available



Number of people with AIDS in India
Sources (Ref: 1,2,3,32):

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- GovtofIndia Info: http://www.indianembassy.org/indiainfo/index.html date: 12/04/01 2250hrs
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Chapter 2: Development of poor commercial sex workers as an essential step for HIV/AIDS prevention in India

INTRODUCTION

In India it is not illegal to have sex for money but the law prohibits trades such as pimping, trafficking, brothel keeping and soliciting for sex. Officially, CSWs do not exist as a trade/professional entity. Yet, organized networks for buying and selling women and girls thrive. Because most CSWs are poor, they are able to work only due to tacit arrangements with and support of the pimps, agents, local police and the local mafia.[1] A recent Ford Foundation report[2] suggests that although India is a signatory to numerous international agreements on the rights of women and has a constitution that prohibits discrimination and exploitation by gender, it has failed to satisfactorily protect the human rights of women, particularly those of sex workers. This is manifested in high levels of violence in the sex industry, child sex workers, lack of access to health care, and high levels of HIV infection.[2]

The Indian government's AIDS [3] advances a condom use based medical model for HIV/AIDS prevention. The policy mentions MSM twice as examples of high-risk groups. No clear proposal has been made in the policy as to how these people will be involved in HIV/AIDS prevention interventions keeping in view that the society is in general hostile to MSMs[4]. Similarly, CSWs have been mentioned thrice in the policy in the same vein as MSMs, and apart from medical based interventions, there is no mention about how socio-cultural issues related to CSWs will be handled

Medical-model based interventions without socio-cultural corrections may not be very successful in preventing HIV/AIDS because compliance is likely to be low. The Indian AIDS policy [3] admits that HIV/AIDS awareness among the rural people is about 30%. About 65% of the population lives in rural India. Assuming the government estimates of 75% urban people being aware of HIV/AIDS[3] to be true, it implies that about 55% of the entire Indian population is not aware of HIV/AIDS. The question to asked is: for a country with rampant poverty, lack of education and opportunities, ever-present corruption, lack of CSW tracking system, can "an educated condom use" policy alone be successful in stemming HIV/AIDS without the support of a strong socio-economic-cultural framework for the "core group"?

In India, CSWs have been documented as sources of HIV/AIDS, other STDs, and other communicable diseases.[5,6,7] In 1993, one study observed that the AIDS epidemic in southern India was in its early ascending phase, with a doubling time of approximately 1 year.[8] Most men with AIDS had been infected by heterosexual contact with CSWs, while some infected women were prostitutes. [8] The authors suggested that the male population at risk has sex with a much smaller population of female prostitutes, constituting the major chain of transmission occurring in both urban and rural populations. [8] However, more recent reports [9,10] belie the idea that only a small proportion of CSWs are infected.

A testing and counseling study in Pune found that ongoing counseling and testing was positively associated with risk reduction behaviors among men.[11] A qualitative study in Mumbai, [12] based on a sample of convenience, found that lack of privacy in stores and the social stigma associated with condom use were indicated as the most significant barriers for condom use. These findings suggest the need to ease cultural constraints to allow safe behaviors through increased acceptance of condoms and promotion of their consistent use.

A recent study estimated spread of HIV infections among CSWs in India using best available working estimates from various sources.[10] Based on their statistical models, the authors estimated HIV infections in commercial sex networks to increase from the 1999 level of approximately 2.49 million to about 3.93 million by 2005 if all interventions worked well, or to 6.87 million in a "worse scenario".[10] They also suggested that the spread of HIV was influenced only in the short term by condom use and prevalence of sexually transmitted infections.

For many people, lack of education; poverty; non-availability of resources (governmental and otherwise); living in areas with less opportunities are major barriers against decent living. Commercial sex workers (CSW) in India, the "core" group in HIV/AIDS prevention, possess each of these barriers.

