

UTILIZATION OF CONDOM IN THE CONTEXT OF HIV/AIDS IN NEPAL

Introduction

The history of utilization of condom goes back to 14th century. Barriers have been used to cover the penis to protect against disease since 1350 BC and for pregnancy prevention since at least 16th Century AD (Lewis, 1998). However, the importance of condom became inevitable after the emergence of HIV/AIDS during 90s at the global level. In fact, HIV/AIDS ushered in a new era of condom promotion. Condom is the best protective method of HIV/AIDS, STDs and preventive method for pregnancy although a large number of people do not use condom during their risky sexual acts.

The present study intends to examine the utilization of condom in the context of HIV/AIDS in Nepal. Nepal is the smallest landlocked country situated between world's most populous nations China and India. According 2001 census, the population of Nepal was 23.15 million (CBS, 2001). Out of the total population almost 39.4 percent of population were under age 15 years, which shows the younger nature of population. The percent of female population in reproductive age 15-49 years covered 49.3 percent of total female population. On the other hand, 53.3 percent of male were in reproductive age 15-59 years out of total male population (CBS, 2001). NDHS 2001 showed that the contraceptive prevalence rate was 39.0 percent in Nepal. Among the modern methods female sterilization had the highest prevalence rate, 16.5 percent followed by injectable, 9.3 percent however female and male sterilization declined over the last decade. The prevalence rate of condom was 3.0 percent in 2001 while it was only 0.1 percent in 1976. The use of condom is still low as compared to other female methods. Under the influence of socio-economic, religious and other factors, the use of condom is low especially in the rural part of the country. On the other hand, accessibility, affordability and other behavioral factors might be the key determinants of low utilization of condom in the rural part of the country. Although with the emergence of HIV/ AIDS, improvement in literacy level and the social marketing of condom in these recent years, the use of condom has been gradually increasing in all parts of the country.

Data and Methods

The analysis presented here is based on Nepal Demographic Health Survey (NDHS) 2001. It was the most comprehensive demographic sample survey after Nepal Family Health

Survey (NFHS) 1996. The main objectives of this survey were to provide update information on fertility, family planning, infant mortality rate (IMR), child mortality rate (CMR), status of women and children and knowledge of HIV/AIDS. Only a sample of ever-married men and women in the reproductive age group 15-59 and 15-49 years were interviewed. In NDHS 2001, sampling frame was used as 1991 census used. Administratively whole country is divided into 14 zones and 75 districts, and each district is divided into village development committee (VDC), or municipalities. Furthermore, each VDC and municipality is divided into wards. Primary sampling unit (PSU) was a ward or group of wards in rural area and sub-ward in urban areas. The sample for the survey was based on two-stage stratified sampling. At the first stage 257 PSUs, 42 from urban and 205 from rural were selected. PSUs were selected by systematic sampling with probability proportional to size sampling (PPS). At the second stage, on average 34 households per PSU were selected to provide the reliable estimate. The survey completed interviews of 8726 women and 2261 men. At the first time, men were interviewed to collect the information in Nepal. Three types of questionnaires: households, women's and men's questionnaires were used in the survey. At first questionnaires were developed in English and converted into three major languages: Nepali (National language), Bhojpuri and Maithili.

Analytical Procedure

At the first stage of analysis, univariate (percentages and frequency distribution) and bivariate (cross tabulation) analysis have been used. Chi square test has also been used to test for independence between background characteristics and response variables. We have used multivariate statistical method (binary logistic regression) to assess the characteristics associated with utilization of condom in the context of HIV/AIDS. The results have been expressed in terms of odds ratio with their significant value. Almost all the dependent and independent variables under study are categorical. It has been found that there is no significant difference between the samples of ever and currently married men. So this study is only confined to ever married men. SPSS statistical technique has been used to analyze the data. The categories and coding values of dependent and independent variables considered in the analysis are presented in table 1.

