

## **CHAPTER III: PROPOSAL**

# **HIV PREVENTION COUNSELLING THROUGH INDIGENOUS OUTREACH WORKERS: AN INTERVENTION TO REDUCE UNSAFE SEXUAL BEHAVIOR AMONG TRANSPORT WORKERS IN THE KAILALI DISTRICT**

### **3.1 INTRODUCTION:**

Some people have considered the threat from Acquired Immuno Deficiency Syndrome (AIDS) as over reaction because it kills only about 2.3 million people a year world wide. That is a fairly small figure compared to 1 million deaths from malaria, 3 million from tuberculosis, 4 million from diarrhea disease, 5 million from cancer, and about 12 million from cardiovascular diseases. There are a number of reasons for this attention. First is the peculiar nature of the Human Immunodeficiency Virus (HIV) which causes AIDS. Since HIV is primarily transmitted by sexual intercourse, which is a very private activity, it is difficult to control. As the symptoms of HIV infection is hard to recognize, many cases of AIDS are officially reported as pneumonia, tuberculosis or diarrhea. Medical science so far has not been very successful in defending against HIV.

The extraordinary capacity of HIV/AIDS is the second reason for the over attention. The long incubation period, on average 10 years, also makes it peculiar in the sense that the results of today's effort of prevention will be seen only after a decade. The third reason for the gravity of situation in the case of HIV/AIDS is that it affects mainly the productive section of society rather than the dependent children or elderly population. "HIV/AIDS with its heavy burden threatens to halt all the steps towards progress" (Tinker, 1992).

AIDS, first identified in 1981, is the final stage of a viral infection caused by the Human Immunodeficiency Virus (HIV) and the first cases of illness from AIDS were reported from Los Angeles in homosexual men. In 1982, cases of AIDS were reported among hemophiliacs and injecting drug users (IDUs) and in 1983 the first cases of AIDS in heterosexuals were documented. Early cases suggested that an exchange of body fluid particularly blood or semen, was the reason and it is primarily a sexually transmitted disease (Stine, 1996).

According to UNAIDS, 2.3 million people died of AIDS in 1997. There were 30 million people living with HIV in 1997. A total of 1.7 million AIDS cases have been officially reported to WHO, which is only 15% of the total estimated cases. AIDS is easier to conceal since the immediate cause of death is other diseases and denial and taboo also create obstacles in determining the cause. WHO has identified patterns of HIV epidemic by predominant modes of transmission, which may be described as follows:

**Pattern I:** North America, Western Europe, Australia and New Zealand where the majority of HIV positive people were infected through homosexual transmission or by sharing needles.

**Pattern II:** Sub Saharan Africa where the principle mode of transmission was heterosexual and where as a consequence a large number of children are infected. Although it originated from the USA, Sub-Saharan Africa is the hardest hit region. Already 14 million people are living with HIV/AIDS accounting for nearly two thirds of the world's total.

**Pattern I/II:** Latin America and Caribbean has a large number of infected people through homosexual contact and needle sharing but recently heterosexual transmission is on the rise.

**Pattern III:** In the Middle East, Asia and Eastern Europe HIV began much later, in the mid 1980s via blood transfusion and sexual transmission. At the end of 1996 an estimated 5.3 million people were infected with HIV in Asia. Current trends suggests Asia may have surpassed Africa in terms of new infection per year. Thailand and India have the largest number of HIV positive people in the world.

### **3.1.1 HIV/AIDS situation in Nepal:**

Although AIDS was first recognized in 1981, in Nepal the first cases were identified only in 1988 among western tourists and prostitutes. In 1993, WHO has warned that the preconditions exist for a serious AIDS epidemic in Nepal. Nepal has

all the elements necessary for an Indian-style HIV epidemic where the prevalence is about 4 million nation-wide and rates in some suburban populations approach 40%. These elements include low levels of knowledge concerning HIV/STDs; a moderate to high prevalence of STDs; a substantial and geographically dispersed population of commercial sex workers; a population of migrant laborers measured in hundreds of thousands and transport workers who have a significant number of extra-marital partners; a group of IDUs in Kathmandu estimated at 1,500; and nascent cohorts of IDUs in other urban areas (Marseille, 1997). So it is only a matter of time before Nepal will jump to high prevalence after the early stage of the epidemic. By the year 2000 the cumulative number of HIV infections will be around 25,000 to 50,000 and that of AIDS cases around 5000 to 9000 (Dunlop and Chin 1994). According to table 3.1, at present Nepal has estimated 26,000 HIV infected people with a 0.24 prevalence rate, fourth after Thailand, Myanmar and India in the ten countries of the South Asia region as shown in table 3.1.

**Table 3.1: HIV/AIDS in South East Asia Region**

<b>Country</b>	<b>Estimated AIDS cases</b>	<b>Estimated HIV</b>	<b>Adult rate %.</b>
<b>Thailand</b>	<b>269,000</b>	<b>780,000</b>	<b>2.23</b>
<b>Myanmar</b>	<b>100,000</b>	<b>440,000</b>	<b>1.79</b>
<b>India</b>	<b>430,000</b>	<b>4,100,000</b>	<b>0.82</b>
<b>Nepal</b>	<b>2,100</b>	<b>26,000</b>	<b>0.24</b>

**Source:** Chulalongkorn University (1998). HIV/AIDS estimates and indicators, end 1997. Developing HIV control policy in Asia workshop, Bangkok.

Since 1991 the National Center of AIDS and STDs control (NCASC) has conducted sentinel HIV surveillance. The prevalence of HIV is relatively low at about 0.24 percent but the prevalence in specific high-risk group is ten times higher, between one and two percent. However other data such as screening of donated blood, suggests an increasing trend in overall HIV/AIDS prevalence. Also, the NCASC data of AIDS cases has increased four times in 1998 compared to that in 1995. Keeping in view, the limited medical and health infrastructure and limited HIV/AIDS surveillance in the country, Chin (1997) estimates the number of AIDS cases to be five to ten times and HIV cases to be 20 to 30 times higher than the Ministry of Health figures.

**Table 3.2: Cumulative HIV by sex/risk groups**

<b>Sub groups</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>	<b>Percentage</b>
<b>CSWs</b>	---	283	283	26.5
<b>STD Clients</b>	547	11	558	52.3
<b>Housewives</b>	---	67	67	6.3
<b>Blood transfusion</b>	---	1	1	0.1
<b>IDUs</b>	148	1	149	14
<b>Mother to Child</b>	6	3	9	0.8
<b>Total HIV</b>	<b>701</b>	<b>366</b>	<b>1,067</b>	<b>100</b>
<b>AIDS cases</b>	<b>131</b>	<b>78</b>	<b>209</b>	---

**Source:** NCASC (1998), Cumulative HIV/AIDS situation of Nepal, Kathmandu.

Table 3.2. shows that dominant mode of transmission is heterosexual in Nepal. More males are infected than females. CSWs constitute 26.5 percent of all documented HIV cases. And STD clients represent an even higher proportion i.e. 52.3 percent. The concentration of infection in people between 20-29 followed by 14-19 years also suggest that the sexually active population is most at risk.