This paper aims to discuss HIV/AIDS prevention issues that relate to CSW in India and those issues that play a vital role in initiation, perpetuation and expansion of economic activity of CSWs, and those that influence the HIV/AIDS preventive practices of CSWs. This paper argues that CSWs can be empowered and emancipated. Furthermore, it also aims to suggest that HIV/AIDS control and prevention efforts in India must recognize that *ad-hoc* promotion of condom use or similar such programs will not be enough, and that more extensive developmental work aimed at betterment of living conditions of CSWs is required to fulfill HIV/AIDS prevention goals.

OVERVIEW OF CSWs IN INDIA

Female CSWs in India can be classified into distinct conceptual groups according to their practices. The *"common girl prostitutes"* function as full time CSWs through brothels, roadside hotels, motels, and restaurants. They are dependent on the brothel keepers, pimps and other middlemen for contacts and protection. These middlemen take a portion of the CSWs monetary return. The *" singing and dancing girls"* work under the veil of providing singing and dancing services. They may have pimps/contact persons with whom they share their income. These CSWs usually work in large metropolitan cities. The "c*oncubines/ semi-attached prostitutes"* have long-term relationships with men who are often from rich families. The man meets all the expenditure of the girl in return for companionship and sexual services. This type of CSW is now rare due to economic hardship and difficulty that men face in maintaining the finances for the concubine and the potential legal

complications. The term "c*all girl"* usually refers to the city based, part-time working adult women who satisfy the sex needs of resourceful persons. They usually do not need to work as CSWs for survival, but use sex work for furthering their financial capital and social network.[1] The monetary returns of call girls are much higher than other types of CSWs because of the higher income class and influential clientele they serve. The *"religious prostitutes"* are the CSWs initiated into sex work at an early age using religion as a pretext and was common in the past. These CSWs are called by different names such as Devdasi, Jogini Basavi etc. The temple priest is usually responsible for their food and lodging using temple resources. These are the most deprived CSWs, and are used as sexual slaves. The most common types of CSWs are the *"cage/ brothel prostitutes"* who are mostly young girls or children kept under confinement in small cubicles by the brothel keeper. Most children or women, who are sold, eventually reach the sex market as caged prostitutes. A large proportion of these CSWs are usually bought in Nepal and Bangladesh, and smuggled illegally into India. Remote villages and tribal areas in India also are significant catchments for sex traders who procure children for the sex market. The w*ayside or hitchhiking prostitutes* are CSWs who operate on the roadside of national and state highways. They usually serve the truck drivers, tourists and fun seekers. Most of these CSWs are women from rural areas adjoining larger urban centers.[1]

Male homosexual activity and prostitution

The Indian society is homophobic and men who have sex with men (MSM) are taboo.[13] Masculinity in India, it has been claimed, is asserted and publicly acknowledged through marriage and, more importantly, through the production of children.[4] Personal desire and choice are immaterial to this biological imperative and the idea of constructing personal identities around sexual orientation is considered alien (the few Indian men who have come out and openly expressed an identity linked with their homo- sexual preference tend to be middle-class and westernized).[4] Though MSM CSWs exist, their existence is generally ignored.

In India, 'homosexuality' continues to be treated as an unproblematic category by health authorities. HIV/AIDS prevention strategies for MSM are usually based on the North American/West European example of gay men.[4] There are important differences between India and the West, not only in the sexual identities and circuits of MSM, but also in their sexual partnerships and practices.[4] The specific construction of MSM activity, as in the conservative city of Chennai means that any attempt to forecast HIV transmission amongst this group must consider a range of general and locally specific factors such as their knowledge and attitudes towards HIV/AIDS; diversity within the homosexual circuit; the socio-legal context of homosexual behavior; links with other circuits of high-risk activity; and the varied potential risks of HIV infection between different groups of MSM[4], and the Indian cultural context which could

otherwise lead to marginalization of the MSMs. These differences, are not only significant to the epidemiology of HIV transmission, but have important implications for the development and implementation of HIV prevention strategies.[4, 13]

Child prostitution and immigration of CSWs into India

Commercial sex work has no ethnic basis; is not culture specific; and its magnitude at any given time, in any given place, is usually a function of socio-economic circumstances.[14] Nepal and Bangladesh are the two principal source countries for illegal immigration of CSWs into India. Most such immigrants are children bought/ stolen from their families in these countries and many undergo forcible hysterectomy in clandestine surgical operations soon after being sold as a preparation for their role as CSWs [15]. Many children are sold into sex-markets elsewhere in the world.[16]

