

# **SOCIAL NETWORKING, KNOWLEDGE OF HIV/AIDS AND RISK-TAKING BEHAVIOUR AMONG MIGRANT WORKERS**

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## **INTRODUCTION:**

Twentieth century, particularly the later half of the twentieth century, has witnessed a massive transfer of population, both voluntary, and otherwise, across national and international borders due to changing socio-economic and demographic milieu of both developed and developing countries. In developing countries, increasing agricultural development, industrialization, and urbanization have initiated substantial internal population movements also, mainly towards cities and other areas of economic opportunities such as irrigation, power and other project sites. Population movements of the scale currently experienced by developing countries have significant implications for the spread of sexually transmitted diseases (STDs) and HIV/AIDS. Initially it was only migration across border that worried governments in countries experiencing heavy migration from other countries with concern that incoming migrants might bring HIV with them. While this scenario still persists, there is increasing recognition that migrants may be more vulnerable than local populations to acquiring the infection during migration, and they may spread the infection upon return to their respective homes.

In addition to international migration, economic hardships related large volume of internal migration streams have also become matter of serious concern in the dynamics of spread of STDs and HIV/AIDS. The concern arises from the fact that volume of internal migration within countries is much larger compared to volume of international migration, signifying the enormity of the volume of people at risk. Besides, internal migration of people may be much faster and migrants may move to several places within a short span of time thus extending the territorial spread of these diseases. The increasing movement of people, with associated age and sex selectivity in terms of dominance of single male migration, has great potential in spreading the sexually transmitted health risks. In addition to age and sex selectivity, in case of developing countries majority of the migrants are poor and illiterate migrants from rural areas. Majority of them work as labourers on construction sites, factory workers or in other informal activities in cities and earn too little to have formal housing in the cities. Most of these migrants live in slums in sub-human living conditions. It is well known that vulnerability to STDs and HIV is often greatest when people find themselves living and working in conditions of poverty, powerlessness and social instability, conditions which apply to most of the migrants. Separation from family and socio-cultural norms, isolation/loneliness, a sense of anonymity that offers more sexual freedom, and availability of some disposal income in hand, make migrants more vulnerable to adopting high-risk behavior such as alcohol and drug-use and unprotected sex with the person with unknown sexual history, making them vulnerable groups for HIV infection (UNAIDS and IOM, 1998). They move single leaving their families in the villages, thus nobody to fall upon in case of need. They often feel insecure and isolated at the place of destination. The resulting isolation may increase vulnerability to HIV (Bronfman and Minello, 1995). However, migrants being social human beings create their own social networks and relationship, which are often non familial and of short duration particularly among single migrants. This kind of social networking and relationships may also make them more vulnerable to peer group pressures and acts. In addition to individual risk-factors of HIV/AIDS infections, migrant labour is also exposed to various environmental risk-factors, such as availability of recreational outlets like beer bar, discotheque, easy availability of commercial sex workers, exposure to pornographic materials, etc. that may increase the vulnerability to HIV infection. The cultural heterogeneity of people from different areas may keep the anonymity of the relationships with realistic possibility of

unsafe sex due to drunkenness, drug-use that are known to weaken self control. The problem get multiplied if these migrants have poor or no access to health care as well poor information about the health care facilities at the place of destination.

The threat of extensive spread of HIV is looming large in India. The estimates show that 2 to 5 million people in India are infected with HIV and 50,000 to 100,000 cases of AIDS may already have occurred in the country. The most rapid and well-documented spread of HIV has occurred in Mumbai city and the state of Tamil Nadu. In Mumbai HIV prevalence has reached the level of 50 percent in sex workers, 36 percent in STD patients and 2.5 percent in women attending antenatal clinics. Contrary to traditional belief, studies show that sexually transmitted diseases and sex with multiple partners are common in the country, both in urban and rural areas. It is felt that HIV is spreading fast to rural areas through migrant workers and truck drivers. Surveys show that 5 to 10 percent of some truck drivers in the country are infected with HIV. These studies on certain highly mobile groups such as truck drivers, commercial sex workers and itinerant traders though have helped in drawing inferences about linkages between migration and HIV Spread, there is a paucity of credible information on the actual role of migration in the spread of HIV. Studying only highly mobile occupational groups does not capture all the risk factors involved in the migration process. Outside specific studies on the sex trade and sex tourism, few studies have examined the risk-taking behaviour of migrants with respect to HIV. Moreover, the limited data available do little to explain the determinants of the risk-taking behaviour that resulted into infection.

### **Objectives:**

The present study attempts to study the extent of knowledge about STDs and HIV/AIDS and the prevalence and correlates of risk-behaviour among migrant workers in Surat city of Gujarat state of India with an objective to evolve a suitable framework and hypotheses for examining the migration and STD, HIV/AIDS spread relationship. Following are the specific objectives:

- \_To examine the extent of knowledge about STDs, HIV/AIDS and their mode of transmission and prevention among migrants in Surat;
- \_To examine the location, organization and types of social network among the migrants, and
- \_to look in to the processes involved in the social network of migrants and to identify the relative influences of contextual, social network, and personal factors contributing to the risky sexual behaviour.

### **Data and Study Design**

The data used for this study has been collected from Surat, the industrial capital of Gujarat and also a leading industrial center in India through qualitative as well as quantitative techniques. The quantitative techniques consisted of canvassing a semi-structured questionnaire containing information on background characteristics, migration history and causes of migration, social networking and substance abuse, knowledge about STDs and HIV/AIDS along with different

modes of transmission and prevention, extent of indulgence into risk behaviour to STDs and HIV/AIDS, treatment seeking behaviour and condom use. For canvassing this semi-structured questionnaire a representative sample of migrants in Surat city was selected by stratifying small scale, medium scale and large scale industries and randomly selecting 10, 7 and 5 industries from each of the three groups. Further, selection of the workers from each of the selected industries was done adopting probability proportion to size sampling design. Thus, the semi-structured questionnaire was canvassed among 1010 workers from Surat of whom 918 were migrants. Therefore, the quantitative findings of this paper have been based on information collected from 918 migrant workers from Surat.