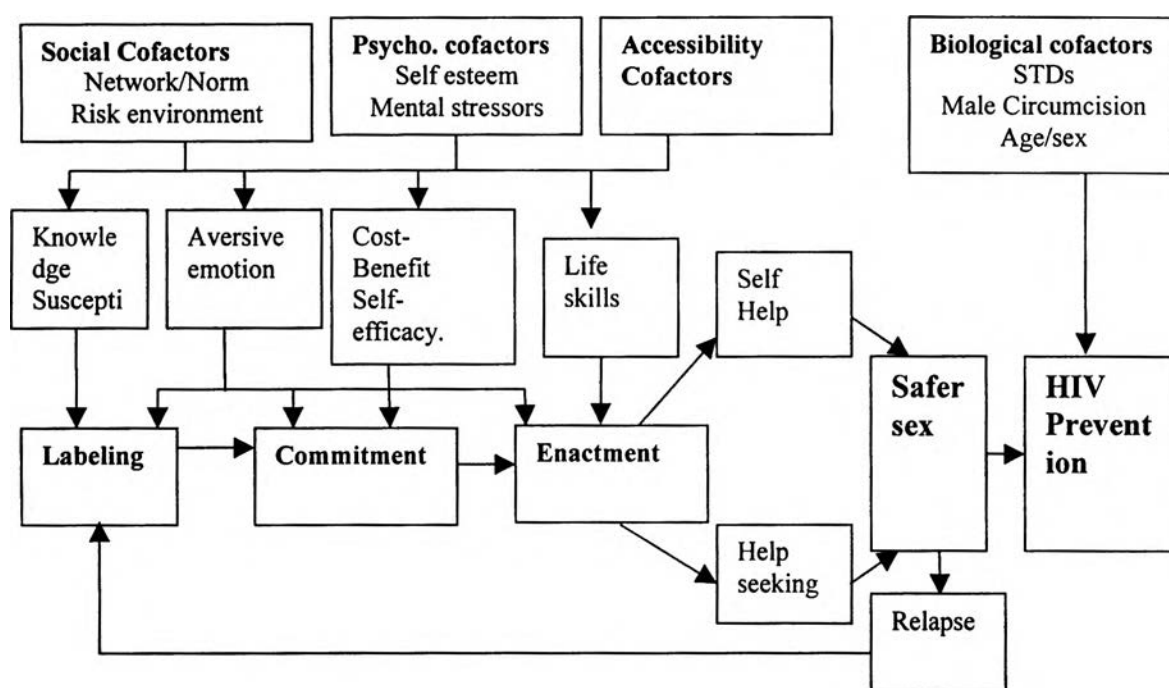
### **3.1.2 The conceptual framework:**

Over the years, it has become clear that traditional infectious disease control tools such as vaccines and antibiotics, would not be quickly available for HIV/AIDS. So behavioral change is the only alternative to primary prevention. Research and studies have shown interventions to be effective in reducing risk behaviors and behavioral interventions are most effective. Despite considerable progress in the field of “ behavioral science”, it has not been applied adequately for HIV prevention. It has not been used for the prevention of infectious diseases because of more reliance on the biomedical approach such as vaccines and antibiotics.

For the present study, the AIDS Risk Reduction Model (ARRM) developed by Catania, Kegeles and Coates in 1990, will be used as the basic building blocks. This model will help in describing the elements, which influence people in their effort to reduce unsafe behaviors. According to ARRM, behavioral change is an incremental process and people move through three stages in this process: labeling, commitment and enactment. Figure 3.1, which is described in detail below, depicts the stages of behavioral change and the elements influencing the movement from one to another stage. In this model I have incorporated other cofactors that may affect safer sex

practices among the transport workers. Together with these factors affecting safer sex, I am also discussing here how counseling can support the client in each stage of behavioral change.

**Figure 3.1 : Cognitive, emotive and behavioral influences and cofactors affecting safer sex**



**Source :** Adapted from AIDS Risk Reduction Model (ARRM) by Catania, Kegeles and Coates (1990), Towards an Understanding of Risk Reduction: ARRM, Health Education Quarterly, Vol.17(1), pp.54-55 and San Francisco Plan (1997).

### **1. Labeling stage:**

Labeling is the perception of self-risk. Two factors, knowledge of HIV transmission and perception of susceptibility make the transport workers realize that they are at risk of HIV transmission.

HIV prevention counseling can help the client realize self-risk of HIV transmission by reviewing the correct information about transmission and by facilitating risk assessment activity. Emotional support helps in lessening the aversive emotion, arising due to anxiety and fear.

### **2. Commitment:**

Once they perceive self-risk, the transport workers can make a commitment towards behavioral change. This commitment is influenced by the cost benefits of safer sex and self-efficacy. Self-efficacy is people's perceptions of their ability to perform the safer sex measure. Whereas, response efficacy is the perceived effectiveness of the particular measure of safer sex, which is the benefit. They are not sure whether they can use a condom properly. Similarly, the enjoyment people have to forego is the cost of adopting safer sex. Transport workers are found to have little faith in condoms preventing HIV and they think it decreases pleasure of sex.

Counseling can build strong commitment to adopt safer sex by providing information regarding safer sex options in the client's situation, and reviewing client's previous actions together with the barriers he faced. This helps the client in properly



analyzing the effectiveness of safer sex measures (benefits) and barriers (costs). Similarly proper reinforcement of past action increases self-efficacy.

### **3. Enactment:**

Enactment is actually practicing safer sex. Behavioral influences such as different life skills are important during this stage of change. The transport workers are found to lack the appropriate skill to communicate about sexual issues and assertive communication at the time of pressure by peers to indulge in risky sexual activities. Similarly they were found to lack skills related to condom use and non penetrative sex.

Counseling helps to translate strong commitment into action by providing life skill training. The counselor assists the client to learn skills related to action planning, sexual and assertive communication, condom use and non-penetrative sex.

Aversive emotions such as fear and anxiety have been found as the main obstacles in adopting safer sex. It may affect all three stages of behavioral change. A high level of fear discourages people in acknowledging self-risk and over anxiety reduces self efficacy. Transport workers in Nepal face obstacles in adopting safer sex due to both high and low aversive emotions. Due to fear they do not want to perceive self risk and due to alcohol consumption they do not think about risk. Correct information can help in clarifying many of the misconception, and emotional support throughout the counseling helps to reduce their anxiety.

The biological cofactors increases their susceptibility to HIV transmission. For example, the presence of STDs and absence of male circumcision are found to increase the infectivity of HIV. In Nepal, transport workers have high rate of STDs and only a minority of Muslims are circumcised. Other cofactors of HIV transmission such as social, psychological and accessibility create obstacles in adopting safer sex by acting upon cognitive-emotive and behavioral influences.

Social cofactors are peer norms that shows sex as a must after long driving and risk environment in the highways with easy availability of sex workers and alcohol. Psychological cofactors like low self-esteem and mental stress, increase aversive emotion and reduces self-efficacy. Because transport workers are in a mobile occupation they do not have access to HIV prevention services such as AIDS/STDs education, condom distribution or STDs treatment and counseling. It limits their chance of acquiring life skills such as condom use, non penetrative sex, assertive and sexual communication. They do not have time to visit health clinics for information and services and reach of media is also low for them. This restricts them from getting proper information useful in all three stages of change. All these factors combined pose as a barrier to safer sex for the transport workers in Nepal.

Counseling is a helpful process to make individuals capable to act on his problem. During the process counseling helps by lessening the effect of cofactors on the cognitive, emotional and behavioral influences. Proper knowledge, strong commitment and assertive communication skills help in dealing with peer pressure and risk environment. Emotional support and reinforcement throughout the counseling help

to lessen stress and boost self esteem. Similarly life skill training and proper referral increase accessibility to safe sex measures.

### **3.2 RATIONALE FOR SELECTING TRANSPORT WORKERS:**

There are four criteria for selecting target population for intervention trial: i) need of intervention; ii) deemed capable of responding successfully to a behavior change; iii) feasible to work with; and iv) defined with sufficient precision.

Transport workers are the population most in need of intervention for the prevention of HIV because of its high risk behaviors. The concept of two separate groups has been accepted to differentiate between the highly sexually active 'core' and much less sexually active 'non-core' population (Over and Piot, 1999). More than a decade experience in HIV surveillance has shown that the infection first appears in the core groups and continue to rise. Averting one case in the core group is likely to save ten times more lives than averting one case in general population (Marseille et.al., 1997).

Transport workers are important not only because of high risk behaviors but also because of their role in transmitting the virus to other population. Two significant factors – the human contact and the mobility or change, are critical for the spread of HIV in a country. Mobility breaks the isolation, which is a form of protection. This has introduced the concept of the bridge population (ARO/FHI, 1996), which is the connection between people with very high risk behavior and those with lower risk through a group of individuals who have sex with both type of partners.

Studies with truckers in east Africa, India and Thailand have reported HIV prevalence rate of 27%, 7.4% and 2.3% respectively (Gordon; Rao et.al.,1995) and they are seen as bridge population for transmitting HIV from the 'core groups' such as CSWs to the 'non-core groups' such as monogamous women in Africa, Thailand and India (Rao et.al.,1993; Podshita, 1995; Gariet, 1996; New era, 1997). In a survey with 330 truckers in Thailand 25 percent were found to be bridging HIV because 87 percent had contact with CSWs and 35 percent had two or more partners (Podshita et al 1996).

In Nepal, several factors indicate a higher prevalence rate for transport workers than other populations. High risk groups including transport workers have a prevalence higher than 1 percent (NCASC and FHI, 1997). Similarly STD as a marker of high-risk behavior also indicates a high risk of HIV infection. Sixty percent of the CSWs mentioned transport workers as their clients and the condom use rate among them is only 59 percent (New Era, 1997).

In general, transport workers are reported to indulge in risky sex. A study from Tanzania revealed that anal sex was far more common than previously thought (O'Connor et al., 1992). Vaginal sex is common with wives and CSWs, while oral and anal sex are common with other truckers or assistant (Gordon; Rao et.al.,1995;). In Nepal also, more than 6 percent of the transport workers had sex with men, a high proportion of 21 percent had sex during menstruation, 9 percent had anal sex and 7 percent had oral sex (VaRG, 1997). In line with almost universal marriage in Nepal, most of the transport workers are married, creating potential for large sexual mixing in the interior of the country.

This population is also appropriate on the grounds of responding criteria. One advantage of targeting high risk population is that it has more room for change, which gives more statistical power also for analysis (Leary et.al., 1997). Projects in Africa and in South India have successfully implemented behavior change interventions for the transport workers.

