ตัวกำหนด

และผลที่ตามมาของการบริโภคแอลกอฮอล์ในแรงงานชายอพยพชาวพม่าวัยผู้ใหญ่ในจังหวัดราชบุรี ประเทศไทย

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DETERMINANTS AND CONSEQUENCES OF ALCOHOL CONSUMPTION AMONG MALE ADULT MYANMAR MIGRANT WORKERS IN RATCHABURI PROVINCE, THAILAND

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เทย์ ซาร์ ซอร์: ตัวกำหนดและผลที่ตามมาของการบริโภคแอลกอฮอล์ในแรงงานชายอพยพชาวพม่าวัยผู้ใหญ่ในจังหวัดราชบุรี ประเทศไทย (DETERMINANTS AND CONSEQUENCES OF ALCOHOL CONSUMPTION AMONG MALE ADULT MYANMAR MIGRANT WORKERS IN RATCHABURI PROVINCE, THAILAND) อ.ที่ปรึกษาวิทยานิพนธ์หลัก: ผศ. ดร. ประเทือง หงสรานากร, 107 หน้า.

เพื่อตรวจดูตัวกำหนดรูปแบบของการบริโภคเครื่องดื่มแอลกอฮอล์พร้อมกับผลที่ตามมาของการดื่มในหมู่คนงานที่เป็นแรงงานอพยพชาวพม่าผู้ชายวัยผู้ใหญ่ในจังหวัดราชบุรี ประเทศไทย ดำเนินการศึกษาด้วยการศึกษาภาคตัดขวางในเดือนมีนาคมปี 2555 การสุ่มตัวอย่างใช้วิธี multi-stage sampling กับกลุ่มตัวอย่างจำนวน 347 รายในการศึกษาเชิงปริมาณ การเก็บข้อมูลใช้วิธีการสัมภาษณ์แบบตัวต่อตัวด้วยแบบสัมภาษณ์ที่มีโครงสร้าง เครื่องมือการวิจัยนี้ถูกนำมาใช้เพื่อประเมินวัตถุประสงค์ด้วยการปรับใช้ภาพประกอบเครื่องมือวิจัย AUDIT และ MAST ถูกนำมาใช้เพื่อศึกษาผลที่ตามมา มีการใช้สถิติเชิงพรรณาในการตีความข้อมูลและใช้สถิติ เชิงอนุมานในการตรวจดูความสัมพันธ์ระหว่างตัวแปรอิสระและการบริโภคเครื่องดื่มแอลกอฮอล์ด้วยการใช้สถิติทดสอบไคสแควร์

ผลการวิจัยพบว่าพฤติกรรมการดื่มในปัจจุบันอยู่ที่ร้อยละ 73.8 ในผู้ชายที่เป็นแรงงานอพยพและร้อยละ 41.4 ของกลุ่มตัวอย่างยังเป็นคนวัยหนุ่มอายุระหว่าง 18-25 ปี ปริมาณของการบริโภคแอลกอฮอล์เกินจำนวนที่เกินกว่าปริมาณการดื่มต่อครั้งคือการปฏิ บัติร้อยละ 58.2 ในกลุ่มผู้ที่ดื่มปัจจุบัน ประเภทของเครื่องดื่มแอลกอฮอล์ที่คนงานแรงงานอพยพนิยมมากที่สุดคือเบียร์ เหล้าขาว และเหล้าวิสกี้ตามลำดับ ประมาณร้อยละ 63.3 ของ ผู้ดื่มที่เป็นแรงงานอพยพบริโภคมากกว่าสัปดาห์ละหนึ่งครั้ง ในขณะที่ร้อยละ 8 ของกลุ่มตัวอย่างดื่มเหล้าขาวทุกๆวัน แรงงานอพยพที่ถูกจัดกลุ่มว่ามีผลที่ตามมาซึ่งเป็นปัญหาจากการดื่มเครื่องดื่มแอลกอฮอล์ตามเกณฑ์คะแนนของ MAST คือร้อยละ 21.48 ของผู้ที่ดื่มในปัจจุบัน พฤติกรรมการดื่มอย่างหนักซึ่งมีผลที่ตามมามีความสัมพันธ์กับอายุ โดยเฉพาะ อย่างยิ่งในสภาพการณ์ของการสมรสและการหย่าร้าง สัมพันธ์กับระยะเวลาของการอพยพย้ายถิ่นและความคล่องตัวในทักษะและความสามารถของการใช้ภาษา ปัจจัยที่กำหนดการดื่มเครื่องดื่มแอลกอฮอล์ในหมู่คนงานที่เป็นแรงงานอ พยพมักเป็นไปเพื่อการเข้าสังคม สภาพของการทำงานจากการที่กลุ่มตัวอย่างมองว่าการดื่มแอลกอฮอล์เป็นความเพลิดเพลินและเป็นการผ่อนคลายจาก สภาพที่เหน็ดเหนื่อย เหตุผลที่มักอ้างถึงบ่อยครั้งสำหรับการดื่มคือเพื่อระบายความเครียด ความชื่นชอบในรสชาติและแรงกดดันจากเพื่อนๆ แรงงานอพยพส่วนใหญ่ยังขาดความรู้เกี่ยวกับผลกระทบของเครื่องดื่มแอลกอฮอล์ต่อสุขภาพเรื่องน้ำหนักแรกเกิดต่ำในสตรีและการติดเชื้อเอชไอวี ความรู้และมุมมองเรื่องเครื่องดื่มแอลกอฮอล์ไม่แตกต่างกันนักในหมู่ผู้ที่ดื่มในปัจจุบันและผู้ที่ไม่เคยดื่มเลย ลักษณะ ของการหยุดดื่มทั่วไปคือเหตุผลด้านสุขภาพและการหลีกเลี่ยงระหว่างเทศกาลการเข้าพรรษาของพระพุทธศาสนา

