



## SEXUAL BEHAVIOUR AND VARIOUS FACTORS ASSOCIATED WITH HIGH-RISK BEHAVIOUR AMONG TRUCK DRIVERS OF THE PUNE DISTRICT, INDIA.

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### Abstract

**Background:** Truck drivers constitute a bridge population between the general population and the high-risk group because of their mobility and high-risk behaviour. It was importance of sexual behaviour and various factors associated with high-risk behaviour among truck drivers in Pune, Maharashtra, India.

**Method:** A questionnaire based, cross-sectional descriptive study was conducted on 360 truck drivers at Loni, all were males truck drivers belonging to Pune district. Data was collected, compiled, and analysed using appropriate and relevant statistical tests using WHO/CDC Atlanta/Epi info 6.

**Results:** The average age of truck drivers was 38.94 years. Majority of respondent were married (77.8%), consumed alcohol (82.0%), smoked (56%), and viewed pornography (85%). 41.6% truck drivers spent 21-25 nights away from home per month. 97.2% drivers had heard about STD whereas all truck drivers (100%) heard about HIV/AIDS, nearly half had learnt about it from audio-visual media (52.8%). 80.0% were aware of HIV transmission by unprotected sex. 93.1% had their first sexual encounter in the age range of 16-21 years. 80.5% of drivers admitted having extra-marital sexual relations and majority (30.3%) reported amateur partners and 51.66% prefer their extra-marital sexual partner to be below 30 years. Only 6.9% of truck drivers admitted having homosexual relationship. 56.4% of drivers use condoms sometimes during sex and 43.1% prefer a free condom e.g., Nirodh and maximum had learnt about it from NGOs/Peer educator (41.9%). Better availability of condoms near brothels or Dhaba's was listed as commonest condition to regular use of condom as reported 40.8% of truck drivers.

**Conclusions:** The knowledge levels about HIV/AIDS and STIs are fair, the high-risk sexual behaviour is still common. More efforts are required to translate the high-risk perception of unsafe sexual behaviour among truck driver population into correct and safe sexual practices.

**Keywords:** Truck drivers; High-risk behaviour; HIV/AIDS; STIs; Condoms; Extra-marital sexual relations

### **Introduction**

Since the first report of HIV infection in 1986 in India, the virus has spread all over the country although there is geographic variation. The highest HIV prevalence rates are found in Maharashtra, Andhra Pradesh, and Karnataka in the south; and Manipur, Mizoram and Nagaland in the north-east. Four southern states (Andhra Pradesh, Maharashtra, Tamil Nadu and Karnataka) account for about 63% of all people living with HIV [1]. Maharashtra was one of the earliest states to be affected by HIV/AIDS in India and one of the first to be considered high prevalence [2].

Moreover, HIV/AIDS is a social disease that can only be fought with fundamental changes in behaviour, attitude, and values. Larger social issues involved with HIV/AIDS include the fact that the primary cause of STIs and STDs is man's polygamous sexual behaviour and associated promiscuity. Consequently, were born the institution of prostitution, extra-marital and pre-marital sex affairs. Poverty, unemployment, and lack of education are crucial aspects of the overall crisis which shapes the factual background to the disease. Poverty may lead to a kind of risk behaviour or make people more vulnerable as far as HIV/AIDS is concerned [3].

Thousands of young men migrate from rural to urban areas in search of employment leaving their family behind very often. It has been found all over the World that migration has led to increase in the spread of HIV/AIDS. These young men in the absence of their wives often form partnership and relationship with other women in urban areas. Unemployment may also lead to other types of risk behaviour like substance use [3].

