Knowledge, Perceptions, Attitudes, and Practices of HIV/AIDS: A Comparative Study of Behavior Change in Commercial Sex Workers and Truck Drivers in the Dindigul and Coimbatore Districts of Tamil Nadu, India

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KNOWLEDGE/PERCEPTIONS, ATTITUDES, AND PRACTICES OF HIV/AIDS: A COMPARATIVE STUDY OF BEHAVIOR CHANGE IN COMMERCIAL SEX WORKERS AND TRUCK DRIVERS IN THE DINDIGUL AND COIMBATORE DISTRICTS OF TAMIL NADU, INDIA

by
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ABSTRACT

One of the growing epidemics in the world today is HIV/AIDS. The large population of India has created a country with the greatest number of HIV/AIDS cases in the world. However, there is hope for India as the infection rate at 0.4% has not yet reached epidemic proportions. In the southern most state of Tamil Nadu, the HIV infection rate at 2% is higher than that of the whole country.

This study focuses on truck drivers and rural-based commercial sex workers who either live in or pass through two districts of Tamil Nadu, Dindigul and Coimbatore. The knowledge/perceptions, attitudes, and practices of each group are used to determine where the truck drivers and commercial sex workers are in the behavior change process using the AIDS Risk Reduction Model (ARRM) as a framework since it focuses specifically on HIV/AIDS.

Using ARRM, it has been found that the truck drivers and commercial sex workers are both in the first stage of behavior change: recognition of the problem. The failure to perceive HIV as a personal risk has kept the truck drivers and commercial sex workers from moving to the second stage of commitment to behavior change. However, the study has also uncovered that both groups have also taken action to change their behavior, stage three, through condom use and STD treatment. This could be a product of the information that is provided without the groups actively seeking it.

This analysis can be used to determine what policies will be beneficial in reducing HIV incidence in these groups and in Tamil Nadu. Understanding where these two groups are in terms of behavior change and how they interact with each other will allow more effective and efficient programs to reduce HIV transmission and determine what messages are needed to make the most impact. When both partners recognize the problem, make a commitment to change, and communicate effectively with each other, there will be the highest reduction in high-risk behaviors.
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INTRODUCTION

The incidence of HIV/AIDS has been on the rise since the discovery of HIV as the cause of AIDS in 1984 [10]. With the explosive rise in HIV incidence in sub-Saharan Africa since this discovery, the countries in this area with growing numbers of HIV positive people have been targeted in the last decade through aggressive HIV/AIDS prevention and education programs. However, there has been a dramatic growth rather than a reduction in HIV incidence, leading to an epidemic in many African countries such as South Africa and Botswana. Recently, in East Asia and the Pacific, HIV/AIDS has been spreading through sex trade and illicit intravenous drug use [3].
BACKGROUND

In India, the HIV transmission rate is increasing and international, national, and local organizations are working to stop the spread of HIV/AIDS before it becomes an epidemic as it has in Africa [22]. Although India has a 0.4% HIV infection rate, similar to that of the United States, the actual number of people infected outnumbers that of any other country at 4 million cases [12]. The reason for this low percentage is that the population of the country has reached 1 billion at the last count. In the southern state of Tamil Nadu, the percentage is higher at 2% of the population, enough to start an epidemic by some standards. In the south where commercial sex generates about $8.7 billion, AIDS fits the standard profile of a sexually transmitted disease (STD), as there is a high infection rates among commercial sex workers. However, this is slowly becoming a family disease as the commercial sex workers' infect men, who in turn infect their wives or other sex partners. This is how HIV/AIDS is being bridged from an industry specific issue to a family one. The general population is no longer immune to the disease as their risk for infection is increasing as well [22].
SIGNIFICANCE

Although the percentage of HIV infected individuals in India is low compared to the sub-Saharan African countries, the actual number of HIV infected individuals greatly outnumbers that of the most highly infected African country. This growth in the number of HIV infections, if unstopped, would create problems in India similar to the ones we now see in Botswana, South Africa and other developing countries in Africa. One third of the people living in Botswana are infected with HIV, which has led to deterioration in essential government functions and development efforts. Hence, economic growth is stunted which in turns leads to greater exaggeration in poverty, deprivation, and social exclusion while threatening social, economic and political stability. This increasing HIV infection rate makes it harder to implement sustainable development programs and to maintain the current infrastructure. This is why it is necessary to stop the spread of HIV/AIDS in India before it becomes a generalized epidemic [9].

As HIV is spread through high-risk behaviors, most of the HIV infection was thought to be concentrated in populations such as urban sex workers, their clients and intravenous drug users. In the AIDS Epidemic Update: December 1998 published by UNAIDS, Joint United Nations Programme on HIV/AIDS, 2.1% of people living in rural areas were found to be infected with HIV as compared to 0.7% in the urban population in Tamil Nadu. This data was extrapolated from a survey of randomly selected households in Tamil Nadu. Since 73% of India's population lives in rural areas, this study suggests that around half a million people are already infected with HIV in Tamil Nadu alone [2]. Estimates in UNAIDS documents are based on the information that are available to the World Health Organization (WHO) and UNAIDS. Although this study was not cited and the methodology was not described, any estimates by UNAIDS and the methodology used to estimate HIV incidence, prevalence, and mortality, are put under review. These estimates are used to help governments and other organizations working with HIV/AIDS to gauge the status of HIV in their country and monitor HIV/AIDS prevention and education programs.
Commercial sex workers and their clients are important to successful HIV intervention programs. Commercial sex workers are at high risk for HIV infection and their clients can act as a bridge to spreading HIV to the general population [18]. Long-distance truck drivers have also been implicated in the spread of HIV in Africa [18]. Behavioral surveys and data on sexually transmitted infection rates suggest that truck drivers in India are also at high-risk for HIV infection. More than 75% of truck drivers have reported extra-marital sex, usually with commercial sex workers. These commercial sex workers are usually not brothel-based, poor and mobile. This makes them a harder population to educate about safer sex [42]. Women who do not practice high-risk behaviors are at high-risk for HIV infection. In one study with 400 women attending STD clinics, 93% were married and 91% never had sex anyone besides their husband, but all of the women were infected with STD and 13.6% tested positive for HIV [2].

Women living in rural areas are a fast growing HIV/AIDS risk subgroup in developing countries, such as India [6,29]. As the rate of infection is increasing in women, not only are there physical effects from becoming more susceptible to opportunistic infections, but also psychological and social effects. These effects can result in discrimination, stigma, cognitive changes, and an imbalance in social roles [29]. As a group, women are thought to have higher risk for acquiring and transmitting HIV than men [6]. Winch [1998] says that HIV/AIDS is more likely to occur in people who are discriminated against, are poor, and lack basic rights.