ภาพรวมของข้อค้นพบรายงานว่าพฤติกรรมของการดื่มที่เป็นอันตรายในหมู่คนรักความสนุกสนานที่เป็นคนงานแรงงานอพยพควรนำมาพิจารณาและการให้การแทรกแซงเพื่อลดการดื่มแอลกอฮอล์ที่เกี่ยวข้องกับการทำงานควรพิจารณาเพื่อเปลี่ยนแปลงพฤติกรรมและนโยบายอื่นๆ เช่น ระบบการส่งต่อข้อความของการให้การศึกษาแก่ญาติและการส่งเสริมให้มีการเลิกดื่มระหว่างการรณรงค์ช่วงเทศกาลวันเข้าพรรษาของพระพุทธศาสนาควรได้รับการสนับสนุนทั่วทั้งประเทศด้วย ทั้งในหมู่คนทำงานชาวไทยและคนงานที่เป็นแรงงานอพยพ หากเป็นไปได้ควรมีการแปลภาษาเพื่อความเข้าใจในการสื่อสารด้วย สิ่งนี้สอดคล้องกับคำแนะนำระดับสากลเรื่องกลยุทธ์ในการลดการดื่มแอลกอฮอล์ที่ยังคงละเลยกลุ่มเปราะบางที่เป็นแรงงานอพยพ

สาขาวิชา.....สาธารณสุขศาสตร์.....ลายมือชื่อนิสิต……..……

ปีการศึกษา.....2554……ลายมือชื่ออาจารย์ที่ปรึกษา……..….....

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KEYWORDS : ALCOHOL/ MALE ADULT/ MYANMAR /MIGRANT WORKERS/ DETERMINANT OF ALCOHOL/ DRINKING CONSEQUENCES/ RATCHABURI PROVINCE/ THAILAND

TAY ZAR SOE: DETERMINANTS AND CONSEQUENCES OF ALCOHOL CONSUMPTION AMONG MALE ADULT MYANMAR MIGRANT WORKERS IN RATCHABURI PROVINCE, THAILAND.
ADVISOR: ASST. PROF. PRATHURNG HONGSRANAGON, Ph.D., 107 PP.

To examine the factors that determine upon alcohol consumption pattern with drinking consequences among male adult Myanmar migrant workers in Ratchaburi Province, Thailand, the cross-sectional study conducted during March, 2012. The multi-stage sampling method was applied in 347 respondents for quantitative research. The data was collected in face to face structured interview questionnaire. The tools for accessing the research objectives were adapted from image using pattern assessments, AUDIT and MAST for consequences. The data were clarified by applying descriptive statistics for interpretation of data and inferential statistic to examine the association between independent variables and alcohol consumption by using Chi-Square test.

The result revealed that current drinking behavior prevailed at 73.8% among male migrant workers and 41.4% of them were young age between 18 and 25 years. The excessive amount of alcohol consumption than standard drink per occasion was behaved by 58.2% of current drinkers. The types of alcohol beverage that migrant workers preferred most were beer, white spirit and whiskey respectively. Approximate 63.3% of migrant drinkers consumed alcohol more than once a week while 8% of respondents drank white spirit daily. The migrants classified as alcohol-related problematic consequences according to MAST scores were 21.48% of current drinkers. Heavy drinking behavior with consequences were associated with increasing in age, especially in married and divorced marital status, more durable in length of migration and fluent language proficiency. The determine factors for alcohol drinking among migrant workers were mainly for socialization, job condition as regarding the alcohol for amusement and being relaxant for tired condition. The other frequent reasons were to relieve stress, like taste and peer pressure. Most of migrants still lacked of knowledge about the alcoholic health effect on low birth weight in women and HIV. Knowledge and perception upon alcohol were not quite different among current drinkers and non-drinkers. Common quitting characters were health reason and avoidance during Buddhist Lent period.

Overall finding reported that hazardous drinking behaviors among cavalier migrant workers realm; should be considered and work-related alcohol reduction intervention should consider for behavior change and other policy like kin-based educational messages delivery system and quit promotion during Buddhist Lent period campaign should establish in the whole country both Thai workers and migrants workers alike especially with language translation if possible. This will be in accordance with universally recommended alcohol reduction strategies but to the extent that there is a missing in the vulnerable migrant groups.

