

## Alcohol use and HIV risk behaviors among rural adolescents in Khanh Hoa Province Viet Nam

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### Abstract

Research suggests that youth are consuming more alcohol and at younger ages than in the past. Data also indicate that alcohol consumption is associated with participation in other risk behaviors including aggression and sexual behaviors. As part of a randomized control effectiveness trial for an HIV prevention program, 480 Vietnamese youth (15–20 years old) living in eight rural communes in Khanh Hoa Province were administered a paper and pencil baseline evaluation. The evaluation included items for actual and intended alcohol use, perceptions of peers' alcohol consumption, and attitudinal questions regarding alcohol. The tool included questions on engagement and intention to engage in sexual behaviors. In addition, 96 randomly selected youth participated in qualitative interviews on similar topics. Among the 480 surveyed youth, 29.2% had consumed alcohol. Among those youth, 17.6% reported intoxication in the past 6 months. While young men were significantly more likely to drink than young women ( $P < 0.00$ ), those young women who did drink were as likely to report intoxication. Alcohol use

was significantly associated with engagement in sexual behaviors ( $P < 0.00$ ) and intention to engage in sexual behaviors ( $P < 0.02$ ). The qualitative data provided information on the social contexts of drinking behaviors and more in-depth findings regarding associated risk behaviors. With limited information about alcohol consumption among Vietnamese youth, these findings suggest that there is a need for more extensive research on alcohol use and associated risk behaviors among this population, and for targeted alcohol prevention and harm-reduction programs.

### Introduction

Viet Nam is a nation with a population of over 76 million, 80% of whom live in rural areas. In 1995, 59% of the population of Viet Nam was under 25 years old (WHO, 1999). *Doi Moi*, a liberalization effort, was introduced in 1986, and the state lessened control over the economy and integrated elements of a market economy. Since that time rapid economic and social changes have taken place in Viet Nam, including decreased social, economic and political isolation through international joint ventures, the introduction of foreign media, Internet access, and rapid increases in tourism (Anh, 1995). Compared to their parents, adolescents today have greater educational opportunity, and increasing access to information, goods and services (Haub and Huong, 2003). Despite continued conservative parenting practices (Zhou and Bankston, 1998), especially with regard to young women, inexpensive motorbikes, and a plethora of cafes and discos

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have recently increased youths' mobility and options for entertainment outside of the home.

There is an increasing body of literature on alcohol consumption among adolescents and engagement in risk behaviors including unsafe sexual practices. In the US, analysis of the Kaiser Family Foundation's National Survey of Youth Knowledge and Attitudes on Sexual Health Issues indicates that youth who use alcohol are seven times more likely than youth who do not drink alcohol to be sexually active (Prevention Highlights, 2003). These figures were significant even after adjusting for age, race, gender and parental educational level. Another recent report indicates that among sexually active high school students, 39% of those who report ever using alcohol have had sex with four or more partners, compared with only 29% of non-drinkers (Kaiser Family Foundation, 2002). In a study of college students, it was found that 40.7% of males and 27.8% of females stated that they had engaged in sexual intercourse under the influence of drugs and/or alcohol when they would not otherwise have engaged in these behaviors (Piombo and Piles, 1996).

Sociocultural and demographic studies of alcohol use and abuse patterns have been conducted in Asia, including China (Singer, 1987; Wang *et al.*, 1992; Wei *et al.*, 1999), Japan (Yamamuro, 1987) and South Korea (Lee, 1992). Recent research in Asia also includes studies that examine alcohol consumption among adolescents. A study in Japan revealed an earlier onset of drinking alcohol among youth compared to the recent past, as well as increased rates of drinking among 13–17 year olds (Desapriya *et al.*, 2002). Among South Korean adolescents, a fairly high prevalence of alcohol consumption has been demonstrated, with one study showing 43% of adolescents drinking regularly and boys more likely than girls to drink (Han *et al.*, 2001). In addition, among a sample of 1040 youth in Grades 6, 8 and 10 in Beijing, China, approximately 70% reported prior alcohol consumption. Again, males were significantly more likely to drink alcohol than females, although 61% of females reported prior use of alcohol (Li *et al.*, 1996). Another study among senior high school

students in China reports that 83.5% of boys and 54.9% of girls drink alcohol (Liu, 1997).

