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RISK BEHAVIOR AND HIV/AIDS SPREAD AMONG PETTY TRADERS IN NAMANGA BORDER (TANZANIA AND KENYA BORDER)

A. Sikira[1†] --- E. P. Mamuya[2]
[1]*Senior Lecturer, Development Studies Institute, Sokoine University of Agriculture, Chuo Kikuu Morogoro, Tanzania*
[2]*Secondary School Teacher at Tanga Technical School, Tanzania*

ABSTRACT

The prevalence of HIV/AIDS in Tanzania has slightly fallen from 5.7 in 2007/2008 to 5.1% in 2001/2012 for people aged between15-49. However, the epidemic's severity differs from one location to another and from one population segment to another. Petty traders across the border are assumed to be at high risk of contracting the disease. This paper assessed risk behavior among petty traders across Namanga border of Tanzania and Kenya. Using 120 respondents, the paper adopted a cross-sectional research design to collect both quantitative and qualitative data. A well structured questionnaire and checklist of questions were used tools for data collection. The paper revealed that apart from having high knowledge on HIV/AIDS, a number of risk behaviors such as having multiple partners, non use of condoms and excessive consumption of alcohol were practiced by petty traders. Further, frequent contraction of sexual transmitted infections (STIs) other than HIV/AIDS was also reported to increased chances for HIV/AIDS infection. It was concluded that the struggle against poverty by the petty traders increases high risk of contracting STIs such as HIV/AIDS. It is recommended that the government through institutions such as Tanzania Commission for AIDS (TACAIDS) and other Non Government Organizations continue with the campaign against HIV/AIDS to specific group of communities including petty traders. The campaign should go hand in hand with training on life management skills among petty traders.

Keywords: Cross border trade, HIV/AIDS spread, Petty trader.

Contribution/ Originality

This study contributes in the existing literature revealing that although the overall prevalence of HIV/AIDS has fallen in Tanzania, some risk behaviors such as having multiple partners, non use of condoms and consumption of alcohol were practiced by petty traders, hence, increasing risks among them. Campaigns against HIV/AIDS should continue.

1. INTRODUCTION

Although HIV/AIDS prevalence has fallen from 5.7% in 2007-2008 to 5.1% in 2011-2012 for people aged from 15-49 years in Tanzania, there were 150,000 new infections which is equivalent to over 400 new infections every day (Tanzania HIV/AIDS and Malaria Indicator Survey (THMIS), 2013). Of the infected men and women in Tanzania, 83,528 died from AIDS in 2011.The prevalence is higher among women (6.2) than men (3.8) and the severity varies with location and with specific segment of population (Sanga, 2012; Sikira and Sanga, 2013). In some regions such as Arusha, HIV prevalence was reported to be less than 2 percent while others such as Iringa, has as high as 16 percent (THMIS, 2013). Further, specific groups of people such as mobile and displaced commercial sex workers (CSW),

† Corresponding author
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migrant workers, military personnel, long distance truck drivers and the petty traders are amoIng the group of people who are at a high risk of contracting the disease (Garbus, 2004) .

Cross-border trading is very significant in the informal economy (ILO, 2002). The expansion and development of international boundaries has led to greater urbanization and mobility of people from one country to another. In view of this young and sexually active men and women come into close contact with 'high risk sexual networks' made up of sex workers. IOM (2009) shows that there is high HIV/AIDS prevalence rate in suburban's border in the neighbouring countries of Uganda, Malawi, Zambia, Mozambique and Kenya.