Key informant interviews were conducted to identify the location, organization, types of network of migrants with the pattern of their interaction and association of substance abuse with those network/interactions. The in-depth interview of migrants were conducted with the objective of understanding the dynamics of social network and to identify the relative influence of contextual, social, network and personal factors in contributing to substance abuse and sexual risk in migrant population using a cross sectional design and targeted network sampling plan. Selection of migrants from different networks was done on the basis of our experience during canvassing the semi-structured questionnaire.

### **Profile of the Study Area**

Surat is the second largest city of Gujarat state (next to Ahmedabad) with a very sound base of industrial and trade activities. It is located on the right bank of river Tapti on the Ahmedabad-Bombay Highway. The city has undergone rapid and massive industrialization (in both organized and unorganized sectors during the last three decades. There are several mega industries which have come up in adjoining Hazira area. Various medium and small-scale industries have also appeared all around and inside the city. Diamond polishing and Silk trade have also been added to the commercial activities of the city. Together, all these developments have generated huge employment opportunities for skilled/semiskilled/unskilled workers from all over the country and due to this employment boom Surat city is also known as 'Zero Unemployment Zone'.

Industrialization and increased trade has resulted into mass in-migration leading to rapid unplanned urbanization. i.e. development of slums. Forty percent of the city's population lives in slums. Due to the lack of space to expand, one can see an increasing number of high-rise buildings surrounded by mushrooming slums at every available space. This city also falls in the high-risk category in terms of sero positivity.

### **Salient Findings from Quantitative Data:**

#### **Migration and Characteristics of Migrants In Surat City:**

As several dimensions of migration have significant implications for the extent of substance abuse and risk behaviour among migrants, table –1 presents some salient characteristics of the

migration process in Surat. As expected an overwhelming majority of migrants in Surat (93 percent) city were from rural areas. More than two third migrants in Surat have migrated from other states of India, mainly from Uttar-Pradesh (23 percent) and Bihar (16 percent). Only about one-third migrants were from Gujarat state thus indicating the cultural heterogeneity of migrants in terms of language, food habits etc. Of the total migrants, 59 percent were working in textile industry, 25 percent were working in diamond industry and 17 percent were working in steel industry. However, migrants from other states were mainly working in textile industries (74 percent), whereas majority of migrants from Gujarat (73 percent) were working in diamond industry. Nearly half of the migrants have migrated in Surat less than five years preceding the survey. The proportion of the recent migrants was slightly higher in case of migrants from Gujarat state compared to migrants from other states. Nearly two-third (65 percent) migrants stated unemployment as the main reason for their migration to Surat. The other important reasons stated were economic problems (24 percent) and land landlessness (8 percent). Unemployment as the reason for migration was more important in case of migrants from other states than migrants from Gujarat. For eighty-eight percent of the migrants it was the first move and for another 10 percent it was the second move. Nearly one-third migrants were helped by friends to migrate to Surat, followed by other family members who have migrated earlier to city. The dominant role played by friends and family members in attracting new migrants to the city highlights the importance of social networks in migration process.

The data on demographic characteristics of migrants (table-2) shows that majority of the migrants were in the age-groups 20-24 (39 percent) and 25-29 (26 percent). Eleven percent were less than 20 years of age. Migrants from Gujarat were younger compared to migrants from other states. More than half of the migrants (53 percent) were ever-married. The proportion of never married migrants from Gujarat was twice as high as that of migrants from other states. Thirteen percent were illiterate, 43 percent were middle pass, 36 percent were up to high school pass and 9 percent were having educational level above high school. Migrants from other states were more concentrated either in illiterate category or in education level above high school category. Nearly half the migrants were working as labourers, 29 per cent were technical workers and 20 percent were service workers. Migrants from Gujarat were working mainly as labourers (91 percent), whereas migrants from other states have more diversified occupational structure. Overall, nearly one-third migrants were earning Rs.2,000-3,000 per month and another 42 percent were earning between Rs. 3,000-5,000 per month. However, monthly income of the migrants from Gujarat was much higher compared to migrants from other states. For example only 7 percent of migrants from other states stated their monthly income above Rs 5,000, compared to 13 percent migrants from Gujarat.

### **Housing and living conditions of migrants in Surat:**

Earlier studies have shown that slums are mainly inhabited by migrants from rural areas. In our survey also most of the respondents were staying in slums in Surat city. Table-3 presents the housing and other living conditions of migrants in Surat. Nearly 8 percent of the migrants were living in their own house. Another one-fourth of the migrants were living in separate rented house. Nearly one-third migrants were sharing the accommodation with the friends and 19 percent have company accommodation. Majority of the migrants (57 percent) were living together with two to four persons and another 35 percent were living with more than five

persons. For 57 percent of the migrants public tap was the source of water. Almost all the migrants have electricity as the source of lighting. Nearly one-third migrants have public flush toilets. However nearly one-fifth of the migrants were defecating in open air. The difference in the living conditions between migrants from Gujarat and other states was not very significant. In general, however migrants from Gujarat have relatively better housing conditions than migrants from other states.

### **Family and Social Networking of Migrants:**

As the migrants live far away from their near and dear ones they develop their own social and cultural networks which act as strong emotional supports as well as determine peer group behaviour and activities. To fulfill their physical and emotional needs they create their own social networks and relationships. Several studies have shown that migrants maintain close family interactions with their families and households at their native place through remittances and frequent visits. Under family interaction we have tried to see the magnitude of remittances and frequency of their visits to their native place. Under social networking are included the living arrangements of the migrants, friendship patterns, their interaction with their neighbours, and their feeling about working and social environment. Table-4 presents the distribution of migrants with various indicators of family and social interaction. More than one-fifth of the migrants (22 per cent) stated that do not remit any money. A higher percentage of migrants from Gujarat than other states do not remit any money, because the proportion of those who live with their family is higher for migrants from Gujarat than other states. But the proportion of those who remit more than Rs. 20,000 per year is also higher for migrants from Gujarat than from other states. Majority of migrants visit their native place once in a year and there are not significant differences in the frequency of visits to native place between migrants from Gujarat and other states.