It is feasible to reach this population. The implementing NGO, ICH has good experience of the highway routes and work with transport workers. Though at present they do not have access to adequate prevention services, 550 transport workers on average have been found to visit the static information booth per month in Kailali (ICH, 1997). Further, outreach workers have been found effective to reach them in other highway areas in Nepal (AIDSCAP/FHI, 1997).

Although difficult, this population can be defined with sufficient precision. The exact number of transport workers present in Kailali is not documented. However, several sources indicate a large presence. By transport workers, here I mean drivers of heavy vehicles such as bus, truck, tractors and tankers as well as their assistants such as cleaners or conductors, who are presently on the highway routes in the Kailali district. In total there are 1993 vehicles, registered in the Seti zonal transport office, out of which 416 are long distance heavy vehicles such as buses, trucks or tankers (DTM, 1998). About another 250 can be estimated to enter the district every day from other parts of Nepal and from India (Rao et.al. 1994; CBS, 1996). Hence, in total about 1000 drivers and helpers can be expected to be always present on the highways of Kailali.

### **3.3 PROBLEM STATEMENT:**

With high sexual mixing, transport workers are 'bridging' the virus between high-risk groups such as CSWs and low risk groups such as rural women. Because of transient nature of work, it is very difficult to reach the transport workers with HIV prevention services or safer sex education. Baseline and mid term surveys in transport workers population in Kailai district has shown a negligible increase in knowledge (VaRG, 1997). Further, knowledge alone can not bring behavioral change because of many other social/ situational, psychological and accessibility factors. Transmission of HIV/AIDS requires only a few instances of risk taking behavior in contrast to prolonged lifestyle related behavior for chronic diseases. In contrast it requires close and continuous contact with the client to maintain consistent safer sex behaviors, which is an important component in the prevention of HIV transmission.

Empirical evidences have shown that the behavioral interventions are successful in reducing unsafe sexual behaviors and it is more true if the interventions are theory based (Fishbien 1996; Leviton and O'Reilly, 1996). The theories are a logical explanation of relationships between elements of any phenomena and they are empirically tested. Applying theory to design intervention helps in clearly developing all necessary elements. Behavior change is not a one-step, all-or-nothing process, but involves incremental changes in behavioral continuum. Different messages will be required for people at different stages of this continuum. However, as in many other countries, this approach has not been carefully applied in Nepal.

Counseling and testing intervention has shown encouraging results in changing risky behavior. Nepal and particularly, the Kailali district has limited scope to apply this because of the lack of HIV antibody testing sites. HIV prevention counseling can facilitate behavioral change irrespective of a testing facility by applying important elements of behavioral theories. Attempts have been made to implement it with high-risk populations such as CSWs and STDs clients in Nepal but its impact has not been well documented. The annual report of the NGO currently working with transport workers in Kailali has shown that only about 10 percent of their STD clients were male. This suggests that the transport workers are most unlikely to visit the STD clinics and this important group has no opportunity to receive the counseling service. Due to very high mobility, it has been very difficult to reach this group with any prevention services. The major challenge here is to provide this group with counseling service through feasible intervention.

The main purpose of this study is to reduce unsafe sexual behaviors among the transport workers residing in or passing through the Kailali district by providing HIV prevention counseling services. Studies elsewhere have suggested that counseling can be delivered in outreach setting and paraprofessionals selected from indigenous people are more effective (Grey et.al, 1996; Cabral et.al., 1996). Therefore, I propose to implement HIV prevention counseling service for transport workers through indigenous outreach workers in the highways. The counseling process and its impact will be evaluated by assessing the quality of counseling sessions and by measuring the reduction in unsafe sexual behavior among the transport workers who attend the HIV prevention counseling.

### **3.4 OBJECTIVE OF THE INTERVENTION STUDY:**

The main objective of this study is to reduce the unsafe sexual practices among transport workers in the Kailali district. The following are the specific objectives:

1. To explore the history of truck stops, major outlets of health and other products, social structure of transport community, daily activities, sexual networking and other behaviors of the transport workers by using ethnographic techniques.
2. To improve the quality of HIV prevention counseling and make it culturally sensitive to the transport workers by applying standard protocols and tools.
3. To enhance the qualities and skills of indigenous outreach counselors, selected from transport community, by training them on HIV prevention counseling.
4. To provide HIV prevention counseling services to the transport workers in the highway outreach setting.
5. To monitor counseling services by routinely assessing client satisfaction and the quality of sessions.
6. To evaluate the impact of prevention counseling by measuring reductions in unsafe sexual behaviors among transport workers, who have received counseling.

### **3.5 PROPOSED INTERVENTION PROGRAM**

The main focus of this study is to provide HIV prevention counseling services to the transport workers through the outreach counselors in the Kailali district. This intervention program includes four phases: formative research, training of counselors, providing counseling services, process evaluation and impact evaluation.



Formative research will help in understanding the beliefs and behaviors of transport workers as well as help in finding ways to reach them. The findings of this research will be used in designing the training of counselors. This study proposes to use indigenous people from the transport worker community to deliver counseling services. They are more effective than the health workers because of their familiarity with the social norms, beliefs, attitudes and behaviors of the transport workers. International studies have already shown that the paraprofessionals can effectively deliver HIV prevention counseling (Cabral et.al., 1996).

After receiving the training, the trained counselors will provide HIV prevention counseling to the transport workers as an outreach activity in the truck stop sites. Outreach programs have been found to successfully reach otherwise-inaccessible people in Nepal and other countries with information and services. Monitoring and supervision has been planned to assess the achievement of counseling services and to help the counselors perform their job in a standard way.

The impact of counseling will be evaluated after providing counseling services for one year. Impact evaluation has been planned to get answers to the questions relating to the effectiveness of counseling in reducing unsafe behaviors among the transport workers and to assess the level of their satisfaction with the counseling sessions they have attended.

### **3.5.1 Study site and study population:**

Kailali has a long border with India. Dhangadhi, the district headquarter town has been historically the gateway to India from the Far Western Nepal. In the past when there was no road link between this region and other parts of Nepal the small cross border Gauriphanta-Dangadhi road served as an important entrance. After the completion of East-West highway roads in Kailali connected with the main stream highways has made the district strategically more important as a junction of Far western hills, eastern part of Nepal and India. As many cities of North India can be directly accessed from this district or from adjacent Kanchanpur district the roads here have become busy with passengers as well as consignment transportation.

The Kailali district has an area of 3235 square km, surrounded by the Karnali river bordering Bardia and Surkhet districts on the East; Kanchanpur and Dadeldhura districts on the west; Doti district on the north; and Uttar Pradesh of India. Being in the southern part of Nepal, it has 60 percent plain land, which is very fertile. Arable land is 73,401 hectares.

The total population was 505,696 in 1997. The average family consists of 7.9 members. The literacy rate is only 31 percent. The population density is also very high at 155 per square kilometer. Subsistence agriculture accounts for 88 percent of the people. Due to a high dependency on small landholding, agriculture can not provide people with adequate means of livelihood. And people seasonally migrate to India in search of work.

Kailali has a total road length of 157 km, of which 83 km is the east west high way. The Godavari portion with 23 km of Dhangadhi-Dadheldhura-Baitadi road falls inside this district. The 31 km, Lamki-Satti road passes through Tikapur, one of the flourishing town in Far western Nepal and ends at the border of India.

From the point of vehicular traffic, three points are very important. Lamki is a crossing between East west highway and road to Tikapur. From Ataria two link roads separate Kanchanpur and Dadeldhura. The border crossing of Dhangadhi is the entrance to India. Other points which could be equally significant are the crossings at Satti and Godavari.

The target group of outreach counseling intervention is the transport workers. The transport workers are recruited by the transport company or private owners on a semi permanent basis. In Nepal, about 10 percent of the registered trucks, tankers and buses are owned by a government run transport-corporation. Another 20 percent of these transport vehicles are owned by transport companies and the remaining are vehicles of private owner. Except for the government company, labor contracts in this industry is basically informal. Usually there is no leave or other benefit policies. The transport workers perform their duties like free-lance agents. The system gives them flexibility but gives then insecurity as well. The monthly earning of a driver is about Rs.3600 and they get extra income of about Rs3000-5000 depending on the situation. Most of the drivers are married, while most of the cleaners are unmarried.

Regarding their duration of travel and absence from home, some information has been documented in Nepal and India. A study by New Era has shown mean days

away from home as 19.6 to 22.4 days. A round trip takes 10 to 15 days. They may go back home between 1 to 4 months. An Indian study has shown longer range regarding return i.e. twice a month to once a year. In Nepal transport workers are found to prefer remote, highway based tea-shops, restaurants, and lodges as rest and entertainment sites over similar establishments in large urban locations. Similarly truckers like to rest and relax at small road side locations with plenty of space to park and maintain their trucks without being bothered by police and others (Cox and Subedi, 1993).