Namanga is the border between Tanzania and Kenya, which is increasingly expanding and attracting many people for different economic activities including the petty businesses. Risk behaviours practiced by mobile population groups along the border include unprotected sex, multiple sex partners and increased establishment of temporary sexual relationship. It has been hypothesized by this paper that, the risk behaviours practiced are due to lack of knowledge about HIV/AIDS and presence of other sexually transmitted diseases.Furthermore, reduced social discipline for making good decisions about sexual behaviour and attitude towards HIV/AIDS makes them vulnerable to HIV infection. Much has been documented on high prevalence rate of HIV infections among communities across the border (IOM, 2009). However the information generalizes the whole population. Little has been done focusing the informal cross boarder traders as one of the stratum. This stratum operates in high risk areas of being infected. Specifically, this paper assessed the knowledge of traders towards HIV/AIDS and risk behaviour among traders at Namanga Ward in Longido District. The paper is guided by the theory of Health Belief Model (HBM) that assume that the likelihood of a person engaging in a specific health behaviour is a function of several beliefs that he/she is susceptible to a particular illness and its consequences. Further, the theory suggests that there are certain factors triggering an individual towards certain risk behaviour. Based on this, a change from risky to less risky behaviour is necessary to stop the spread of HIV/AIDS among different age groups. However before changing risky behaviour, it is necessary to explore the reasons for taking risks. Lack of enough capital, lack of knowledge towards HIV/AIDS prevention, engaging in temporary sexual relationships and business location are among the risk behavior. The interaction of variables is indicated in Fig. 1 as the conceptual framework for this paper.From Fig. 1, the socio-demographic variables are age, sex, marital status, level of education and religion while the independent variables such as knowledge towards HIV/AIDS, risk behaviour such as number of sexual partners, type of business, consumption of alcohol, gender relation and use of condom influence the dependent variable which is the risk of contracting HIV/AIDS.

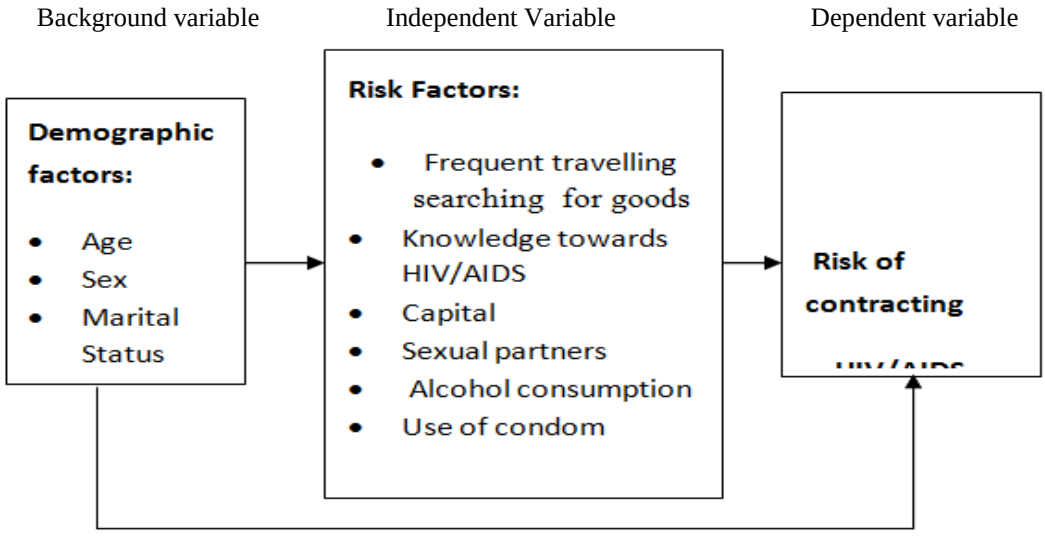

Figure-1. Conceptual framework for the study on Risk behavior and HIV/AIDS spread in Namanga

Source: Developed by the Authors

2. RESEARCH METHODOLOGY

2.1. Location of the Study Area

The study was conducted in one of the districts in Arusha region called Longido District. The district is one of the six districts in Arusha Region. Other districts include Monduli, Arumeru, Ngorongoro, Karatu and Arusha. To the North the District borders the Republic of Kenya. Longido District was chosen because of Namanga Ward, which is at the borders of Tanzania and Kenya.