Forty-seven percent of the migrants were living with friends, 9 percent were living alone, 15 percent were living with their relatives and 29 percent were living with their own family. The proportion of those who are living alone or with friends is higher for migrants from other states than migrants from Gujarat. Majority of the migrants (75 percent) have at least two close friends and only 5 percent migrants did not have any friend. Migrants from Gujarat have more number of close friends than migrants from other states. Two in five migrants share a good relationship with their neighbour but 13 percent did not have any interaction with their neighbours. This proportion is higher for migrants from other states. A large majority of the migrants (82 percent) feel o.k. about their working and living environment. Six percent migrants mentioned their social and working environment as bad.

### **Knowledge of STDs and HIV/AIDS**

In this part we present summary statistics on knowledge about the infection/disease and their correct mode of transmission. In the survey questions were asked regarding respondents' knowledge about STDs, HIV, and AIDS. As the distinction between HIV, the infection, and AIDS, the complex set of conditions resulting from the infection, is often blurred in people's mind, the results are presented for knowledge only about STDs and HIV/AIDS. Only 5 percent of the

respondents had heard about HIV. Table-5 shows the percent distribution of migrants by knowledge of STDs and HIV/AIDS by their background characteristics.

Less than half of the migrants in Surat (47 percent) have heard about STDs. However, a large majority of migrants (86 percent) have heard about HIV/AIDS. This shows that among migrant workers in Surat, knowledge about STDs is much restricted than knowledge about HIV/AIDS. The fact that only 5 percent migrants have heard about HIV but a large majority have heard about AIDS implies that only partial knowledge is being transmitted, which in turn has implications for the effectiveness of IEC activities. Apart from having merely heard about STDs and HIV/AIDS, it is also important to understand the kind of knowledge that migrants have in order to be able to design effective interventions. Questions on the mode of transmission were asked of those who have heard about STDs and HIV/AIDS. Table-5 also presents the distribution of migrants who have heard of STD's and HIV/AIDS by their knowledge of mode of transmission and some important background characteristics of the migrants. It is clear that compared to HIV/AIDS, knowledge of the mode of transmission of STDs is less widespread among migrants. Among those who have heard about STDs, only about one-third (38 percent) knew at least one correct mode of transmission and 16 percent knew two or more correct modes of transmission but 20 percent did not know about any mode of transmission. In case of those who have heard of HIV/AIDS, 62 percent knew at least two correct modes of transmission, 27 percent knew at least one correct mode of transmission and 11 percent did not know any correct mode of transmission. There are significant differences in the knowledge of STDs and their mode of transmission. Knowledge of STDs as well as their mode of transmission is relatively better among migrants ages 30-39 years than younger or older migrants. There is strong inverse relationship between knowledge of STDs and educational level of the migrants. Those who live with their own families are slightly more aware of STDs than others. The awareness about STDs generally increases with the increasing income level of the migrants. The differences in the knowledge of HIV/AIDS as well as its correct mode of transmission are less significant and more or less of the same order by background characteristics as of STDs.

### **Source of Knowledge:**

Table 6 presents the distribution of those migrants who have heard of STDs about the source of their knowledge. Majority of the migrants have heard of STDs from friends or relatives (60 percent) or newspapers or magazines (58 percent), followed by television (46 percent). However, the differences in the source of knowledge are not very significant. Friends and relatives are more important for illiterate migrants and newspaper/ magazine are more significant for more educated migrants compared to other migrants. In case of HIV/AIDS (table-7) also friends and relatives are the most important source of knowledge (67 percent), followed by television (65 percent) and newspaper/ magazine (61 percent). In case of source of knowledge of HIV/AIDS also friends and relatives are the most important source for illiterate or less educated migrants and for those who are living with friends. For more educated migrants (high school and above) and economically better off migrants, television and newspaper and magazine are more important source of knowledge.

The questionnaire asked those who had heard about STDs and HIV/AIDS, whether STDs and HIV/AIDS are curable or not. One among the two migrants, who have heard about STDs, think

that STDs are not curable but sixty-one percent of those who have heard of HIV/AIDS, think that HIV/AIDS is not curable, 20 percent think it is curable and rest 20 percent do not know whether it is curable or not. Though majority of the migrants are clear about the fatality of HIV/AIDS, a large number of migrants do not know the full implications of contracting the disease, and this makes the task of prevention more difficult. The knowledge with respect to curability of STDs is more inadequate.

### **Prevalence of risk- behaviour among Migrants:**

Table-8 presents the means of entertainment, substance abuse and prevalence of risk behaviour among migrants in Surat by their living arrangement. The proportion of migrants who regularly watch T.V. differs significantly by the living arrangement of the migrants. The highest proportion of those who watch T.V. regularly is of those migrants who live with their family. But these migrants go to theatre and video parlour the least. Majority of the migrants, irrespective of their living arrangement consume Gutka or tobacco. The prevalence of smoking and drinking is more among migrants living alone compared to others. Though the prevalence of drug-use is very low among all the migrants, migrants living alone are using drugs slightly more than other migrants. Similarly those who are living alone and living with friends also visit red light area more compared to those who live with their families or with relatives. Four percent of the migrants living alone are visiting CSWs compared to 2 percent who live with family, friends or relatives. More than 10 percent of all the migrants have sexual relationship with other girls or women and this percentage is highest among those who are living alone (19 percent), followed by those who live with friends (15 percent).