There is, however, significantly less information available for Southeast Asia. Studies in Thailand have linked paternal drinking with subsequent alcohol use by their adult children (Assanangkornchai *et al.*, 2002), and other studies examined links between alcohol consumption and HIV risk behaviors (Celentano *et al.*, 1993; Fordham, 1995). In Viet Nam, there is a clear link between alcohol consumption and engagement in sexual behaviors at establishments such as *bia om* [beers and hugs] (Uhrig and Kauffman, 1996), and there is emerging data on adolescents and young adults and risk behaviors. In a study of male clients at an STD clinic, factors associated with visiting a commercial sex worker in the past 3 years were being single, under 20 years, and alcohol and/or drug use. In this latter study, 70% surveyed had never used a condom (Thuy *et al.*, 1999). In a study of university students, among those who were sexually active 44.2% did not use any form of contraceptive (Huynh *et al.*, 1997). In a pilot HIV study in Khanh Hoa Province, data indicate that unmarried youth have poor knowledge regarding HIV risk and protective behaviors, and are reluctant to obtain or carry condoms (Kaljee *et al.*, 2003).

Survey data provided to the WHO suggests that initiation of alcohol use is 'rare' among Vietnamese adolescence [Tran (1998) as cited in (Jernigan, 2001)]. Official figures for alcohol consumption are relatively low in Viet Nam, although these numbers do not include use of home-produced alcoholic beverages. However, over the past 25–30 years, there has been an increase in alcohol consumption. In 1996, the rate of alcohol consumption in Viet Nam by individuals over 15 years was 1.21 l/capita, an increase of 28% from the early 1970s (WHO, 1996). Evidence suggests that as many countries develop economically, there are increases in alcohol consumption. For example, in Thailand, the rate of consumption increased 334% from 1.93 l in the early 1970s to 8.64 l in 1996 (WHO, 1996). With limited socioreligious restrictions in Viet Nam on drinking, one could anticipate that alcohol consumption will continually increase as economic

conditions improve. It should also be noted that there is no legal age limit on alcohol consumption in Viet Nam.

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## Methods

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Data was collected as part of a randomized controlled effectiveness trial of an HIV prevention program for adolescents in Khanh Hoa Province, Viet Nam. The research included both quantitative and qualitative data collection methods. This paper is based on the baseline qualitative and quantitative data sets.

### Research site

Khanh Hoa Province (population 1 031 000) is located in South Central Coastal Viet Nam, and is bordered to the east by the South China Sea and to the west by a rural mountain region. In 1999, there were 132 communes [81.1% (107) rural] in the province including 26 in the provincial capital of Nha Trang City (population 327 500).

The research site included eight rural communes in Khanh Hoa Province. Four of these communes are within the Nha Trang City limits and four are in Dien Khanh District, approximately 10 km from Nha Trang.

### Ethical assurances

The University of Maryland Baltimore, School of Medicine, Institutional Review Board and the Khanh Hoa Provincial Health Service Ethical Review Board (Nha Trang City) approved the protocol for this project. Participants 18 years and older signed a consent form. Participants younger than 18 years signed an assent form and their parent/guardian signed a consent form. All interviewers were trained in ethical research and obtaining consent.

### Research population and selection

The research population included adolescents between the ages of 15 and 20 years. A convenience sample of 60 youth was selected from each of the eight study communes, for a total of 480 participants, with equal numbers of male and female

respondents. Community recruiters were hired to recruit participants and, out of those recruited, 100% participated in the baseline survey. Of those 480 youth, 96 (12 per commune) were randomly selected to participate in the qualitative phase. A total of 91 of 96 (94.8%) completed the interviews. These participants were not significantly different from the overall sample by gender, age, religion, in-school status, employment status, reported alcohol use and intoxication, and age of first drink.

### Theoretical orientation

Research in the behavioral sciences has established the need for theory-based interventions (Jemmott and Jemmott, 2000). The HIV prevention program and the evaluation instrument were developed from the Focus on Kids curriculum and the Youth Health Risk Behavior Instrument (YHRBI). The curriculum and evaluation tool were both based on the Protection Motivation Theory (PMT) within a sociocultural framework (Stanton *et al.*, 1993). The PMT envisions environmental and personal factors combining to pose a personal threat. A balance between intrinsic rewards and extrinsic rewards, perceived severity of the threat, and personal vulnerability mediates maladaptive responses. An adaptive response is mediated by balancing response efficacy, self-efficacy and response costs. These two appraisal pathways combine to form protection motivation—the intention to respond to a potential threat in either an adaptive (protective) or maladaptive (risk) manner (Rogers, 1983). These behavioral responses, however, must be interpreted within a sociocultural frame. The sociocultural context will affect what behaviors elicit positive and negative feelings, and will constrain or promote certain actions. Also, within the sociocultural context, political/economic conditions can affect accessibility of information, goods and/or services, and thereby affect an individual's options.