In the developing world, the majority of the poor are women in both rural and urban areas. Poverty is a driving force for many poor women to turn to commercial sex work to supplement income. Rural areas are generally found to have lower incidence rates than urban areas, however, in the state of Tamil Nadu, India, the prevalence of HIV was similar in both rural and urban areas. This high prevalence in rural areas is attributed to husbands who travel and bring the virus back to their wives [34].

Poor women in developing countries have little power to negotiate for their protection in sexual intercourse and are not able to effectively utilize the current strategies for HIV/AIDS.
prevention that include: decreasing the number of sex partners, using condoms regularly and receiving treatment of sexually transmitted diseases (STD) [20]. The current strategies are integrated in programs that use behavior models to create intervention programs, but many HIV/AIDS prevention programs do not utilize theoretical modeling [39]. This suggests the need for HIV/AIDS interventions targeted for specific populations based on knowledge/perceptions, attitudes, and behaviors of these populations using behavior theory as an underlying framework.
In the conceptual model above, there are several factors that affect the knowledge/perceptions, attitudes, and practices of commercial sex workers and truck drivers. Educational materials such as media and pamphlets are used to disseminate information about HIV transmission and prevention. The social and cultural environment can affect the use of HIV prevention practices such as condom use. Peers and norms also fall into the same category with the social environment, as it is not an aspect of the individual, but rather a part of the external influences to behavior change. Economic reasons can also prevent changes in practice of safe sex, as many commercial sex workers do not have the power to enforce condom use with their clients.

The knowledge/perceptions, attitudes, and practices of commercial sex workers and truck drivers are then determined through interviews, surveys or focus group discussions. These characteristics are then applied to behavior change theories to ascertain how to create interventions that will successfully produce behavior change to lower the chances of HIV infection. Behavior change theories will provide the level or stage of change the population or individual is in and therefore allow a program to be implemented that would address the needs and concerns of the target groups.
LITERATURE REVIEW

Research Questions

1. How do HIV/AIDS prevention knowledge/perceptions, attitudes and practices differ among commercial sex workers and truck drivers in the Dindigul and Coimbatore Districts of Tamil Nadu, India?

2. If they differ, how do or should these differences impact interventions?

In India, HIV/AIDS intervention programs have been targeted mostly to urban areas [34]. Here, the differences in the knowledge/perceptions, the attitudes towards and the practices to prevent HIV. Looking through the literature, many HIV/AIDS prevention studies targeting brothel-based female commercial sex workers have been found [4,31]. However, there are very few studies have been conducted on rural, non-brothel-based commercial sex workers. In the Dindigul and Coimbatore Districts, the commercial sex workers who participate in high-risk sexual behaviors with the truck drivers are rural, female sex workers that are not part of a brothel. As the main clients of truck drivers, the differences in the knowledge/perceptions, attitudes and practice between truck drivers and commercial sex workers in this area could reveal what is needed for the safer sex practices.

Rationale for Research Questions

The data available from the secondary sources consist of questions determining the knowledge/perceptions, attitudes, and practices of truck drivers and commercial sex workers. With a target population of truck drivers and commercial sex workers for HIV intervention, one of the implied, underlying assumptions is that these two populations are engaging in high-risk sexual behaviors with each other. If both the information presented to these two groups on HIV prevention and education differs and the levels of knowledge and perceptions of this information differ, then we need to ask whether the intervention is effective and/or efficient? Do the information, delivery, and level need to be different in order to create behavior change? Can the knowledge, attitudes, and practices differences be used to inform and create policies addressing...
HIV/AIDS at the state or national level? What barriers would there be to creating policies at such levels?

**Search Methods/Strategy**

MEDLINE, PubMed, and AIDSline from 1980 to October 2001 was used to search for all literature with subject headings related to HIV/AIDS, prostitution, sex workers, truck drivers, or health behavior. 1980 was chosen as the beginning year since HIV was discovered in the early 1980s. This timeframe allows all literature on HIV/AIDS to be searched. The keywords used included: HIV, prostitution, sex workers, knowledge, attitudes, practice, truck drivers, AIDS, prevention, Tamil Nadu, India, or behavior change.

The citations were reviewed after the searches and letters and papers not published in English were excluded. Review articles were not automatically excluded as they provided a source of information from their list of references. However, their use as source material for the research project was limited to use for literature search. The literature that was included consisted of quantitative, qualitative, and technical reports, as well as prevention, intervention, and epidemiological studies. Studies eliminated included research not focused on the area of interest of HIV/AIDS or other irrelevant topics. A special search was conducted using material from a literature search on a previous project on HIV/AIDS in the Spring of 2001 to supplement the information.

**Description of Literature**

Of the 70 articles identified, 31 met the inclusion/exclusion criteria of the research. Inclusion criteria included general models for health behavior and behavior change in truck drivers and commercial sex workers, focus on countries where both truck drivers and commercial sex workers belonged to the high-risk population for HIV infection, some aspect of knowledge level, attitudes, and practices in regards to HIV prevention, and HIV interventions targeted to these two populations. Commercial sex workers included only studies on female sex workers and truck drivers on male truck drivers as the research will focus on these two specific populations.
Looking through the information gathered, the articles were divided into four categories: health behavior models, truck drivers, commercial sex workers, and intervention strategies for truck drivers or commercial sex workers.

**Theoretical Models of Behavior Change**

There are four commonly cited behavior change theories found in HIV/AIDS prevention literature: the Health Belief Model; AIDS Risk Reduction Model; Stages of Change; and Theory of Reasoned Action. These four models provide information as to how individual behavior change occurs [5]. The important concepts in the Health Belief Model (HBM) include the perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action and self-efficacy/conviction that one can execute the desired behavior. The perception of the individual of him or herself and his or her ability to change behavior is the focus of this model [17]. The AIDS Risk Reduction Model (ARRM), created by Catania et al. [1990], provides a framework to explain and predict behavior change associated with HIV/AIDS. There are three stages in this model: recognizing one's behavior as high-risk, making commitment to reduce high-risk behavior, and taking action.

There are six steps associated with Stages of Change Theory (SCT): precontemplation, contemplation, preparation, action, maintenance and termination [17]. The last behavior change theory that is addressed is the Theory of Reasoned Action (TRA). The concepts guiding TRA are behavioral intention, attitude, subjective norm and perceived behavioral control. The subjective norm addresses whether others approve of the behavior of not and the how that affects the individual's acceptance of the behavior [17].

Aggleton [1994] and Wardrop [1993] present a framework for how social and behavior research reveals the risk factors in HIV/AIDS transmission and how to use these findings to create effective programs for behavior change. Both authors use components from different models of behavior theory as they feel that the four theories are more similar than different. Vanlandingham et al. [1995] compares the health belief model and the theory of reasoned action.
model and feels that the theory of reasoned action more accurately fits the population of Thai males he is studying. The four variables in the theory of reasoned action fits the northern Thai male population since the behavioral attitude and the group norm seem to be the most important factors in determining high-risk sexual behavior and condom use.