Table1. Levels and coding values of independent variables used in the analysis

| Variables level | Categories | Codes |
|-----------------------|---------------------------------------|-------|
| Age | 15-19 | 1 |
| | 20-29 | 2 |
| | 30-39 | 3 |
| | 40+ | 4 |
| Education | No education | 0 |
| | Primary | 1 |
| | Some secondary | 2 |
| | SLC and above | 3 |
| Occupation | Agricultural | 0 |
| | Non-agricultural | 1 |
| Mass media | None | 1 |
| | Any one | 2 |
| | Any two | 3 |
| | All three (Radio, TV and Newspaper) | 4 |
| Spousal communication | More often | 1 |
| | Once or twice | 2 |
| | Never | 3 |
| Drinking Alcohol | Yes | 1 |
| | No | 2 |
| Residence | Urban | 1 |
| | Rural | 2 |
| Ecological regions | Mountain | 1 |
| | Hill | 2 |
| | Terai | 3 |
| Development regions | EDR (Eastern Development Region) | 1 |
| | CDR (Central Development Region) | 2 |
| | WDR (Western Development Region) | 3 |
| | MWDR (Mid Western Development Region) | 4 |
| | FWDR (Far Western Development Region) | 5 |

Source: NDHS 2001

Table 2: Levels and coding vales of dependent variables

| Variable Levels | Categories | Codes |
|--|------------|-------|
| Knowledge of condom | Yes | 1 |
| | No | 0 |
| Use (ever and current) of condom | Yes | 1 |
| | No | 0 |
| Reason for condom use (for prevention of pregnancy and protection of diseases) | Yes | 1 |
| | No | 0 |
| Knowledge of HIV/AIDS | Yes | 1 |
| | No | 0 |
| Knowledge of AIDS and utilization of condom | Yes | 1 |
| | No | 0 |

Source: Same as in Table 1

This study has been analyzed under a number of limitations, which are also addressed here. Firstly, this study is based on the cross-sectional information provided by NHDS 2001, which may not be sufficient to explain the population characteristics. Secondly, in aggregate level (national level) this gives the representative figure however at regional and sub-regional (districts) level the number of sample is very small to draw the firm conclusion.

Results

Knowledge of condom

Table 3: Percent of knowledge and utilization of condom by characteristic of men, Nepal 2001

| Characteristic | Knowledge | Ever use | Current use |
|------------------------------|------------|-----------|-------------|
| Age | | | |
| 15-19 | 100.0(70) | 38.6(27) | 17.1(12) |
| 20-29 | 99.2(620) | 46.8(290) | 11.0(69) |
| 30-39 | 98.7(663) | 42.5(242) | 6.5(44) |
| 40+ | 94.1(841) | 24.6(207) | 2.2(20) |
| Chi Square | 45.0** | 89.7** | 61.7** |
| Education | | | |
| No education | 93.3(789) | 20.4(161) | 2.6(22) |
| Primary | 98.9(667) | 34.2(228) | 5.6(38) |
| Some secondary | 99.6(453) | 49.2(223) | 8.6(39) |
| SLC and above | 100.0(285) | 68.1(194) | 16.1(46) |
| Chi Square | 68.6** | 252.4** | 161.2** |
| Occupation | | | |
| Agriculture | 96.1(1404) | 30.4(427) | 5.0(73) |
| Non-agriculture | 98.7(789) | 48.0(379) | 9.0(72) |
| Chi square | 12.6** | 66.5** | 13.9** |
| Mass media index | | | |
| None | 90.9(636) | 19.2(111) | 2.2(14) |
| Any one | 99.2(857) | 33.5(287) | 5.0(43) |
| Any two | 100.0(406) | 46.1(187) | 12.1(49) |
| All three | 99.8(353) | 62.6(221) | 11.0(39) |
| Chi square | 120.7** | 197.2** | 55.9** |
| Spousal communication | | | |
| Never | 95.0(1028) | 25.3(260) | 2.7(29) |
| Once or twice | 99.4(683) | 43.3(296) | 8.4(58) |
| More | 99.8(423) | 57.0(241) | 13.7958) |
| Chi Square | 43.3** | 144.0** | 65.1** |