Estimates of numbers of children/ women illegally immigrating into India as CSW vary widely. The Central Advisory Committee of the Govt. of India first attempted to assess the magnitude of child prostitution but found no reliable statistics. However estimates by non-governmental organizations (NGOs) indicate that roughly 12.15% of prostitutes in India are children.[17] A study conducted by Central Social Welfare Board of India in the year 1990 recorded that about 40% of the CSW population entered the sex trade as minors i.e. below 18 years of age.[18] In India there are an estimated 3.5 million people in prostitution, a quarter of whom are minors (under 18 years of age).[17, 18] UNICEF estimates that India has more than 100,000 child prostitutes in the six metropolitan cities of Mumbai, Kolkata, Chennai, Delhi, Hyderabad and Bangalore who are one third of a total of 300,000 child prostitutes in India.[19] One estimate suggests illegal immigration of 400-500 women/children per month each from Bangladesh and Nepal.[20] Another estimate suggests that 200,000 Nepali women and girls are sold into prostitution in India annually, a fifth being between the ages of 10 and 14 years.[21]

REASONS FOR INITIATION INTO CSW

Women take up prostitution for the same reason as they may take up any other livelihood option available to them. Many are sold into the sex trade and are bonded to the buyer. With high rates of initiation of poor folk into CSW, sale of women and children into the sex trade by the poor people, and immigration of more poor women and children from Nepal and Bangladesh, the supply side of the demand and supply equation dominates keeping competition among CSWs high, prices low, resulting in a disempowered CSW. A CSW may get some liberty only after years into the trade. However, by such time they develop diseases, and altered psyche, and have large financial debts [22, 23]. As a part of a vicious cycle of exploitation, the CSW gets financially strapped finding more security in and gets more dependent on the sex trade due to non-availability of any other opportunity [22, 23, 24].

One study found 92% of the CSW examined to be illiterate,[25] and 70% of them were extremely poor with nightly income ranging between Rs 10 to Rs 30 ($0.20 - $0.75). Illiteracy, domestic unhappiness, deception, destitution, poor socioeconomic status, and where existing, the religious custom of Devdasi were the major contributory factors for leading girls and women into prostitution.[25] Another study among poor CSWs exploring the reasons for initiation of women into the sex trade[26] concluded that the failure of family support along with the lack of ability to provide for themselves due to poverty and illiteracy were key factors for adopting prostitution.[26]

Many studies suggest high rates of CSW service usage in India.[25, 26, 27] Even in areas known to be traditionally conservative, use of CSW services is usually the first sexual contact for most men,[28] mostly initiated during teenage years.[27] A study conducted among the teachers of senior secondary schools of a city in the conservative state of Rajasthan revealed that 33% of unmarried and 20% of married men had experienced pre-marital sex.[28] The corresponding rates for the unmarried and the married women were 11.8% and 1.5% respectively. The prevalence of extra-marital heterosexual act among married men was 15.5%. Some 10% married men reported to have had both pre- and extra-marital sex. A man having pre-marital sex was found to be 15 times more likely to have extra-marital sex. [25, 26, 27, 28]

COPING STRATEGIES OF CSWs

In the context of HIV prevention the main sources of problems related to CSWs in India are not of sexual origin but of socio-economic-cultural origin. Firstly, CSWs exist in an informal economy, leaving them out of any official measures which maybe available, such as enforceable health care requirements, which could be a cornerstone of primary prevention strategies. The best-known economic effect of the informalization process has been to reduce the costs of labor substantially.[29] Secondly; the CSWs have a marginalized existence with blocked path for a hopeful future for themselves or their children. Social marginalization perpetuates their vicious cycle of poverty, forcing them to live in unsanitary, crowded places devoid of most requirements of basic existence.[30] Thirdly, the CSWs have virtually no control over their physical, economic, social, or emotional environment leading to ghettoization and trapped existence. Fourthly, strictly from a commercial angle, their overall span of productive period is small, and even if some of them entertain plans to break the system, their financial viability remains in question because they have no accessible opportunities. Finally, with time, the CSW becomes a victim of the law of diminishing returns.