Macintyre et al. [2001] and Payn et al. [1997] look at the problem of how to create behavior change and come up with specific reasons why change is created and what the most effective way to create change is. The studies focus on individual behavior change models and looks at the impact of high levels of mortality in African countries due to AIDS. As Macintyre and Payn point out, personal experience plays a large role in behavior change.

Different populations fit into different behavior change theories according to their stages of change. Knowledge, attitudes and practice in regards to HIV/AIDS are used to identify where the populations in questions are in terms of changing behavior and what interventions need to address or help create the next step to sustained behavior change [1,17,25,39].

**Truck Drivers**

Seven articles addressed the knowledge, attitudes and practice of truck drivers. A high percentage of truck drivers have the knowledge of how to prevent HIV/AIDS transmission, but their attitudes on their susceptibility reflect the practice of not using condoms [7,30,33]. Laukamm-Josten et al. [2000] reports an increase in condom use after the initial implementation of a peer education program in Tanzania for HIV prevention, with a decrease in condom use during the maintenance phase. A peer education program in Malawi had similar results with an increase in condom use in the initial stages [37].

Applying health behavior theory, we can see the different stages of the truck driving population and what the interventions need to address depending on where the truck drivers are in their behavior change and what theory is most appropriately fits the population. In most of the studies addressing truck drivers, truck drivers wanted more information about the proper use of condom, negotiating condom use, HIV symptoms and what can be done once one becomes
infected [16,41]. Although general knowledge level was high, more specific knowledge was demanded as to how to implement behavior change and negotiate safe sex practices with partners.

**Commercial Sex Workers**

Six articles addressed the knowledge level, attitude towards, and prevention practice of HIV/AIDS. The HIV knowledge level of commercial sex workers is relatively high in developing countries such as Cambodia and the Philippines [24,31]. Ford [2000] and the UNAIDS study on female sex worker HIV prevention projects [2000] report an increase in condom use with an increase in knowledge of HIV and AIDS in Indonesia, Papua New Guinea, India and Bangladesh. However, this high level of knowledge does not always translate to increased practice in preventive strategies like condom use. There are also low changes in attitude even after an increased awareness of susceptibility to HIV infection because of high-risk behavior [24,26].

Most commercial sex workers have a high knowledge of general information about HIV transmission and prevention. However, many do not think that they personally are at risk for contracting the virus even though they understand that other commercial sex workers may be highly susceptible to HIV infection. Although knowledge levels of HIV may be high, preventive practices such as condom use are not widely conformed to [13,31].

**Interventions**

There are a wide variety of HIV/AIDS interventions that are cited in the literature to reduce the HIV transmission rate. Waldo et al. [2000] believes in a multi level approach that includes individual, community and societal interventions. There is no single strategy that is believed to be superior over another. Dole et al. [1998] also prescribes to using models that work in specific risk situations. Focusing on rural area in Thailand, the characteristics specific to these areas are utilized to create a community-focused intervention to reduce the incidence of HIV in populations with higher HIV transmission rates.

The successes of Senegal, Thailand and Uganda to reduce the HIV transmission rates can be used to determine what factors created such a change and why it worked [21]. One of the
interventions Thailand used was the 100% Condom Promotion Programme. Although this was targeted towards all of the sexually active population in Thailand, the focus on brothel-based sex work produced a result of almost 90% of commercial sex workers using condoms consistently in 1996. Although the commercial sex population that will be used in this study is not brothel or urban based, the framework of addressing the needs of the high-risk populations to reduce HIV infection are similar in that a specific intervention needs to be created for the population being studied.

The current strategies of lowering the number of sexual partners, using condoms and treating for STD are not enough to protect commercial sex workers, especially since the status of women in developing countries is that of lack of power to negotiate for their well-being which is amplified by poverty [20,29,33]. New approaches are needed to provide a more effective prevention strategy for women in rural areas that cannot escape from HIV/AIDS.

In trying to create better conditions for women, targeting women is not necessarily the best way to protect women in a culture where the men have the decision making power. Heise [1995] and Ulin [1992] promote a community-oriented approach to HIV/AIDS intervention to allow women more control over their reproductive and health status. Educating the men and creating an awareness of the females’ health for the males may be more effective than trying to empower women.
PROPOSED STUDY DESIGN

The study design will be a comparative, qualitative analysis between two groups: commercial sex workers and truck drivers in Coimbatore and Dindigul Districts of Tamil Nadu. The general knowledge/perception, attitudes, and practices will be assessed and compared between the two target groups. The data sources do not provide for a longitudinal look at these two groups or a statistical analysis of the characteristics within and between groups. The characteristics will be determined qualitatively by compiling information from each group and determining similar characteristics within each respondent group. These characteristics will then be compared across the groups and the differences will motivate an analysis of the methods used to deliver information for knowledge/perceptions, attitudes and behavior change. At most, general trends can be determined within each group by using the literature to provide a baseline for previous knowledge/perceptions, attitudes and behavior of these two groups within India.

There are two methods with which the data on knowledge/perceptions, attitudes, and practices were collected. Focus group discussions were used for the truck drivers and individual interviews were used with the commercial sex workers. Focus group discussions in general are used to assess the perceptions, attitudes, and experiences of the group [27]. The in-depth interviews with the commercial sex workers were knowledge, attitudes, and practice (KAP) surveys designed to assess these areas concerning HIV/AIDS in the selected individuals. This information will then be used to explain the behaviors regarding HIV/AIDS of both groups using the AIDS Risk Reduction Model as the theoretical framework for behavior change.
DESCRIPTION OF DATA SOURCES

A qualitative analysis will be performed using secondary data from Mother Saradadevi Social Service Society (MSSSS). This data was collected over the period of one month, July 2001, in Oddanchatram, Tamil Nadu as part of an external program evaluation of MSSSS. MSSSS is a non-governmental organization (NGO) working in the area of HIV/AIDS in the Dindigul and Coimbatore districts. The surveys for the commercial sex workers and the focus group discussions for the truck drivers were originally conducted for a program evaluation for the organization [Appendix A].

The data sources include two groups: truck drivers and commercial sex workers working in the Dindigul and Coimbatore Districts of Tamil Nadu, India. The commercial sex workers were interviewed face-to-face using one of two staff members as a translator. Ten commercial sex workers were interviewed from two different areas, Palani and Dindigul. All commercial sex workers were female, ages 25-42 from mostly the scheduled or backwards castes. The health status of these women differs from the health status of women of similar age and caste in Tamil Nadu due to the higher risk of sexually transmitted diseases and HIV. There are few men in the commercial sex business and those known to be commercial sex workers declined to be interviewed. The translators would ask the survey questions and report the answers to myself, in English. All responses were then recorded in English.