Field of Study: …….Public Health…….Student's Signature……...
Academic Year: ……2011……..Advisor's Signature…...……

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LIST OF ABBREVIATIONS

ABV	Alcohol By Volume
ADH	Alcohol Dehydrogenase
ARCM	Asian Research Center on Migration
AUDIT	Alcohol Use Disorders Identification Test
BAC	Blood Alcohol Content
CDC	Centers for Disease Control and Prevention
CH_3CH_2OH	Ethyl Alcohol
Co A	Coenzyme A
ICMHD	International Centre for Migration, Health and Development
IOM	International Organization for Migration
MAST	Michigan Alcoholism screening test
NGOs	Non-Governmental Organizations
SAMHS	Substance Abuse and Mental Health Services Administration
SPSS	Statistical Package for the Social Sciences software
STD	Standard drink of alcohol
TABBA	Thai Alcohol Beverage Business Association
UNESCO	United Nations Educational, Scientific and Cultural Organization
WHO	World Health Organization

CHAPTER I
INTRODUCTION

1.1Background and Rationale

Alcohol has been available since ancient era and people used it in different variety of function according to their needs throughout all history. The role of alcoholic beverage plays in enhancing enjoyment, medical properties and other quality of life. Gradually, the attitude, beliefs upon the alcohol beverage consumption have become as traditional and common social behavior. 'Alcohol' is a socially approved and legally sanctioned psychoactive beverage in many countries and is widely recognized as an important social lubricant and relaxant.

Given the significance of alcohol consumption to health, the harmful use of alcohol is a major global contributing factor to death and disease problems which compromise both individual and social development. Recognizing the importance of harm from alcohol abuse in the community, the World Health Organization (WHO) has been undertaking a major exercise in passive epidemiological surveillance. The WHO has been gathering published and unpublished data and information about key aspects of the alcohol situation in WHO Member States. In WHO measure, 55.0% of all adult consume alcohol. All around the world, approximately 2.5 million of all death annually is attributable to the harmful used of alcohol with a net loss of life of 2.25 million taking into accountably estimation. And also, 320,000 young people between the age of 15 to 29 die from alcohol-related causes, resulting in 9.0% of all deaths in that age group. From all above overall statistical results dominate the alcohol to become the world's third largest risk factor for premature mortality, disability and loss of health; also causes harm far beyond the physical and psychological health of the drinker. Thus, this impact of the harmful use of alcohol reaches deep into both individual and society. (World Health Organization, 2011a)

Besides, alcohol consumption can cause physical, legal, mental and social health problems. Both drinkers and non-drinkers may suffer from the consequences of alcohol

use. Excessive alcohol use has immediate effects that increase the risk of many harmful health conditions predominantly serious social and developmental issues, including violence, child neglect, and sexual abuse, disruptive role in industry and absenteeism in the workplace. Over time, excessive alcohol use can lead to the development of chronic diseases, neurological impairments and social problems (CDC, 2008). In 2004, 4.5% of the global burden of disease and injury was attributable to alcohol: 7.4% for men and 1.4% for women correspondingly. Not only to be hazarded but also global distribution of all alcohol-attributable deaths by disease or injury were 29.6% unintentional injuries, 16.6% liver diseases, 21.6% various types of cancer, 12.0% intentional injuries , 14.0% cardiovascular disease and diabetes mellitus. 6.0% neuropsychiatric disorder respectively. (WHO, 2011b)

Historically migration has been a fact of life by giving various reasons and often complex. Now a day, dramatically changed nature of world is due to globalization. Industrialization encouraged migration wherever it appeared. The increasingly global economy globalized the labor market. Workers interchange to find well employment opportunities and working situation. While wage differences are important incentives, access to higher levels of health and education services, more personal security and general sense of life can also be important elements affecting the decision to work abroad (IOM, 2008). Thailand is the major destination for migrants in the mainland Southeast Asia and Myanmar migrants account for the dominant share.

In 2005, Thailand was appeared range 6 in WHO statistic of alcohol consumption 6.5 liter per capita. (WHO, 2011c) Average quantity of alcoholic beverages consumed per capita in Thailand decreased from 5.1 liters per person per year in 2007 to 4.5 liters per person per year in 2008. Some reasonable explanation for the declination are restrict in alcohol banning policy in great expected days, in supporting campaigns centered on religious institutions. A survey by the AC Nielsen Company (Thailand) in 2009 found that 92% of populations 15 to 55 years of age were aware of the Reduce Alcohol Consumption during Buddhist Lent Campaign, while there was a tendency among 61% of drinkers to change their drinking behavior after receiving the campaign’s message.