### **3.5.2 Phase I : Formative research:**

Formative research is the process by which researchers define the community of interest, ways to access that community, and attributes of the community relevant to the HIV risk reduction. It should be done when designing intervention and should continue throughout the life of the project to “fine-tune” the intervention over time. The information gathered during formative research is qualitative in nature and can be applied in all levels of behavioral interventions, whether one to one, street based, community level or mass level.

#### **3.5.2.1 Methods of data collection:**

Three methods of rapid ethnography will be used for this formative research. Ethnography as a process is an attempt to comprehensively understand the "lifeways" of a human group in a specific geographic setting (AIDSCAP/FHI, 1996). For constructing an accurate descriptive context, researchers must be part of the culture, know the language, and have an established network of contacts or gate keepers, who

can assist in putting a description together. For the purpose of methodological triangulation, three qualitative methods will be used as described below. The concept of "triangulation" is taken from land surveying, which marks three points locating two different landmarks and the surveyor. In research, this can significantly reduce bias. The methodology of data collection that will be employed are as follows:

### **1. Individual interviews with key informants:**

Individual interviewing means a single researcher interviews one other person, most often referred to as an "informant". "Key informants" are respondents who have special knowledge, status, or access to other observations denied to the researcher and who are willing to share their knowledge and skills (AIDSCAP/FHI, 1996). Informants may or may not have the ability to describe events and actions with analytical interpretation. Some key informants may simply describe things without offering their thoughts on meaning or significance. The process of interviewing can be highly structured or completely unstructured. Key informants having knowledge about the target population will include internal staff, and staff of other related organizations, volunteers, gate keepers, interactors such as shop keepers and transport workers.

As the purpose in an individual interview is to understand a phenomenon rather than to explain, open-ended questions will be used. An interview guideline has been developed to help the researcher with instructions, key open-ended questions and probes to follow (Appendix VII). The purpose of this guide is to find out the locations of, structure and activities in major truck stops, and beliefs and practices of the transport workers.

## **2. Observation:**

A classic participant, as defined by anthropologists, means that the ethnographer lives and works for six months to one year or more in the community under study, learning the language and viewing behavior patterns over time. Realistically such a long-term approach to evaluation research is not possible, therefore a rapid ethnographic approach is used. On the other hand, structured observation tends to be non-participant and centers on frequency counts of events. Participant observation involves systematic notation of events as they occur in their everyday life and seemingly random activities of community life. It facilitates more of the collection of in-depth contextual details than the survey method.

The limitation of this method is that the researcher can not observe personal behavior, especially sexual behavior and behavior with close peers. Secondly, bias may arise if the observer incorrectly participates in the on-going activities, either placing himself too close to or too far from the people and events they are studying.

Participant observation of the daily socio-cultural context of at least 5 selected truck stops in the Kailali district, will be done by trained researchers. Observation is not as simple as thought. Therefore, the researchers will receive training on observation technique, and practise to become free of value and unbiased. At present, the NGO in Kailali is working in four sites with stationary information booth. The researchers are not obliged to select the same sites. Rather based on the interviews with key informants or other informal conversations, they are free to choose any truck stop

sites on the East-West highway or on the Dhangadhi-Dadheldhura road for their research.

The researchers will observe the physical characteristics of the environment, availability of products and services, daily flow of life and the activity patterns of the target population. Informal conversation will be done with people around to verify observed patterns and clarify flaws. In order to understand the behavioral context of AIDS interventions, focussed description and systematic note taking are necessary. I have developed a checklist (Appendix VII) for the observation of truck stop sites based on information about qualitative research material from AIDSCAP because no protocol could be found. This checklist has been pretested during data exercise and revised afterwards.

Maps will be constructed to show natural features, the types and locations of shops, alcohol shops, pharmacy, settlements, entertainment areas or brothels and distances between key sites etc. in the truck stop points. Creating maps of geographic areas is an important data collection technique frequently used at the beginning of participant observation.

### **3. Focus Group Discussions:**

Four FGDs with the transport workers will be conducted in the research sites. Originating from market research in the 1950s, FGDs have in recent years been increasingly used in social science research. Focus group discussion (FGD), as a qualitative research method with a definite goal, is essentially a discussion among

people of more or less the same age, socio-economic status, sex, etc. It is a time and cost saving means to collect information on group feelings, beliefs, attitudes, experiences and reactions. The purpose is also to get an in-depth understanding of perceptions, needs and local terms for particular key words and group dynamics.

Generally, a small number of participants, under the guidance of a skilled moderator, talk about the topics believed to be of special importance to the investigation. The moderator leads an informal but structured discussion or conducts an interview with a group of six to twelve people. An assistant moderator takes notes, operates the tape recorder, observes the group dynamics and deals with interruptions.

The role of moderator is critical and challenging: they should attempt to maintain the group discussion among the participants rather than between the participants and the moderator, and they need to be skilled in stimulating participation, guiding discussion, and probing for detail and depth (AIDSCAP/FHI, 1996). Validity and reliability of data rests on the skills of moderator. In order to minimize the bias, the moderator work is assigned to person other than the principle investigator.

The topic guide contained in Appendix IX will be used and discussion will be recorded on tape as well as written down by a note keeper. The topic guide includes open-ended questions on the four components of safer sex as well as risk perceptions. In FGDs, participants are not expected to reveal personal experiences.

The questions are directed toward beliefs and behaviors of the transport communities at large rather than of the participants themselves. The emphasis is on



their opinion about what "people like them" are doing or might do (AIDSCAP, 1997). The intention here is to reveal something about social norms of transport workers as well as the languages they use to talk about sexual behavior and condoms. It has instructions for the moderator regarding the purpose of questions, key words to look for, and how general or specific to be in the discussion. The topic guide was used in data exercise to see its usefulness. In order to fine tune it culturally it will be pre-tested with transport workers again in Nepal.

#### **3.5.2.2 Sampling:**

The selection of samples for the formative research will not be done on the basis of probability sampling. Rather it will be purposive. Following table below shows study population, sample size and sampling technique.

**Table 3.3: Sample design**

<b>Research method</b>	<b>Study population</b>	<b>Sample size</b>	<b>Sampling technique</b>
<b>Formative:</b>			
<b>K.I. Interview</b>	Staff, shop keepers, policemen, staff, volunteers and transport workers	50 persons	Purposive Snowballing
<b>Observation</b>	<b>Truck-stops</b>	5 truck-stops	Purposive
<b>Focus group</b>	Transport workers: With risk perception Without risk perception	16-20 persons 16-20 persons	Purposive

In total, 50 key informants will be interviewed. The interacters and gate keepers such as shop keepers, police men, transport association members and staff/volunteers of related programs usually have valuable knowledge about the transport workers. Similarly, some transport workers are very knowledgeable about the situation. All of them will be contacted by the snowballing method. The truck-stop sites will be purposively selected by the researchers as suggested by the key informants. For the focus group discussion, participants will be separated on the basis of with or without self-risk perception. In total four focus group discussions will be conducted: two discussions for each type of transport workers. Hence, sixteen to twenty transport

workers with risk perception and an equal number of those without risk perception will be included in the focus groups.

### **3.5.2.3 Data Analysis:**

For the qualitative study, data collection and analysis is a simultaneous process. It involves classifying things, people, and events and the properties, which characterize them. Hence the researchers index or code their data using as many categories as possible and find out patterns for each of them. Data analysis is defined by Miles and Huberman as "consisting of three concurrent flows of activity: data reduction, data display and conclusion drawing /verification." (AIDSCAP/FHI, 1996).

The bias and subjectivity inherent in qualitative data analysis, compounded by human inability to process large amounts of information, can be reduced by using computer software to assist in organizing and categorizing textual data. Several computer programs are available and most of them involve: transcription, formatting, coding data and interpretation of data. For the present study "code-and retrieve" programs are sufficient. Hence I will use "The Ethnograph" program for the analysis of qualitative data.

#### **1. Data Reduction:**

Data reduction means summarizing or coding large amounts of text into smaller amounts of text, and it occurs continuously throughout the research process. The raw data of the field notes, received from the FGDs, key informant interviews and

observation will be reduced in quantity to a readable, narrative description, which will be organized into major themes and categories. Case examples, local terms for key words and direct quotations from respondents also will be kept in the reduced form. Data reduction continues to occur until the final report is written. The present study will use the following data reduction format adapted from CDC, USA:

**Figure 3.2. Data Reduction Format**

- |  |
|--|
| <ul style="list-style-type: none"> <li>A.1. Number of interviews completed</li> <li>2. Number of male/female respondents</li> <li>3. Age range of the respondents</li> <li>4. List of organizations and number of interviews completed for each</li> <li>5. Number of truck-stops observed</li> <br/> <li>B.1. Narrative definition of subgroups within transport workers</li> <li>2. Approximate number of individuals in the subgroups</li> <li>3. Specific locations where transport workers can be found</li> <li>4. Duration of time transport workers stay in specific locations</li> <li>4. Barriers to accessing members of the groups</li> <li>5. How to access members of the groups</li> <li>6. Norms and values of the transport workers</li> <li>7. Unsafe practices among transport workers</li> <li>8. Safer sex practices among them</li> <li>9. General trends which appeared in the information</li> </ul> |
|--|

**Source:** Higgins D.L. et al. (1996). Using formative research to lay the foundation for community level HIV prevention effort. Public Health Reports, Vol.111, supplement 1.