Four focus group discussions were conducted with all male truck drivers, ages 15-46. The first group had 12 participants, the second 13, the third 14, and the fourth 11. Again translators were used to ask questions, conduct and record the discussion. The original record of the focus group discussions were written in Tamil and then later translated into English with myself as the scribe. The health status of truck drivers differs from the rest of the population as truck drivers are also at higher risk for sexually transmitted diseases and vehicle accidents.

The data that was collected for the commercial sex workers and truck drivers addressed the knowledge/perceptions, attitudes, and practices of the respondent groups. Their knowledge
level and perceptions of STD/HIV/AIDS and information on how the STD/HIV/AIDS information was received was determined. Their attitudes of STD/HIV/AIDS were determined through questions about their perceived risk to these threats and how they protected themselves from these risks. The practices of the two respondent groups was measured by the level and form of protection to STD/HIV/AIDS. Measurement of condom use was determined behavior change and motivation as well as high risk sexual behavior.
METHOD: SECONDARY DATA ANALYSIS

The data needed to do the qualitative analysis of the knowledge/perceptions, attitudes, and practices of commercial sex workers and truck drivers are readily available. This analysis will be performed using secondary data in the form of surveys and focus group discussions from MSSSSS using information from truck drivers and commercial sex workers.

The data collected for the commercial sex workers and truck drivers addressed the knowledge/perceptions, attitudes, and practices of the respondent groups. Their knowledge level and perceptions of STD/HIV/AIDS and information on how the STD/HIV/AIDS information was received was ascertained. Their attitudes toward STD/HIV/AIDS are determined through questions about their perceived risk of these threats and how they protected themselves from these risks. The protective health behavior of the two respondent groups was measured by the level of and form of protection against STD/HIV/AIDS.

This information will then be placed in the context of the AIDS Risk Reduction Model (ARRM) to analyze where the commercial sex workers and truck drivers are in terms of behavior change [8]. In looking at the four different behavior change models discussed above, the ARRM was chosen because of it was specifically looks at the behaviors in the sexual transmission of AIDS, the problem that is being addressed in this paper. ARRM also incorporates the ideas of several other behavior change models such as the Health Belief Model.

These data were collected as part of an external program evaluation of MSSSSS. However, the current study will differ from the evaluation report in that it will be a more in-depth qualitative analysis of the knowledge/perceptions, attitudes, and practices of commercial sex workers and truck drivers. The evaluation report consisted only of reported data from the respondents with no analysis of the information and recommendations based on the respondents direct recommendations.

The advantages to using this data set are that it is readily available and collected firsthand. The actual surveys and the focus group discussion questions were developed firsthand.
with help from the project coordinator. Since the data are very familiar, misinterpretations or misreading of the responses of the interviewees are less likely to happen. However, the disadvantages to using this data set are that it may be too familiar and the small size of the sample for each respondent group (n=10 for commercial sex workers and n=11-14 for truck drivers.)
RESULTS

A general summary and comparison of the knowledge/perceptions, attitudes, and practices between commercial sex workers and truck drivers can be found in Table 1.

Truck Drivers

Perceptions

Several areas were tested in regards to the perceptions of HIV/AIDS among truck drivers. The questions in four the focus group discussions were directed towards determining the perception of HIV/AIDS, STD, prevention methods, and myths and misconceptions [Table 1].

Five questions were directed towards the perceptions of HIV and AIDS and the methods of transmission. For these four focus groups, AIDS brought about feelings of fear as there was no cure for AIDS, which meant that it lead only to death. The information about HIV and AIDS was received from different sources: school, books, magazines, friends, television, and HIV/AIDS education programs. The truck drivers were able to name the major HIV transmission methods: needles, razor blades, sexual contact, and blood transfusions. The consequences of AIDS were felt to be death and distress to the family. When asked about the relationship between STD and AIDS, some truck drivers said that STD was curable while AIDS was not. There were some who also believed that AIDS was the last stage of STD. The men believed that STD was started in and spread only by females. The HIV prevention methods were: condom use, no sexual contact, self-control, avoid sex workers and multiple sex partners, go to the doctor, get the blood tested, use new needles, and new razor blades.

Eight questions were used to determine the perception of STD. As mentioned above, most truck drivers believed that STD was curable. However, some believed that it could lead to death, that it was a female disease, it was passed through sexual contact with multiple partners, and that it is a disease only obtained through sexual contact. The signs and symptoms of STD were explained as heat, swelling, pus, inguinal swelling, ulcers, lean body, bubbles on the penis, urine infection, body pain, fever, throat swelling, and penis sores. To prevent an STD infection,
truck drivers believed that one should go to the doctor, avoid multiple sex partners, avoid sex and commercial sex workers, condom use, and self-control. These were the same prevention methods that were elaborated for avoid HIV. Both the husband and wife needed to receive STD treatment if one was affected and that STD treatment should be completed although the symptoms may disappear. Many also believe that the husband should not have sex with his wife until treatment is completed. Talk about STD and AIDS with friends and colleagues varied with the four focus groups. One group said that they often talked about it especially when they saw someone who looked sick and needed to be taken to the doctor. The other three groups occasionally talked about it when they saw sex workers, but usually talk about STD and AIDS was rare.

Three questions were used to look at the perception of myths and misconceptions among truck drivers. Most did not believe that sex was used to reduce body heat. However others believed that sex did reduce heat body heat with all the heat going to the female. This heat then caused problems in females such as stomach problems and poor hygiene. Taking a daily bath, eating cooling foods, and resting were all believed to help with releasing body heat. Siddha medicines (traditional Indian herbal medicines), condoms, getting an injection, and cleaning the penis using an antiseptic wash and clean water were all different ways to avoid STD immediately after sex. Other methods to cure STD other than going to a doctor were self-medication, using a friend's prescription to get medicines, siddha medicines, and antibiotic tablets.

**Attitudes**

Several areas were tested in order to determine the attitudes of the truck drivers. The questions were directed towards determining the risk perception of STD and HIV, and the perception of the STD/HIV/AIDS projects [Table 1].

Four questions were used to look at the risk perception of STD and HIV. The serious problems that the truck drivers felt that they faced were different for each group. One group felt that they didn't have any problems, the second felt that accidents was the major problem, and the third and fourth groups felt there were a multitude of problems. The problems elaborated by the
last two groups included sex workers, highways, crossing roads, roadsides, police, fines, and tollgates. Two groups felt that there was no relationship between STD/AIDS and the problems cited above. Others groups revealed that they had known truck drivers who had died from AIDS.

Although most believed that it was more important to seek treatment for STD than to reach a destination for work, there were some who believed that reaching a destination was more important than seeking STD treatment. For a person who has AIDS, people who were believed to be affected were the family, people who needed blood transfusions, people who received injections, and society in general.