Table-9 present the percentage of migrants visiting CSWs and having sexual relations with other girls or women by background characteristics of the migrants. A higher proportion of migrants age less than 40 years, never married migrants, educated migrants, longer duration migrants and economically better off migrants visit CSWs and have sexual relationship with other women/girls than other migrants. Surprisingly, those who have migrated within state are more prone to risky behaviour than those migrants who have come from other states.

### **Determinants of Risk Behaviour:**

For identifying the determinants of risk-behaviour among migrants, logistic regression has been used. A set of independent variables relating to individual characteristics (age, educational level, marital status, income level, knowledge about STDs and knowledge about mode of transmission of HIV/AIDS); social networking (living arrangements, state of origin, frequency of visit to native place, duration of stay at the place of stay and remittance); and behavioural traits such as chewing of Gutaka, tobacco, smoking, drinking, drug use and visiting video-parlours for watching blue films, are used as independent variables that may effect the dependent variable i.e. prevalence of risk behaviour among migrants: measured through percentage of migrants visiting CSWs and any other girl/women for sex. These life style indicators are of considerable interest because the use of Gutaka, tobacco, smoking, alcohol, drug use (particularly the last two

substances), all have detrimental effects on health. Very often people use them as stimulants for physical as well as mental energy.

For measuring the intensity of substance abuse, an index of substance abuse has been constructed. The index is constructed by assigning different weights to different substances such as Gutaka, tobacco chewing, smoking, alcohol use and drug use according to intensity of the toxicating effect of these substances. The index is calculated by adding the following weights: Gutaka or tobacco consumption: 1, smoking: 1, alcohol consumption: 2, drug use: 3. The index score ranges from 0 for 'no substance abuse' to 1-2 for a 'low substance abuse' and 3-7 for a 'high substance abuse'.

The results of logistic regression (Expected Beta values or odds ratio) are presented in table-10. The odds ratio is interpreted as the proportionate change in the odds of the event occurring for the unit change in the value in the predictor variable. The odds ratio for the reference category is 1 by definition. The results show that among various individual level indicators, marital status and knowledge of STD are important predictors and odds of risky sexual behaviour becomes 75 percent higher for never married migrants than married and become double among migrants with STD knowledge than among migrants with no STD knowledge. It is interesting to note that knowledge of STD does not act as deterrent in adopting the risky sexual behaviour; or it may be that those who are involved in risky sexual behaviour are suffering with STD and hence also have knowledge of STD.

Substance abuse and watching of blue films at video parlours emerge the strongest and significant predictors. The odds of low substance abuse is 82 percent higher than no substance abuse and become five times with high substance abuse. Watching of blue films at video parlours increases the odds of risky sexual behaviour by four times than not watching blue films.

Living alone increases the risky sexual behaviour by 93 percent than living with family/relatives. Surprisingly living with friends does not appear an important determinant of sexual behaviour among migrants. The state of origin is also strong and important predictor. Migrants from Gujarat are 69 percent higher in risky sexual behaviour compared to migrants from other states.

### **Salient findings from Qualitative Study:**

Qualitative information was primarily used to identify the location, organization, types of network of migrants with the pattern of their interaction and association of drug use. In addition, an effort has been made to look into the processes involved in the social networks of migrants and identify the relative influences of contextual, social network and personal factors in contributing to drug use and risky sexual behaviour.

### **Social Networking**

- More than three-fourths of migrants in Surat are males aged 15-35 years who have migrated alone (leaving their wives and children at the place of origin) from different parts

of Gujarat as well as other Indian states like Uttar Pradesh, Bihar, West Bengal and Orissa. Almost four-fifths of them are poorly educated, employed in low paid contractual jobs and hence forced to live in slum areas.

- Gujarati speaking Patels, who are mostly employed in diamond industries, have mainly migrated from Saurashtra and are involved in a distinct social network than those who have migrated from Uttar Pradesh, Bihar, West Bengal, Orissa and Maharashtra and are employed mainly in textile, iron & steel and chemical industries. Though the educational attainment of these two groups of migrants does not differ significantly, there are sharp differences in the average monthly income, standard of living, exposure to health care services, substance abuse, behavioural traits and health seeking behaviour.
- Most of the migrants employed in diamond cutting have a wider heterogeneity in monthly income ranging from Rs.3,000/- to 25,000/-per month and stay in their respective industrial units or accommodate themselves in rented houses. But, other migrants are forced to live in slums with extremely poor hygiene and sanitation facilities. In these slums normally 6 to 8 migrants use a 10'x10' room without any toilet and bathroom facilities and often use railway tracks or open gutters as a toilet facility.
- More than two-thirds of migrants do not have any control/share in the civic amenities including health care facilities at the place of destination and hence feel ignored and insecure. As a result, they are tied up with a very strong social network, which is non-familial in nature, with homogeneity in the age group and other behavioural characteristics. In many cases, such networks are formed even at the place of origin, before migration. This is mainly due to the fact that such migrants were not capable of migrating without a supporting network. Thus, most of such migrants work together in groups, live together and also reflect similar types of behavioral traits exposing them to increased risk behavior towards drug addiction, especially when there is available disposable income.
- A majority of the migrants in Surat, irrespective of the above two classification, spend their leisure time by visiting video theatres, which are available in all corners of Surat with a high concentration in the diamond industrial area and film theatres. Pornographic films and Anglo-American films, closer to such films, are often shown in these theatres. The adult male migrants are sexually excited by watching these films and the related posters in video theatres and are motivated to visit commercial sex centers/areas.

### **Social Networking and Drug Abuse Among Migrants**

- The role of the social network is significant in both the directions depending on the relative dominance of the members in the group. In the case of a substantial proportion of drug abuse, other members of the network were reportedly supporting the well being of the addicts. However, a fifth of the migrants were reported to be victims of sexual

harassment by the members of the network itself due to a shortage of money arising out of an increase in the dose intake.