## **2. Data Display:**

Data display is defined as " an organized assembly of information" that allows conclusions to be drawn and actions to be taken. Most frequently qualitative data is displayed as narrative text, which tends to overload people's information processing

capabilities. In the proposed study, matrices, graphs, networks, maps and charts will be used to present information in more compact forms. Similarly, interesting quotations from the respondents and different terms used by transport workers will be presented as it is for designing content of counseling sessions and IEC materials/activity.

### **3. Conclusion Drawing/Verification:**

In this step the researcher interprets the meaning of information and notes themes, regularities, patterns and explanations. Conclusion drawing is constantly done by the researcher throughout the data collection exercise. However by the time the final report is written it is verified and more refined. It is necessary to check the validity of the meaning by verifying it with project stakeholders during the research presentation.

### **3.5.3 Phase II: Counseling Program:**

#### **3.5.3.1 Training of Outreach Counselors:**

##### **1. Purpose of the training:**

The main purpose of the training for the outreach counselors is to ensure the delivery of credible and culturally competent services in field and to help counselors properly understand behavioral theory to apply properly in counseling sessions. The purpose of the training is also to clarify some of the underlying issues of outreach work.

The first issue is related to the values and attitude of the counselor. It is necessary to prevent personal values from interfere with the counseling work. Secondly even if indigenous outreach workers are very aware of the dangers of streets, they need to learn how to handle potentially volatile situations in an appropriate and professional manner. Thirdly, it is very necessary to provide clients with accurate, up-to-date information about their risk and appropriate prevention strategies. So the counselor must have a strong informational base.

The fourth issue is related to referral. It is critical that the counselor knows how to negotiate with the public assistance system and to build close links with providers of other services. If the client is referred to a place with a judgmental provider or if the service does not exist in the referred point, that will destroy the reputation of the counselor and may push the client back to relapse.

## **2. Training content:**

The training for the outreach counselor will cover the following main content area. The training curriculum adopted from WHO and CDC has been contained in appendix V.

### **A. Understanding of a behavioral theoretical model:**

The stages of change models emphasize on small steps of behavioral change. It will be easier for the outreach counselor to know how to determine the stage of a particular client and apply messages and services appropriate for that situation.

**B. Counseling technique:**

A helping relationship with the client is characterized by listening reflectively; assessing the client where they are; assessing their needs, strengths; problem solving abilities and gently directing "at risk" individuals action. Counseling skills such as motivational interviewing, framing open ended questions, navigating ambivalence, overcoming resistance and increasing attention to non-verbal cues will all be covered in the training.

**C. Assessment skills:**

The outreach counselors have to approach the transport workers in a very busy, disturbing atmosphere. They have to accomplish assessment of risk and concern/needs in a brief time. This skill has to be developed fully during training.

**3. Training techniques:**

Except for the sessions on behavioral theories and counseling concept, no didactic method will be used. The training will be competency based and apply mostly hands on approach. Practice by role playing, games, field exercise and discussion will be used in most of the sessions.

#### **4. Training duration:**

The first training will be conducted for six days. In order to maintain skills and knowledge of the counselors a refresher course of one or more days will be arranged every year. Routine coaching by a higher level counselor or trainer will ensure the quality of their performance and problem solving in field.

#### **5. Trainers:**

The counselors based in the STDs clinic and the blood banks, and the NGO coordinators in Kailali district, will conduct the training. These counselors and coordinators have already received training on counseling organized from NCASC and SC/US Kathmandu. These higher level counselors will also work as technical back up and referral points for the outreach counselors. They will also be responsible to routinely supervise outreach activities and on the spot coaching. I will conduct the sessions related to the behavior change model and its relation with the counseling services.

#### **6. Trainees:**

WHO has recommended that in addition to the physicians, nurses and psychotherapists, people from the community can also deliver HIV/AIDS counseling. The present study proposes to provide the counseling services through the outreach counselors of the implementing NGO in the Kailali district. For this purpose, the



implementing NGO will recruit 4 outreach counselors from the transport worker community itself.

Besides the outreach counselors, the booth educators also require counseling skills because the counseling clients can be transferred to them if any of the outreach counselors leaves the job. Hence, the trainees of this training will be the four outreach counselors, 4 booth educators and two supervisors of the implementing NGO.

### **7. Training evaluation:**

Training as an input for the intervention study, has to be standardized. Similarly as the quality of counselor depends mainly on the effectiveness of the training, it is warranted that training activities are properly evaluated. The trainers of this training will be responsible for this evaluation. The following methods will be applied to evaluate the training:

#### **A. Training process evaluation :**

Process evaluation helps to know the strengths and weaknesses of the training, which can be applied to improve future training programs. Further evaluation results of the ongoing training can be applied immediately to modify the training content, duration or techniques to make it more appropriate. Methods like observation of role plays and exercises will be used to evaluate the progress of the participants. Similarly observation of session facilitation will be done with the help of a checklist to give immediate feedback for improvement to the trainer. The third method used will be

reaction evaluation by the participants regarding the training quality, relevancy or logistics.

### **B. Learning Evaluation:**

The overall effectiveness of training directly depends on the extent of knowledge, skill and positive attitude participants have gained. The learning will be evaluated with the help of pre and post tests. Written tests will be prepared according to the content of the training. Difference in aggregate test results at the beginning and end of the training will indicate the level of learning acquired by participants during the training.

### **C. Performance evaluation:**

The ultimate aim of training is to improve the performance of trainees in their real job situation. Supervision in the field by the trainers will include observation of the outreach workers attempts to recruit the clients, review of record keeping methods and case discussion of specific clients. The actual counseling is done in confidential one-to-one situation, so it does not allow observation by the trainers. This will be assessed as part of the process evaluation of the whole intervention applying the mystery client approach.

### **3.5.3.2. HIV Prevention Counseling services:**

After receiving the counseling training, the trained outreach counselors will provide HIV prevention counseling to the transport workers. All the counselors will be men because in Nepal transport workers are only male. All together four outreach counselors will provide counseling everyday in a week except one holiday. The counselors will be available in the truck stop sites for four hours everyday for counseling services. The exact holiday and exact working hours for each of the counselors will be decided on the basis of findings from the formative research so as to reach maximum number of the transport workers. Each client will receive a minimum of four sessions of HIV prevention counseling over a one year period. Each of the sessions is expected to take between 30 minutes to one hour.