Sixteen questions were used to determine the perception of STD/HIV/AIDS programs and practices. All appreciated the education and awareness provided by the programs with one-to-one contact found to be very useful. STD/HIV/AIDS prevention programs are looked upon as useful and important. However, with the target of these programs on truck drivers as a high-risk group, the truck drivers felt that the public had a bad opinion of them and want these programs to change the message that truck drivers do not spread STD/HIV and that truck drivers are good people.

The prevention methods were widely known through television and books. The correct methods of condom use were learned in family planning services and awareness programs. Although most revealed no problems in using condoms, some reported that condoms reduced pleasure. The places were condoms could be found were: medical shops, petty shops, petrol bunks, sex workers, and social workers. Some shops provided free condoms, while others were priced. Some outlets provide quality condoms while others provided poor quality condoms, but most felt that they were able to find condoms if they needed one. However, some felt that buying a condom would make the storekeepers have a bad opinion of the truck driver in that the truck driver only went to sex workers. Although some thought condoms from government hospitals were of high quality, most thought that these condoms were of poor quality while priced condoms were of high quality.
To seek treatment for STD, truck drivers revealed that most people go to family doctors, doctors, government hospital doctors, STD doctors, or take siddha medicine. STD services provided by STD/HIV/AIDS prevention programs are looked upon as good with quality priced medicine. Although most want free medicine to treat STD since most families are poor, some believe that free medicine is of lower quality than priced medicine.

**Practices**

The practices were determined through the use of program services for STD and treatment for STD. Regarding these areas, there seemed to be high use of program services and seeking STD treatment [Table 1]. There were not many questions that addressed the practices of the truck drivers. Within focus group discussions, it may be difficult for the individual to talk about his/her own practices as a group discussion may not ensure privacy.

**Commercial Sex Workers**

**Knowledge**

Several areas were tested in regards to the knowledge of HIV/AIDS among commercial sex workers. The questions in the ten individual surveys were directed toward determining the knowledge level of HIV/AIDS, transmission methods, and HIV prevention methods.

Five questions were directed towards the knowledge level of HIV and AIDS and the methods of transmission. Five respondents said that they talked to their partners about STD/HIV/AIDS while seven talked to their friends about the same topic. Nine respondents knew what AIDS was and had heard about it from: clients, AIDS education programs, and neighbors. The general knowledge of the commercial sex workers can be found in Table 1.

Regarding transmission of HIV, the transmission methods were proposed with these results as well as the results for questions on HIV prevention [Table 2]. The transmission methods were mother to unborn child, toilets, sexual intercourse, shaking hands, blood transfusion, injections, mosquitoes, razor blades, sharing utensils, and a man who looked healthy. A majority of the commercial sex workers were able to correctly identify which of these were able to
transmit HIV. In response to questions of HIV prevention, a majority of the commercial sex workers believed that fewer sex partners, condom use, and clinical treatment for STD could help prevent from getting HIV.

*Attitudes*

Several areas were tested in order to determine the attitudes of the commercial sex workers. The questions were directed towards determining the risk perception of HIV and the importance of HIV protection methods [Table 1].

Six questions addressed the risk perception of the commercial sex workers. A majority of the respondents believed that they themselves, their clients, and commercial sex workers in general were unlikely to become infected with HIV [Table 3]. The most serious problems faced by commercial sex workers in their work were sexual harassment, bad relationships with neighbors, family neglect, police, drunkards, and stomach pains. Five respondents saw no relation between the serious problems faced in commercial sex work and STD, HIV, and/or AIDS while four respondents said that the STD problems that occur could lead to AIDS. The respondents felt that both males and females, persons with multiple sex partners, and clients were affected when someone had AIDS.

Two questions were used to look at the importance of protecting oneself from HIV and AIDS. Nine respondents said that they were doing something to protect themselves from AIDS with eight using condoms as that protection method.

*Practices*

The practices of the commercial sex workers were determined by questions focused on commercial sex work, condom use, use of STD/HIV/AIDS program services, and STD treatment.

Four questions were used to look at commercial sex work. The average number of years in commercial sex work was 5.4 years for the ten respondents with a median of 5 years. Only three respondents had other sources of income from agricultural labor. Two respondents found clients through a broker or a brothel house, while three respondents found customers around their
residence or agricultural work place and five respondents sought clients from bus stands, highways, and truck stops. Hence, the occupation of the respondents’ customers were landowners, other agricultural laborers, officers, businessmen, truck drivers, thieves, and bus drivers. Nine respondents had sex with 2-4 clients per day with a range from 6-21 clients per week while one respondent has 12 clients per day with a total of 36 clients in a week.

Seven questions addressed condom use of the commercial sex workers [Table 4]. Most respondents had used condoms before and knew how to use them correctly. Although more that half used condoms with all clients, most did not use condoms with their permanent partner. The four respondents who did not use condoms regularly with clients said that not all clients were willing to use condoms or that they themselves were not interested. The response to problems with condoms can be found in Table 4. A majority of the commercial sex workers did not report many problems with condoms. The biggest problem seemed to be a customer's refusal to use condoms with half the respondents having experienced this event. Nine respondents obtained most of their condom from a peer health educator or non-government organizational staff with supplements from customers or the government hospital.

Four questions were used to determine the usefulness of HIV and AIDS programs and their services. The respondents met program staff anywhere from 2-8 times in a month. All respondents felt they understood the message and education provided by the program staff. The respondents met the program staff out in field, in meetings, or in a clinic. Eight respondents were satisfied with meeting places while two respondents would prefer to meet in the organization’s office or their home.

Five questions were used to look at STD treatment. Six respondents completed STD treatment. For the last episode of STD, the respondents received treatment from government hospitals, non-governmental organizations, counseling and treatment centers, private practitioners, and self-medication. One respondent received regular treatment for STD, two respondents had recently had STD treatment from the time of the interview, six respondents had
treatment within the last month of the interview, one respondent had received her last treatment 3 months before the interview, and one respondent had never had an episode of STD.
DISCUSSION OF RESULTS

Using the AIDS Risk Reduction Model (ARRM) as a framework to look at the knowledge/perceptions, attitudes, and practices to explain the behavior change to reduce the risk of exposure to HIV, a comparison will be made between truck drivers and commercial sex workers to determine if there are differences between the two groups [8]. There are many behavior change models found in literature that could be used to analyze this information, however the ARRM has been chosen since this model had been created specifically to look at the behaviors in the sexual transmission of HIV/AIDS. ARRM incorporates components from other behavior change theories such as the Health Belief Model (HBM) [8]. There are three stages in ARRM: 1) recognition of one’s behavior as high risk, 2) making commitment to reduce high-risk behaviors, and 3) taking action to reduce high-risk behaviors. Movement from one stage to the next is thought to depend on reaching the goals of the previous stage, however these stages are reversible and some may not follow the stages as a motivated individual may create behavior changes in his/her partner although the partner may not believe that he/she has a problem [8].