- Regarding the types of substance abuse, the most commonly used drug in Surat was brown sugar (20-25 %) followed by alcohol (35-40 %) and Opium, Ganja and Charas (10-15 %). The prevalence of IV Drug use where needles are shared was not reported to be practiced in Surat. Discussions at different levels revealed that brown sugar addicts were mostly young adults aged 25-35 years. A higher proportion of these addicts were adult migrants and a substantial proportion of local youths were working as the support network.
- Almost two fifths of the drug addicts were reported to cross the boundary of their own social network and become members of a larger network. They also work as drug carriers in order to fulfill their own increased need for drugs. Thus, rejection by close friends/family members and being members of a larger drug network has forced them to indulge in an intensified interaction with CSWs, often in unprotected sexual behavior.
- The effect of social net-work on drug abuse was primarily due to two reasons: peer pressure and poor knowledge about sex coupled with misconception that drugs/alcohol consumption heightens sexual pleasure and makes it long lasting.

## Sexual Behaviour

As a majority of the migrants stay away from families in a closed set-up with working place as well as place of residence based networks, they are relatively free to indulge in risky behaviour. Since there is no immediate moral pressure on these migrants, their networks become motivating factors moving them to have recourse to different sex partners.

A substantial proportion of migrants, especially those working in diamond industries and power-looms, reported discussing sex almost for the whole day during working hours. Since the nature of work in these industries is monotonous work by a group of workers, sex related matters are often discussed even when their work is in progress, which, in turn, produces a desire for sex. As a result, most of the migrants having disposable income have multi partner sexual relationships even if they are married.

Looking at the contextual process of indulging in risky sexual behaviour it was amply evident through the in-depth interview that an individual is introduced to a professional sex worker by peer group (mainly home based or work based) networks, at the initial stage but subsequently he manages himself. In many cases, migrants were reported to keep personal socio-sexual relations with sex-workers or regular partners to whom they regularly provide gifts or necessary incentives as additional benefits. Some of the migrants were also reportedly having regular sexual relations with unmarried girls from the locality of their residence. It was also reported in a few cases migrants were having sexual relations with married women providing them tiffin boxes on a monthly payment basis. Due to continuous interaction of these single male migrants with such families in their locality they come closer to each other and develop even sexual relations. Of course, monetary involvement was reported even in this dimension of sexual relations of the migrants.

A substantial proportion of the respondents reported having sexual relation with their female co-workers. This relationship has two dimensions. First, a majority of the girls/women who work in these industries desperately need jobs and money to meet the needs of their families. As a result, they are sexually exploited either by owners or by workers. Secondly, in the dynamic relation of workers and owners in these industries where workers often change units at their will and owners have to pay extra money to retain the workers, these girls are used by many of the owners as kind of magnets. Many of our key informants who were owners of such units categorically mentioned the advantage of employing some girls even without looking at the amount of work done by these girls. However, the relationship with such working girls depends upon the character of the manager of the unit.

Single male migrants living in slums (which are the centers of different kind of illegal activities) were more prone to indulge in risky behaviors than usual residents of the city mainly due to three reasons: peer group effect, availability of disposable income and easy availability of sex avenues including CSWs in the slum areas.

### **Availability and Use of Condom**

Almost all the migrants who participated in the in-depth interview were adequately aware of the source of availability of condoms and some of the frequently mentioned sources were medical stores, *paan shops*, health centers and depot holders working near CSWs areas. It was reported by our key informants that a substantial proportion of migrants visiting red light area use condoms. However, the perceived side effects of condom use viz; less sexual satisfaction, ulcers in mouth and vagina, feeling hot inside the inner vaginal space, burning sensation during sexual activity etc. were reported as the major barriers in ensuring safe sexual behaviour.

### **Conclusions**

- The existing socio-economic differentials in the homebased networking among migrants in Surat suggest that the younger cohort of migrants, (primarily those employed as different categories of workers irrespective of types of industry) are more likely to get affected with the peer pressure especially during the first five years of their stay in urban areas. Therefore, any programmatic response for controlling the prevailing risk of network effect on their risk behaviour should make concerted efforts to target such networks through suitably developed network based interventions.
- Single male migrants living in slums which are the centers of different kind of illegal activities were more prone to indulge in risky behaviour than usual residents of the city mainly due to three reasons: peer group effect, availability of disposable income and easy availability of sex avenues including CSWs in the slum areas.

In addition, efforts should also be increased to provide social services targeted to the needs of the migrants. Employers should be actively involved in improving the quality of life of their employees. In addition to the role of the employer, participation is needed of the private and public sectors (including health authorities) and trade unions. Their involvement should be in assessing, and subsequently improving, the living and working conditions that make migrants more vulnerable to HIV and STD infections.

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Table 1: Migrants in Surat by State of Origin

	Gujarat		Other State		Total	
	Percentage	Number	Percentage	Number	Percentage	Number
<b>Type of Residence</b>						
Rural	90.9	259	93.2	590	92.5	849
Urban	9.1	26	6.8	43	7.5	69
<b>Type of Industry</b>						
Textile Industry	24.6	70	73.9	468	58.6	538
Diamond Industry	73.3	209	2.5	16	24.5	225
Steel Industry	2.1	6	23.5	149	16.9	155
<b>Duration of Stay</b>						
Less than one Year	6.0	17	11.7	74	9.9	91
One to Three Year	17.2	49	22.4	142	20.8	191
Three to Five Year	21.1	60	20.7	131	20.8	191
Above Five Year	55.8	159	45.2	286	48.5	445
<b>Reasons of Migration</b>						
Unemployment	56.1	160	69.5	440	65.4	600
Landlessness	6.3	18	8.2	52	7.6	70
Economic Problem	31.9	91	20.2	128	23.9	219
Irregular Work	1.8	5	0.9	6	1.2	11
Natural Calamity	1.4	4	0.0	0	0.4	4
Family Tension	0.4	1	0.6	4	0.5	5
Others	2.1	6	0.5	3	1.0	9
<b>Number of Moves</b>						
One	97.2	277	83.3	527	87.6	804
Two	2.5	7	13.1	83	9.8	90
Three	0.4	1	2.2	14	1.6	15
More than Three	0.0	0	1.4	9	0.9	9
<b>Who Helped in Migration</b>						
Family Member	35.1	100	27.0	171	29.5	271
Friends	37.9	108	31.6	200	33.6	308
Relatives	21.8	62	28.6	181	26.5	243
Others	0.7	2	1.7	11	1.4	13
No One	4.6	13	11.1	70	9.0	83
<b>Total</b>	31.0	285	69.0	633	100.0	918

Table 2: Demographic Characteristics of Migrants by State of Origin.