Although, mobile populations, of which truck drivers are a sub-group, are a population group at special risk of exposure to STIs, including HIV. STI rates among truck drivers are generally two-to-five times higher than in general populations [3, 4]. Probably the single most important factor leading to high rates of HIV in the truck drivers is the occupational requirement of being far from their communities and families for varying periods of time in normal course of duty. Freedom from social and traditional controls removes them from contact with spouses or regular sexual partners [3]. Truck drivers form a 'high-risk group' for contracting this illness. The role of health education and communication in modification of sexual behaviour and reducing risk of HIV/AIDS cannot be overemphasized. Thus, it was the importance of sexual behaviour in vulnerable mobile population which prompted the investigator to study the same among truck drivers in Pune which may be associated with high number of HIV/AIDS cases in Maharashtra. Lab investigation also done for confirmation of diagnosis as on required basis.

### **Material and Method**

This cross-sectional descriptive questionnaire-based study was conducted on truck drivers at Loni. Loni is a small town located on outskirts of Pune (20 km) on Pune – Solapur National Highway (NH-9). Long distance truck drivers based at Pune district plying on national highways passing through Pune-Solapur highway who halted at roadside group of "Dhaba's" (roadside motels) at Loni in Pune district, Maharashtra were enrolled in the study. Those truck drivers who were currently residing on permanent basis in areas of Municipal corporation or Taluka headquarters of Pune district were classified as urban and remaining truck drivers were classified as rural Truck Drivers for purpose of current study. Inclusion criteria was defined as Truck drivers belonging to Pune district, who were aged 18 years and above, had 2 or more years of experience as truck driver, and whose truck had a national or an interstate permit. All truck drivers who were from outside Pune district, declined to consent for interview or did not answer all queries were excluded from the study.

The questionnaire used in the data collection was divided in seven parts. Consisting of the personal details, personal history, awareness of STD and treatment seeking behaviour, awareness of HIV/AIDS, sexual behaviour, homosexuality, and condom usage of the individual truck driver interviewed. Data was collected in structured individual face to face interviews by the investigator. Truck drivers who stopped at the Dhaba's were approached individually and invited to participate in study after explaining the purpose of study. Those truck drivers who consented for interview were taken to a separate area to maintain privacy and confidentiality. A total of 360 truck drivers were interviewed in the study. The interviewees were informed about nature of the study and were requested to bring out complete and true answers. They were also assured that the facts given out by them would be kept confidential, as also their identity. Participants could discontinue the interview at any point or choose not to answer specific questions. An informed verbal consent was obtained from the truck drivers.

After the completion of interview, the truck drivers were educated about mode of transmission and prevention of HIV/AIDS, STI and usage of condoms by using flip charts. The importance of early diagnosis of HIV/AIDS and prompt treatment was impressed upon the truck drivers. The subjects were also motivated to refrain from extra marital / pre-marital sex acts. The filled proforma were checked for errors and omissions and were rectified. After completing all the interviews, the responses were coded and entered in the computer. Data validation was done after entry was completed. The analysis was done using Epi Info package and suitable statistical tests were applied with help of faculty biostatistician. Relevant test of significance was applied during analysis, wherever required.

## Results

The results of study are presented as per the sections of questionnaire: Section I show the personal particulars of truck drivers are shown in table 1. The average age of truck drivers was 38.94 years with a range of 25 to 58 years.

**Table 1: Personal particulars (basic demographic data of the truck drivers)**

Personal particulars		No. of patients	Percentage
Age Group (years)	25 to 30	80	22.22
	31 to 40	130	36.11
	41 to 50	120	33.33
	>50	30	8.3
Residence	Rural	160	44.0
	Urban	200	56.0
Education status	Illiterate	20	5.6
	Primary	100	27.8
	High school	150	41.7
	Senior secondary	90	25.0
Religion	Hindu	255	70.8
	Muslim	40	11.1
	Christian	19	5.3
	Sikh	36	10
	Other	10	2.8
Marital status	Unmarried	30	8.3
	Married	280	77.8
	Divorcee/Separated	16	4.4
	Widower	34	9.4
Age at Marriage	<18	20	5.6
	19-21	140	38.9

