# Addressing comprehensive knowledge as a strategy to mitigate HIV related risk behavior among young men in India

## Importance of the Problem

Adolescence and early adulthood is a distinct and dynamic phase of development in the life of an individual, which is characterized by spurts of physical, mental, emotional and social development (Singh.et.al, 2004). It is the time when influences outside the family assume greater significance. Adolescents and youth find themselves facing new opportunities and challenges. It is also a formative stage in terms of sexual and reproductive maturity. Traditional societies did not consider it necessary for adolescents to have information about sex prior to marriage in the belief that sexual activity occurs only within wedlock. However, with modernization and the influence of mass media, the socio-cultural milieu has been changed significantly and resulted in changes in values and norms related to sex and sexual behavior, and adolescents are now often tempted to have sex even before marriage(Robinson T.2004).

The phase of adolescence and early adulthood is also marked by the nature of strong experimentation and influence of friends and peer groups. During this stage of life, peer relations become more intense and adolescents start spending more time outside the home, escaping the chaperoneship of the adult members of their families. The influence of mass media, friends and peer pressure provokes them to experiment in risky lifestyle activities such as smoking, drinking, and risky sexual behavior. As a result, the risk of sexually transmitted diseases (STDs) including HIV/AIDS may be significant among adolescents and youth. Adolescents are especially vulnerable to STDs, including HIV/AIDS, because of high-risk behavior, less knowledge of preventive measures, greater biological susceptibility to infections and their limited access to health facilities for treatment (Devieux J.2002).

AIDS- an acronym for "Acquired Immunity Deficiency Syndrome"-is a viral disease, which is transmitted by blood and other body fluids such as semen and vaginal discharge. AIDS is unique in that it attacks the immune system, which responsible for protecting against all other diseases. Since it is known to be sexually transmitted, is a potential threat to every active person who has not been in a mutually monogamous partnership. AIDS poses a threat to anyone who received a blood transfusion without testing blood for HIV. Prevailing poverty and lack of testing facilities and prohibited cost of test virtually makes it impossible for an average inhabitants of India to confirm about HIV status of the blood being transfused to them (Mehta and Sodhi, 2000)

Globally estimated 39.5 million people were living with HIV/AIDS at the end of 2006. Estimated 4.3 million were newly infected adults. The new 2006 estimated released by the National AIDS Control Organization (NACO), indicate that national adult HIV Prevalence in India is approximately 0.36%

which corresponds to an estimated 2 million to 3.1 million people living with HIV in the country. Although overall HIV prevalence is low the large population of the region makes the magnitude of HIV epidemic huge.

In spite of several modes of HIV transmission inclusive of blood/blood products and from a pregnant/lactating mother to her child, the principal mode of transmission of HIV in India has been unprotected sexual relations- especially heterosexual intercourse. Therefore, the spread of AIDS can only be controlled through behavioral changes, particularly in sexual practices. Since sex is a basic need for both pleasure and reproduction for most people, the only effective way of preventing AIDS is to have a better understanding of those aspects of sexual behavior which are particularly risky for HIV transmission in India and to make people aware of them. In order to achieve that, we need to know much more than what we know at present about the existing patterns of sexual behavior in diverse population groups of India.

AIDS is not contagious, it does not spread by being close or touching, it is infectious. A radical change in approach is required to tackle the AIDS scourge. In some ways AIDS is a contemporary disease like no other. HIV is silent, dormant sometimes for years, seeming to wait patiently and cruelly to be activated and then diagnosed as AIDS. But there is silence on another account. HIV/AIDS is transmitted sexually and in our society sex is merely a subject for mature and informed discussion. Understanding the disease means coming to grips with complex cultural notions of sexuality, poverty and illiteracy, our inability to comprehend in our efforts act as the other visible culture and social constraint in our efforts to manage this crisis situation.