### Instrument development and modification

Prior to the effectiveness trial, a pilot study including qualitative and quantitative data collection and analysis was conducted among 160 adolescents

in Khanh Hoa Province. These data were used to assist in the development of the interview guides and the modification of the intervention and the YRHBI within the PMT framework.

The qualitative interviews were primarily a means of obtaining more in-depth information about adolescents' perceptions of risk and protective behaviors, and social relationships. These data were utilized to help contextualize the findings from the quantitative evaluation data. The guide included sections on: (1) perceptions of adolescent risk behaviors including fighting, tobacco and alcohol use; (2) social relationships including friendships, love and sexual relations; (3) peer and parent-child communication; and (4) accessing health resources and information.

The modified Vietnamese YHRBI included all of the sections from the original tool plus an additional section on communication within a male-female relationship. The sections included: (1) demographics (gender, age, religion, in-school/out-of-school, employment status) (six items); (2) engagement in fighting/weapon carrying (eight items); (3) engagement in substance use including tobacco and alcohol (six items); (4) past and current relationships, and engagement in sexual behaviors including vaginal, oral and anal sex, as well as use of condoms and other contraceptives (28 items); (5) male-female partner communication (20 items); (6) a condom access and use efficacy scale (eight items); (7) attitudes and beliefs regarding sexuality, HIV/AIDS, contraceptives, condom use and alcohol consumption (41 items); (8) perceptions of friends engagement in risk activities including alcohol use (seven items); (9) intentions to engage in various behaviors including alcohol consumption (eight items); and (10) an HIV/AIDS knowledge questionnaire (25 items). In addition, there was a question on whether the respondent had ever talked to an adult about HIV/AIDS and a question whether he/she knew anyone who had HIV/AIDS. The instrument contained a total of 159 items.

For the Vietnamese YHRBI, items were modified to reflect differences between Vietnamese and American adolescent cultures, as well as research interests. The modifications included additional

questions on age of first alcohol drink, frequency of alcohol consumption and experience of intoxication. In addition, a session was added to the HIV prevention program on risk behaviors and alcohol use. The greater emphasis on alcohol use compared to the original US program and instrument was a consequence of both observational data and findings from the pilot study. In Viet Nam, drug questions were deleted because of ethical concerns about youth revealing illegal information. Other modifications were primarily in the section on perceptions and attitudes, and included the modification of two drug-related questions and the addition of two items regarding alcohol use. These items were: (1) troubles don't seem so bad when you drink alcohol (use drugs); (2) sex feels better when you drink alcohol (are high on drugs); (3) boys my age drink alcohol to make them feel more confident (able to say or do things they would be too shy to say or do without alcohol); and (4) girls my age drink alcohol to make them feel more confident (able to say or do things they would be too shy to say or do without alcohol). Modifications in this section also included items on benefits of education for future employment, filial responsibility, pregnancy and abortion, government responsibility for preventing HIV/AIDS, commercial sex workers, and media influences on adolescent behavior.

### **Qualitative data collection and analysis**

In September 2001, baseline qualitative interviews were conducted with 91 randomly selected youth one month prior to the implementation of the HIV intervention. Interviewers took extensive notes during the interview and the interviews were also audiotaped. The notes from the interviews were entered into Microsoft Word. The audiotapes were used to confirm and expand upon the notes. The notes were transcribed into Vietnamese and subsequently translated into English.

The English translations were entered into Ethnograph (Scolari, Sage Publication Software, Thousand Oaks, CA). A coding dictionary was developed and the English translations were coded. The following results come from coded text in relation to alcohol consumption. The qualitative

interviews were given the same identification number as assigned to the youth for the quantitative evaluation. Therefore, 'face sheet' variables were attached to each interview including gender, age, and alcohol and cigarette consumption, and engagement in sexual behaviors as reported on the quantitative evaluation. After coding and searching, the text passages were read and notes and memos were added into the Ethnograph program to record patterns and to mark specific quotes which were illustrative of those patterns.