In reality, Thai Nationals met with the trouble of alcoholic problem even though exiting the condition of legitimated policy, program, and campaigns. Measures to Control Alcohol (Thailand) are stringent, but the number of drinkers has not declined (Thai Health Report, 2010). In peer view to the person who migrated to Thailand would like to be more burden of occurrence of the alcohol consumption position due to the facts of presenting various problematic situations. A wide range of serious problems that Myanmar migrants face in everyday life include: very harsh working condition , low income, heavy indebtedness, risk of being human trafficking victim, harassment by police and military (especially of sex workers), high risk of illness , limited access to affordable medical services and a poor educational environment.

In 2006, an integral part of the Thai economy with demand for cheap labor exceeding supply was Myanmar migrant workers. However, Myanmar migrant workers frequently suffered abuse at the hands of their employers including excessive working hours without holiday entitlements, underpayment, withholding of pay, violence, and restriction on their freedom of movement- often being effectively imprisoned. Many found themselves in situations which amounted to forced and bonded labor. Thai Labor laws and policies on registration have confounded the issue for this vulnerable group, as having corrupted officials (MekongSub-regional Project, 2006)

Migrant populations, who have often undergone trauma and separation from their families and social networks, are both particularly susceptible and particularly vulnerable to the hazards of extreme alcohol consumption. Despite known links between alcohol abuse and issues of health, poverty, and violence, little concentrated action has been directed towards vulnerable migrant populations. This is not due to a lack of capability. An inexhaustible list of NGOs and agencies have long been working with migrant groups on related issues, yet remarkably few organizations include alcohol education or rehabilitation among their list of programs. This gap represents an unfortunate missed opportunity. (ICMHD, 2010)

Overall disability health determinant conditions among migrant population, the increasing the risk taking behavior occur progressively. A study among Myanmar

migrants in Samut Sakhon Province, Thailand reported that about 21.5% were current smokers, 25.4% were alcohol drinkers, and 36.7% were physically inactive correspondingly and harmful use of alcohol was the second most common problem. (Howteerakul, 2005) Influence of surrounding environment pursues these migrant into risk taking behavior and poor circumstances in knowledge may support to worsen them. The miserable outcomes of increasing the alcohol consumption manners and risky consequences of alcohol related conditions should be noticed. Little is known about the basic determinants of alcohol consumption, the perception and awareness of alcohol consumers towards alcohol and alcohol-related disorders.

Therefore, this study will be carried out among male alcohol drinkers. There is no previous research conducted upon alcohol consumption among Myanmar migrant workers in Ratchaburi Province of Thailand. The project aim to identify the situation of alcohol consumption among adult Myanmar migrants in Ratchaburi Province and to find out their perception upon alcohol abuse associated with susceptible, severity conditions of misconception. Further, expect to improve their belief in the effectiveness of education actions designed to reduce the severity of alcohol abuse consumption behavior. Moreover, there is more to investigate the barriers that obstruct the participatory manner on good practice. This study will provide a basis for the understanding of why migrants drink, how they perceive alcohol and alcohol-related disorders, so that we can know what we can do to prevent these problems.

1.2 Research Question

- What are the facts those determine upon the alcoholic drink consumption pattern with drinking consequences among male adult Myanmar migrant workers in Ratchaburi province, Thailand?

1.3 Research Objectives

1.3.1General Objective

- To assess the facts those determine upon the alcoholic drink consumption pattern with drinking consequences among male adult Myanmar migrant workers in Ratchaburi Province, Thailand

1.3.2 Specific Objective

- To identify the socio-demographic characteristics of male adult Myanmar migrant population in Ratchaburi Province, Thailand related to alcohol drinking

- To verify the situation factors concerning with the drinking alcohol among male adult Myanmar Migrant population in Ratchaburi Province, Thailand

- To explicate the alcohol consumption pattern among male adult Myanmar Migrant population in Ratchaburi Province, Thailand

- To find out the knowledge and perception attribute towards alcohol consumption among male adult Myanmar migrant population in Ratchaburi Province, Thailand

- To determine the association between socio-demographic situation; knowledge and perception; situational factors and alcohol consumption pattern with drinking consequences among male adult Myanmar migrants in Ratchaburi Province, Thailand

1.4 Research Hypothesis

- There is an association between socio-demographic characteristic of male adult Myanmar migrant and alcohol consumption pattern with drinking consequences.

- There is an association between situational factors and drinking pattern with consequences among male adult Myanmar migrants in Ratchaburi Province, Thailand

- There is an association between knowledge; perception upon alcohol and drinking pattern with consequences among male adult Myanmar migrants in Ratchaburi Province, Thailand