CSWs, like other people living in poverty adopt certain strategies to cope with life aimed at minimizing expenses, and maximizing savings if any. [31, 32, 33] The strategies of CSWs constantly keep them within the framework of their vocation with associated perpetual health and other risks. The CSWs adopt to working more and working longer; economizing on overheads (which may include condoms out

of fear of losing business if the customer refuses condoms); attempt to maintain current consumption levels; buying security from those who can provide active or passive security; price cutting in the face of competition leading to increased "production", and longer working hours to reach and maintain their subsistence levels. For these CSWs, opportunities of progress as a human being either economically or socially, are few.

The problems of CSWs are mainly socio-economic-cultural. Therefore, to have the CSWs use condoms regularly and consistently the spectrum of issues to address includes: women's rights in general; income and poverty issues; domestic issues; culture of silence; and money for treatment. This re-orientation of view also suggests that solutions attempted through a bio-medical model of disease alone will not be able to effect a large-scale sustained change of practice patterns among CSWs. In Kolkata, The Sonagachhi study intervention [34] obtained a 70% condom use rate for 6-months. However, the study reported in 1998 has not reported further on the results of the intervention over longer period of time. It is also noteworthy that this high success rate has never been replicated elsewhere. Behavior change takes time to occur, and relapses are common. It might be worthwhile to recall that despite international high-pitch campaign against smoking, the habit is still fairly prevalent worldwide. Expectation of consistent and sustained condom use by poor CSWs eventually turns into a daily tussle between the probability of immediate monetary return against a potential risk reduction in the future, which, in the presence of a unrelenting customer, may not leave much choice with the poor CSW, except to have unprotected sex. The whole scenario may be very different for a highly paid CSW working in higher social circles, because not only is the CSW in a position to make health check-ups, and demand safe sex, the clientele too is more educated, better aware, and would therefore be expected to take less risks.

Recommendations for continuous surveillance of CSWs, promotion of condom use, early diagnosis, appropriate treatment and subsequent follow-up have been mad.[6] To succeed as HIV/AIDS prevention measure, condom use has to be regular, consistent and appropriate. These requirements call for educated use, financial feasibility for the CSW (not only the price of condom, but the ability to refuse a client if the client refuses use of condom), easy availability of condoms and cooperation/ agreement of the client.

CONDOM-BASED HIV/AIDS PREVENTION STRATEGY FOR CSWs

The corner stone for success of a condom-based prevention strategy is consistent, appropriate and regular condom use in every sexual contact. This is possible only if the CSW is able to refuse a client who chooses not to use a condom. One of the shortcomings of most interventions, whether aimed at individuals or communities, is their reliance on attempts to influence choices individuals make about sexual behavior. This approach works best when the behavior in question is completely under the control

of the individual who'd be affected. For instance, it is primarily an individual's choice to use a seat belt, smoke or to take exercise.[35] The use of condom, however, must be negotiated with another individual, placing that decision outside the individual's exclusive control. In the business of CSWs, there is the other side, the client, who comes with his/her own set of beliefs and behavior. Because the client pays, he/she also exerts more power, and has a greater say in behavior practices.

The other alternative is an educated/ responsible client or a client who is forced into using a condom. This was achieved in Thailand with the successful 100% condom use program. The key to the success of the "100% condom" program in Thailand lay in the structural element of organizing the CSW industry into commercial sex establishments (CSE) with proper records. The system was controlled and monitored with a partner-tracing program, and with governmental enforcement of condom use. This forcible use of condom in every CSE took away the choice of the clients because they could not switch to a CSE where condoms were not used.[36]