	22-25	145	40.3
	>25	25	6.9
Status of Sexual Partnership	Currently married, living with spouse	270	75
	Currently married, living with another sexual partner	10	2.8
	Married, not living with spouse or another sexual partner	30	8.3
	Not currently married, living with/having sexual partner	40	11.1
	Not currently married, not living with/having sexual partner	10	2.8
Particulars of Family	3-4 adults	220	61.11
	1-2 adults	80	22.22
	5-6 adults	60	16.67
	Childless	110	30.6
	1 Child	50	13.9
	2 children	130	36.1
	3 children	70	19.4
Average Monthly Income (Rupees)	<4000 Rs	10	2.8
	4000-6000 Rs	180	50
	6000-8000 Rs	158	43.88
	>8000 Rs	12	3.33

Section II show the personal history of truck drivers are shown in table 2. Majority of respondent were consumed alcohol (82.0%), tobacco chewer (78%), smoked (56%), and viewed pornography (85%). Ganja and Bhang were most commonly abused drugs. 41.6% truck drivers were spending 21-25 nights away from home in a month on driving duties.

**Table 2: Personal history of the truck drivers**

Personal history		No. of patients	Percentage
Smoking	Smokers	200	56.0
	Non-smokers	160	44.0
Alcohol Consumption	Alcoholic	295	82.0
	Non-alcoholic	65	18.0
Duration of alcohol intake (years) (n=295)	<5	31	10.50
	6-10	124	42.03
	11-15	60	20.33
	16-20	50	16.94
	>20	30	10.20
Tobacco chewing	Tobacco chewer	280	78.0
	Nontobacco chewer	80	22
Drug addiction	Ganja	60	16.7
	Bhang	40	11.1
	Afim	06	1.7
	Charas	05	1.4
	IV Drug	09	2.5
Nights spent on driving duties	15-20 Nights	200	55.5

	21-25 Nights	150	41.6
	>25 Nights	10	2.8
Level of Job satisfaction	Happy	85	23.6
	Satisfied	60	16.7
	Unsatisfied	172	47.8
	Unhappy	43	11.9
Mode of entertainment	Radio/ TV	100	27.8
	Newspaper/magazine	210	58.3
	Playing cards	250	69.4
	graphy / XXX CD or DVD	306	85.0
	Dance Bars	185	51.4

Section III show the awareness of STD and treatment seeking behaviour as depicted in table 3. 97.2% drivers had heard about STDs and 47.2% truck drivers gave history of having suffered STD symptoms. Awareness of general and specific symptoms was found to be high. Two thirds of those who took treatment sought allopathic treatment.

**Table 3: Awareness of STD & treatment seeking behaviour (Section III)**

Awareness of STD & Treatment Seeking Behaviour		No. of patients	Percentage	
Heard of STD	Yes	350	97.2	
	No	10	2.8	
STD stands for	Correct reply	270	75.0	
	Incorrect reply	90	25.0	
Knowledge of the symptoms of STD	General Symptoms	Fever	150	41.7
		Headache	180	50.0
		Backache	178	49.4
	Specific symptoms	Genital discharge	194	53.9
		Genital ulcer	310	86.1
		Pain during intercourse	233	64.7
		Lower abdominal pain	260	72.2
		Burning pain during urination	80	22.2
		Swelling in Groin area	190	52.8
Knowledge Score: General symptoms of STD	Score 0	35	9.7	
	Score 1	113	31.4	
	Score 2	177	49.2	
	Score 3	35	9.7	
Knowledge Score: Specific symptoms of STD	Score 0	10	2.8	
	Score 1	14	3.9	
	Score 2	185	51.4	
	Score 3	95	26.4	
	Score 4	39	10.8	
	Score 5	9	2.5	
History of having STD	Yes	170	47.0	
	No	190	53.0	
STD Treatment seeking behaviour	No treatment or went to informal health facility during the last episode	50	29.46	

	Took home based remedy	05	2.9
	Borrowed prescription from friend/relative	10	5.8
	Took medicine I had at home	05	2.9
	Purchased medicine from a chemist shop	20	11.79
	Went to a Doctor (Govt/Private/ NGO clinic)	80	47.15
Number of days taken to a health practitioner	between a week and a month	39	48.75
	delayed medical attention by more than a month	30	37.50
	prompt and sought treatment within a week of onset of symptoms of STD	11	13.75
Type of medicine taken	Allopathic	55	68.75
	Homeopathic	5	6.25
	Ayurvedic	20	25.0