2.2. Justification of the Study Area

Namanga ward was chosen because it has high interaction and movement of people between Tanzania and Kenya mainly the informal cross borders traders. Despite that Namanga area accommodates the increased human traffic, especially heavy duty truck drivers, it also consists of night clubs, guest houses, bars and recreational tourist attractions such as Asilia Camp.

2.3. Ethnic Groups and Socio- Economic Activities

The majority of the inhabitants of Longido District are the Maasai ethnic group. There are minority non-Maasai ethnic groups from elsewhere in Tanzania staying mainly at the district headquarters and at the district township of Namanga (Longido District Council (LCD), 2010). The mainstay of the indigenous people in the district is livestock keeping and selling of wildlife products. Crop growing is another economic activity practiced by the majority of the population in Namanga area. On the other hand, business activities are conducted mainly in the district township of Namanga. The town consists of small markets where people sell different products including food staff such as maize, beans, and vegetables (LCD, 2010). Namanga township is also regarded as a shopping centre where other business men and women buy goods or cross the border to Kenya.

2.4. Research Design, Sampling Procedure and Sample Size

A cross sectional research design was employed as it allows data to be collected at a single point in time. The target population for this paper were the Informal petty traders engaged in different small scale businesses. Three streets were purposively selected due to availability of petty traders. The streets were Kisongo, Street number 7 (*Mtaa wa Saba*) and Buguruni.

One hundred and twenty respondents were selected (Table 1) through a stratified sampling in order to include respondents from different types of businesses, namely charcoal sellers, food vendors, local beer brewers, second hand clothes sellers and hawkers. The respondents for each stratum were randomly selected. The grounds for choosing 120 respondents as a sample size is based on Bailey (1994) assumption that 30 respondents is the bare minimum number of sample size for statistical analysis to be carried out.

Table-1. Typeof goods sold by respondents

Type of material sold	Sex	
	Male	Female
Food vendors	12	21
Local beer	10	16
Charcoal	17	6
Second hand clothes	14	8
Hawkers	7	9
Total	60	60

Source: Researcher's Survey Data

3. DATA COLLECTION METHODS

3.1. Primary Data

Questionnaire with both closed and open ended questions was used as a tool for quantitative data collection. The questionnaire was administered to male and female petty traders. According to Kidder and Judd (2000) the questionnaire gives respondents a greater feeling of anonymity, which in turn encourages openness to the questions and minimizes interview bias. Positive and negative statements for assessing knowledge of respondents towards HIV/AIDS were formulated and included in the questionnaire.

3.2. Qualitative Data

Qualitative data were collected using a well structured checklist. A checklist was used to explore risk behaviour associated with HIV/AIDS among petty traders. Three FGDs of 10-12 female and male petty traders were conducted in each street. The researcher moderated the discussion while one of the research assistants took notes.The key informants interview was also carried out involving 13 purposively selected participants. These included the District Commissioner (DC), District Community Development Officer (DCDO) and District Medical officer (DMO). Others were District HIV/AIDS Control Coordinator (DACC), Namanga Ward Executive Officer, Namanga Dispensary, HIV/AIDS Unit coordinating Officer, health officers, doctors, and street government leaders. The interview was guided by the checklist of questions

4. DATA PROCESSING AND ANALYSIS

Both quantitative and qualitative methods of analyzing data were employed. Quantitative data from structured and semi-structured questionnaires were analyzed using a computer programme known as Statistical Package for Social Sciences (SPSS). Descriptive statistics such as frequencies, means and percentages were computed. Inferential statistical analysis such as Chi-square was employed to determine the relationship between variables. The chi-square formula as given by Kothari (2004) is expressed as:

$$\chi^2 = \sum \frac{(O_{ij} - E_{ij})}{E_{ij}}$$

Where χ^2 is chi-square

Oij is the observed frequency

Eij is the expected frequency

A significance level of 5% was used. A p-value less than 0.05 indicate significant association between the two variables. A p-value lying outside the limits of confidence indicates no significant association between the two variables.