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(Continued from table 3)

| Drink alcohol | | | |
|----------------------|------------|-----------|----------|
| Yes | 97.6(1515) | 40.2(623) | 6.8(108) |
| No | 96.0(643) | 28.5(183) | 5.5(37) |
| Chi square | 3.8 | 26.8** | 1.3 |
| Residence | | | |
| Urban | 99.3(302) | 35.1(664) | 8.6(26) |
| Rural | 97.7(1892) | 47.0(142) | 6.1(119) |
| Chi Square | 6.5** | 15.9** | 58.9** |
| Eco. regions | | | |
| Mountain | 96.4(296) | 26.4(78) | 2.9(9) |
| Hill | 97.5(773) | 38.8(300) | 7.2(57) |
| Terai | 96.5(1125) | 38.0(428) | 6.8(79) |
| Chi Square | 1.1 | 16.0* | 210.8** |
| Dev. regions | | | |
| EDR | 98.6(562) | 37.5(211) | 6.0(34) |
| CDR | 97.2(615) | 33.3(205) | 5.1(32) |
| WDR | 93.8(366) | 35.0(128) | 6.4(25) |
| MWDR | 95.2(279) | 38.0(106) | 6.1(18) |
| FWDR | 99.2(372) | 41.9(156) | 9.6(36) |
| Chi Square | 28.12** | 8.3** | 85.9** |
| N | 97.0(2194) | 35.6(806) | 6.4(145) |

Note:

1. The sum of percent is not equal to 100 due to percent in terms of total of each category.
2. The figures in parenthesis denote the total number of cases.
3. ** = $P < 1\%$, * = $p < 5\%$
4. In case of column only the positive responses have given. But the Chi square has been conducted by using both positive and negative responses. The negative response is not shown in the table.

Source: NDHS 2001

Table 3 presents the percent of knowledge of condom by characteristics of men. Knowledge of condom is almost universal among married men in Nepal. In 2001 about 97.0 percent of men had knowledge of condom (NDHS 2001). Age, education, occupation, mass media exposure, spousal communication, recent sexual activity, place of residence and development regions showed a significant association with knowledge of condom. A higher proportion of men, 100.0 percent at younger age 15-19 years had the knowledge of condom than men at older age. Likewise, about 100.0 percent men who had attained SLC and above education reported the knowledge of condom than lower educated men. A South African survey conducted in 1994 also revealed that the knowledge of condom among illiterate men was 40.0 percent less than men having higher education (Gardner, 1996). Men working in

non-agricultural sector had better knowledge than men working in agricultural sector. Men who discussed more about family planning to their wife were more likely to know condom than who never discussed about family planning. Residence and development regions revealed a strong significant association with the knowledge of condom. Globally, it is argued that there is wide variation in knowledge of contraceptive by residence. This is particularly so in developing countries where a significant disparity is observed between rural and urban residence. A higher percent of men, 99.2 percent living in FWDR reported the knowledge of condom because of their migration in search of better education and employment opportunity in the other regions and the neighboring country India. Almost 99.0 percent of men living in EDR had knowledge of condom and the least 93.8 percent men living in WDR were familiar with condom.

Utilization (ever and current use) of condom

Data on ever use of contraception has special importance because it reveals the cumulative success of the program promoting the use of family planning among couples and gives the number of persons using condom at least once. On the other hand, current use of condom gives the proportion of men and women who reported the use of contraceptives at the time of the survey. Table 3 shows ever and current use of condom by their characteristic, 2001. As earlier age, education, occupation, mass media exposure, spousal communication, type of residence and development regions have a strong influence on ever and current use of condom. Men at the younger age were more likely to use condom than their older counterparts. Ever and current use of condom was higher among men who attained SLC and above education. Men working in non-agricultural sector had more chances to use condom than their agricultural counterparts. As in above case, ever and current use of condom was higher among men who were exposed to mass media. Men who discussed more than twice in a year about family planning with their wife reported a higher use of condom than who did not discuss. Drinking alcohol emerged a strong association with ever use of condom but not with current use of condom. Men who used to drink alcohol were more likely to use condom than men who did not drink. Around 40.0 percent of men reported ever use of condom who drank alcohol than 28.5 percent of men who did not drink alcohol. Ever use of condom among currently married men living in rural area was higher (47.0 percent) than men living

in urban area (35.1 percent) in Nepal. Conversely, current use of condom in urban area was higher (8.6 percent) than in rural area (6.1 percent) in 2001. There was a highly significant association between ecological regions and current use of condom and significant association with ever use of condom. Ever and current use of condom was the highest among men living in Hill followed by Terai and the least in Mountain regions, which is due to the fact that men living in Hill region are comparatively more educated, higher exposure to mass media and accessibility of condom than other regions of the country. Among the development regions, ever and current use of condom was the highest in FWDR (41.9 and 9.6 percent respectively) and the least in CDR (33.3 and 5.1 percent respectively). CDR is more developed region based on the developmental infrastructure though utilization of condom is still low than other backward development regions in Nepal. It is obvious that developmental indicators are not significantly associated with knowledge and utilization of condom in Nepal. The reasons behind this are to be investigated.