CONCEPTUAL FRAMEWORK

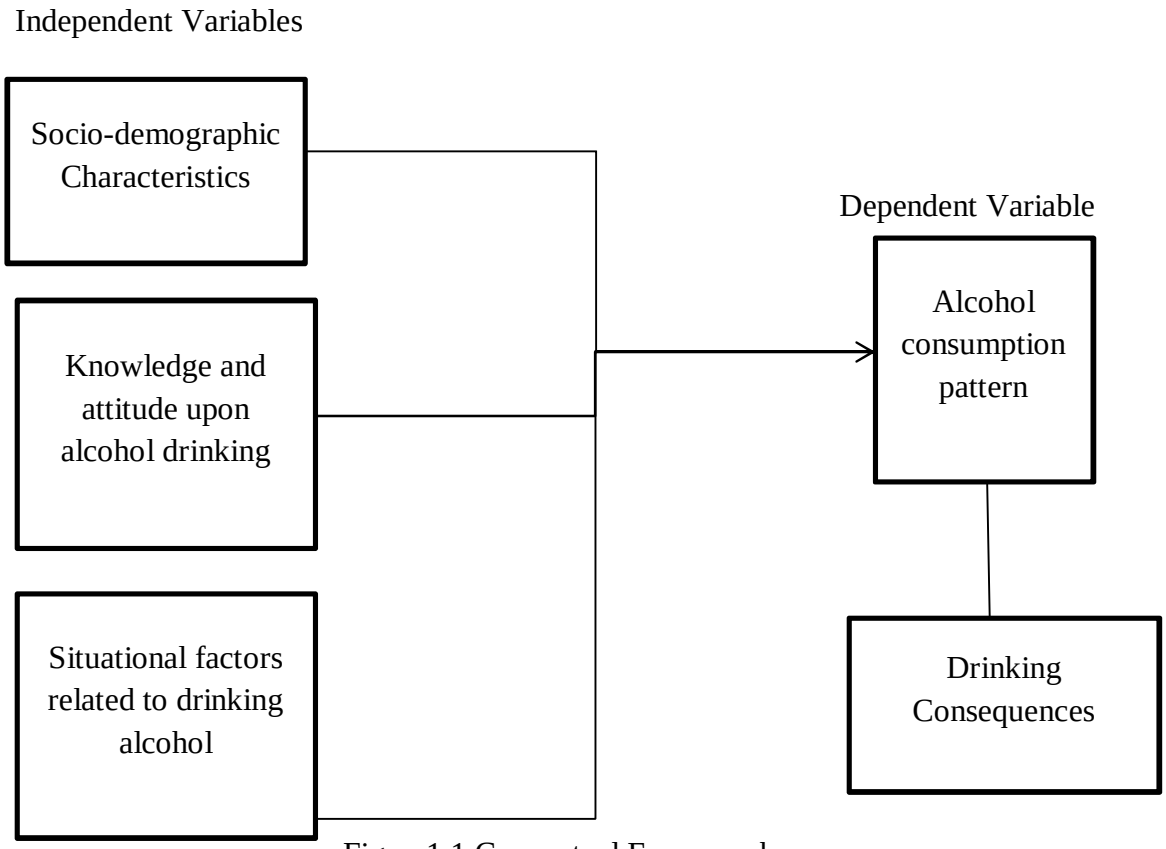


Figure1.1 Conceptual Framework

1.6 Operational Definition

The term "**migrant worker**" refers to a person who is engaged or has been engaged in a remunerated activity in a State of which he or she is not a national (UNESCO)

Drinking Consequences refers to family effect, social effect, job effect, economic, sexual effect, health and mental effects that undergoes when under the influence of alcohol like violent tendencies, lack in ability to make good or safe decisions, or lack of use of protection when engaging in sexual situations

Situational factors means living situation, and peer pressure to drink, migration history, work difficulties, and accessible to liquors, celebration/festival occasion, age of started drink

Socio-demographic factor- Socioeconomic characteristics of a population expressed statistically, such as age, race, education level, income level, marital status, occupation, average age at marriage.

Alcohol Consumption - mention to qualities, quantities and times of alcohol beverage consumption

Alcohol consumption pattern: In lifetime, pattern of alcohol consumption that mainly includes type of alcohol beverage, duration, amount and frequency.

Standard Drinking- volume of one standard drinking equal to 10 gram of pure alcohol

Alcohol Abuse Consumption means for men, consuming an average of more than 4 standard drinking per day and for women, consuming an average of more than 2 drinks per day.

Knowledge of drinking- consist of information about alcohol associated problem such as physical, mental disease, social, accidents, violence and laws and legislation about alcohol.

Attitude upon Alcohol- means respondent's belief and feeling about the occurring complication or undesired effect of alcohol drinking and perception of getting good manner or difficulty toward alcohol drinking.

CHAPTER II
LITERATURE REVIEW

2.1 Meaning of Alcohol

Alcohol can also be said as ethyl alcohol, grain alcohol, ethanol, and fermentation of fruit or cereal having ether like odor and pungent, burning taste. Ethyl alcohol has been assumed because of intoxication and mild altering effect. (Dictionary.com)

2.2 Metabolism of Alcohol

Alcohol (ethyl alcohol, ethanol) is a simple organic molecule composed of a single hydroxyl group and a short, two-carbon aliphatic chain, CH_3CH_2OH.