The first stage of ARRM is recognizing that there is a problem using three factors that influence this recognition: knowledge of HIV transmission methods, belief that one is susceptible, and belief that AIDS is undesirable. From the data we know that the commercial sex workers know the methods of sexual activities that transmit AIDS. Both commercial sex workers and truck drivers believe that AIDS is undesirable. However, these groups do not believe that they are personally susceptible to HIV. Perceived susceptibility, part of the HBM, is related to high-risk behaviors in that these behaviors are not likely to change when the individual does not feel that he/she can contract HIV. Social networks and norms influence the individual by disapproving high-risk behaviors and approving safe alternatives. From the focus group discussions, we can see that the high-risk behaviors are disapproved of. However, use of safer alternatives also created stigma as truck drivers felt that they were looked upon negatively when buying condoms from
shops. Here social norms can also prevent the reduction of high-risk behaviors by social stigmatization of those who are trying to practice safer alternatives.

In stage two, the individual makes a commitment change his/her behavior. This decision is complex as it involves more than one action and also occurs across a diversity of social contexts. The individual will compare the perceived psychological and social costs and benefits in order to make a decision about commitment. These costs and benefits reflect three areas: enjoyment of sex, actual success in reducing risk of HIV, and ability to perform the actions to reduce risk of HIV transmission. In regards to enjoyment of sex, some truck drivers believed that use of condoms reduced sexual pleasure. Social networks and norms influence the costs and benefits by fostering conditions that reinforce the belief that change will give high benefits with low costs. Self-efficacy, belief in one's own abilities, is needed for change from high to low-risk behaviors and can be influenced by observing other similar people to the individual successfully change their behavior. The perceived costs and benefits of the truck drivers and commercial sex workers were not determined through the interviews and focus group discussions and hence the commitment to changing behavior could not be established. With completion of the first stage needed for movement to stage two, the truck drivers and commercial sex workers have not moved to making a commitment to changing their behavior.

In the third stage, action will be taken to make the behavior change. This may be the most difficult of all stages to accomplish. There are three phases in this stage: looking for information, finding solutions, and carrying out the solutions. These three phases can occur through self-help, informal help, and/or professional help and do not necessarily follow each other, but may happen concurrently or some phases may be skipped. Although the truck drivers and commercial sex workers are actively seeking out information, solutions, and ways to carry out solutions to behavior change in regards to HIV, they are actively provided with all this information. The HIV/AIDS prevention and education programs provide the information, solutions, and ways to carry out the solution.
There are internal and external motivators that influence movement from one stage to another. The fear that was associated with AIDS from the focus group discussions with the truck drivers showed that there was distress associated with AIDS. This distress is a primary internal motivator that judges the severity of AIDS and the need for change. Moderate levels of fear motivates while high levels can immobilize and produce apathy instead of change. External motivators such as public health messages as described by the truck drivers and commercial sex workers can also influence behavior change by reminder of one's susceptibility.

From the information above, we can see that the majority of both the truck drivers and commercial sex workers have not reached the first stage in recognizing their behavior as high risk since they do not personally believe that are susceptible to contracting HIV. However, it is interesting to note that many have taken action to reduce their risk of contracting HIV. In the interviews with the commercial sex workers, we can see that many claim condom use as a protective measure from AIDS. Both the truck drivers and commercial sex workers also obtain treatment for STD. We see this finding regardless of the behavior change model used. In the Stages of Change (SOC) model there are five stage: precontemplation, contemplation, preparation for action, action, and maintenance [5]. Since both the truck drivers and commercial sex workers do not recognize the problem as a problem for the individual, we would tend to think that they are still in the precontemplation stage. However, they are taking action by seeking STD treatment or condom use. As was discussed above, the reason for this finding may be that the stage three phases the information, solutions, and ways to carry out the solutions are all provided even though the commercial sex workers and truck drivers are not seeking this information out. The consequences of this may be that the stage three action may have been taken to reduce high-risk behavior even though these groups have not moved through the first and second stages [8].
LIMITATIONS

Deciding on which prevention programs to look at in India could lead to a bias in discovering what problems are not addressed (depending on region, religion, etc.) The lack of resources limited the collected data to a small, probably non-representative sample of the population.

There are several limitations of this study: the implications of power between the interviewees and the interviewers, language barriers, small non-random sample of the two populations, and lack of availability of knowledge, attitudes, and practices information on commercial sex workers and truck drivers. As the interviewers included members of the staff and myself, a foreigner, we were a position of power to be judgmental and influence the truthfulness of the respondents. Respondents may know what the interviewer is looking for and give the “correct” answer instead of what they actually practice or believe.

The language barrier restricts the type of questions that can be asked. The questions that were used in the surveys were limited to mostly close-ended questions to restrict the possibility of misinterpretations of language and to make the interviewing process easier for the interviewees, interviewer and translators. The dependence on the staff limits the type of research that can be carried out and the questions that can be asked.

Using a small, non-random sample of commercial sex workers and truck drivers limits the ability to generalize the findings to commercial sex workers and truck divers in India and in general. There is a limited availability of knowledge/perceptions, attitudes, and practices of commercial sex workers and truck drivers as this type of information is usually collected and used for programs and not generally published.

The limitations in using the ARRM to look at the commercial sex workers and truck drivers in Tamil Nadu are the model's focus on the individual and the data used to create the model. Although ARRM does address some external social factors, these individuals also come into contact with each other and structural and environmental factors. ARRM used data based on
studies of gay men, unmarried heterosexuals, adolescent females, and people who attended antibody testing studies. These populations have very different characteristics than the commercial sex workers and truck driver populations that are being used in this analysis.

The two different methods used for this analysis: focus group discussions and the individual interviews, addressed different areas allowing a comparison between the two groups more difficult. For further studies, it may be more pertinent to do case studies of commercial sex workers by collecting life stories to put sex work into context.
CONCLUSIONS

Using the ARRM to look at where the commercial sex workers and truck drivers are in regards to behavior change, we can see that they both in the first stage of recognizing the problem. Although AIDS is perceived to be undesirable and there is knowledge of HIV transmission methods, the two groups are in the first stage for the low, individual risk perception of contracting HIV. However, both groups have taken action to behavior change by using condoms and receiving treatment for STD. This could be a result of the positive attitudes of both groups toward the HIV/AIDS prevention and education programs.

An analysis of the knowledge/perceptions, attitudes, and practices of commercial sex workers and truck drivers can be used to implement policies for reduction in HIV infections in India. Working under the assumption that the truck drivers are clients of the commercial sex workers, it may be more effective to target prevention programs and integrate the intervention for both of these groups instead of creating two separate strategies to address the same problem in these populations.