Utilization of condom at high risk

United Nations General Assembly Special Session (UNGASS) indicator has been used to measure the proportion of those aged 15-24 years who had sex with other women than cohabiting partner in the last year who used a condom the last time they had sex with that partner. Moreover this indicator measures the proportion of men who are using condoms (or the proportion who are not) at high risk. NDHS 2001 showed that only 19.4 percent of men at the high risk were using condom in Nepal. The estimate of UNGASS indicator for Benin (2001) was 34.5 percent, Tanzania (1999), 30.6 percent, Uganda (2001), 61.6 percent and Zambia (2000), 40.3 percent (Slaymaker and Basia 2003). Compared to these African countries, the level of UNGASS indicator for Nepal was very low. Although, condom use is clearly a key element of HIV protection, measures on condom use often appear contrary. But this measure does not tell anything whether the condoms were used properly. On the other hand, this measure does not describe the changes in size of the group who are at risk of contracting HIV / AIDS infection.

Reasons for use of condom

Among the set of questions asked in 2001, 33.4 percent of men reported that condom was used to prevent pregnancy, 2.2 percent reported condom was not used for prevention of

pregnancy and 64.4 percent men said nothing. Similarly on the response of reason for condom use to protect from diseases 79.2 percent men supported, 17.9 percent men did not support and 2.9 percent men replied nothing. Table 4 displays the odds ratios from binary logistic regression with their significant values. Age was not significantly linked with use of condom for prevention of diseases and pregnancy however men at younger age were more likely to use condom for prevention of diseases than men at older age. In contrast, men at the older age were more likely to use condom for prevention of pregnancy than their younger counterparts. Education emerged as a significant predictor of both reasons (prevention of diseases and pregnancy). Educational attainment of men revealed a significant link with reason for condom use. There was higher likelihood to use condom for prevention of diseases and pregnancy among those who had attained higher education. The likelihood of utilization of condom for prevention of diseases was almost 10 times among men who had attained

Table4: Logistic regression estimates of reason for condom use, 2001

| Characteristics | Prevention for diseases | Prevention for pregnancy |
|------------------------------|-------------------------|--------------------------|
| | Odds ratio | Odds ratio |
| Age | | |
| 15-19 (r) | 1 | 1 |
| 20-29 | 1.2 | 1.1 |
| 30-39 | 0.8 | 2.1 |
| 40+ | 0.6 | 2.8 |
| Education | | |
| No education (r) | 1 | 1 |
| Primary | 2.2** | 1.0 |
| Some secondary | 3.1** | 1.5** |
| SLC and over | 9.7** | 1.6** |
| Occupation | | |
| Agriculture (r) | 1 | 1 |
| Non-agriculture | 1.3 | 0.9* |
| Mass media | | |
| None (r) | 1 | 1 |
| Any one | 1.7** | 1.3* |
| Any two | 3.5** | 1.5* |
| All three | 2.3** | 2.8** |
| Spousal communication | | |
| Never (r) | 1 | 1 |
| Once or two | 1.5** | 1.8* |
| More | 2.3** | 3.5** |

(contd...)

(continued from table 4)

| Residence | | |
|---------------------|-------|-------|
| Urban (r) | 1 | 1 |
| Rural | 0.7 | 1.5* |
| Eco. regions | | |
| Mountain (r) | 1 | 1 |
| Hill | 1.5* | 1.4* |
| Terai | 0.9 | 1.2** |
| Dev. regions | | |
| EDR (r) | 1 | 1 |
| CDR | 1.4 | 0.9 |
| WDR | 1.5* | 0.8 |
| MWDR | 0.4** | 2.3* |
| FWDR | 2.6** | 4.3** |
| -2LL | 805.9 | 350.8 |
| N | 1790 | 755 |