	Gujarat		Other State		Total	
	Percentage	Number	Percentage	Number	Percentage	Number
<b>Age</b>						
< 20	15.8	45	9.3	59	11.3	104
20 to 24	48.4	138	34.6	219	38.9	357
25 to 29	19.6	56	28.1	178	25.5	234
30 to 40	10.5	30	22.0	139	18.4	169
> 40	5.6	16	6.0	38	5.9	54
<b>Marital Status</b>						
Never Married	66.0	188	38.9	246	47.3	434
Ever-Married	34.0	97	61.1	387	52.7	484
<b>Educational Qualification</b>						
Illiterate	8.4	24	14.5	92	12.6	116
Up to Middle Pass	68.8	196	31.3	198	42.9	394
Up to HSC	18.2	52	43.8	277	35.8	329
Above HSC	4.6	13	10.4	66	8.6	79
<b>Occupation</b>						
Business	0.0	0	1.3	8	0.9	8
Professional	0.7	2	2.1	13	1.6	15
Technical Worker	6.3	18	38.9	246	28.8	264
Service Worker	0.4	1	28.3	179	19.6	180
Worker	90.9	259	27.6	175	47.3	434
Office Staff	1.8	5	1.9	12	1.9	17
<b>Monthly Income</b>						
Below Rs.2000	5.3	15	19.6	124	15.1	139
Rs.2001 to Rs.3000	23.2	66	39.3	249	34.3	315
Rs.3001 to Rs.5000	58.6	167	34.1	216	41.7	383
Above Rs.5000	13.0	37	7.0	44	8.8	81
<b>Total</b>	31.0	285	69.0	633	100.0	918

Table 3: Living Conditions of Migrants

	Gujarat		Other State		Total	
	Percentage	Number	Percentage	Number	Percentage	Number
<b>Place of Living</b>						
Separate Rental House	21.4	61	27.8	176	25.8	237
Own House	13.7	39	5.1	32	7.7	71
Sharing with Friends	33.7	96	29.7	188	30.9	284
Sharing with Relatives	13.7	39	15.6	99	15.0	138
Provided by Company	16.1	46	20.5	130	19.2	176
Others	1.4	4	1.3	8	1.3	12
<b>Number of Persons Living Together</b>						
One	5.3	15	10.1	64	8.6	79
Two to Four	35.1	100	66.4	420	56.6	520
Five to Eight	43.9	125	20.2	128	27.6	253
Above Eight	15.8	45	3.3	21	7.2	66
<b>Source of Water</b>						
Public Tap	70.2	200	50.4	319	56.5	519
Hand Pump/Well	1.4	4	16.3	103	11.7	107
Private Tap	28.1	80	28.8	182	28.5	262
Provided by Company	0.4	1	4.6	29	3.3	30
<b>Source of Light</b>						
Electricity	99.6	284	95.4	604	96.7	888
Kerosene	0.4	1	4.4	28	3.2	29
Others	0.0	0	0.2	1	0.1	1
<b>Toilet Facilities</b>						
Private Flush	57.2	163	21.8	138	32.8	301
Private Without Flush	24.9	71	31.0	196	29.1	267
Public Flush	10.9	31	6.2	39	7.6	70
Public Without Flush	4.9	14	8.1	51	7.1	65
Open Air	1.8	5	29.1	184	20.6	189
Provided By Company	0.4	1	3.9	25	2.8	26
<b>Total</b>	31.0	285	69.0	633	100.0	918

Table 4: Indicators of Family and Social Interaction: Percentage distribution of migrants by money sent to native place, frequency of visits to native place, living arrangement, number of close friends, relationship with neighbours and feeling about social and work environment.

Family & Social Interaction	Gujarat		Other State		Total	
	Percentage	Number	Percentage	Number	Percentage	Number
<b>Money Send to Native Place</b>						
Up to Rs 10000	22.1	63	41.9	265	35.7	328
Rs 10000 to 20000	34.4	98	27.3	173	29.5	271
Above Rs 20000	19.3	55	10.1	64	13.0	119
Not Sending Money	24.2	69	20.7	131	21.8	200
<b>Frequency To Visit Native Place</b>						
Once in a year	75.8	216	72.2	457	73.3	673
Once in two year	16.8	48	19.1	121	18.4	169
After two years	1.1	3	1.6	10	1.4	13
Whenever needed	2.1	6	1.1	7	1.4	13
Never gone	4.2	12	6.0	38	5.4	50
<b>Living Arrangement</b>						
Alone	5.3	15	10.1	64	8.6	79
With Friends	47.7	136	46.8	296	47.1	432
With Relatives	13.0	37	15.8	100	14.9	137
With Own Family	34.0	97	27.3	173	29.4	270
<b>Number of Close Friends</b>						
None	1.8	5	5.7	36	4.5	41
One	7.7	22	23.4	148	18.5	170
Two	23.5	67	36.8	233	32.7	300
Three to Five	53.0	151	27.3	173	35.3	324
> Five	14.0	40	6.8	43	9.0	83
<b>Relationship with Neighbour</b>						
Good	41.4	118	45.0	285	43.9	403
Neutral	51.9	148	38.9	246	42.9	394
Bad	0.4	1	0.6	4	0.5	5
No Interaction	6.3	18	15.5	98	12.6	116
<b>Feeling About Working &amp; Social Environment</b>						
Good	16.8	48	11.1	70	12.9	118
Average	76.8	219	83.6	529	81.5	748
Bad	6.3	18	5.4	34	5.7	52
<b>Total</b>	<b>31.0</b>	<b>285</b>	<b>69.0</b>	<b>633</b>	<b>100.0</b>	<b>918</b>