It is postulated by ARRM that the highest reduction in high-risk behaviors will happen when both partners, here commercial sex workers and truck drivers, recognize their sexual behaviors as a problem, make a commitment to behavior change, and have good communication skills. Once these three criteria are met for both groups, then we will see a reduction in the incidence of HIV not only within these groups, but within the population as well.

ARRM provides a framework to identify where public health messages have the greatest impact. Messages of behaviors that lead to HIV transmission influence the first stage. Information on health utility and enjoyment aspects of low-risk behaviors influences the second stage. Information on how to achieve these changes affects stage three. Depending on where the target groups are, the messages that will have the most impact should be used to foster movement to the next stage. Since both the truck drivers and commercial sex workers are in the first stage, of ARRM, messages on behaviors that transmit HIV that will influence risk perception are the most
important for this population. Failing to identify correctly the stage where an individual is in this process of behavior change will waste resources for interventions and increase rates of dropout [8].
REFERENCES


Table 1. Summary and comparison of the knowledge/perceptions, attitudes, and practices of commercial sex workers and truck drivers.

<table>
<thead>
<tr>
<th>KNOWLEDGE/PERCEPTIONS*</th>
<th>TRUCK DRIVERS</th>
<th>COMMERCIAL SEX WORKERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV/AIDS</td>
<td>Negative</td>
<td>High</td>
</tr>
<tr>
<td>HIV/AIDS Transmission Methods</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>HIV/AIDS Prevention Methods</td>
<td>Positive</td>
<td>High</td>
</tr>
<tr>
<td>STD</td>
<td>Negative</td>
<td></td>
</tr>
<tr>
<td>Myths and Misconceptions</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>ATTITUDES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk Perception</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Importance of Protection Methods</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Perception of HIV/AIDS Projects</td>
<td>Positive</td>
<td></td>
</tr>
<tr>
<td>PRACTICES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of Program Services</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>STD Treatment</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Commercial Sex Work</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Condom Use</td>
<td>High</td>
<td></td>
</tr>
</tbody>
</table>

* Knowledge levels are specific to commercial sex workers while perceptions are specific to truck drivers.
Table 2. Knowledge level of HIV transmission and prevention methods in commercial sex workers.

<table>
<thead>
<tr>
<th>TRANSMISSION METHODS</th>
<th>YES</th>
<th>NO</th>
<th>DON'T KNOW</th>
<th>NO RESPONSE</th>
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</thead>
<tbody>
<tr>
<td>Mother to Unborn Child</td>
<td>7</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Toilets</td>
<td>2</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sexual Intercourse</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shaking Hands</td>
<td>8</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blood Transfusion</td>
<td>8</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Injections</td>
<td>7</td>
<td>2</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Mosquitoes</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Razor Blades</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Sharing Utensils</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>From Man Who Looks Healthy</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PREVENTION METHODS</th>
<th>YES</th>
<th>NO</th>
<th>DON'T KNOW</th>
<th>NO RESPONSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fewer Sex Partners</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Using Condoms</td>
<td>7</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinical Treatment for STD</td>
<td>6</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Methods</td>
<td>2</td>
<td>7</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
Table 3. HIV risk perceptions of commercial sex workers measured by the likelihood of getting HIV.

<table>
<thead>
<tr>
<th>RISK PERCEPTION</th>
<th>VERY LIKELY</th>
<th>LIKELY</th>
<th>UNLIKELY</th>
<th>VERY UNLIKELY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondents</td>
<td></td>
<td></td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Clients</td>
<td></td>
<td></td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Commercial Sex Workers in General</td>
<td>2</td>
<td>7</td>
<td>1</td>
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</table>
Table 4. Condom use and problems with condom use encountered by commercial sex workers.

<table>
<thead>
<tr>
<th>CONDOM USE</th>
<th>YES</th>
<th>NO</th>
<th>NO RESPONSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Had Ever Used</td>
<td>9</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Demonstrate Correct Use</td>
<td>8</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Used with All Clients</td>
<td>6</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Used with Permanent Partner</td>
<td>3</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td><strong>PROBLEMS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refused to Use</td>
<td>8</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Had Customers Refuse</td>
<td>5</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Used with Regular Customers</td>
<td>9</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Had Any Problems</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Had a Condom When Wanted</td>
<td>6</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Had Condoms Break</td>
<td>2</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Wasted Time</td>
<td>3</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Expensive</td>
<td>1</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Too Small</td>
<td>2</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Helped Avoid AIDS</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Used More than Once</td>
<td>2</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>More Lubrication Needed</td>
<td>7</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Reduced Pleasure</td>
<td>2</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Used Two Condoms at Once</td>
<td>1</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX A
TRUCK DRIVERS: Focus Group Discussion

Investigator:

I. Background
   1.1 Tell us your age
   1.2 Tell us your route of travel
   1.3 Tell us your family background:
      - Whether you are married
      - In which village/town you and your family live
   1.4 We would like to know how long you are away from your family when you go for your trips.

Note: these questions should be put to each of the participants.

II. Knowledge on HIV/AIDS

We are here to talk about HIV/AIDS and how best we could join to prevent the disease.

2.1 When you hear the word AIDS, what comes to mind?
   - How did you come to know about this?
   - How do you see the disease as?

   Probe

2.2 Let us talk about how AIDS is transmitted
   - What are the different ways through which one gets AIDS?
   - Can you tell us the different ways one could get AIDS through sex?

   Probe

2.3 What could be the consequences of AIDS?

   Probe

2.4 What do you think is the relationship between AIDS and STD?
   - Suppose a person is suffering from STD, how do you think he will get HIV/AIDS?

   Probe
- People say that the last stage of STD is AIDS, what would you say on this?

2.5 How do you think we can prevent ourselves from getting HIV/AIDS?

- We would like to know from you as to what are the different safe sex methods/practices for preventing AIDS.

III. Knowledge on STD

3.1 When you hear STD what comes to mind?

3.2 Can you tell us about the signs and symptoms of STD?

3.3 How does one get STD?

3.4 How do you think we could prevent ourselves from getting STD?

3.5 What do you think a person should do if he has STD?

Probe

3.6 We would like to know your feelings on treatment for the wife if the husband is suffering from STD.

Probe

3.7 Suppose a person is having STD and is taking treatment - if the signs and symptoms of STD disappear before completing the tablets, what should he do?

Probe

3.8 When you get together with colleagues or friends in the dhaba, how often does the topic of STD/AIDS come up in conversation and what is it that you talk about?

IV. Risk perception on STD/HIV

4.1 What are the serious problems you face because of your profession?

4.2 How do you see STD/AIDS in relation to the most serious problem you cited?

4.3 Do you think that seeking immediate treatment for STD is important or reaching a destination is more important?
4.4 If a person gets AIDS, who all do you think are affected because of the disease?