### Quantitative data collection and analysis

Quantitative data were collected at baseline, immediate post-intervention, and 6, 12 and 18 months post-intervention. For the purposes of the current analysis, only the baseline data were used. Questions in relation to alcohol consumption were analyzed for descriptive purposes, and  $\chi^2$ - and *t*-tests were performed to assess significant relationships between alcohol consumption and other variables, including sexual behaviors and intentions. Questions regarding attitudes and intentions had Likert scale response categories (strongly agree, agree, don't know, disagree, strongly disagree). For purposes of analysis, the scale was collapsed into three categories (strongly agree/agree, don't know, disagree/strongly disagree).

## Results

### Demographics

The mean age of the quantitative sample was 17.1 years (*SD* = 1.7 years). Buddhism was the most commonly reported religion of the participants (66.3%), followed by no reported religion (25.4%) and Catholicism (7.3%). Approximately 68% of the respondents (*n* = 326/480) reported that they were currently in school at the time of the survey, with around 75% of those in school (*n* = 250/326) in Grades 10–12. Among those respondents not currently in school (*n* = 154/480), 24.2% had finished up to Grade 12 (*n* = 37/154) and a similar number (*n* = 42/154) reported finishing up to Grade 6 or less. Thirty-five percent of male

respondents (*n* = 84/154) were out of school compared to 29% of female respondents (*n* = 70/154). Sixteen percent of the sample was employed at the time of the survey (*n* = 77/480), with the majority of those working (88.3%), also not in school (*n* = 68/77). Construction worker (36.5%), laborer (33.8%) and service (13.5%) were the occupations most commonly reported by the respondents. Significantly more males (20%; *n* = 48/240) were employed than females (12.1%; *n* = 29/240) ( $\chi^2 = 5.6$ , *d.f.* = 1, *P* < 0.05).

### Self-reported alcohol use

Overall, 29.2% (*n* = 140/480) of the sample reported ever drinking alcohol. Of those, 26% (*n* = 37/140) reported drinking as frequently as once a month or more. The mean age for first drink of alcohol was 16.3 years (range 8–21 years, *SD* = 2.0 years). In addition, 17.6% of the drinkers (*n* = 25/140) reported having drunk to the point of intoxication in the past 6 months.

A significantly greater proportion of males reported drinking (40.8%) as compared to females (17.5%) ( $\chi^2 = 31.6$ , *d.f.* = 1, *P* < 0.00). However, even though males reported drinking with more frequency in the past 6 months ( $\chi^2 = 9.9$ , *d.f.* = 1, *P* < 0.01), similar proportions of males and females reported drinking every 2 weeks or more often (see Table I). Additionally there was no association between gender and intoxication within the past 6 months ( $\chi^2 = 0.60$ , *d.f.* = 1, *P* = 0.44). Respondents who reported using alcohol were significantly older than those who reported no alcohol use (*t* = -3.6, *d.f.* = 478, *P* < 0.00), but there was no difference in age between those who did and did not report intoxication (*t* = -0.5, *d.f.* = 140, *P* < 0.96). Alcohol use was also associated with being employed ( $\chi^2 = 6.8$ , *d.f.* = 1, *P* < 0.01), and both alcohol use and intoxication were associated with ever having had a boy/girlfriend ( $\chi^2 = 42.7$ , *d.f.* = 1, *P* < 0.00/ $\chi^2 = 6.7$ , *d.f.* = 1, *P* < 0.01).

### Reasons and contexts for drinking

In the qualitative interviews, adolescents reported numerous reasons for why they drink alcohol. The most common reasons were that it was a part of

**Table I.** Frequency of alcohol drinking in past 6 months by gender

Alcohol frequency	Male (n = 98)	Female (n = 42)	Total (n = 140)
Not in past 6 months [N (%)]	26 (27.3)	22 (53.5)	50 (35.2)
Less than or once a month [N (%)]	61 (61.6)	15 (34.9)	76 (53.5)
Every 2 weeks or more often [N (%)]	11 (11.1)	5 (11.6)	16 (11.3)

socializing with friends and for celebratory purposes, e.g. holidays and weddings. Many adolescents also noted that drinking was a way to deal with 'feeling sad'. An 18-year-old male respondent noted that:

...youth of my same age drink beer and wine. For example, they often drink on holidays...drink because of sadness in a love relationship or sadness because of the family situation.