After oral ingestion, about 10% of alcohol is absorbed from the stomach, the remainder from the small intestine. Usually effects of alcohol are happened within 10 minutes of having a drink and blood alcohol content (BAC) will be at a maximum usually 40 to 60 minutes later. The BAC will remain steady until the liver is able to metabolize the alcohol which will be at the rate of about one drink per hour. The rate of absorption is largely determined by the quantity of ethanol consumed, the concentration of composition of the gastric contents. Alberta Alcohol and Drug Abuse Commission, the Canadian Medical association (2000) expressed that the degree of alcohol-intoxicated in the person's body depends on weight, quantity of alcohol and amount of alcohol. Eating food before or during drinking retards absorption, especially if the food has as high lipid content.

The body has protective mechanism against inundation of alcohol if the concentration of alcohol in the stomach becomes too high, mucus is converted, and the pyloric valve closes. This action slows the absorption and keeps the alcohol from passing into the small intestine, where there are no significant restraints to absorption. Thus, a large amount of alcohol can remain unabsorbed in the stomach for hours. Furthermore, pyloric spasm often results in nausea and vomiting.

After absorption, ethanol is distributed throughout body water to all body tissue. Because ethanol is uniformly dissolved in the body's water, tissues containing high proportion of water receive a high concentration of alcohol.

Ethanol is primarily metabolized in the liver by enzyme zinc-dependent, alcohol dehydrogenase (ADH) to acetaldehyde, which is a toxic compound. But acetaldehyde is rapidly converted into acetate by the enzyme acetaldehyde dehydrogenase. In combination with coenzyme A (Co A), acetate is further metabolized to carbon dioxide and water. In adults, ethanol is metabolized at about 10 – 15 ml/hr. The rate of oxidation by the liver is constant and independent of the body's energy requirement. The decreased function of alcohol metabolizing enzymes in some Asian people can also lead to easy intoxication and toxic symptoms. Alcohol can interfere with some drugs, like barbiturates, anticonvulsants and oral hypoglycemic agents and so on. (Ophardt C. E., 2003)

Ethanol can rapidly passes through the blood-placenta barrier into the fetal circulation. Normally, 90 to 98% of ingested alcohol is metabolized by the liver. Most of the remaining 2 to 10% is excreted unchanged in the urine and expired air. The ethanol content in the urine is normally about 130% of the blood concentration and expired air contains 0.05% of the blood level. Measurement of ethanol in the breadth is commonly used in legal proceedings (Hunt, 1994).

2.3 Effect and Consequences of Alcohol

2.3.1 ***Short term effects of alcohol*** intoxication are the direct result of increases in the BAC levels.

There are seven main short term effects of alcohol on human beings:

- 1 *Lowered Inhibitions* - once a person's BAC reaches 0.05% of a person's blood by volume, their behavior begins to change noticeably. When we drink, our behavior is affected. Physical effects of alcohol include a

tendency to engage in behaviors not typical of the drinker including sexual promiscuity, driving under the influence, illegal drug use, even violence and further intoxication.

= 2 *Poor Coordination* - once BAC levels reach 0.10(% of blood per volume), one of the most obvious physical effects of alcohol is slurred speech. Other short term effects of alcohol intoxication are the inability to think clearly and lack of coordination. These consequences can easily cause falls and other accidents.

= 3 *Blackouts and Loss of Memory* - alcohol consumption affects brain function. As more is absorbed into the bloodstream and carried to the brain, people can experience significant gaps in their memory. They do not know where they have been, what they have said or done.

= 4 *Nausea Sickness* - alcohol is a poison. When you drink too much of it, the body may attempt to get rid of it by causing the drinker to vomit. At other times, a person who has been drinking can feel nauseous because the alcohol has interfered with the body's sense of balance.

= 5 *Hangovers and Headaches* - it is surprising that hangovers are considered short term effects of alcohol since they are usually assumed to occur the next day. However, hangovers can be felt only a few hours after consuming alcohol, especially if the person has become dehydrated as a result of drinking. Headaches are also a common consequence of drinking too much.

= 6 *Stupor* - once blood alcohol reaches 0.40, a person is in serious trouble. They are likely to be extremely disoriented, confused and uncoordinated. Their brain and muscular functions will be seriously impaired.

= 7 *Coma* - once alcohol in the blood has reached a concentration of 0.50, there is a serious risk that a person will enter a coma. This is extremely dangerous as many coma patients do not recover. There is a high risk of respiratory failure and death. (Physical Effect of Alcohol)

2.3.2 In Long term use of alcohol would like to develop drinking consequences refers to family, social, job, economic, sexual risk behavior, health and mental effects that undergoes when under the influence of alcohol like violent tendencies, lack in ability to make good or safe decisions, or lack of use of protection when engaging in sexual situations.