The policy planners, medical experts and those engaged in implementation of strategies for reducing the risk of HIV/AIDS are largely convinced that the consistent use of condoms and conscious campaign aiming at safe sex should automatically reduce the risk of HIV infection. Sex, however, is usually not a matter of overt discussion in India, but the threat of AIDS as a killer disease has made it a legitimate topic of allusion in traditional as well as transitional societies. Much of the underlying assumptions behind the allusions are based on myths and stereotypes (Moni Nag, 1996). Though the importance of early diagnosis of HIV has increased in the context of enhancing the effectiveness of HIV prevention programme in the country, but the comprehensive awareness, which can lead to attitudinal and behavioral change towards safe sexual practices, is the only weapon to curb the pace of HIV/AIDS in the country (Singh, 2008).

**Need for the Study**

HIV is largely concentrated among population with high risk behavior namely female sex workers & and their clients, injecting drug users and. men who sex with men. UNAIDS estimates for 2006 reveal that around 42-46 % of all new HIV infection occurred among youth age 15 to 24. Young people are the

center of HIV/AIDS epidemic in terms of transmission, impact and potential for changing attitude and behavior underlying the pace of the HIV epidemic. It is against this background; targeting youth for the effectiveness of HIV prevention program has been globally recognized. In recognition of young people vulnerability to HIV/AIDS the United Nation General Assembly special session on HIV/AIDS outlined a number of goals and targets focusing on young people age 15-24 as part of the millennium development goals. These include a pledge to reduce HIV prevalence among young people globally by 2010 by focusing at the strategies to reduce STI/HIV vulnerability among youth, especially young women, though awareness and capacity building in one hand and improved services through developing support system and enabling environment on the other.

In view of the above paradigm, knowledge of HIV/AIDS and different dimensions of risky sexual behaviour among youth age 15-24 are of particular interest for research as well as for interventions. This issue has special importance in context of the emerging trends in new HIV cases in India. The last five years sentinel surveillance data shows that nearly two-fifths of new infections are reported among people below 25 years of age (NACO, 2004). Therefore, focusing at the risk behavior of HIV/AIDS among youth in India should have increased attention in deciding the research priorities and also designing programmatic response to the epidemic.

**Objectives**

The main objective of this paper is to examine the major correlates of HIV related risk behavior among young men in India. More specifically the objectives of this paper are;

- To examine the extent of AIDS knowledge among young men age 15-24 in India, and
- To analyze the socio-economic and contextual correlates of HIV related risk behaviors.

**Data and Methodology**

The basic data used in this paper have been taken from the most recent round of National Family Health Survey (NFHS)-3., where it is the first time when information on HIV related risk behavior have been collected from a nationally representative sample of men age 15-54 and women age 15-49 irrespective of their marital status. For the purpose of this paper, the sample of men age 15-54 years in NFHS-3 has been restricted to the young men age 15-24 years by filtering from the men's data file. The total sample size for the present study thus obtained is 24997, which may further reduce in certain categories where response rates are lower. That is why; an attempt has been made to give value of N in most of cases. In order to ascertain data requirements and articulation of various issues pertaining to the risky sexual behavior among young men this paper uses applications of bivariate and multivariate techniques.

It is worth mentioning that one cannot get a direct variable on comprehensive knowledge from NFHS-3 data. Therefore, it has been computed based on several questions included in the survey pertaining to the extent of knowledge and misconception about HIV transmission and prevention. The comprehensive knowledge has been based on three core issues namely - knowing that people can reduce their chance of getting HIV/AIDS by having sex with one uninfected partner and by consistent use of condom during intercourse; knowing that a healthy-looking person can have AIDS; and rejecting two most common misconceptions i.e. HIV/ AIDS can be transmitted by mosquito bites or by sharing food with a person infected with HIV.

HIV related risk behaviour has been computed on the basis of sex with a person who is neither a spouse nor having a live in relationship. Of course, the risk behavior has been analyzed only for those young men age 15-24 who reported to ever had sex with women other than wife/ partner in the last twelve months. Subsequently, it has been clubbed with those who have not used condom during last sexual intercourse. The other depend variable included in the analysis to have comprehensive insights in to the issue of risky sexual behavior are the intention to wait until married to have sex and condom used at first sexual intercourse. Exposure to mass media is computed based on those people who reported, reading newspaper or magazine, listening radio or watching television at least ones in a week. For the purpose of getting precise results to achieve the above objectives, bi-variate and multivariate techniques have been used in this paper.