Inventory taking and registration of all CSEs in Thailand also helped convert an informal economy into formal economy, thereby effecting a change leading to accountability and better implementation of programs. Such enforcement is not possible in India because the structural element does not exist: brothels and CSWs are not registered, and officially are not deemed to exist in many places. Therefore, in the Indian context, the clients choice of not to use condoms can only be resisted by the CSW. This process can be consistently implemented only by empowering the CSW to that she can exercise a 100% condom use strategy without being too concerned over potential loss of business.
In one study, a few months after the intervention, condom sales among CSWs by peer educators met only 21% of the estimated monthly requirements for CSWs.[37] Older clients were more receptive to condom education, whereas younger men proved difficult to motivate. This peer educator system did not proliferate, and the initial enthusiasm of the participants declined. This intervention program was eventually eclipsed by a police crackdown on the brothels, and their subsequent relocation. A study in New Delhi found self-reported condom to use increase from 20% to 50% by education intervention.[38] In a study in Thailand, before intervention, 42% CSWs refused a client without condom; during intervention, 92% refused, and one year after intervention, 78% refused a client without condom.[39] After an intervention in Bombay, about 41% CSWs were willing to refuse a client without a condom.[40] Concern about losing business was high. After a behavioral intervention in Indonesia, condom use the day before the interview increased (18-75% and 29-62). [41] In none of these interventions, any thing near a 100% condom use was achieved, and none of these studies reported on sustained condom use by CSWs after the intervention ended. It appears that even if high condom use rates are achieved, the effect wears off with time.

DEVELOPMENT OF CSWS AS THE CHIEF TOOL FOR HIV/AIDS PREVENTION

Development implies reduction in poverty, unemployment and inequality.[42] Amartya Sen, defined development as a process of expanding human freedom suggests expansion of freedom to be the primary end as well as the principal means of development.[43] The constitutive role involves substantive freedom (related to starvation, morbidity, mortality etc) to enrich life. The instrumental role involves emancipation through rights, opportunities and entitlements. Therefore, one type of freedom can be a cause of the other. Freedom can be political (to determine who governs); economic (opportunities for use of economic resources); social opportunities (involves education, health etc.); transparency guarantees (transparent working system and ethics); and protective security (provision of social safety net).[43] CSWs are deprived of each of these freedom types.

To achieve successful 100% condom use, development of CSWs should follow the support led policy paradigm. Studies suggest that while political economy is related to GNP, so is life expectancy at birth.[43] However, life expectancy changes seem to be related to GNP through public expenditure on health care. Therefore, GNP increase may not be the sole determinant of increase in life expectancy. Growth mediated policies wait for economic forces to have a direct effect on life expectancy. Support-led policies circumvent the time period required for GNP increase by having favorable life expectancy through skilful social support programs. Political freedom safeguards economic freedom and survival freedom.[43] In an HIV/AIDS prevention program, where the expectation is to effect large-scale behavioral modification among the poorest exploited workers quickly, it is utopian to expect that this can be achieved without betterment of the basic living conditions. Support led policies aimed at development of CSWs, if allowed, should lead to rapidly successful prevention programs.

Empowerment of CSWs

Empowerment is a process/ mechanism by which people, organizations, and communities gain mastery over their affairs.[44] Empowerment being a relative concept may look different in its manifest and content for different people, organizations, and settings. It is therefore a comprehensive interdependent multilevel construct of development; dependent upon peoples' history and culture; and thrives on locally developed solutions.[44] The empowerment process links individual attitudes and capabilities to enable efficacious individual and collaborative actions in order to attain personal and collective sociopolitical goals.[45] The empowerment process itself involves changes in sets of attitudes and beliefs that involve self-esteem, self-efficacy, knowledge and skills, political awareness, social participation, political participation, political rights and responsibilities and resource enhancement.[46] Because these attitudes may differ between individuals, between cultures, and nations, the practical solutions have to be locally developed, and these may be unique or share common strategies. These strategies may also vary between

and within communities, and between individuals, depending upon the focus of the target/unit of empowerment. Individual attitudes are clustered within the community attitude, but there is a lot of variation within the cluster (or between individuals). Empowerment of CSWs, originating with their official recognition, is the key to their development in an attempt to affect a health/ safety oriented behavior change.