Other reasons youth gave for their or their friends drinking included sharing happiness or sorrows with others, to reduce anger, and to relieve boredom.

Peer pressure and imitating peers were often described as the situations that prompt adolescents to start to drink. These pressures seemed to be particularly important among adolescent boys as they tried to 'prove their manhood'. As one 16-year-old male respondent stated, 'boys engage in drinking much, because boys are men so they drink wine...'. Another male respondent noted, 'usually boys engage in these activities [including drinking] because boys often imitate others and boys have the characteristics of men'.

Another factor which seemed to affect whether youth drink or not was access to money. Thus, youth who worked were perceived to be more likely to drink than those in school. One young man stated, that among his friends, '[those] who still go to school do not drink, but some friends who go to work drink'. Respondents stated that working youth drink on payday and youth from rich families can drink because they have disposable income. A 16-year-old male respondent said, 'yes, youth at my

age drink beer, wine. For example, when friends gather together, when they feel sad, and when they have money to drink...'. Lack of parental control was also discussed as a reason for youth drinking. A female respondent stated that youth engage in risky activities, including drinking 'because their friends come from rich families. Parents do not control them strictly, so they play...'.

### Attitudes and intentions about alcohol use

Alcohol drinkers were more likely to agree with several statements about drinking than non-drinkers (see Table II). For example, a significantly larger proportion of drinkers agreed with the statement 'troubles don't seem so bad when you drink alcohol' ( $\chi^2 = 12.5$ , d.f. = 2,  $P < 0.00$ ). In addition, drinkers more often agreed, 'boys/girls my age drink alcohol to make them feel more confident (able to say or do things they would be too shy to say or do without alcohol)' (boys:  $\chi^2 = 15.1$ , d.f. = 2,  $P < 0.00$ /girls:  $\chi^2 = 5.8$ , d.f. = 2,  $P < 0.06$ ).

### Perceptions and attitudes related to friends

Overall drinkers and those reporting intoxication perceived that more of their friends drink when compared to non-drinkers ( $\chi^2 = 42.4$ , d.f. = 2,  $P < 0.00$ / $\chi^2 = 7.6$ , d.f. = 2,  $P < 0.02$ ). In addition, alcohol users were less likely to agree with the statement, 'If all my friends were drinking, I wouldn't have to drink' ( $\chi^2 = 10.6$ , d.f. = 4,  $P < 0.03$ ). Alcohol users ( $\chi^2 = 21.3$ , d.f. = 4,  $P < 0.00$ ) and males ( $\chi^2 = 19.1$ , d.f. = 2,  $P < 0.00$ ) were also significantly more likely to intend to drink with friends in the next 6 months.

### Alcohol use and sexual behaviors

There was a strong association between alcohol use and sexual behaviors. Nearly 70% ( $n = 14/21$ ) of those engaging in oral, anal or vaginal sex also reported drinking ( $\chi^2 = 14.9$ , d.f. = 1,  $P < 0.00$ ). This relationship appeared to remain when controlling for age of respondent, but further analysis was not possible due to the small number of respondents engaging in sexual behaviors. Alcohol users were also significantly more likely to intend to have sex in

**Table II.** Behaviors, intentions and attitudes regarding alcohol and sex by gender, alcohol users, and those reporting intoxication