Note: ** = P < 1 %, * = p < 5% and r = reference category

SLC and above education than those who were illiterate. Men working in non-agricultural sector were more likely to use condom for prevention of diseases than men working in agricultural sector. Mass media exposure exhibited as a strong predictor on utilization of condom for both reasons. Higher exposure to mass media led to higher use of condom for prevention of pregnancy and diseases. Spousal communication was a significant predictor for both reasons. Men who reported more discussion about family planning showed higher chances to use condom for prevention of diseases (odds ratios is 3.5 times) and pregnancy (odds ratio is 2.3 ties) than who did not discuss. Rural men had higher likelihood to use condom for prevention of pregnancy than urban men. Eco. regions also produced a significant link with utilization of condom for prevention of diseases and pregnancy. Men living in Hill region had higher chance (Odds ratio is 1.5 and 1.4 times higher) to use condom for prevention of diseases and pregnancy than men living in Mountain region respectively. Compared to men living in EDR, the odds of condom use for prevention of diseases was 2.6 and 1.5 times higher among men living in FWDR and WDR. On the other hand, men living in FWDR and MWDR (odds ratio is 4.3 and 2.3 times) were more likely to use condom for prevention of pregnancy than men living in EDR.

Problems with condom

In spite of a vast investment in condom promotion program the prevalence rate is still low in Nepal. Limited research shows that a large number of problems are associated with the utilization of condom however there is no sufficient evidence to clarify this argument. In NDHS 2001, a large number of questions were asked regarding the problems with condom. Table 5 shows the percent distribution of response by problems with condom. Among 2261 men interviewed in 2001, 26.8 percent reported that condom was not difficult to put on, 5.9 percent agreed and 67.3 percent reported nothing. Moreover, 30.1 percent men replied that condom was not inconvenient to use, 40.0 percent said that condom was inconvenient to use and 29.9 percent reported nothing. Likewise 43.8 percent men approved that condom reduces men's pleasure while 17.9 percent of men disapproved and 38.3 percent of men reported nothing.

Table 5: Percent distribution of response by problems with condom

| <u>Problems with condom</u> | <u>Disagree</u> | <u>Agree</u> | <u>DK</u> | <u>N</u> |
|-----------------------------|-----------------|--------------|------------|----------|
| Difficult to put on | 26.8(672) | 5.9(134) | 67.3(1522) | 2261 |
| Inconvenient to use | 30.1(678) | 40.0(906) | 29.9(677) | 2261 |
| Diminish the men's pleasure | 17.9(403) | 43.8(992) | 38.3(866) | 2261 |

Source: NDHS 2001

Knowledge of HIV/AIDS

The first case of HIV / AIDS was identified in 1988 in Nepal. Existing statistics does not show the high rate of transmission of HIV among the general population but potentiality of infection rate is large among the high-risk group such as female sex workers, clients of sex workers, and low level of condom use and pockets of intravenous drug users. On the other hand, poverty, gender inequality, low level of education and literacy, denial, stigma and discrimination are the major contributing factors to HIV / AIDS vulnerability in Nepal. Situational analysis of HIV/AIDS in Nepal shows young people, mobile population, female sex workers, men who have sex with men and injecting drugs users are the most vulnerable to HIV / AIDS in Nepal. The overall knowledge of AIDS among men was 72.4 percent in

2001 (not shown). Table 6 gives the logistic regression estimates of predictors on knowledge of AIDS.

Age did not show a significant relationship with knowledge of AIDS. Educational attainment was a strong predictor of knowledge of AIDS. Men who attained SLC and above education were almost 7 times more likely to know about AIDS compared to illiterate men. Mass media was also a strong predictor of knowledge of AIDS. Men who exposed to mass media had higher likelihood to know about AIDS than who were not exposed to any mass media. Spousal communication showed a significant link with knowledge of AIDS. Men who discussed about AIDS with wife had odds ratio 2.5 times higher than who did not discuss. Place of residence and ecological regions did not exhibit a significant relationship with knowledge of AIDS. Among development regions, CDR showed a strong link with knowledge of AIDS and men living in CDR had odds ratio 2 times higher than men living in EDR. This might be due to the cause of exposure to mass media.