Some authors suggest that only people possessing personal control, a proactive approach to life, and a critical understanding of the sociopolitical environment, having opportunity for shared leadership, development of a group identity, skill development and participation in important organizational tasks can be empowered.[46] This is a circular argument that should be rejected. These supposedly required qualities are themselves functions of social opportunities. If opportunities and self-esteem are to be viewed as basic requirements of an individual who can be empowered, then there can be no individual who can ever be empowered because self-esteem and opportunities are not inherent, but derived from social conditions. The levels of empowerment may vary depending upon base-line individual values, available resources, contemporary socio-political structure and other factors. Even a person, who prefers to be isolated from all changes, actually is affected in thought by the ongoing changes, and ratiocinates the process. That, by definition, is empowerment of the thought process. Therefore, every individual is capable of being empowered, or at least assisted-empowered. The magnitude of empowerment may differ depending upon by varying the initial conditions. The key point in development and empowerment is that one always looks at a potential change in the future, and the whole concept arises because of the assumption that change/ development/ empowerment is possible.

The main issue in empowerment is to transform the individual by developing the necessary knowledge and skills for personal competence and positive attitude for dealing with problems.[45] This idea stems from the assumption that empowerment is possible, provided appropriate means are utilized. Failure to empower reflects more on inadequacy of efforts, inappropriate methods than on incapability of being empowered. The level of development in psycho-social-economical-biological scales may determine level of empowerment, but positive changes and empowerment is possible for every individual.

It is, at this point, legitimate to ask: what is power? How is power related to disease prevention? One definition of power suggests that power is the ability to affect the actions or ideas of others, despite resistance.[47] It may be exerted directly, or through intermediaries. Its exertion may be balanced or unbalanced. It may prevent or promote events. Individuals (personal power), social units (social power), or organizations (organizational power) may exert power. Two main theories for creation of power are: dependency theory (social power rests on social interdependence) and trust theory (power rests on people's involvement in social relationships in which they trust others). [47] Availability of resources, commitment of those resources, effective power generating activities and overcoming all resistance are

the steps through which power is generated.[47] At the same time, creation and maintenance of power may have very different strategic requirements. Many methods that may be conducive to creation of power (e.g. coercion) may not be conducive to maintenance of power (though not necessarily so).

The political basis of empowerment of CSWS

Using the term "empowerment" without questioning the extant structures of power removes the social analysis and converts a social movement into a bureaucratic tendency. It depoliticizes community empowerment by excising politics from these struggles.[48] In their relationship to the society, the CSWs end up in the role of the oppressed, and their social conditions are the result of complete social oppression. The basic element of relationship between the oppressor and the oppressed is the imposition of one individual's choice over the other.[42] Dehumanization of CSWs occurs under the conditions of marginalized social existence.[49] A discussion of the problems associated with CSWs must invariably associate itself with those of empowerment of women in general. Though such a discussion is out of the scope of this analysis, however still, it is important to realize that the problems of CSWs invariably involve a second party (the client), who usually belongs to another family, and not only punctures the family fabric, but also creates and acts as a vector to transmit social ills and biological diseases. Practices of CSWs invariably have a second side in the practices of their clientele. If the business cliché, "the customer is always right", carries credence then it is easy to realize that the prerogative of using condoms does not lie with the CSW, but lies with the client.

The question is: how can the oppressed, as divided, unauthentic beings, participate in developing the pedagogy of their liberation?[49] How can the CSW be emancipated? What can be done to ascertain that CSWs are able to sustain regular use of condoms in an effort to stem the HIV/AIDS epidemic?