	Male/female (n = 240/240)	Alcohol: yes/no (n = 140/340)	Intoxication: yes/no (n = 25/115)
<b>Behaviors</b>	Percent 'yes'		
Alcohol consumption (ever)	40.8/17.5 <sup>b</sup>	N/A	17.6/82.4
Intoxicated (of those who consumed alcohol last 6 months)	16.0/21.4	–	N/A
Had oral/anal/vaginal intercourse	2.9/5.8	10.0/2.1 <sup>a</sup>	16.0/7.7
<b>Attitudes</b>	Percent strongly agree/agree		
Troubles don't seem so bad when drinking alcohol	20.4/23.3	32.1/17.6 <sup>b</sup>	56.0/28.2 <sup>c</sup>
Boys drink to feel more confident	20.0/25.4	34.3/17.9 <sup>a</sup>	60.0/28.2 <sup>b</sup>
Girls drink to feel more confident	7.9/13.8 <sup>a</sup>	14.3/9.4 <sup>c</sup>	28.0/11.1 <sup>c</sup>
If all my friends were drinking, I wouldn't have to drink	67.1/74.6	66.4/72.6 <sup>c</sup>	60.0/67.5
Sex feels better when you drink alcohol	9.2/15.0 <sup>d</sup>	12.1/12.1	20.0/11.1
Some girls cannot control themselves and have sex with boys	29.2/47.5 <sup>a</sup>	44.3/35.9 <sup>c</sup>	48.0/43.6
Adolescent boys have sex with prostitutes to impress their friends	7.5/5.8	8.6/5.9	8.0/8.5
Even if all my friends were having sex, I would not feel I had to	62.1/78.8 <sup>a</sup>	67.1/71.8	68.0/67.5
Boys think it's important to have sex to feel like a man	7.5/7.1	11.4/5.6 <sup>c</sup>	24.0/8.5 <sup>d</sup>
Girls think it's important to have sex to feel like a woman	5.4/5.4	6.4/5.0	16.0/4.3 <sup>d</sup>
<b>Intentions</b>	Percent very likely/likely		
Drink alcohol with friends	53.3/35.4 <sup>a</sup>	60.0/37.9 <sup>a</sup>	76.0/56/4
Have sex	23.8/9.2 <sup>a</sup>	23.6/13.5 <sup>c</sup>	28.0/22.2

<sup>a</sup> $P < 0.001$ ; <sup>b</sup> $P < 0.01$ ; <sup>c</sup> $P < 0.05$ ; <sup>d</sup> $P < 0.10$ .

the next 6 months ( $\chi^2 = 7.5$ , d.f. = 2,  $P < 0.02$ ) and to agree that 'some girls cannot control themselves and have sex with boys' ( $\chi^2 = 5.9$ , d.f. = 2,  $P < 0.05$ ).

In the qualitative interviews, engagement in sexual behaviors was second only to aggressive behavior and physical fighting in terms of perceived consequences of alcohol consumption. These behaviors were most often potentially risky activities such as sex with commercial sex workers, sex with workers at cafes and *bia om*, and/or unprotected sex. Again, it is the disinhibiting effects from alcohol consumption that is tied to these behaviors. One 16-year-old female respondent stated when asked about casual sexual relations:

They can contact each other at a cafe or a drinking inn...boys after drinking beer and wine, cannot control themselves, then they call to go to an

unhealthy place to have sexual relations, like with girls at *bia om*...

Another female respondent said:

Friends will go to *bia om* and after that have sexual relations with a sexual worker. Some friends will meet 'too easy-going' girls, will invite them to drink coffee, and then to an inn to drink wine or rum. Then the girls cannot control, and at that time boys engage in sex with them.

One 18-year-old male respondent stated that:

...friends smoke cigarettes, drink wine or go to inhale, inject [drugs]...go out to find fun, try it once to know what it is like, usually at the beach. Have sexual relationships with many girls they do not know.

While most of the discussions were about men having sexual relations with commercial sex

workers, or women they do not know, a few respondents also noted that youth in an existing relationship will be more likely to engage in sexual behaviors when drinking alcohol. Again, these activities are usually described in terms of being 'rash sexual' relations and include a 'lack of control' on the part of the person drinking. One male respondent noted, 'If two friends, a boy and a girl drink wine, they cannot control themselves, and will have a sexual relationship'. Another 18-year-old male respondent also suggested that birth control would not be used in circumstances where sexual activities follow drinking alcohol, '...because being drunk they are not prepared (do not intend) to have sex with their girlfriend...'

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## Discussion

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Research has linked economic development and increases in alcohol consumption, as well as changes in social acceptance of excessive drinking behaviors. Within Asia, studies have shown that rapid industrialization over the past three decades in Taiwan (Yeh, 1992) and South Korea (Lee, 1992) have resulted in greater prosperity, increased production of alcoholic beverages and increased regular consumption of alcohol. A report from the WHO noted a globalization of drinking patterns through advertisement in both developed and developing countries, making consumption of certain brand products 'the price of admission to the global culture' [(Jernigan, 2001), p. 15]. The 'open door' policies of Viet Nam over the past 10 years have brought about rapid social and economic changes, particularly for youth. Joint business ventures for beer and other alcoholic beverages, as well as the increasing availability and visibility of both national and imported brands, is most certainly affecting drinking patterns among the Vietnamese. Advertisements for alcoholic beverages saturate public spaces with posters that associate alcohol and happiness, and beer and sexuality. National and international beer companies hire young women as 'representatives' to encourage the purchase of their beverages in restaurants and cafes.