Qualitative data were analyzed using content analysis in which the recorded discussions were systematically scrutinized and summarized to capture thematic meaning from the discussion.

5. RESULTS AND DISCUSSION

5.1. Age of the Respondents

The findings as presented in Figure 2 reveal that one third of the respondents (21.7%) were aged between 35-39 years. Others (18.3%) aged between 30-34 years while few (12.5%) respondents were aged 50 years and above. This implies that majority of the respondents were in the active age group and could contribute greatly to productive work as petty traders. They are also at high risk of contracting HIV/AIDs infections. The findings are in line with Maretha *et al.* (2009) that most of the affected group with HIV/ AIDS were those in the reproductive age between 15-49 years.

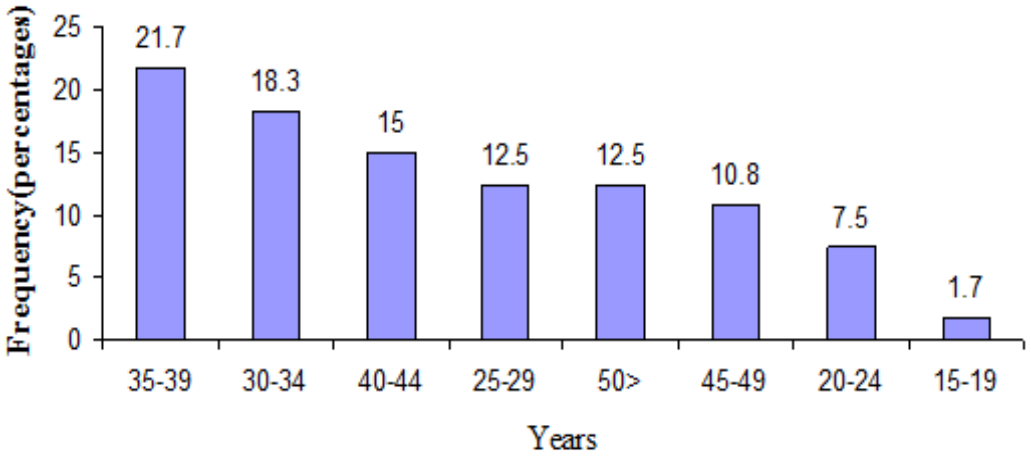

Figure-2. Age of the respondents

Source: Researcher's survey data

5.2. Sex of the Respondents

Fifty percent of the respondents were men and 50% of the respondents were women. It was necessary to have equal number of female and male regarding the risk to HIV/AIDS infection. Literature indicates that, women in developing countries are more vulnerable to HIV/AIDS due to unequal gender relations existing in the communities (Wodi, 2005).

5.3. Education Level of the Respondents

The results as indicated in Table 2 revealed that majority (83%) of the respondents attained primary education while only (14.2%) of the respondents attained secondary school education. Furthermore, the results show that there were very few (2.5%) respondents with college education. This imply that majority of the petty traders had primary level of education which is the lowest level in Tanzania. However, Freire (1974) contends that education is believed to be one of the basic tools for total liberation of human kind. Education is designed to help people to become critical, creative, free, active and responsible members of the society. Furthermore, article 26 of the Universal Declaration of Human Right (UDHR) of 1948 as cited by UNICEF (2007) recognizes that, basic education among petty traders is a means of unlocking and protecting their rights. This can be achieved by providing the scaffolding that is required to secure good health, liberty, security, economic well-being and participation in social and political activities (Mugabi and Mueller, 2005). However, possession of basic education (writing, arithmetic and reading) which is the case for majority of petty traders does not necessarily imply high knowledge on the risk behaviour with regard to HIV/AIDs. Literate persons may be able to understand and access different sources of information regarding risk behaviors on HIV/AIDs (URT, 2002) and Kinsman *et al.* (1999).