Section IV show the awareness of HIV/AIDS among truck drivers as shown in table 4. All truck drivers (100%) heard about HIV/AIDS, nearly half had learnt about it from audio-visual media (52.8%). 80.0% were aware of HIV transmission by unprotected sex. Fair level of knowledge about modes of transmission of HIV/AIDS was noted among these truck drivers. Low prevalence of misconceptions regarding HIV/AIDS was seen in study population of truck drivers. Only little more than a half (55.6%) of truck drivers had ever attended HIV/AIDS awareness programme.

**Table 4: Awareness of HIV/AIDS (Section IV)**

Awareness of HIV/AIDS		Frequency	Percent age
Ever heard of HIV/AIDS	Yes	360	100.0
	No	00	0.0
Source of knowledge about HIV/AIDS	Peer group (Neighbour/Friend /Family member)	104	28.9
	Audio visual media (Radio/ TV) / print media (Poster/ ook/Magazine)/ awareness programme like street play)	190	52.8
	Health worker (Doctor/Nurse/ other)	66	18.3
Awareness about modes of spread of HIV/AIDS	Unprotected sex	288	80.0
	Blood Transfusion	202	56.1
	Needle sharing	186	51.7
	Mother to unborn child	217	60.3
	Breast milk	137	38.1
knowledge scores for modes of spread of HIV/AIDS	0	12	3.3
	1	58	16.2
	2	93	25.8
	3	87	24.2
	4	63	17.5
	5	47	13.0
Common misconceptions regarding HIV/AIDS transmission	HIV is transmitted by mosquito bites/ Bed bug bite	162	45.0
	HIV is transmitted by sharing meal with any infected Person	33	9.2
	HIV is transmitted by shaking hand	39	10.8

	HIV is transmitted by sharing Toilet/ swimming pool	84	23.3
	Healthy looking person may already be suffering from HIV	297	82.5
Misconception Score	0	43	11.94
	1	60	16.8
	2	80	22.2
	3	74	20.8
	4	86	23.9
	5	17	4.9
Willingness to get tested for HIV/AIDS	unwillingness	246	68.3
	Willingness	97	26.9
	Don't know	17	4.7
HIV/AIDS awareness program	Ever attended	200	55.6
	denied having ever attended	160	44.4

All 360 truck drivers interviewed had sexual experience. More than 90% truck drivers had their sexual debut in age group of 16-21 years. More than a half of truck drivers felt that their sex can be better while 17.2% rated it as unsatisfactory. Only 60% truck drivers admitted masturbation when staying away from family. More than half (58.3%) truck drivers said that they preferred vaginal intercourse with heterosexual partners, (Table 5).

**Table 5: Sexual behaviour (Section V)**

Sexual behaviour	No. of patients	Percentage
Age at first sex (years)	<15	4.2
	16-18	45
	19-21	48.1
	22-25	2.8
Whether staying with family	staying with their family	91.7
	staying away from their families	8.3
Perception of sex life	Satisfactory	30
	Can be better	52.8
	Unsatisfactory	17.2
Sexual Intercourse with wife	>Once a day	1.07
	Daily	1.78
	Twice a week	35.35
	Once a week	33.92
	<Once a week	27.85
Masturbation when not staying with family	Never	27.2
	Occasionally	60.0
	Frequently	12.8
Heterosexual preference	Vaginal	58.3
	Oral	8.1
	Anal	5.0
	Mixed	28.6
History of extra- marital sexual relation	Yes	80.5
	No	19.5
Extra-marital sexual partner	Relative	26.9
	Amateur	30.3