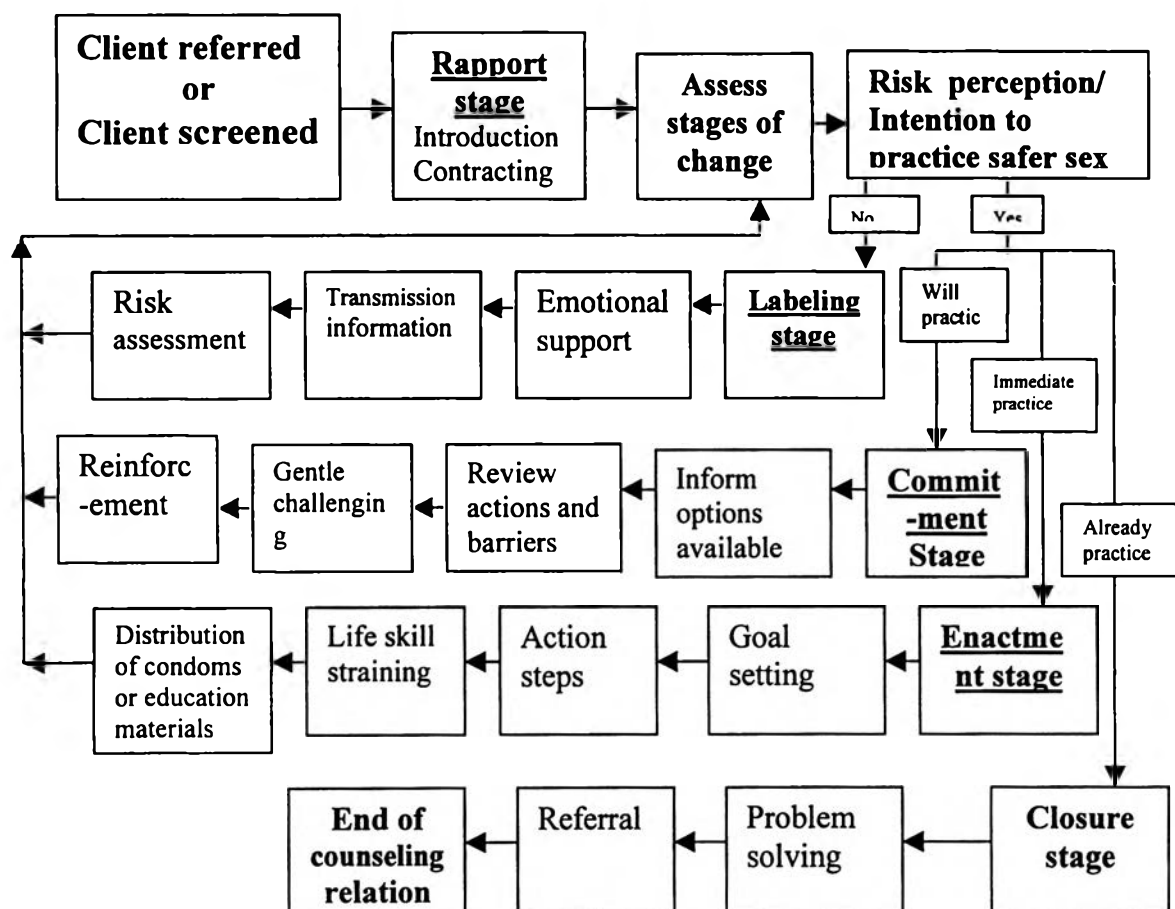
#### **1. Stages of counseling:**

The outreach counselor will get the transport worker clients from four major sources: referred from the education booth, referred from group counseling, referred from peer educators and screened by himself at the truck stop sites. The need for screening by the outreach counselor himself arises before providing counseling to transport workers, who are not referred by any sources. While a transport worker is met on the highway, the "outreach counselor" will form an opinion about the appropriateness of making contact with him for the counseling. The counselor will then briefly talk with him to find out the transport worker's willingness to receive the counseling service. If he shows willingness counseling can begin in a nearby suitable

place. If the time is not appropriate for either the counselor or the client, an appointment will be fixed for a new time.

HIV/AIDS counseling is divided into five stages: rapport, exploration, decision, action and closure (WHO, 1994; PHS, 1996; Barry, 1997; DHR, 1995). These stages are related with the stages of change: labeling, commitment and enactment, that I have presented in my conceptual frame work. So, as shown in the flow chart in figure 3.2, the proposed HIV prevention counseling is divided into five stages: rapport, labeling, commitment, enactment and closure. First of all the counselor will assess the position of the client in the stages of change and apply the appropriate cognitive-emotional and behavioral influences as shown in the flow chart. As there will be a total of four counseling sessions for each client, it is not necessary to complete all five counseling stages in a single session. The counselor and the client jointly decide the goal for each of the counseling sessions so as to complete all five counseling stages in one year period. The counselor follows the protocol given in Appendix VI while rendering the counseling.

**Figure 3.3 Flow chart of HIV prevention counseling**



When a transport worker is met on the highway stop the outreach counselor will form an opinion about the appropriateness of an intervention contact, instead of immediately approaching him. An eye contact may indicate as “inviting” contact. Explicit criteria will be made on the basis of the cultural characteristics of transport workers derived from formative research.

**Stage 1: Rapport building and gaining client's trust:**

In this stage, the counselor facilitates: introduction of each other; contracting by defining boundaries of counseling, each other's roles and available time; and assessment of the client's position in the stages of change. At the beginning, clients may react in many different ways. The counselor must spend time to encourage trust and build rapport with the client. The aim here is to establish a working relationship so that the client begins to trust the counselor enough to share their difficulties. It can be achieved by letting the client tell his life event stories in their own way. It is essential to make clear to the clients the role and boundaries of the counseling relationship. Contracting informally is achieved by explaining clearly the purpose of the session, role of both parties, available time and issue of confidentiality.

Then the counselor assesses the position of the client on the stages of change. If the client does not perceive himself at risk of HIV infection, the counselor focuses on risk assessment. If the client perceives the risk and intends to practice safer sex in future, the counselor focuses on commitment. If the client has already practiced measure/s of safer sex for some time or intends to practice immediately, the counselor focuses more on the enactment stage. If the client has already practiced the safer sex measure/s for more than 6 months, the counselor tries to end the counseling relationship.

**Stage 2: Labeling:**

In the labeling stage, the counselor facilitates activities: explores the client's general situation; assesses risk; and emotional support to lessen aversive emotion. It is often very tempting for the counselor to rush in with solutions to clients concerns and problems. However, until the counselor and client really understand the nature of the problem, solutions are likely to be of little use to the client. The counselor uses this activity as a means of solidifying helping relationship, asking questions that are directly related to the client's concerns and at the same time, geared to the client's needs in terms of his/her ability to use available resources.

The counselor first of all explores the general situation, which includes basic personal data as well as information on the client's beliefs, knowledge and concerns about HIV infection. If the client is too anxious or has fear, then the counselor provides emotional support as well as necessary information to reduce fear. Assessment of risk is the main activity here. However risk assessment is not taken as screening, rather it is a process to help the client perceive his/her personal risk. The outcome of this stage is that the client fully perceives the self risk of HIV infection and is ready to move to the commitment stage.

**Stage 3: Commitment:**

When the client fully perceives the self risk of HIV infection and intends to practice safer sex, the counselor takes the client into the commitment stage. At this stage the counselor will facilitate: information giving based on needs; offering options

of safer sex measures; review previous actions taken by client and barriers faced; helping client to recognize dissonance; reinforcement of previous actions. Here he offers new perspectives and begins to focus attention towards what can be done about the problem.

The counselor helps the client with necessary information to make decision. Depending on the nature of relationship with the client, the counselor applies gentle challenging to show dissonance between perception, intention and information. . The outcome of this stage is that the client is committed to reduce risk and ready to move to enactment

#### **Stage 4: Enactment:**

When the client has committed to immediately practice safer sex, the counselor helps the client to enacting safer sex. In this stage, the counselor facilitates: goal setting for safer sex; planning specific action steps to achieve the goal; life skill training; distribution of condoms and educational materials.

The counselor helps the client to select the most appropriate goal/s and devise strategies to achieve them in small steps. Ongoing counseling focuses on enabling the client to take charge and move toward change. Here basically, counseling consists of supporting and sustaining work on the selected problems and monitoring the progress towards mutually decided goals.



Depending on the plan made by the client the counselor provides the opportunity to learn necessary life skills such as use of condoms, non-penetrative sex, sexual and assertive communication skill. He will also distribute appropriate educational materials and condoms as required. The outcome of this stage is that the client is ready to practice one or more of the measures of safer sex.

**Stage 5: Closure or ending of counseling relation:**

After the client has practiced the safer sex measure/s successfully for some time, counseling enters the final stage. Mainly three activities are facilitated by the counselor in this stage: solving problems that the client faced in implementing his plan; reinforcement of safer sex efforts made by the client; referral to other service sites.

The counselor ends the relationship only when it is certain that the client is maintaining the necessary change behavior. The ending must be carefully planned and discussed with the client because client may feel unable to carry on without the counselor's help. The counselor may increase the interval between visits so as to let the client try and be independent. The outcome of this stage is that the change in behavior is sustained for a longer period of time.

### **3.5.4 Phase III: Evaluation of the intervention:**

#### **3.5.4.1 Process evaluation:**

The impact of counseling alone, without looking at the input and output, is not sufficient to determine the effectiveness of counseling services. The final outcome will not highlight the actual meaning of success or failure without looking at the entire chain of events. Hence, in this study, process evaluation will get more emphasis.

#### **1. Methods:**

##### **A. Review of Records:**

Record of the actual amount of money and time spent, personnel and materials used, will be kept as part of the management information system. Researchers will review those records kept by the NGO, to determine the efficiency of counseling compared to the counseling conducted by other organizations and compared to other HIV prevention activities. Also the counseling case reports will be used to analyze the characteristics of the defaulters in order to determine which aspects were different from those attending all the sessions of counseling.

##### **B. Simulated Client:**

In order to assess the standard of the counseling sessions, the simulated or surrogate clients will be utilized. The researchers here will act as transport workers and

show initiation to receive counseling. Immediately after the session the researcher will fill in a checklist with information on counseling skills and influences of stages of change applied by the outreach counselor.

## **2. Instruments:**

For the assessment of counseling sessions by the simulated or mystery clients, an observation checklist has been developed based on similar material developed by the Center for Disease Control and Prevention, USA (CDC). This structured instrument consists of a list of important communication skill or activities as intended by the counseling protocol. Observations on these items are recorded using a scale of 1 to 5 achieved, not achieved or excelled (Appendix X). The simulated client will have no opportunity to fill it in during the counseling session so he will fill it in afterwards based on his memory of the event. This instrument will also be used during counseling role- plays in training to give feedback to the participants.