Table 5: Percentage distribution of migrant by their background characteristics and Awareness of STD and HIV/AIDS, Surat

	Heard of STD	Know about at least one mode of Transmission of STD	Heard of AIDS	Know about at least one mode of Transmission of HIV/AIDS
<b>Age</b>				
Below 20	31.7	22.1	75.0	59.6
20 to 29	48.2	39.3	87.8	78.7
30 to 39	55.6	45.6	89.9	82.2
Above 40	40.7	31.5	77.8	72.2
<b>Marital Status</b>				
Never married	45.6	35.5	85.9	73.3
Ever Married	48.8	40.3	86.4	80.0
<b>Education</b>				
Illiterate	17.2	13.8	54.3	38.8
Up to Middle pass	45.2	34.0	86.0	74.6
Up to HSC	55.0	45.9	94.2	84.2
Above HSC	69.6	60.8	100.0	96.2
<b>Living Arrangement</b>				
Alone	45.6	36.7	89.9	81.0
With Family	52.2	43.3	89.6	82.6
With Relatives	45.3	35.0	82.5	72.3
With Friends	45.1	35.9	84.5	70.8
<b>Monthly Income</b>				
Below Rs.2000	33.8	22.3	73.4	56.1
Rs.2001 to Rs.3000	40.0	30.5	81.3	67.6
Rs.3001 to Rs.5000	56.4	47.5	92.7	85.4
Above Rs.5000	55.6	49.4	96.3	91.4
<b>Total</b>	<b>47.3</b>	<b>38.0</b>	<b>86.2</b>	<b>75.4</b>

Table 6: Among migrants who have heard about AIDS, percentage that received information from specific sources by selected background characteristics, Surat

Background Characteristics	Percentage who have heard about AIDS	Among those who have heard about AIDS, percentage who received information from:				
		Radio	Television	Newspaper / Magazine	Friends/ Relatives	Other Sources
<b>Age</b>						
Below 20	75.0	11.5	57.7	50.0	65.4	43.6
20 to 29	87.8	10.2	66.9	62.6	68.8	45.1
30 to 39	89.9	5.3	63.2	63.2	64.5	39.5
Above 40	77.8	7.1	52.4	52.4	59.5	33.3
<b>Marital Status</b>						
Never married	85.9	10.5	67.6	60.3	72.4	45.3
Married	86.5	8.2	61.9	61.4	62.7	41.4
Others	75.0	0.0	33.3	66.7	33.3	33.3
<b>Education</b>						
Illiterate	54.3	3.2	36.5	12.7	79.4	22.2
Up to Middle pass	86.0	7.7	59.0	57.8	71.4	48.7
Up to HSC	94.2	10.6	71.6	68.1	61.9	42.3
Above HSC	100.0	15.2	82.3	84.8	59.5	40.5
<b>Living Arrangement</b>						
Alone	89.9	15.5	70.4	67.6	62.0	35.2
With Family	89.6	7.9	68.6	64.0	64.0	45.9
With Relatives	82.5	6.2	69.0	58.4	60.2	45.1
With Friends	84.5	9.9	59.2	58.4	72.3	42.5
<b>Duration of Stay</b>						
< 1 year	79.1	9.7	54.2	41.7	56.9	34.7
1 to 3 year	75.9	9.7	61.4	60.0	69.7	40.0
3 to 5 year	90.1	8.7	67.4	62.8	67.4	50.6
Above 5 years	90.3	9.2	66.2	63.9	67.9	42.8
<b>Monthly Income</b>						
Below Rs.2000	73.4	8.8	48.0	39.2	63.7	37.3
Rs.2001 to Rs.3000	81.3	7.4	54.3	50.0	66.4	37.5
Rs.3001 to Rs.5000	92.7	10.7	73.0	72.1	69.0	48.7
Above Rs.5000	96.3	9.0	80.8	74.4	65.4	44.9
<b>Total</b>	<b>86.2</b>	<b>9.2</b>	<b>64.5</b>	<b>60.9</b>	<b>67.1</b>	<b>43.2</b>

Table 7: Among migrants who have heard about STD, percentage that received information from specific sources by selected background characteristics, Surat