Table-2. Education level of the respondents

Education level	**%**
Primary	83.3
Secondary	14.2
College	2.5
Total	100
Marital status	
Married	52.5
Single	27.5
Separated/divorced	13.3
Widow/widower	6.7
Total	100

Source: Researcher's Survey Data

5.4. Marital Status

Almost half (52.0%) of the respondents were married while few (6.7%) were widows (Figure 6). Although majority of the respondents were married they are still at a risk of contracting HIV/AIDS. According to TDHS (1996) marriage is an important factor exposing women and men to sexual contact, which is the leading mechanism to HIV infection in Tanzania. Furthermore, the results indicated that (27.5%) of the respondents were single. It is reported that, of unmarried youth in Tanzania, 38% of males and 47% of females are sexually active. Therefore since 90% of HIV/AIDS new infection in the country is heterosexually transmitted (URT, 2009) these people are also at risk of contracting HIV/AIDS. The findings are in line with those reported by Chiroga *et al.* (2003) who assert that, most of the petty businesses in Tanzania are done by youth especially women. Similarly, ILO (2002) confirms that, more single than married women participate in petty businesses since it involves travelling and that, in the African setting, married women are confined at home. Thus their mobility involves moving to join family members including relatives. Therefore being single ensures their freedom of movement.

5.5. Religion of the Respondents

The findings showed that almost half (46.7%) of the respondents were protestants, while 29.2% were Roman Catholic.About 23.3% of the respondents were Muslims and 0.8% had no religious affiliation. This distribution might be influenced by the nature of the population in the study area being dominated by Protestants. It is believed that religion shapes everyday beliefs and activities of members including the risk behaviour associated with the HIV/AIDS.

It is suggested that religious based behaviours practiced by Muslims are favourable for HIV prevention and have led to lower HIV prevalence rates among Muslims (Gray, 2004). Muslim's principles include higher rates of circumcision, fewer self-reported incidences of extramarital sexual relationship (Rakwar *et al.*, 1999) and reduced consumption of alcohol decreasing high-risk sexual activity (Mbulaiteye *et al.*, 2000). It is also argued that the Protestants' emphasis on salvation and strong social presence (such as youth groups, frequent prayer meetings) prevents members from engaging in as much extra- and pre- marital sex as other denominations, thus protecting against HIV (Garner, 2000).

Table-3. Religion of the respondents (n=120)

Religion	%
Protestants	46.7
Roman Catholics	29.2
Muslim	23.3
Traditional religion	0.8
Total	100

Source: Researcher's Survey data

5.6. Risky Behaviors

Sexual experience becomes risk behaviour for HIV when someone does not use condom. Other factors such as the presence of other sexually transmitted diseases (STDs) or having multiple sexual partners can increase the risk of infection (Larsen *et al.*, 2006). Predominant mode of HIV/AIDS transmission is heterosexual contact, which accounts for 90% of new AIDS cases in Tanzania (NACP, 2004).

5.7. Age at Sexual Debut

The percentages of the age at the first sexual contact for both male and female petty traders are given in Figure 3. The findings revealed that mean age of respondents started their first sexual contact at 18 years. Furthermore the findings showed that 65.8% of the respondents started sexual contacts at the age between 18 to 24 years, while 25.8% of the respondents started sexual contacts at the age between 10 to 17 years (Figure 3).The findings are in line with

the one reported by TDHS (1996) and TDHS (2005) in which more than half of girls and boys had sex before their 18th birthday. According to URT (2009) the age at first sexual contact marks the beginning of exposure to sexual risks such as pregnancies and STIs including HIV/AIDS.