### **3.5.4.2 Impact evaluation:**

To evaluate effectiveness of a counseling program, one needs to know what impact it has on the preventive behaviors of those who received. Many factors can affect the outcome of an intervention study: methodology, intervention characteristics, implementation and data analysis. So particular care should be taken in minimizing the bias in all the stages of the research. This impact evaluation will be employed before and after the research design, comparing results of behavioral change before and after the counseling intervention.

### **1. Methods of data collection:**

This study employs written pre and post tests for the impact evaluation as shown in table 3.4. The tests will be taken with all the transport workers who receive outreach HIV prevention counseling. The tests will be self-administered. As a pretest, all the transport workers who are screened in by the outreach counselors will fill in a test questionnaire. Similarly, post-test will be taken with transport workers who received at least four counseling sessions. This will try to measure the reduction in unsafe behavior as intended by the intervention.

### **2. Sampling:**

The sample for this client survey will be all the transport workers who received prevention counseling in Kailali district. The four outreach counselors can be expected to conduct eight counseling sessions per day. As they will provide counseling service five days a week, in a year they are expected to conduct 2080 counseling sessions. As each client has to receive a minimum of four counseling sessions, in total 520 transport workers are expected to participate in the baseline survey. However, there will be some attrition and all transport workers will not attend all four counseling sessions. If the attrition rate is 50 percent, there will be 260 participants for the end point of the survey.

### **3. Attrition**

The number of respondents planned, approached and recruited will be reported in the final report. Key characteristics of those, who did not participate in the research,

will be collected and compared with the respondents in order to determine potential participation bias.

Attrition is a great threat to the internal validity of a study. In the present study the client may be "lost" due to embarrassment about their failure to change their behavior. All lost clients and reasons will be documented. Self-selected attrition is more threatening to study validity than reasons not under the client's control. Hence all possible measures such as flexibility in appointment time for counseling sessions, standard behavior of counselors, reminder stickers on the vehicle and appointment cards will be adopted to lessen the attrition rate.

Similarly some sort of incentive in the form of lucky draw for full compliance, will be arranged. Each of the clients completing one session of counseling will get a lucky coupon. Maximum number of coupons to a client will be four. At the end of one year, lottery will be drawn in a public place and winners will get 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> prizes. Another mechanism of incentive will be vouchers for medicine. The clients attending counseling will be referred to the NGOs health clinic. If found with any health problem after a proper examination, he will get cash voucher, free of charge to purchase medicine from a nearby shop.

#### **4. Indicators:**

The impact of the intervention will be measured on the basis of indicators related to knowledge, attitude and practice of the counseling clients as shown in table 3.4. The real outcome of interest is the actual rate of HIV or STDs incidence.

However, due to the low sensitivity of these variables, behavioral change is used as a surrogate of change in the disease incidence. This approach suffers from many weaknesses due to ill defined links between behavioral change and the HIV risk (Leary et.al., 1997). The present study has included a set of variables representing safer sex, instead of selecting only one as a proxy. Similarly increasing safer sex may not actually decrease the exposure to sexual transmission. Hence the indicators here are measures of unsafe sex, rather than that of safer sex. These set of indicators are related to the behaviors of the individuals.

Another set of indicators in this study are mediators. Mediators are "active ingredients" that accounts for relationship between independent and dependent variables. These variables emerge from my conceptual framework and are believed to cause behavior change. They are related to the knowledge and attitude of the individual. They are categorical variables and ordinal scales are designed for measurement.

**Table 3.4 Impact indicators of the intervention**

<b>Indicators</b>	<b>Instrument</b>	<b>Method</b>
<b>Knowledge/skill</b> Knowledge of HIV transmission Skill to use condom Assertive communication skill	<b>Test questions with</b>  <b>Multiple choice</b>  <b>And</b>  <b>Demonstration of</b>  <b>skill.</b>	<b>Pre and post self-</b>  <b>administered tests</b>
<b>Attitude</b> Risk perception Level of fear Level of perceived barriers Level of client satisfaction	<b>Test questions with</b>  <b>Rating scale</b>	<b>Pre and post self-</b>  <b>administered test</b>
<b>Practice</b> Number of sex partners Frequency of visit to CSWs Frequency of anal sex Frequency of sex during mens. Frequency of condom use Timing of STDs treatment seeking Frequency of partner notification	<b>Test questions with</b>  <b>close ended questions.</b>	<b>Pre and post self -</b>  <b>administered test</b>

## **5. Data collection Instruments:**

A semi-structured test questionnaire will be used to collect data from the counselled clients. This test questionnaire will consist of many types of questions such as yes/no, multiple choice, rating scale or real demonstration as shown in table 3.4. The questionnaire for the test is adapted from WHO guidelines (1993) and it is divided into 6 parts.

Part one covers the demographic characteristics of the clients such as age, ethnicity, income, residence, education and marital status. Part two has questions about sexual acts such as number of partners, frequency of condom use and type of sex acts. Part three collects information about STD symptoms experienced by transport workers, treatment seeking for self and treatment for partner/s. The fourth part covers risk perception, level of fear and barriers to safer sex. The fifth part covers knowledge on HIV transmission, condom use skill and assertive communication skill. For the post-test a component has been added about level of client satisfaction with the counseling.

## **6. Data analysis:**

The survey will yield quantitative data, which will be tabulated manually on the frequency tables. Each of the dependent variables will be cross tabulated with the independent variables and mediators to find out the appropriateness of the conceptual model utilized in the study.



Particular care will be taken in the analysis of attrition and will be reported in the findings. Participant attrition can be a big threat to internal validity so it should be well documented. It is important also to document the point of time a participant is lost follow up and reasons for attrition. In this study a comparison will be done between the participants who were lost and those attending full intervention. Deleting non compliance participants gives distorted result of the study. Hence all the participants who participated in the baseline survey, will be included, following the "intention to treat" analytic approach. Similarly examining outcomes as a function of attendance or "dose-response" has been important part of data analysis in HIV/STD behavioral study. This analysis can suggest a necessary number of counseling sessions to result in behavioral change.

### **3.6 BUDGET FOR THE STUDY:**

A budget will be required for many activities of this intervention study. An attempt has been made to minimize the project input considering future replicability. Most of the budget for the intervention will come from the regular program of the implementing NGO, hence only the budget of the research part will be required. The total budget is \$ 8,787, which gives a cost less than \$ 34 per client, counseled four times. This cost is little higher than \$ 29 in Tanzania and \$ 27 in Kenya (Sweat, 1998). However, the costs may not be comparable because there the testing expense is also included and only two sessions of counseling was provided.

Table 3.5 Budget required

Budget item	Amount
<b>1. Personnel</b>	
Research coordinators: 12 months × \$300	\$ 3600
Outreach counselors: 4 persons × 12 × \$50	\$ 2400
Ethnographers: 14 days × \$ 50	\$ 700
Interviewers/tabulators: 6 persons × 60 days × \$ 4	\$ 1440
Mystery clients: 16 × \$ 4	\$ 64
<b>2. Meetings</b>	
Meetings with NCASC: 10 persons × \$2	\$ 20
Meetings with DAAC: 20 persons × \$2	\$ 40
Planning with ICH: 10 persons × 2 days × \$2	\$ 40
Report dissemination meeting: 50 persons × \$2	\$ 100
<b>3. Training of counselors</b>	
Participant allowance: 8 persons × 7 days × \$4	\$ 224
Remuneration for the guest lecturer: 7 × \$6	\$ 42
Logistic assistant allowance: 7 days × \$ 3	\$ 21
Stationary: 8 persons × 7 days × \$ 3	\$ 168
<b>4. Instruments</b>	
Cassette player: 2 × \$ 50	\$ 100
Cassettes and batteries: 25 × \$ 2	\$ 50
Questionnaires/ protocols printing: 5,000 pages × \$ 0.1	\$ 500

<b>Budget item</b>	<b>Amount</b>
<b>5. Training of Researchers</b>	
Participant allowance: 6 persons × 5 days × \$4	\$ 120
Remuneration for the guest lecturer: 5 × \$6	\$ 30
Logistic assistant allowance: 5 days × \$ 3	\$ 15
Stationaries: 8 persons × 5 days × \$ 3	\$ 120
<b>6. Research work</b>	
Transportation for field work: 6 persons × 20 days × \$1	\$ 120
Refreshment for respondents: 400 respondents × \$ 0.5	\$ 200
Report printing: 200 copies × \$ 3	\$ 600
<b>7. Incentive to the clients</b>	
Lucky draw: 3 prizes × \$30	\$ 90
Medicine coupon: 100 clients × \$8	\$ 800
<b>8. Stationery/ supplies</b>	
Stationary/supplies: 12 months × \$100	\$ 1200
<b>Total</b>	<b>\$ 11,508</b>
<b>Contingencies @ 5%</b>	<b>\$ 575</b>
<b>All total</b>	<b>\$ 12,083</b>

### **3.6.1 Human resource requirements:**

ICH will recruit four outreach counselors for one year from the transport community. Research experts and field level researchers will be hired only for some months. The Study Coordinator, however will be recruited full time. His qualification will be Master in Public Health or Social Science with a minimum of two years experience in public health related research. All other manpower for supervision, technical backup or administrative/accounting work will come from the ICH and will not be born by the study budget.