	Commercial Sex Worker	84	23.3
	Not Applicable	70	19.4
Intoxication during extra-marital sexual act	Every time	44	12.22
	Sometime	178	49.44
	Never	68	18.88
	Not Applicable	70	19.46
Use of Condom during Extra-marital Sexual act	Every time	65	18.05
	Sometime	164	45.55
	Never	61	16.94
	Not Applicable	70	19.46
preferred age of partner during Extra-marital Sexual act	Teenager	26	7.22
	Adolescent	66	18.33
	<30 years	186	51.66
	>30 years	4	1.11
	No preference	8	2.22
	Not Applicable	70	19.46
Belief regarding extramarital relations in truck drivers	Common	199	55.3
	Exceptional	22	6.1
	Occasional	111	30.8
	Never	9	2.5
	Don't know	19	5.3

Section VI show homosexuality. Only 6.9% of truck drivers admitted having homosexual relationship, current or past. Maximum had amateur homosexual partners. Preference was recorded for oral sex in homosexual act. Maximum truck drivers with homosexual relations never used condoms, (Table 6).

**Table 6: Homosexuality (Section VI)**

Homosexuality		No. of patients	Percentage
Indulgence in Homosexuality	Homosexual relations	25	6.9
	No homosexual relations	335	93.1
Homosexual partner	Relative	2	0.6
	Amateur	11	3.1
	Commercial Sex Worker	4	1.1
	Colleague	8	2.2
Homosexual preference	Oral	16	4.4
	Anal	3	0.8
	Mixed	6	1.7
Intoxication during homosexual act	Every time	1	0.3
	Sometime	18	5.0
	Never	6	1.7
Condom use during homosexual act	Every time	Nil	0.0
	Sometime	4	1.1
	Never	21	5.8

More than half (56.4%) truck drivers said that in general they use condoms sometimes during sex and 43.1% prefer a free condom e.g., Nirodh and maximum had learnt about it from NGOs/Peer educator (41.9%). Most common cause for not using condom in the truck drivers interviewed was decrease of sexual pleasure. Better availability of condoms near brothels or Dhaba's was listed as commonest condition to regular use of condom as reported 40.8% of truck drivers, (Table 7).



**Table 7: Condom usage (Section VII)**

Condom usage		No. of patients	Percentage
Use of condom during sexual act	Always	67	18.6
	Sometimes	203	56.4
	Never	90	25
Alcoholism (n=295)	Condom use Always	46	16.0
	Condom use Irregular (never/ sometimes)	249	84.0
Type of Condom Used	Free (Nirodh brand)	155	43.1
	Paid (Deluxe Nirodh /Kamasutra /Masti etc)	115	31.9
Source of condom used	Sexual partner	40	11.2
	Purchased at chemist shop	79	21.9
	Others (NGOs/ Peer educator)	151	41.9
Reasons for not using condoms	Decreases pleasure	118	32.8
	Interference with sexual act	73	20.3
	Too expensive	9	2.5
	Partner objection	7	1.9
	Not available	86	23.9
	Not Applicable	67	18.6
Whether agree to use of condom if proposed by sexual partner	Always	38	10.6
	Sometime	205	56.9
	Never	50	13.9
	Not Applicable	67	18.6
Condition for use condom- Will use condom if	It is available free of cost	33	9.2
	It is easily available near brothels or Dhaba's	147	40.8
	Educated about its proper use and advantages	100	27.8
	Not use it anyway	13	3.6
	Not Applicable	67	18.6

## Discussion

The present study was undertaken by a face-to-face interview among truck drivers of Pune, which is one of high HIV prevalence districts of Maharashtra. The age distribution of truck drivers was found to be widely distributed. Young truck drivers (aged <30 years) were 22% while majority of truck drivers were in the age group of 31-45 years (55.4%). Rest 22% belonged to age group of >45 years. Various other studies have reported age distribution in similar manner [5-8]. Most of the truck drivers were Hindus. Majority i.e., 77.8% were currently married and living with spouse (75%) and most of the truck drivers get married at relatively early age. 55.6% of truck drivers interviewed were residing in urban areas of Pune District. The maximum truck drivers were educated between primary and higher secondary. Almost one third truck drivers were educated less than V class while only 5.6% truck drivers were illiterate. These findings are correlated with the study on truck drivers in Zambia (Africa) [5] and Bryan et al [6]. Majority were drawing a monthly salary between Rs 4000 to 8000 which is comparable with the study done by Jindal et al [9].