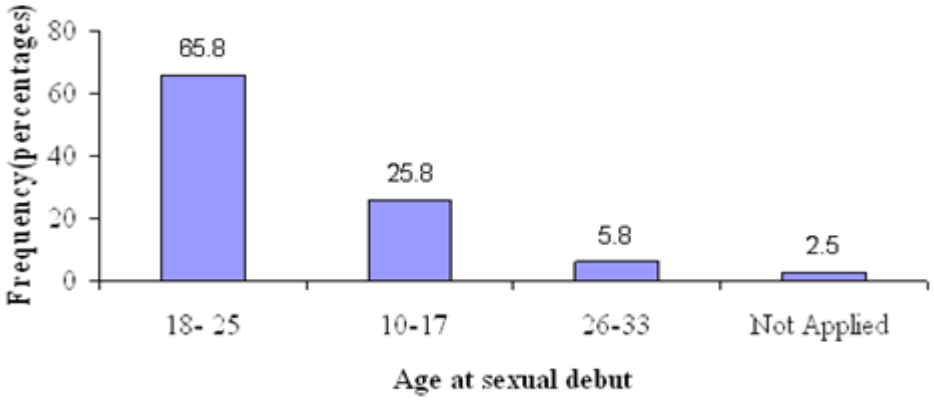

Figure-3. Age at sexual debut

Source: Researcher's Survey Data

5.8. Number of Sexual Partners

From the findings, a half (50%) of men and 26% of women had one sexual partner (Table 4). Similarly 15.0% of the male respondents had more than 5 partners while only 9.15%) of female respondents had more than 5 partners. The findings are congruent with the study by Pettifor *et al.* (2004) who found that men tend to have more sexual partners than women. It is also similar with findings by Mah (2008) who reported that 17% of married men had multiple sexual partners than women. Having more sexual partners is associated with frequent sexual contact that places an individual at risk for unplanned pregnancy and contracting STIs (Durant *et al.*, 1991).

Table-4. Number of sexual partners

Number of sexual partner	Sex			
	Male		Female	
	n	%	n	%
1	30	50.0	26	47.3
2 - 4	21	35.0	24	43.6
More than 5	9	15.0	5	9.1
Total	60	100.0	55	100.0d

Source: Researcher's Survey Data

5.9. Use of Condom by Respondents

The results as shown in Table 5 revealed that majority (70.1%) of the respondents did not use condoms during sexual contact. Respondents revealed further that there was no need of using condom with their spouses. However studies indicate high risk of acquiring HIV/AIDS among married couples. This result implies that majority of petty traders are at risk of contracting HIV/AIDS and STIs infections. Focus group discussants also revealed that married couple's never use condoms because of reproductive purposes. Furthermore, individuals using condom are perceived as being unfaithful to their partners. It was further revealed during FGD that majority of men had negative attitude towards use of condom among married couples. This means that for married couples, whenever a woman mentioned the use of condom, the husband would think the wife is already infected with HIV/AIDS. This is an indicator that married women had no decision on safe sex even if they were aware that the husband practices extramarital relationship.

Table-5. Use of condom

Use of condom	%
Never use condom	70.1
Sometimes used condom	16.2
Use condom frequently	13.7
Total	100.0

Source: Researcher's Survey Data

Despite the fact that condoms could protect one from contracting HIV infection, studies show that the use of condoms in sub-Saharan Africa is very limited (Adih and Alexander, 1999; Volk and Koopman, 2001; Eaton *et al.*, 2008). These studies implicate socio-cultural and religious factors in negotiating for safer sex through the use of condom.

5.10. Infection with STIs

Results as presented in Fig. 4 showed that STIs incidence was higher among male (62%) petty traders than female (50%). This might be due the fact that male petty traders are believed to have many sexual partners than female. Furthermore, high prevalence of STIs is also attributed to low rates of condom usage, thus implying unprotected sexual contact among community members. Literature indicates that there is strong epidemiological association between AIDS and other STIs in both industrialized and developing countries (Alcamo, 2002). Sexually transmitted Infections increases the risk of HIV/AIDS transmission because of the ulcerations in and on sexual organs (Alcamo, 2002).