**Analysis and Discussion**

The last five years sentinel surveillance data reveals the growth pattern of new HIV cases with a larger concentration among youth. Youth in the age group 15-24 are in transition in building knowledge based behaviour. Even after two decades of awareness programs implemented through multiple approaches of interventions 12 percent of the young men in the age group 15-24 years have never heard of AIDS. As expected, NFHS-3 data provides evidence of strong positive association between educational attainment and AIDS awareness. In fact, every second youth (men age 15-24) having no education has reported to never heard of AIDS. Young men who were never married at the time of NFHS-3 survey are more likely to have AIDS awareness (90 percent) than those who are married (82 percent). Young men residing in urban area are more likely to have AIDS awareness (95 percent) than those living in rural areas (84 percent).

Though NFHS-3 findings focus at comparatively better AIDS awareness among youth than among adult men age 15-49 but a considerably large proportion of them do not know how to prevent transmission. In addition, a vast majority of young men age 15-24 are not aware of AIDS prevention practices and have a

number of misconceptions about transmission and prevention (NFHS-3). Therefore, an attempt has been made in this paper to analyze a variable comprehensive awareness computed on the similar lines of NFHS-3 (the computational procedure has been mentioned in brief in the section on data and methodology) in understanding the AIDS related risk behavior among youth in India. It is needless to mention here that comprehensive knowledge of AIDS has been computed by considering if they know that using a condom and having just one uninfected partner limits the risk of getting AIDS, knowing that a healthy looking person can have AIDS and also rejecting the two most common misconceptions about AIDS transmission (transmission by mosquito bites and by sharing food).

**Comprehensive Knowledge**

Only 36 percent of young men in the age group 15-24 have comprehensive knowledge of HIV/AIDS, which is a basic requisite for behaviour change in the context of HIV related risk behavior. It is evident from Table 2.1 that the married youth are relatively less likely to have comprehensive knowledge of AIDS (26 percent) than their unmarried counterparts (39 percent). Other background characteristics having profound differential in the comprehensive knowledge among youth are place of residence, education and standard of living. Urban youth are over 1.5 times more likely to have comprehensive knowledge of AIDS than the young men in rural areas. However, in case of increasing education the differential are further more pronounced. Young men age 15-24 among those coming from high SLI households are over 2.5 times more likely to have comprehensive knowledge than those coming from low SLI households. In case of working people the figure is 30 percent which is lower than those who are not working. Muslims and Schedule tribe youth have comparatively less comprehensive knowledge of HIV AIDS than their counterparts.

Table 2.2 presents the results of logistic regression analysis on comprehensive knowledge by different socio-economic and background characteristics. The adjusted effect of place of residence is significantly affecting the level of comprehensive knowledge among youth where rural youth are 28 percent less likely to have comprehensive knowledge than their urban counter parts. Education is a vital factor in enhancing comprehensive knowledge as the adjusted effects of higher education reveals almost 10 times more likelihood of comprehensive knowledge than among those having no education. Religion wise Muslims are less likely, on the other hand others are 1.3 times more likely to have comprehensive knowledge of HIV AIDS. These relations are highly significant at 1percent level of significance. As compared to person living in low SLI person living in medium and high SLI are more likely to have comprehensive knowledge of HIV /AIDS by 1.3 and1.9 times with respect to the reference category. A distinct picture comes when working people are 15 percent less likely to have comprehensive knowledge

of HIV /AIDS than those who are not working this is highly because young men living better socio-economic conditions mostly involved in their educational attainments.