Smoking and alcoholism were prevalent in more than half and three fourth of study population respectively. Tobacco chewing was also found in above three fourth of truck drivers. Drug addictions were present in nearly a third of truck drivers. Ganja and Bhang were most abused drugs. These

findings are comparable with the previous studies [9-12]. Dissatisfaction with working conditions was clearly evident with nearly half of the truck drivers reported being unsatisfied (47.8%) and unhappy (11.9%) which is comparable with the study conducted by Jindal et al [9]. 41.6% truck drivers were spending 21-25 nights away from home in a month on driving duties, this is in accordance to the study done by Bansal et al [11] and Singh et al [13]. More than 300 out of 360 truck drivers were indulging in watching pornographic CD/XXX DVD during off-working hours as their preferred mode of entertainment.

Nearly all truck drivers studied had heard about STDs and 47.2% truck drivers gave history of having suffered STD symptoms. Awareness of general and specific symptoms was found to be high. Nearly half of truck drivers could tell two out of three general symptoms and three out of six specific symptoms of STDs enquired in study. Nearly half of those who experienced symptoms of STD took treatment from a doctor but took more than a week to seek medical advice and proper treatment. Two thirds of those who took treatment sought allopathic treatment. These findings are correlated with the earlier studies [5, 11, 12, 14, 15].

All 360 truck drivers interviewed had heard about HIV/AIDS, nearly half had learnt about it from audio-visual media. Less than one –fifth had learnt about it from a health worker/medical professional. Fair level of knowledge about modes of transmission of HIV/AIDS was noted among these truck drivers, one –fourth (25.8%) of whom could tell two and 44.2% could tell three correct modes of transmission of HIV/AIDS out of five enquired. Low prevalence of misconceptions regarding HIV/AIDS was seen in study population of truck drivers, with 47.5% having no misconception 25.8% having only one misconception regarding HIV/AIDS out of five enquired in the study. Although this is an encouraging sign, the remaining one-fourth population with misconception score of three and above represents a vast potential for IEC and AIDS control Programme authorities. One fourth of truck drivers were willing to get themselves tested for HIV/AIDS (26.7%, n=97). Only a little more than a half (55.6%) Truck drivers had ever attended HIV/AIDS awareness Programme. Similar findings are reported in other studies [5, 9, 14-18].

All 360 truck drivers interviewed had sexual experience. More than 90% truck drivers had their sexual debut in age group of 16-21 years. More than a half of truck drivers felt that their sex can be better while 17.2% rated it as unsatisfactory. 280 truck drivers who were currently married and staying with wife were enquired about frequency of sexual intercourse with spouse. In case of nearly 70% truck drivers the frequency was between once (n=95, 33.92%) and twice (n=99, 35.35%) a week. Only 60% truck drivers admitted masturbation when staying away from family. More than half (58.3%) truck drivers said that they preferred vaginal intercourse with heterosexual partners. Nearly four-fifth (80.5%) of Truck drivers admitted having extra-marital sexual relation, current or past. Their extra-marital sexual partners were relatives (33%), amateur (38%) and commercial sex worker (29 %). Condom use was irregular and not linked to type of extra-marital partner. A clear preference was observed for extra-marital heterosexual partner in age group of 20-30 years. More than half (55.3%) truck drivers opined those extra-marital sexual relations were common among Truck drivers. Several other studies also have reported a high prevalence of high-risk sexual behaviour among truck drivers [5, 7, 8, 11-13, 15-17].

Only 6.9% of truck drivers admitted having homosexual relationship, current or past. Maximum had amateur homosexual partners followed by colleagues, commercial sex workers and relatives in order of frequency. Preference was recorded for oral sex in homosexual act. Maximum truck drivers with homosexual relations never used condoms. These findings are correlated with the study done by Singh YN et al [16].