While a previous report indicated that adolescents rarely drink [Tran (1998) as cited in (Jernigan, 2001)], our data suggest that both young men and young women are drinking, and that initiation of drinking is during the mid-teen years. These data also show that while more young men than young women report drinking, among those who do drink, approximately the same percentage of men and women state that they have been intoxicated or drunk in the past 6 months. At the same time, compared to other Asian and Western countries, drinking rates in Viet Nam still remain relatively low. This observation suggests the opportunity to intervene around social patterns associated with drinking.

In Viet Nam, drinking is a social activity. For young men, this usually involves gathering together in cafes and small beer restaurants. Drinking for young men is also a 'rite of passage', a way to exhibit their transition from boyhood to manhood. Drinking for young women more often takes place in mixed gender groups or alone with a boyfriend. For these young women, drinking is a rejection of the 'traditional' social norms, which views alcohol consumption as primarily a part of the male domain. Peer pressures appear to sustain drinking behaviors as drinkers are more likely to report that their friends drink, and they are also more likely to indicate their intention to 'drink alcohol with friends' in the next 6 months. Respondents who reported drinking were also significantly less likely than non-drinkers to state that they 'wouldn't have to drink even if their friends were drinking'.

Engagement in risky sexual behaviors with alcohol consumption has the potential for long-term health problems including contraction of STDs and HIV. In 1997 in Viet Nam, there were an estimated 900 000 cases of curable STDs including 14% gonorrhoea, 14% syphilis and 71% chlamydia (Ricard, 1999). While HIV rates remain relatively low in Viet Nam, they have steadily increased over the past 12 years (Hoang, 1999). Unwanted pregnancy is another risk, with a majority of unwanted pregnancies ending in abortion. In 1995, an estimated 1 200 000 medical abortions were performed in Viet Nam, a rate exceeding one in every three pregnancies. More recent estimates



suggest that 44% of pregnancies are terminated and that 300 000 abortions are performed annually for young women under 19 years. While abortion is legal in Viet Nam, medical abortions are the sixth most common cause of morbidity in the country (EC/UNFPA Initiative for Reproductive Health in Asia, 1999).

In a society where sexual relations outside of marriage are strongly discouraged and often referred to as a 'social evil' (*te nan xa hoi*), alcohol may often be a means of increasing confidence and decreasing inhibitions in regards to sexual feelings. The youth often state that drinking makes a person 'out of control' and therefore he/she is less responsible for his/her actions when intoxicated. However, sexual relations in these circumstances are not 'planned', and are more likely to be risky, and include engagement of commercial sex workers and/or unprotected sex.

Concomitant engagement in alcohol consumption and other health risk behaviors has been documented both in the US, and in other developed and developing countries. There has, however, been little research in Viet Nam on alcohol use among adolescents. While Viet Nam is still among the poorest countries in Asia, adolescents have increasingly more expendable time and money. In the current research, the relationship between employment and alcohol consumption suggests a link between access to money and drinking. As the country continues to undergo social and economic changes, it is essential to increase knowledge of rates of alcohol use, circumstances of alcohol use, and the short- and long-term consequences of alcohol consumption among this population, as well as the general population. This study was designed as an evaluation of an HIV prevention program for the general adolescent population. Future research efforts must target populations of youth who drink alcohol to better understand the extent and contexts of drinking behaviors, and psychosocial predictors of engagement in drinking and concomitant risk behaviors.

There have been limited informed educational efforts in Viet Nam with regard to alcohol consumption. Educational programs must include a re-

alistic context in which to present alcohol-drinking behaviors (Giesbrecht, 1999) and they must address the multiple health risk behaviors that accompany alcohol consumption. These efforts should include prevention and harm-reduction programs, and differentially target drinkers and non-drinkers, children, adolescents, and adults, and men and women.

There can be little doubt that the expansion of the alcohol industry will continue in Viet Nam, as well as other developing countries. These findings provide important preliminary data regarding adolescents, alcohol consumption and risk behaviors in Viet Nam, as well as contribute to the literature on these issues throughout the developing world. Only with sufficient background knowledge, and informed and targeted education programs can the harmful effects associated with alcohol use and abuse be abated.

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