**Intention to Wait for Sex till Marriage**

Transition from child hood to adolescence hood or adulthood is the period where young men develop notions about various incidences taking place around them. Often such notions are governed by a number of factors ranging from individual and familial levels to the environments and surroundings in which they grow. Intension to wait till marriage for sex too is a similar notion, expected to have negative repercussions for their risk indulgence. Table 3.1 is based on the intention of individual to have sexual intercourse before marriage. This table gives the perception of youth towards risky sexual behaviour even though the figures are very low, yet the differentials across background characteristics, where six percent youth are not intended to wait for sex till marriage. Of course the differentials are negligible when compared among youth living in urban and rural areas. By and large a similar pattern is noticed when analyzed by their working status. Those who drink alcohol (7.9 percent) have no intention to wait to have sex till marriage; it is only 5.8 percent for those who don't consume alcohol, so it reflects that consuming alcohol affects more on attitude building. People from low SLI are slightly more (7 percent) than those who are from high SLI (6 percent). Caste wise, schedule tribe youth are more in percentage (10 percent) having no intention to wait to have sex till marriage while others are not showing any major differences.

Table 3.2 shows that the logistic regression odds ratios of intention to have sex before marriage. The first model included the macro level variables providing a context and environment in which youth are living and growing up. While the second model included a number of individual level variables like educational attainment, exposure to mass media, alcohol consumption, mobility and comprehensive knowledge about HIV/AIDS. Alcohol consumption is significantly related to the intention for pre-marital sex, and those who take alcohol everyday or once in a week are more likely to intend for pre marital sexual intercourse. Model 1 shows that those who live in rural area are relatively less likely to report their intention to have sex before marriage. In comparison to SC population ST and Others are more likely to have intention for sex before marriage.

**Condom Use in first Sexual Intercourse**

HIV/AIDS program in India has a multi-facet approach of intervention through different programmes and services but the basics of all such approaches are rooted in ensuring safe sex though ensuring consistent condom use. An attempt has been made in this section to analyze information on condom use in the first sex collected as part of NFHS-3. Table 4.1 depicts the percentage for those young men age15-24 who have used condom during their first intercourse. Table shows that only 15 percent of young men in age group of 15-24 years in India have used condom during their first sexual intercourse with 11 percent in rural areas and 26 percent in urban areas. The usage of condom during their first sexual intercourse is

increasing as the educational level increases. A comparatively lower proportion of never married men (7 percent) reported to use condom during their first sexual intercourse, as against 19 percent among the married youth. Similarly young men having no education, low SLI and hose belong to scheduled tribes are relatively less likely to use condom in their first sexual encounter- which again increases the vulnerability of youth to STI/HIV risk.

Table 4.2 reveals the binary logistic regression results on condom use in the first sex. Model 1 shows that those who are belonging to joint family, they are less likely to use condom. Adjusted effect of religion on condom use reveal significantly larger chances of condom use in the first sex among Christians and others in comparison to Hindus ,while the pattern gets reversed in case of Muslims though the relationship is not significant. Among other predictors included in model, SLI has amore pounced impact on condom use in the first sex. Youth belonging to moderate and high SLI categories are 1.8 and 3.5 time more likely than those belonging to low SLI to protect themselves by condom use in their first sexual encounter irrespective of the partner.

Further, Model 2-which includes a number of individual level characteristics shows that less number of people in the rural area are using condom in comparison to urban. In comparison to SC population ST and OBC are less likely to use condom during the intercourse. Those people who are belonging to medium and low standard of living are 1.27 and 2.08 times respectively more likely to use condom at the time of intercourse. Those having higher educational attainments are 2.7 times more likely to use condom in their first sex than those among no education category. It is extremely important to mention that the adjusted effect of comprehensive knowledge have significant impact on their protective sexual behavior. Young men age 15-24 who are having comprehensive knowledge are 20 percent more likely to use condom in the first sex than others and hence enhancing comprehensive knowledge through various approaches of intervention is likely to reduce the young men's vulnerability to STI/HIV.

**Risky Sexual Behavior**

The risky sexual behaviour has been computed based on information collected from men who have had sexual intercourse in the 12-month period before the survey. It has two components- high risk sex and condom use in the last sex. A higher-risk sex is the sexual intercourse with someone who is neither a spouse nor a cohabiting partner. While the second indicator relates to condom use during the last act of higher-risk sexual intercourse. Table 5.1 shows the percentage of young men of age group of 15-24 years engage in risky sexual behaviour by different background characteristics. It is found that nearly four percent of youth in India are involved in risky sexual behavior with 5 percent in rural areas and two percent in urban areas. There is a declining pattern in prevalence of risky sexual behavior as the educational level increases. Percentage of youth in risky sexual behaviour is low among non working ( 2 percent) as against relatively larger proportion ( 5 percent) in case of working men. With respect to the

background of young men in term their caste-group, proportion of young men reported to indulge in risky sexual behavior during the last 12 months is 5 percent among SC and 4 percent among each of scheduled tribe and OBC categories. Unmarried youth relatively are more likely to involve in risky sexual behaviour (4 percent) than married youth (3 percent).