Figure-4. Infection with STIs
Source: Researcher's Survey Data

5.11. Alcohol Consumption

The results as presented in Figure 5 revealed that majority (70%) of the respondents consume alcohol. Similarly during Focus Group Discussion (FGD) participants reported that majority of young people are addicted to alcohol at Namanga. This implies that most of the respondents are at risk of contracting HIV/AIDS because there is high relationship between alcohol consumption and unplanned sexual contact (WHO, 2004). In Tanzania for instance, men who consume alcohol have HIV prevalence rate 3 times higher than non alcoholic people (20% versus 7%) (URT, 2009). Furthermore women who consume alcohol have an HIV prevalence rate 2 times higher than those who do not (14% versus 7 %) (URT, 2009).The finding are in line with that of LeBeau *et al.* (1999) who found that both men and women in northern Namibia were engaged in unprotected sex under the influence of alcohol.

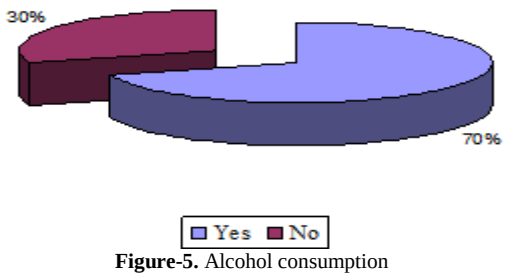

Figure-5. Alcohol consumption
Source: Researcher's Survey Data

FGD participants revealed that the commonly consumed alcohol was locally known as *turungana*home-brewed beer made from yeast, sugar and maize flour.

5.12. Knowledge of Petty Traders towards HIV/AIDS

Knowledge of the respondents towards HIV was assessed using Likert scale. Thirteen statements were constructed with negative and positive statements about HIV/AIDS. Respondents were requested to respond whether they strongly agree, agree, undecided, disagree or strongly disagree against these statements. Responses such as strongly agree and agree was considered to be similar to agree, while disagree and strongly disagree was considered to be similar to disagree. Undecided responses remained the same, hence three responses instead of five were used in assessing knowledge of respondents towards HIV/AIDS.

The findings as presented in Table 6, show that majority of the respondents indicated high percentages score on positive statement and relatively high percentages for disagree to the negative statements. For example majority (98.3%) of the respondents agreed that a healthy looking person may be HIV/AIDS positive. This is higher than the national result on the same statement which was (79.5%) as reported by THMIS (2013). In addition 78.3 % of the respondents agreed with the use of condom as one of the important preventive measures against HIV/AIDS. Other statements like having one faithful partner will eventually reduce new HIV/AIDS infection was supported by 95.8 % of respondents. Other 90.8% of the respondents agreed with the statement that an infected mother is advised not to breast feed the child in order to prevent the child from contracting the disease.

Table-6. Knowledge of petty traders towards HIV/AIDS

Statement	Knowledge (%)		
	Disagree	**Undecided**	**Agree**
A healthy looking person may be HIV/AIDS positive	0.8	0.8	98.3
Use of condom will reduce new HIV/AIDS infection	20.8	0.8	78.3
One contract HIV/AIDS through mosquito bites	79.2	5.0	15.8
One faithful partner will reduce new HIV/AIDS infection	3.3	0.8	95.8
One contract HIV/AIDS through sharing food	90.0	0.8	9.2
One contract HIV/AIDS through witchcraft	89.2	0.8	10.0
Woman pass the disease to the child in the womb	35.0	6.7	58.3
A child contract HIV during child birth and breastfeeding	7.5	3.3	89.2
ARVs prevents a child from HIV in the womb	35.8	14.2	50.0
An infected mother should not to lactate the child	5.8	3.3	90.8
One should not disclose a HIV positive family member	84.2	0.8	15.0
HIV positive petty traders should stop doing business	89.2	0.0	10.8
Giving birth through operation prevents the child from HIV	45.0	0.8	45.8