V. Myths and misconceptions

5.1 We would like to know from you on body heat and its relationship with sex.
- How sex reduces heat

5.2 Tell us about the different ways that we could avoid getting STD immediately after having sex.
Probes

5.3 Tell us whether people use methods to cure STD other than going to a doctor.

VI. Perception on the project and practices

6.1 Let’s talk about the project people who teach you all about STD and AIDS. Tell us about it.

6.2 What pictures did they show you?
Probes

6.3 We are particularly interested on the prevention methods of STD/HIV the workers talk about.
- What did they tell you about these?
- How is it important to you?
- Which method you felt as very important?

6.4 We would like to know from you as to how to use a condom.

6.5 We would like to know from you as to what are the problems in using a condom.

6.6 Can you tell us where you could get condoms on the highway?

6.7 We would like to know your views on condom outlets.

6.8 Do you have anything to say on the quality and type of condoms? We would be happy to learn about it.
6.9 Where do people generally seek treatment for STD? (List it)

6.10 Which is the most preferred place of treatment and why do they prefer that?

6.11 We would like to know from you on our project STD treatment services:
   - Are people utilizing it?
   - What are the problems you have in going to the place where we provide treatment?

6.12 What are your views about charging for medicine?

6.13 What did you like best about the program? (What has been most helpful to you?)

6.14 What did you like least about the program? (What was least helpful to you?)

6.15 What should be changed?

6.16 Do you have any other advice about the program?

VII. Conclude

7.1 Our purpose was to learn more about your perception on STD/HIV and how it could be prevented. Have we missed anything?

SOURCE:
Department for International Development
Healthy Highway Project
Handbook for Management Information System
May 1999
Truckers Interim Co-ordination Unit Health
Health Sector Group
Department for International Development
New Delhi

Annex 1
Interview Guide for Conducting A Focus Group Discussion Among Truck Drivers
COMMERCIAL SEX WORKERS: SURVEY

Date: 
Site: 
Interviewer: 

1. Age 

2. Sex 

3. Caste 

4. Highest level of education completed 
   a. Primary 
   b. Upper primary 
   c. High school 
   d. Degree 

5. What is your marital status? 
   a. Married 
   b. Partner 
   c. Separated/Divorced/Widowed 
   d. Unmarried 

6. Residence 
   a. Block 
   b. District 
   c. State 

7. How long have you been working as a CSW? 

8. Do you have other income in additional to income from sex work? 

9. Where do you find customers? 
   a. What occupation are most of your customers? 

10. In general, how many clients do you have sex with: 
   a. In an average day? 
   b. In an average week? 

11. Have you ever used a condom?
12. Do you know how to demonstrate the correct usage of condoms?

13. How many clients use condoms during sexual contact in one day?

14. For what reasons do you not use condoms?

15. If you have a permanent partner or husband, do you use condoms with him?

16. Have you experienced any of the following problems while using condoms:
   a. Refused to use a condom?
   b. Had clients that refused to use a condom?
   c. Used condoms with regular customers?
   d. Had problems using condoms?
   e. Not had a condom when you wanted one?
   f. Had a condom break?
   g. Thought condoms wasted time because ejaculation took longer?
   h. Thought condoms were too expensive?
   i. Had a condom be too small?
   j. Felt that using condoms helped you avoid AIDS?
   k. Used the same condom more than once?
   l. Needed more lubrication with condoms?
   m. Feel that condoms reduced your pleasure?
   n. Used two condoms at a time?

17. Where have you gotten most of your condoms?
   a. At a family planning clinic
   b. From a friend
   c. At a pharmacy/petty shop
   d. From a boyfriend/husband
   e. From a customer
   f. From a peer health educator/NGO staff
   g. Other

18. How often do you meet project staff?

19. Do you understand what they are saying?

20. Where do you meet project staff?

21. Where would you like to meet project staff?

22. Do you complete STD medicines for treatment?

23. Where did you receive STD treatment?

24. Where would you like to get STD treatment?

25. When was the last time you got STD treatment?
26. Before meeting project staff, where did you get STD treatment?

27. Do you talk to your partner about STD/HIV/AIDS?

28. When you get together with your friends do you talk about STD/HIV/AIDS?

29. Do you know what AIDS is?
   a. Yes – when was the first time you heard this word?
   b. No

The next few questions are about the AIDS virus. The AIDS virus is what infects a person and eventually causes a person to get AIDS.

30. How do you think the AIDS virus is transmitted?
   a. From a pregnant woman to the unborn child?
      i. Yes
      ii. No
      iii. Don’t know
   b. From toilets?
      i. Yes
      ii. No
      iii. Don’t know
   c. By sexual intercourse?
      i. Yes
      ii. No
      iii. Don’t know
   d. By shaking hands?
      i. Yes
      ii. No
      iii. Don’t know
   e. From blood transfusions?
      i. Yes
      ii. No
      iii. Don’t know
   f. Through injections?
      i. Yes
      ii. No
      iii. Don’t know
   g. From mosquitoes?
      i. Yes
      ii. No
      iii. Don’t know
   h. From razor blades?
      i. Yes
      ii. No
iii. Don’t know
i. From sharing utensils?
   i. Yes
   ii. No
   iii. Don’t know
31. Can you get AIDS from a man who looks healthy?
   a. Yes
   b. No
   c. Don’t know

32. How can a person prevent from getting AIDS?
   a. Have fewer sex partners?
      i. Yes
      ii. No
      iii. Don’t know
   b. Using condoms?
      i. Yes
      ii. No
      iii. Don’t know
   c. Clinical treatment for STDs?
      i. Yes
      ii. No
      iii. Don’t know
   d. Are there other methods?
      i. Yes
      ii. No
      iii. Don’t know

33. How likely do you think you are of becoming infected with the AIDS virus?
   a. Very likely
   b. Likely
   c. Unlikely
   d. Very unlikely

34. Are you doing anything to protect yourself from AIDS?
   a. Yes
   b. No, if no why not?

35. If yes, what are you doing to protect yourself against AIDS? (Do not read options)
   a. Use condoms
   b. Avoid certain types of men
   c. Have fewer partners
   d. Regular clinical check ups
   e. Use spermicides
   f. Other
36. How likely do you think CSW are of becoming infected with the AIDS virus?
   a. Very likely
   b. Likely
   c. Unlikely
   d. Very unlikely

37. How likely do you think your clients are of becoming infected with the AIDS virus?
   a. Very likely
   b. Likely
   c. Unlikely
   d. Very unlikely

38. What are the serious problems you face in your profession?

39. How do you see STD/HIV/AIDS in relation to that problem?

40. Is a person gets infected by AIDS who do you think is affected by this disease?

Our purpose was to learn more about your perception on STD/HIV/AIDS and how it could be prevented. Do you have anything else to share on this?