As observed in case of other two dimensions of AIDS related risk behavior among youth, the risky sexual behavior too provide profound differentials by alcohol consumption. Young men age 15-24, who reported to consume alcohol, are three times more likely to involve in risky sexual behaviour than those who don't consume alcohol. Similarity is the case when frequency of alcohol consumption comes; it is significantly for those youth who consume alcohol everyday (11 percent) and/or once in a week (12 percent) than who takes less often (7 percent). Further, it is also evident from Table 5.1 that there is a positive association between mobility- measured in terms of number of visits away from home in the last 12 months and involvement in risk behavior. Those who are more mobile are more prone to indulge in risky sexual behavior. Youth who are away from home for more than a month (7 percent) are involved in risky sexual behavior. Thus, there is a clear evidence of association between mobility and risky sexual behavior.

The adjusted effect of different predictors on risky sexual behavior among youth age 15-24 are presented in table 5.2. Logistic regression odds ratios reveal that rural youth, those coming from joint family, religion group others, those belong to SC/ST are more likely to involve in risk behavior than their counterparts. However, SLI has significantly negative association with the potential indulgence in high risk sexual behavior among youth age 15-24. In Model -2, which also incorporate a number of individual level factors in addition to the macro level factors included in Model -1, alcohol consumption has been the most prominent factor significantly associated with the likely indulgence in to risky sexual behavior. Of course, the degree and direction of association with macro level variables remains the same except the effect of religion being insignificant. Those people who are away from home for more than one month are 1.24 times more likely to have risky behavior. Men in the age group 15-24 years, if they have comprehensive knowledge of HIV/AIDS they are less likely to involve in risky sexual behavior. While the exposure to media provides an apparently contradictory results. It is important to point out that media exposure among youth does not seem to reduce their likely indulgence in to risky sexual behavior.

**Conclusions and Recommendations**

In view of increasing HIV prevalence among youth age 15-24 in India in the recent years, this paper endeavors to understand the risky sexual behaviour among youth and its major determinates, which may have potentials to be prioritized for programmatic response. Lack of Comprehensive knowledge about HIV/AIDS among young men age 15-24 has been conceptualized as predictor for increasing prevalence

of AIDS related risk behavior as only 36 percent of the young men have comprehensive knowledge about HIV/AIDS, though it varies by education, urban rural residence and standard of living. These findings suggest a need based intervention for rural youth specially those who belong to low SLI and having no education. Of course a large chunk of these youth are employed in unorganized sector and hence workplace based interventions may be ideal for enhancing comprehensive knowledge among youth.

The first indicator of AIDS related risk among youth, revealing intention to have premarital sex, shows that six percent of the young men reported to have an intention to have sex before marriage. Proportion of such youth is considerably higher among those reported to consume alcohol, who frequently move away from home and belong to scheduled tribes. This shows that the influence of substance abuse among youth, and the context in which youth are mobile enhance their intention to indulge into sexual relations before marriage..

Though 15 percent of the youth reported to be used condom during their first sexual intercourse, only seven percent of the never married men reported to use condom shows that the involvement in safe sexual practices among the young men. Nearly 4 percent of youth in India are involved in risky sexual behavior with high percentage among rural, less than primary standard education and among the youth with frequent mobility. Thus, the above findings clearly reveal that alcohol consumption among youth age 15-24 in India has significant association with all the three dimensions of risky sexual behavior among youth. Therefore, any programmatic response to reduce vulnerability to STI/HIV among youth should accord mitigating the effects of alcoholism among youth at the top priority and should be addressed with multiple approaches of intervention.