Source: Researcher's Survey Data

Majority (79.2%) of respondents indicated high levels of knowledge by negating some of the negative statements such as, "an individual contract HIV/AIDS through mosquito bites". Furthermore, majority (84.2%) of the respondent disagreed to the statement that family members should not disclose the HIV/AIDS status if one of the family members is HIV positive. These findings are similar with those by the International Centre for Research on Women ICRW (2006) and Hatzeubuehler *et al.* (2013) who suggests that transparency among people with health problems will enhance preventive measures, treatment, care and support to them. Moreover, 89.2 % of the respondents disagreed with the statement that, HIV positive petty traders should stop doing business.

On the other hand, the respondents revealed lack of knowledge on HIV/AIDS prevention from mother to child. The results as presented in Table 6 indicated that only 35% of the respondents disagreed with the negative statements such as, "an infected pregnant woman passes the disease to the child in the womb". The finding implies that most of the respondents had low knowledge about HIV/AIDS prevention from mother to child, in line with the finding by (URT, 2009) which revealed that, despite the considerable expansion of Preventing Mother to Child Transmission

(PMTCT) services in the country, only 55% of all HIV/AIDS positive women in Tanzania receive Anti-Retroviral (ARV) prophylaxis. It also revealed that, one of the challenges facing PMTC is that there is low knowledge and health seeking behavior among people in the community especially in rural areas. Thus the key steps of expanding PMTCT services include the provision of training to create awareness among the people and increasing access to medical care in every ward.

6. CONCLUSIONS

Both male and female petty traders keep on trading in order to get out of income poverty, despite the fact that they are subjected into high risk behaviour of contracting HIV/AIDS. The struggle against income poverty must go hand in hand with campaign towards HIV/AIDS. Risk behaviours such as having multiple partners mainly among men increases new HIV/AIDS infection in the community. This is because men are traditionally given the power of decision making on extramarital relationship than women. Use of condom among married couples was low, however, it is not known as to whether they use condoms when having relationship out of the wed lock. This increases risk of contracting HV/AIDS among petty traders and their intimate partner.

Petty traders' general knowledge on HIV/AIDS was very high despite the fact that it does not reflect their practice. Having high knowledge on HIV/AIDS was not the only factor leading to behavioural change. On the other hand, low knowledge of respondents on mother to child transmission was noted

7. RECOMMENDATIONS

7.1. Recommendation to Policy Makers

Based on the conclusions, it is recommended that the government through the Ministry of Community Development, Gender and Children, the Ministry of Health and Social Welfare and TACAIDS should continue with the campaign against HIV/AIDS through provision of in-depth knowledge on the preventive measures among specific groups of people such as petty traders.

7.2. Recommendation to the Local Government Authorities (Lgas)

In order to minimize the risky behaviours among petty traders at the borders, sensitization programs should be introduced to provide knowledge and scientific facts on the effects of early sexual practices and other sexual reproductive health issues. This should be done by community development officers through the community development department at the district level. In order to improve knowledge of communities towards PMTCT services, provision of training to create awareness among the people and increase access to medical care in every ward is recommended.

7.3. Recommendations to Petty Traders

i. Petty traders should change their perception towards risk behaviour.This will be achieved through training on life management skills to manage their lives especially when they travel.
ii. Petty traders should develop the habit of using condoms as a preventive measure against STIs including HIV/AIDS.

8. ACKNOWLEDGEMENT

We would like to extend our appreciations to the Longido District Government officials such as the community development officers, district health officers and petty traders for their valuable information on risk factors associated with HIV/AIDS infection among petty traders in the study area.

8.1. Areas for Future Research

i. There should be a study to assess the effectiveness of HIV/AIDS campaign conducted at the border.

ii. There should be a study on the correlation between knowledge and behavioural change.

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