Knowledge of avoiding AIDS by using condom

Results of binary logistic regression (from table 6) reveal that age was not related with knowledge of avoiding AIDS by using condom. Educational attainment, mass media exposure and spousal communication were significantly connected with knowledge of avoiding AIDS by using condom. Higher educational attainment led to higher knowledge of avoiding AIDS by using condom. The odds to know that condom avoids AIDS was almost 4 times higher among men who acquired at least some secondary level education than their illiterate counterparts. Men working in non-agricultural sector were more likely to know that condom protects AIDS than men working in agricultural sector. Compared to reference category, men who were exposed to any two media had odds ratio 3.2 times higher to know that utilization of condom avoids AIDS. Likewise, men who reported a discussion about AIDS with wife had odds ratio 1.5 times higher than who did not discuss. Moreover men living in Hill and Terai regions were more likely to know about condom which avoids AIDS than men living in Mountain region. Compared to EDR, men living in FWDR, MWDR and WDR had higher chance to know (The odds ratios were 3.0, 2.2 and 1.6 times higher respectively) about condom that avoids AIDS. Although men living in FWDR were less

likely to know about AIDS, they had better knowledge about utilization of condom that protects AIDS.

Table 6: Logistic regression estimates of predictors on knowledge of AIDS and knowledge of avoiding AIDS, 2001

| Characteristics | Odds ratio | |
|------------------------------|-------------------|--|
| | Knowledge of AIDS | Knowledge of avoiding AIDS by using condom |
| Age | | |
| 15-19 (r) | 1 | 1 |
| 20-29 | 2.6 | 1.3 |
| 30-39 | 1.5 | 0.9 |
| 40+ | 0.9 | 0.7 |
| Education | | |
| No education (r) | 1 | 1 |
| Primary | 1.6* | 1.4* |
| Some secondary | 4.2** | 3.5** |
| SLC and over | 6.5** | 3.3** |
| Occupation | | |
| Agriculture (r) | 1 | 1 |
| Non-agriculture | 1.1 | 1.4* |
| Mass media index | | |
| None (r) | 1 | 1 |
| Any one | 1.5** | 2.4** |
| Any two | 3.8** | 3.2** |
| All three | 3.8** | 3.2** |
| Spousal communication | | |
| No (r) | 1 | 1 |
| Yes | 2.5** | 1.5** |
| Residence | | |
| Urban (r) | 1 | 1 |
| Rural | 0.8 | 0.9 |
| Eco. regions | | |
| Mountain (r) | 1 | 1 |
| Hill | 1.4 | 1.8** |
| Terai | 1.3 | 1.8** |
| Dev. regions | | |
| EDR (r) | 1 | 1 |
| CDR | 2.1** | 0.7* |
| WDR | 1.7 | 1.6** |
| MWDR | 0.9 | 2.2** |
| FWDR | 1.4 | 3.0** |

| | | |
|-------------------|-------|--------|
| -2 Log likelihood | 685.3 | 1599.0 |
| N | 1517 | 1173 |

Note: ** = P < 1 %, * = p < 5 % and r = reference category

Knowledge of AIDS and utilization of condom

Among men interviewed in 2001, 72.4 percent men reported that they had knowledge of AIDS and 27.6 percent men did not know about AIDS. Men who had knowledge of AIDS, only 32.5 percent reported ever use of condom and 64.5 percent did not use condom and 3.0 percent replied nothing. On the other hand, about 6.0 percent men reported that they were currently using condom and 94.0 percent were not using condom although they had knowledge of AIDS. Table 7 presents logistic regression estimates of predictors on utilization (ever and current) of condom among those who had knowledge of AIDS in 2001 in Nepal.

Age was not significantly linked with ever use however it was significantly related to current use of condom. Men at younger age had higher likelihood to use condom than men at older age. Educational attainment above primary level showed a significant linkage with ever and current use of condom and men who had attained education above primary level were more likely to use condom than their less educated counterparts. Men working in non-agricultural sector had higher odds to use condom than men working in agricultural sector. Compared to reference category, ever and current use of condom was likely to be higher among men who had exposed to mass media and discussed about AIDS with their wives. The odds ratios of ever and current use of condom were 2.5 and 2.7 times higher respectively among men who were exposed to all (three) media as compared to those who were exposed to none. Type of residence did not explain a relationship with ever and current uses of condom but men living in urban area had higher likelihood to use condom than men in rural area. Among ecological regions, Hill emerged, as a significant predictor of current use and the odds ratio was 1.8 times higher as compared to Mountain region. Development regions (except FWDR) emerged as a strong predictor of use of condom. Using EDR as a reference category, men living in CDR had higher chance to use condom however men in other regions had lower odds to use condom.