Alcohol Abuse Consumption-Alcohol abuse is when drinking leads to problems such as physical health, mental health and social, family, or job responsibilities, but not physical addiction to alcohol.(Zieve, 2011)

Approximately 4.5% of the global burden of disease and injury is attributable to alcohol. Alcohol consumption is estimated to cause from 20% to 50% of cirrhosis of the liver, epilepsy, poisonings, road traffic c accidents, violence and several types of cancer. It is the third highest risk for disease and disability. (WHO, 2011b)

Family Consequences

Often alcohol abusers have a blind spot when it comes to the ravaging effects it can have on loved ones. Recent data suggest that approximately one child in every four (28.6%) in the United States is exposed to alcohol abuse or alcohol dependence in the family. (AddictionRecoveryBasic)

The impacts of alcohol use in the family are the widely documented association between alcohol use and interpersonal violence. Family problems that are likely to co-occur with alcohol problems include: violence, marital conflict, infidelity, jealousy, economic insecurity, divorce and fetal alcohol effect. Drinking problems may negatively alter marital and family functioning, but there also is evidence that they can increase as a consequence of marital and family problems. Family and psychological problems experienced by the alcohol abuser self and his lovely surroundings include the loss of a happy family, loss of dignity, loss of autonomy, and loss of prestige . (Win, 2002)

Therefore drinking and family functioning are strongly and reciprocally linked. Drinking increases family problems, as family problems increase, drinking increases. At least one child in 3000 in western countries (Australia, New Zealand, Sweden, the United

Kingdom and the United States) is born with fetal alcohol syndrome, and there is a tenfold higher incidence of disorders related to direct exposure to alcohol during gestation. Parental drinking can thus seriously harm a child's development, although its modes of action have only been partially elucidated. (Klingemann, 2001)

Social Consequences

Definition of the "social consequences of alcohol" is A negative definition would simply consider all consequences that were not directly medical in nature and that involve persons other than the drinker. More precisely: "The social consequences of alcohol are changes, subjectively or objectively attributed or attributable to alcohol, occurring in individual social behavior, in social interaction or in the social environment." (Klingemann, 2001)

It is generally believed that when high-risk activities and socially disruptive behavior are connected with drinking, they are judged less critically than the equivalent sober behavior. However, the general population does not consider drunkenness to be a valid excuse for such behavior.

Job Consequences

The impact of alcohol consumption on productivity and work career has been demonstrated in a large number of studies. Although alcohol consumption does not contribute to any large proportion of the total production losses from work absenteeism, it is well established that alcohol dependent people and heavy drinkers have more sick-leave days than other employees and thus cost their employers considerable amounts (in the United Kingdom, for instance, this has been estimated at £779 million per year) (Klingemann, 2001). In addition, some studies have shown that the majority of those who report taking sick leave from work because of drinking belong to the large group of more or less moderate drinkers. This kind of alcohol-related absenteeism is probably short-term sick leave due to hangovers from occasional episodes of heavy drinking.

Economic Consequences

Alcohol consumption, and especially abusive consumption, can entail important costs to society. Compared with tobacco or illicit drugs, alcohol is clearly more "expensive" in terms of the resources expended in dealing with the adverse consequences of abusive drinking. The costs of alcohol consumption may be broadly categorized as follows:

Direct costs

– Health, judicial and social welfare systems

– Material damage

Indirect costs

– Premature death

– Excess morbidity and unemployment

Alcohol consumption has numerous health effects, both chronic (e.g. liver cirrhosis) and acute (traffic accidents), which result in expenditure on hospital and outpatient treatment, as well as on pharmaceuticals. Costs also arise in the welfare and judicial systems, such as those for social assistance and counseling of alcoholics and their families, or police intervention, imprisonment and court work. The material damage resulting from traffic accidents due to drunken driving also results in significant costs.

Health and Mental Consequences

Alcohol can affect to every part of system in body mainly in nervous system, cardiovascular system and digastric system and so forth. Drinking alcohol is associated with more than 60 diseases directly or indirectly. global distribution of all alcohol-attributable deaths by disease or injury were 29.6% unintentional injuries, 16.6% liver diseases, 21.6% various types of cancer, 12.0% intentional injuries , 14.0% cardiovascular disease and diabetes mellitus. 6.0% neuropsychiatric disorder respectively. (WHO, 2011b)

Table 2.1: Effects of alcohol on body systems, individual, family and community

System/category	Early consequences	Late consequences
Liver disease	Elevated liver enzyme levels	Fatty liver, alcoholic hepatitis, cirrhosis,
Pancreatic disease		Acute pancreatitis, chronic pancreatitis
Cardiovascular disease	Hypertension	Cardiomyopathy, arrhythmias, stroke
Gastrointestinal problems	Gastritis, gastro-esophageal reflux, diarrhoea, peptic ulcer	Oesophageal varices, Mallory-Weiss tears
Neurologic disorders	Headaches, blackouts, peripheral neuropathy	Alcohol withdrawal syndrome, seizures, Wernicke's encephalopathy, Korsakov's psychosis, dementia, cerebral atrophy, peripheral neuropathy, cognitive deficits, impaired motor functioning
Reproductive System disorders	Fetal alcohol effects, fetal alcohol syndrome	Sexual dysfunction, amenorrhea, anovulation, early menopause, spontaneous abortion
Cancers		Neoplasm of liver, neoplasm of the head and neck, neoplasm of the pancreas, neoplasm of the esophagus
Psychiatric	Depression, anxiety	Affective disorders, anxiety disorders, antisocial personality