Background Characteristics	Percentage who have heard about STD	Among those who have heard about STD, percentage who received information from:				
		Radio	Television	Newspaper / Magazine	Friends/ Relatives	Other Sources
<b>Age</b>						
Below 20	31.7	12.1	45.5	45.5	72.7	21.2
20 to 29	48.2	8.4	46.3	64.6	56.1	41.4
30 to 39	55.6	5.3	48.9	44.7	64.9	42.6
Above 40	40.7	4.5	31.8	54.5	68.2	31.8
<b>Marital Status</b>						
Never married	45.6	10.6	45.5	61.1	58.6	39.4
Married	48.5	5.6	46.8	56.2	60.5	39.5
Others	75.0	0.0	33.3	33.3	100.0	33.3
<b>Education</b>						
Illiterate	17.2	5.0	30.0	20.0	90.0	30.0
Up to Middle pass	45.2	9.6	38.2	51.7	57.3	36.0
Up to HSC	55.0	6.6	53.0	65.7	61.3	42.0
Above HSC	69.6	7.3	54.5	69.1	52.7	45.5
<b>Living Arrangement</b>						
Alone	45.6	19.4	55.6	61.1	61.1	44.4
With Family	52.2	7.1	50.4	58.2	59.6	44.0
With Relatives	45.3	3.2	53.2	61.3	59.8	41.9
With Friends	45.1	7.7	39.0	56.9	61.5	34.4
<b>Duration of Stay</b>						
< 1 year	37.4	11.8	32.4	35.3	64.7	14.7
1 to 3 year	41.4	6.3	46.8	58.2	67.1	38.0
3 to 5 year	47.1	7.8	48.9	63.3	60.0	45.6
Above 5 years	51.9	7.8	46.8	59.7	56.7	41.1
<b>Monthly Income</b>						
Below Rs.2000	33.8	2.1	31.9	34.0	68.1	29.8
Rs.2001 to Rs.3000	40.0	7.1	39.7	54.0	65.1	31.7
Rs.3001 to Rs.5000	56.4	9.7	52.3	64.8	56.9	44.9
Above Rs.5000	55.6	6.7	48.9	64.4	51.1	44.4
<b>Total</b>	<b>47.3</b>	<b>7.8</b>	<b>46.1</b>	<b>58.3</b>	<b>59.9</b>	<b>39.4</b>

Table 8: Percent Distribution of Migrants by their Life Style and Risk Behavioural Activities, Surat

	Alone	With Family	With Relatives	With Friends	All Migrants	
					Percentage	Number
<b>Watching T.V.</b>						
Yes	53.2	71.5	59.1	48.1	57.1	524
No	46.8	28.5	40.9	51.9	42.9	394
<b>Going to Theater</b>						
Yes	54.4	42.6	57.7	56.9	52.6	483
No	45.6	57.4	42.3	43.1	47.4	435
<b>Go to Video Parlour</b>						
Yes	22.8	18.9	24.1	25.2	23.0	211
No	77.2	81.1	75.9	74.8	77.0	707
<b>Consume Gutaka/PanMasala/Tobacco</b>						
Generally	50.6	51.1	44.5	50.7	49.9	458
Occasionally	20.3	11.5	17.5	18.8	16.6	152
Never	29.1	37.4	38.0	30.6	33.6	308
<b>Smoking</b>						
Generally	15.2	11.5	5.8	10.4	10.5	96
Occasionally	16.5	12.6	10.2	14.8	13.6	125
Never	68.4	75.9	83.9	74.8	75.9	697
<b>Consuming Liquor</b>						
Generally	5.1	2.6	2.9	3.2	3.2	29
Occasionally	16.5	15.9	10.9	15.7	15.1	139
Never	78.5	81.5	86.1	81.0	81.7	750
<b>Inhale Drugs</b>						
Yes	3.8	1.1	0.7	0.7	1.1	10
No	96.2	98.9	99.3	99.3	98.9	908
<b>Visit Red Light Area</b>						
Yes	3.8	3.3	1.5	4.4	3.6	33
No	96.2	96.7	98.5	95.6	96.4	885
<b>Visit CSW</b>						
Yes	3.8	2.2	1.5	2.3	2.3	21
No	96.2	97.8	98.5	97.7	97.7	897
<b>Sexual Relation with Other Girls/Women</b>						
Yes	19.0	11.1	11.7	15.0	13.7	126
No	81.0	88.9	88.3	85.0	86.3	792
<b>Total</b>	8.6	29.4	14.9	47.1	100.0	918

Table 9: Percentage Distribution of migrants by their background characteristics and risk behaviour

	<b>Visiting CSW</b>	<b>Sexual Relation with other girls</b>
<b>Age</b>		
< 20	1.9	14.4
20 to 40	2.5	14.5
> 40	0.0	1.9
<b>Marital Status</b>		
Never married	2.8	19.6
Married	1.9	8.3
Others	0.0	25.0
<b>Education</b>		
Illiterate	2.6	4.3
Up to Middle pass	2.0	17.0
Up to HSC	3.0	12.5
Above HSC	0.0	16.5
<b>Duration of Stay</b>		
Less than one year	0.0	8.8
One to three year	1.6	7.3
Three to five year	3.7	20.9
Above five year	2.5	14.4
<b>State from which Migrated</b>		
Gujarat	4.6	21.8
Others	1.3	10.1
<b>Total</b>	<b>2.3</b>	<b>13.7</b>

Table 10: Determinants of Risk Behaviour of Migrants, Surat

Independent Variable	Visit CSW/Other girls for Sexual Satisfaction Exp(B)
<b>Age of the migrant</b>	
<20 years	Rc
20-29 yrs	0.91
>30 yrs	0.48
<b>Education of the migrant</b>	
Illiterate	Rc
Primary/middle	1.35
Secondary or Above	1.70
<b>Marital Status</b>	
Ever Married	Rc
Never-married	1.75**
<b>Income</b>	
Below Rs.2000	Rc
Rs.2000 to 5000	1.25
More than Rs.5000	1.01
<b>Know About STD</b>	
No	Rc
Yes	2.00***
<b>Knowledge about Mode of Transmission of HIV/AIDS</b>	
None	Rc
Know one mode	1.46
Know about two or more mode	1.67
<b>Living Arrangements</b>	
With family/Relatives	Rc
Alone	1.93*
With Peers	1.23
<b>State of Origin</b>	
Other State	Rc
Gujarat	1.69*
<b>Frequency to Visit Native Place</b>	
Never Gone	Rc
Within One Year	1.03
After One Year	1.28
<b>Duration of Stay</b>	
Less than one year	Rc
One to three year	0.44
More than three year	1.29
<b>Send Remittances</b>	
No	Rc
Yes	0.78
<b>Substance Abuse Risk</b>	
No Risk	Rc
Low Risk	1.82*
High Risk	4.92***
<b>Visit Video Parlors</b>	
No	Rc
Yes	4.04***
***p<.01; **p<.05; *<.10; Rc=Reference Category	