More than half (56.4%) truck drivers said that in general they use condoms sometimes during sex. Nearly one-fourth said that they never used condoms. Free condoms were used more commonly than paid ones, most common source being peer educator, health worker etc. Most common cause for not using condom in the truck drivers interviewed was decrease of sexual pleasure, followed by non-availability of condoms and interference in sexual act. On being asked about the measures for regular use of condom during sexual acts, most of truck drivers said that if condom is easily available near

brothels and dhabas they will use it regularly. Next most common response was that correct education about proper use and health benefits of condom will lead them to use it every time during sexual relationships. Similar findings are reported in other studies [5, 15-17, 19].

### **Conclusion**

The current study shows that although the knowledge levels about HIV/AIDS and STIs are fair, the high risk sexual behaviour is still common. More efforts are required to translate the high risk perception of unsafe sexual behaviour among truck driver population into correct and safe sexual practices. Efforts are required from different organizations including employers, Government agencies, NGOs and health administrators to bring about a change in sexual behaviour of Truck drivers and mitigate the risk of transmission of virus into general population.

### **Limitations of study**

- The study was carried out at a single site. Multiple highways (national and state) emerge from Pune e.g., Pune-Mumbai- expressway and old highway, Pune –Bangalore, Pune –Nashik, Pune-Ahmadnagar are other significant routes in addition to Pune –Solapur Highway on which this study was carried out.
- As only 360 truck drivers were studied, relatively smaller number of truck drivers gave history of homosexual behaviour. A bigger sample or a study exclusively designed to study sexual behaviour among homosexual truck drivers will yield better results.
- All sexual practices and behaviour documented in the study are self-reported. Sexual behaviour and practices are highly personalized activities, not amenable to rigorous measurement and observation. Although it is not possible to ‘cross-check’ a respondent’s responses as a form of internal validation, an effort was made to assure subjects about anonymity, confidentiality, and purely academic purpose of data collection.
- Serological test for common reproductive tract infections like Syphilis, Hepatitis B, Gonorrhea and HIV were not included owing to field setting of study. The addition of these would have rendered study epidemiologically stronger, scientifically convincing and evidence-based.
- To get data on 360 truck drivers, nearly 550 truck drivers were approached, of whom 190 did not consent for interview. Thus, a high refusal percentage (35%) was encountered from truck drivers when approaching them for interview.

### **Recommendations**

- Truck Drivers need to be educated so as to increase awareness about STIs and HIV/AIDS.
- Distance education programmes/ after working hour teaching classes may be considered by suitable Government agencies/NGOs. Health education may be focused to decrease the vices of Tobacco, alcohol and drugs which are common among truck drivers.
- Better resting conditions and means of entertainment when off duty/ after working hours may be catered for at resting points/ roadside motels/dhabas and loading/unloading points.
- Confidential testing and treatment facilities may be catered for them as majority do not take proper treatment in time due to shame, guilt or non-availability of adequate medical facilities.
- Young and adolescent population associated with trucking industry, many of whom do cleaner duties before graduating to full-fledged driving profession may be targetted to delay their sexual debut, use condom consistently during sexual relationships, and restrict the urge to imitate their seniors by indulging in multiple sexual partnerships.
- Programme dealing with sexual health and safe sex must also address issues related to homosexuality and risks of transmission of STIs including HIV/AIDS in homosexual relationships.
- Condoms must be made freely available near the sites its use is more likely.