Table 7: Logistic regression estimates of predictors on knowledge of AIDS and utilization of condom, 2001

| Characteristics | Ever use | Current use |
|------------------------------|------------|-------------|
| | Odds Ratio | Odds Ratio |
| Age | | |
| 15-19 (r) | 1 | 1 |
| 20-29 | 1.2 | 0.5* |
| 30-39 | 1.2 | 0.3** |
| 40+ | 0.8 | 0.2** |
| Education | | |
| No education (r) | 1 | 1 |
| Primary | 1.1 | 1 |
| Some secondary | 1.5** | 1.1* |
| SLC and over | 2.7** | 2.1** |
| Occupation | | |
| Agriculture (r) | 1 | 1 |
| Non-agriculture | 1.3** | 1.4* |
| Mass media index | | |
| None (r) | 1 | 1 |
| Any one | 1.4* | 1.3 |
| Any two | 1.7** | 2.4** |
| All three | 2.5** | 2.7 |
| Spousal communication | | |
| No (r) | 1 | 1 |
| Yes | 1.8** | 1.5* |
| Residence | | |
| Urban | 1.2 | 1.8 |
| Rural (r) | 1 | 1 |
| Eco. regions | | |
| Mountain (r) | 1 | 1 |
| Hill | 1.3 | 1.8* |
| Terai | 1.3 | 1.1* |
| Dev. regions | | |
| EDR (r) | 1 | 1 |
| CDR | 1.1* | 1.3* |
| WDR | 0.6** | 0.9** |
| MWDR | 0.6** | 0.7** |
| FWDR | 0.8 | 0.9 |
| - 2 Log Likelihood | 2008.8 | 853.7 |
| N | 737 | 136 |

Note: ** = P < 1 %, * = p < 5 %, r = reference category

Conclusion

Our analysis confirms that age, education, occupation, mass media exposure, spousal communication, residence, ecological and development regions have an important effect on knowledge of AIDS and utilization of condom. These factors might shape the knowledge of AIDS and utilization of condom in Nepal. Like previously published findings, our analysis indicates that drinking of alcohol has a strong impact on utilization (current and ever) of condom however men who used to drink have higher likelihood to use condom than who do not drink. UNGASS indicator on condom use at high risk shows that only 19.4 percent of men use condom at the high risk in Nepal, which is very low as compared to other developing countries of Africa and Asia. It is apparent that the sexual activity among youth (15-24 years) is vulnerable to transmit AIDS and other sexually transmitted diseases. This study also indicates that men utilize condom primarily for prevention of pregnancy and protection from diseases rather than other reasons.

This analysis further demonstrates that the overall knowledge of AIDS among men is still low in Nepal. Education, mass media exposure, spousal communication and geographical factors are the influencing factors on knowledge of AIDS. A wide disparity is observed between knowledge of AIDS and utilization of condom due to the impact of education, exposure to mass media, spousal communication and geographical factors.

From our study, we found that in order to improve the knowledge of AIDS and usage of condom, the government of Nepal needs to consider the role of education, mass media exposure, spousal communication and the geographical dimension. A wide disparity is observed in educational attainment among men in Nepal. To improve the knowledge of AIDS and utilization of condom educational attainment of men especially in rural, Mountain region and Central development region should be promoted. Improving school education in remote rural areas of the country would not only increase knowledge about health and AIDS but also other aspects of living a healthy life. A high priority should be given on mass media exposure and spousal communication to increase the knowledge of AIDS and utilization of condom in all parts of the country. A radio serial SHRIMAN SHRIMATI could be effective

in encouraging couple for communication The inequality in knowledge of AIDS and utilization of condom among the development regions need to be narrowed, which can be minimized through special awareness program on AIDS and social marketing of condom in rural remote parts of the country.

In additions to providing condoms at a government health centers and pharmacies, the message regarding condom and AIDS need to broadcast to the interior parts of the country to improve awareness of AIDS and usage of condom. If immediate steps are not taken to improve condom use to prevent HIV / AIDS the epidemic will affect the fragile economy of Nepal to a very large extent.

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