### **3.6.2 Technical equipment:**

An overhead projector will be required for the training of outreach counselors. One small tape recorder will be required for recording the focus group discussion and key informant interviews. Except those no other equipment will be required for this study.

## **3.7 ACTIVITY PLAN:**

From 1999 April onwards, SC/US will implement the second phase of the 'Enhanced support for HIV prevention project' with the support from the Netherlands government. It will be implemented in 11 districts through the partnering NGOs (SCUS, 1998). First of all, a project implementation committee chaired by DACC, will be formed. The member secretary will be the Program Coordinator of ICH. Other members in the committee will be representatives from the District Health Office (DHO), District Transport Association (DTA) and SCUS. The data collection of proposed 'Outreach counseling for transport workers study' will start from April 1999.

However preparatory activities such as meetings with NCASC, district collaborators, planning with ICH, development of instruments and selection/training of counselors/researchers will be simultaneously done. The first field activity will be formative research, followed by pre-test of the counseling clients.

The monitoring and supervision of counseling for quality assurance are on going activities. For the process evaluation, assessment of counseling sessions will be done using the mystery client approach towards the first half of the project. The final client survey and FGDs will be done during the 12th month of the project.

**Table 3.6 Workplan**

Activity	Aprl/May	June/July	Aug/Sep	Oct/Nov	Dec/Jan	Feb/Mar
<b>1. Formation of Impl. Comt.</b>	↔					
<b>2. Meeting with NCASC/DACC</b>	↔					
<b>3. Planning with ICH</b>	↔					
<b>4. Counselors training</b>	↔					
<b>5. Adapt/test instruments</b>	↔					
<b>6. Formative research</b>	↔					
<b>7. Outreach</b>	←					→

<b>counseling</b>						
<b>8. Pretest with clients</b>	↔					
<b>9. Process evaluation</b>		←-----→				
<b>10. Post test with clients</b>						↔
<b>11. Prize to lucky winners</b>						↔
<b>12. Disseminate report</b>						↔

### 3.8 APPLICATION OF THE STUDY:

Nepal has accomplished the awareness phase related to HIV/AIDS and gradually the high risk people are entering into the self risk perception phase. The present study will generate important information regarding the use of theory based intervention to help people move along the stages of change. Important lessons will be generated regarding intervention for transport workers, which can be replicated by the other organizations, working with the transport workers population in Nepal.

This study will develop protocols of counseling, which includes standard guidelines to help the clients in different stages of change with cognitive and emotional techniques. Results related to the overall effectiveness of counseling, will assist in

policy decision making with regards to choices between one-to-one or community intervention. With the findings of process evaluation, it will be easier to determine, whether counseling is a culturally appropriate method in the Nepalese social setting.

### **3.9 IMPLEMENTING ORGANIZATION:**

Save the Children US (SCUS) has been working with partner NGOs to combat HIV infection since October 1995 with the support of the Netherlands government. Before that SCUS had worked with the NGOs for HIV prevention with the support from WHO, AMFAR, UNICEF and AIDSCAP.

The Institute of Community Health (ICH), established in 1992, is a non profit training center. At present there are three training centers under the institute and one of those is located at Tikapur, the second urban center in Kailali district after Dhangadhi. ICH has a strong team of medical doctors, educationists, social scientists and nursing specialists. Besides running its regular course for the paramedical staffs, it has been implementing various health related projects since its inception. The Tikapur program of ICH is experienced in the provision of reproductive health services including family planning and STD treatment, and HIV prevention education for CSWs and various types of their clients including transport workers.

Since April 1996, ICH has implemented the present AIDS prevention and education project with the technical and financial support of SCUS and the Netherlands government. The main purpose of the project is to prevent HIV and STDs in the high risk behavior groups. It has a very good rapport and reputation with the traditional

"Badi" sex workers of Satti, Mudha and Valka. Apart from successfully implementing peer and static booth AIDS education program for migrant workers, sex workers, transport workers and army, ICH is also providing STD treatment services together with counseling.

ICH, has four booth educators and two health supervisors to conduct the AIDS education program at present. In total ICH has 78 peer educators, of which 17 have been recruited from transport networks. At the end of the current project in March 1998, ICH plans to review the work of these staff and renew their employment if appropriate. ICH will give preference to the indigenous members of the transport community in the renewal of employment. They will be assigned both booth education jobs as well as AIDS education activities on the highway. The booth educators will act as the outreach counselors in case of their absence from work.

### **3.10 POLITICAL AND FINANCIAL SUSTAINABILITY**

The implementing agency, ICH has strong financial base. It generates fund from health technical schools and spends some portion of that amount in different health promotion activities. Also it has strong technical as well as managerial capacity.

Other collaborating agencies are the District AIDS Coordination Committee (DACC), District Transport Association (DTA), District Health Office (DHO) and SCUS. Involvement of DACC and DTA ensures community mobilization and political sustainability. DPHO renders a wider technical support to the study. SCUS, on its part



has committed partial funding to the HIV prevention program in Kailali for the next five years. The implementation committee under the chairmanship of DACC and with the involvement of collaborating agencies, will make the counseling program more sustainable.

### **3.11 ETHICAL ISSUES:**

#### **1. Stigmatize the target population:**

Overt outreach activity will invite attention of people. The HIV prevention activity to a particular group of people suggests high risk behavior. This in turn may lead to stigmatization of the transport workers and discrimination against them. To create favorable atmosphere, it is necessary to change the attitude of the people, particularly the people surrounding truck stops. ICH will mobilize its field workers and volunteers to create a positive atmosphere.

#### **2. Confidentiality:**

It is possible that the outreach counselors are not able to maintain confidentiality. The official record keeping and providers in referral facilities also may not follow the confidentiality strictly. This will be a violation of the rights of the clients. Therefore ICH, will strictly follow the confidentiality.

### **3. Trauma and emotional arousal:**

Risk assessment requires deep exploration in people's past also, which may have some incidence having psychological consequences. Opening the mental trauma may require professional help. Similarly behavioral change support necessitates emotional arousal. If not dealt with carefully, it may have ill effects on the mental health of the subjects. Short training of outreach counselors may not be enough to deal with that. Hence, the outreach counselors will be provided technical backstopping support by other higher level counselors from the STD clinic and the blood bank and more difficult cases will be referred. The refresher training and case presentation sessions will focus more on these issues.

### **4. Disruption of natural environment:**

This intervention study requires time and attention of various people in the truck stops. It may disturb the natural daily life and activities there. As a side effect of the intervention, some people like CSWs, alcohol seller, quacks, pharmacists may experience reduced work or may totally loss their work. It is a question of whether a research do have that mandate or not. For this, prior to implementing the project, ICH will discuss and get consent from the major stake holders.

### **5. Attract law enforcement agents:**

The increased activities due to intervention may attract the attention of law enforcement agents such as police, traffic authorities, health inspectors or excise

collectors. This may put the target population and interactors in a more difficult position. It will further drive the high-risk people underground, further making the prevention work more difficult. The researchers and outreach counselors will be cautioned not to create over attention.

#### **6. Difficult conditions for researchers and counselors:**

The situation in highways and truck stops may not be familiar to the researchers. As they are required to pass extensive number of days there for formative research, it may mean putting them in a difficult and sometime dangerous situation. Also the counseling service requires asking intimate questions, which can be interpreted as being impolite and create hostility. Training has been designed cover issues to deal in such an environment and danger sensing.

### **3.12 LIMITATIONS OF THE STUDY:**

#### **1. Insufficient number of research subjects:**

The study depends on the success of the outreach activity to recruit transport workers as clients. Given the high mobility of the transport workers and their past reluctance to participate in HIV prevention activities, it may be difficult to recruit an adequate number of subjects for the impact evaluation of the counseling.

## **2. Skilled Counselors:**

Everybody can not be a good counselor. If the training is not as effective as assumed, ICH may not get skilled counselors. Further, the range in skill may vary. They are one of the measurements of this study and should be standardized. In the absence of that standard, the result can not be interpreted correctly.

## **3. Implementing NGO:**

If the NGO closes its operation or ceases to work with transport workers due to financial or other reasons, the study can not be continued. Further, most of the standards depend on the commitment and management qualities of that NGO, which may not remain the same over time.

## **4. Change in policy:**

If government policy changes regarding NGO, traffic, transport workers, HIV prevention or counseling service, the study may have to be closed.

## **5. Follow up:**

Following up same panel of transport workers for pre and post tests is not easy. There can be attrition due to change of residence, change of route, morbidity, mortality or change in decision to participate in research.

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