## Reference

1. AIDS. K Park; Park's Textbook of Preventive and Social Medicine. 19th Edition, Jabalpur, BD Bhanot Publication, 2007; Ch-5, 285-297.
2. Mishra RM, Dube M, Sahu D, Saggurti N, Pandey A. Changing epidemiology of HIV in Mumbai: an application of the Asian epidemic model. *Glob J Health Sci.* 2012;4(5):100-112.
3. NACP-III report: Socio-economic and cultural dimensions of HIV/AIDS in Review of Social Dimensions of HIV/AIDS and Social Groups. In *Social Assessment of HIV/AIDS among Tribal People in India: A Report Submitted to NACP-III Planning Team, New Delhi*; Ch-12: 24-35.
4. Pandey, Arvind; Benara, Sudhir Kumar; Roy, Nandini; Sahu, Damodar; Thomas, Mariamma; Joshi, Dharendra Kumar; Sengupta, Utpal; Paranjape, Ramesh S; Bhalla, Aparajita; Prakash, Ajay (2008). Risk behaviour, sexually transmitted infections and HIV among long-distance truck drivers: a cross-sectional survey along national highways in India. *AIDS*, 22(Suppl 5), S81–S90.
5. National AIDS Council, Ministry of Health, Zambia, FHI/IMPACT, USAID, Report of Behavioural Surveillance Survey Round 1, Zambia on Long distance Truck Drivers 2000:1-34.
6. Bryan Angela D, Jeffrey D Fisher, T Joseph Benziger; Determinants of HIV risk among Indian truck drivers; *Social Science and Medicine* 2001; 53:1413-1426.
7. Manjunath J, Thappa D, Jaishankar T. Sexually Transmitted Disease and Sexual Lifestyle Of Long-Distance Lorry Drivers — A Clinical-Epidemiological Study In South India, *International Journal of STD AIDS*, 2002, 13; 612-617.
8. Chaturvedi S, Singh Z, Banerjee A, Khera A, Joshi RK, Dhruvjayoti D. Sexual Behaviour among Long Distance Truck Drivers. *Indian Journal of Community Medicine.* 2006-07;31(3):26-30.
9. Jindal AK, Mukherji S, Vaidya R, Goyal S. A study of the occupational Health problems of 'B' vehicle drivers: Final report of AFMRC Project No.: 3436/2005.
10. Korelitz JJ, Fernandez AA, Uyeda VJ, Spivey GH. Health habits and risk factors among Truck drivers visiting a health booth during a trucker trade show. *American Journal of Health Promotion* 1993; 8:117-23.
11. Bansal RK. Sexual behaviour and substance use pattern amongst Adolescent truck cleaners and risk of HIV/AIDS, *Indian Journal of Maternal and child Health*, 1992; 3(4): 108 – 10.
12. Bansal, RK. Truck drivers and risk of STDs including HIV. *Indian Journal of Community Medicine.* 1995; 20(1-4): 28-30.
13. Singh GB, Dhaliwal DS, Sekhon, Kaur K et al: Seroprevalence of HIV among truck drivers. *Indian Journal of Community Medicine.* 1999; XXIV(4):153-157.
14. Family Health International, Department for International Development, UK Govt. Behavioural Surveillance Survey in Healthy Highway Project, India. Summary Report, 2000.
15. Mishra R. STD and HIV/AIDS: A KAP Study among Truck Operators, *Health for the Millions*, 1998; 24(5); 11-3.
16. Singh YN, Malviya AN; Long Distance Truck Drivers in India: HIV infection and their possible role in disseminating HIV into rural areas. *Indian Journal of STD and AIDS*, 1994;5(2):137-8.
17. Sachar RK; Soni RK; Kaushik PV; Singh WP; Kumar V; Vijay Kumar. A study of the sexual behaviour of long distance truck drivers: implications for HIV transmission. *Indian Journal of Preventive & Social Medicine.* 1997 Jan-June; 28(1&2): 18-22.
18. Singh LP, Purohit N, Mishra N. Targeted Interventions in Rajasthan, India: How Informed are the Beneficiaries About Transmission of Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome? *Indian Journal of Community Medicine* 2007;32(2):115-9.
19. Bal Baishali, Ahmed SI, Mukherjee Rita, Chakraborty S, Niyogi SK, et al; HIV infection among Transport Workers operating through Siliguri-Guwahati National Highway, India, *Journal of the International Association of Physicians in AIDS Care (JIAPAC)* 2007;6(1):56-60.