The main point that comes across is that the process of empowerment allows the individual to exercise control over ones environment, and allows the opportunity to make reasoned, knowledgeable choices relating to one's life-events. It is important not to view the CSW as an object for manipulation, but as a real human being living under oppressive conditions, and being effected by all the events that would affect any one in similar situation in predictable ways. Marginalization of life, absence of access to usual social activities, daily harassment, lack of capital, heightened risk of diseases coupled with non existing resources for medical attention, social stigma, and a hopeless future are the socially imposed outcomes of the sex trade, and are not the inherent characteristics of an individual freshly born. The CSW is no special person, but another routine victim of oppressive social conditions. The CSW is not empowered to make choices regarding use of condoms because the power generally rests with the immediate economic need that determines the practice. This is the basic issue that needs to be carefully evaluated and understood while devising preventive policies based on a new acquired behavior. This issue

may exists at the base of the fact that studies all over the world have not been able to achieve very good results with sustained regular condom use among poor CSWs. On the contrary, if along with promotion of condom use, the fundamental oppressive social conditions of the CSWs are addressed, the biggest barrier in terms of financial need for immediate survival will be removed, and this will allow the individual not only plain hope, but with a real opportunity to make choices including the choice to refuse a condom-non-compliant client. Only such changes will allow CSWs to graduate from subsistence level existence to an existence with a future to hope and plan for. The representative government has a moral duty to provide the basic structural and procedural framework on which people's empowerment can be enacted.

Issues in planning for CSW development

Development is also a capacity defined by what people can do for themselves with whatever they have, to improve their quality of life and that of others.[50] It has more to do with motivation, knowledge, and learning than with wealth. In the present context, one of the central concepts is that because sustained regular condom use is a behavioral practice that the CSW has to participate in during every encounter, it is important to develop participatory programs instead of imposed actions. Participation designates the organized efforts to increase control over resources and regulative institutions in given social situations, on the part of groups and movements hitherto excluded from such control.[51] Participation is usually seen as a means, but should be looked upon as a goal.

Recognizing the fact that the sex trade practice involves the client, active or passive participation is required on both sides for a successful HIV/AIDS prevention strategy. Therefore, prevention programs should view their strategies more as involving CSW and mass-participation than just CSW participation. Success of participatory programs rest on their basic philosophy. Main points to consider in participation methodology include: to consider participation process and not just immediate quantitative outcomes, to balance between creation and economic activities, to prepare local base for continued activity, and to maintain regular contact. Systematic activities, properly paced programs, nature of the first contact and confidence building, and a team approach are key issues that can improve community building and participation. This leads to promotion of activity, first action, expansion of program and stabilization.[52] Programs should address the basic expectations of the CSWs [53] that may not be directly related to HIV/AIDS prevention. Some measures of program evaluation are a must for such programs. Even a well-measured but failed program is useful because it suggests what does not work. A program without measurements is never helpful because even if it works, it will never be known.

Potential targets for effecting development of CSWs and HIV/AIDS prevention

Activities that can lead to development of CSWs can be in the form of: imparting legal recognition to CSWs; strict governmental action to check illegal immigration across the borders with serious punitive actions against those indulging in selling/ trading in human lives, and those indulging in propagating clandestine sex trade; requiring mandatory health check-ups for CSWs; free distribution of condoms to poor CSWs; promotion of health awareness and health education among CSWs; provision of legal avenues form CSWs to escape the system at will; provision of opportunities for CSWs escaping the system to be absorbed in the mainstream society; development of rehabilitative opportunities for CSWs escaping the system; increased security to prevent forceful commercial sex work with severe punitive measures for such indulgence; intensive mass campaign against child prostitution, sale of children and women; sustained campaign at different levels for women's rights; social awareness campaign to address social causes of involuntary initiation and continuance in sex trade; and sustained campaign to address HIV/AIDS awareness among the public emphasizing importance of condom use.

CONCLUSION

Regular, consistent condom use is the corner stone of HIV/AIDS prevention and sexual transmission interruption. Such behavior modification strategies can only be successfully implemented if these behavior changes are finally adopted. The nature of the sex trade, and marginalized existence of socially and economically deprived CSWs do not provide the foundation for easy acceptance of such behavior practices. It is important to take steps to alleviate basic living conditions of the CSWs if condom use based prevention strategies are to be successful. Merely suggesting regular condom use to CSWs may have an immediate, instantaneous effect, but is not sustainable in absence of larger developmental measures that requires modification of economic, political and cultural values. Success of an HIV/AIDS prevention policy in India will rest on the development of the CSWs.

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