comorbidities	Traffic violations, driving	Motor vehicle accidents, violent
Legal problems	while intoxicated, public intoxication	offenses, fires
Employment problems	Tiredness, sick days, inability to concentrate, decreased competence	Accidents, violent offenses, unemployment
Family problems	Family conflict, erratic child discipline, neglect of responsibilities, social isolation	Divorce, spouse abuse, child abuse or neglect, loss of child custody
Effects on children	Over-responsibility, acting out, withdrawal, inability to concentrate, school problems, social isolation	Learning disorders, behavior problems, emotional disturbance
Effects on general community	Rowdy behavior, violence, property damage, accidents	Output losses (eg,on farms, on factories, etc.) due to inefficiency , loss of skilled manpower (from premature death or impairment of working capacity of drinkers)

(Htike, 2006)

The International Agency for Research on Cancer (Centre International de Recherche sur le Cancer) of the World Health Organization has classified alcohol as a carcinogen (cancer causing agent). In fact, 3.6% of all cancer cases worldwide are related to excessive alcohol drinking. (CDC, 2008)

In patients with alcohol dependence, bad relationships with brothers and sisters and partners in their lives were related to current severe employment/support problems. The current severity of psychiatric problems was related to the current severity of drug use and family/social problems in patients with alcohol dependence. (Sugaya, et al., 2011)

In 2010, a study on factor effecting factors affecting anxiety and depression in Myanmar migrant adolescents in Thailand was done. This study said that 35% of teens were drinking alcohol due to the anxiety and depression (Khinge, 2009)

Sexual Consequences

*Unsafe Sex***:** The report estimating the numbers of 18-24 year old United States college students who annually experience alcohol-related deaths, injuries and other health problems introduced that 400,000 students had unprotected sex and more than 100,000 students of that aged group report having been too intoxicated to know if they consented to having sex (Hingson et al, 2002)

A postal and interview survey of 2,174 students in the North East of England reviewed that heavier drinkers were more likely to have unsafe sex such as casual sex without a condom, and sex with someone know to have many partners. Respondents associated alcohol with sexual risk taking; because of drinking too much, in the last year, 19% had not taken contraceptive precautions during sex. (McEwan et al, 1992)

A study on HIV/AIDS risk behaviors among Myanmar migrants has shown that few participants 7.0% and 3.0% reported ever being under the influence of alcohol or drug during sexual intercourse. This risky behavior can lead to impairments in judgment and thus less frequent use of protective behaviors. (Htun, 2008)

2.3.3 Michigan Alcoholism Screening Test (MAST) for drinking consequences

The Michigan Alcohol Screening Test is one of the oldest and most accurate alcohol screening tests available. It was designed to assess symptoms and consequences of alcohol abuse such as guilt about drinking; blackouts; DELIRIUM TREMENS; loss of control; family, social, employment, and legal problems following drinking bouts; and help-seeking behaviors, such as attending ALCOHOLICS ANONYMOUS meetings or entering a hospital because of drinking (Selzer, M.L, 1971).

Several shorter versions of the MAST have also been developed including the thirteen-item Short-MAST and the ten-item Brief-MAST. Meta-analytic methods provide a framework around which an inquiry into MAST and SMAST score reliability was completed. Of the 470 measurement opportunities observed between 1971 and 2005, 62 (13.2%) were coupled with accurate reliability information. Weighted reliability estimates centered on 80 suggesting that the MAST and SMAST generally produce scores of similar and adequate reliability for most research purposes. However, the variability of internal consistency estimates shows that at times these tools will not produce reliable scores, particularly among female and nonclinical respondents. Multiple regression equations provide practical guidelines to improve reliability estimates for the future use of these instruments (Shields AL, et al., 2007)

The length of the test makes it less convenient to administer in a busy primary care office or emergency room setting, compared to the shorter four-or five-question tests available. The questions on the MAST test also focus on problems over the patient's lifetime, rather than on current problems. This study used the modified self-administered MAST which contains 22 (Yes or No) questions with six positive responses indicating a drinking problem (Buddy, 2007).

2.5 Alcohol Consumption Pattern

There are 3 types of alcoholic beverages such as (1) Beer (2) Wine and (3) Spirits. The degree of alcohol beverage depends on what kinds of alcohol such as wine contain 12.0 %of alcohol and beer contains 5.0 % of alcohol and spirit 40.0% of pure alcohol.

A standard drink is equal to 13.7 grams (0.6 ounces) of pure alcohol (United State of America). Generally, this amount of pure alcohol is found in

- 12-ounces of beer.
- 8-ounces of malt liquor.
- 5-ounces of wine.
- 1.5-ounces or a “shot” of 80-proof distilled spirits or liquor (e.g., gin, rum, vodka, or whiskey).

The Dietary Guidelines for Americans as for men, alcohol abuse consuming is an average of more than 2 standards drinking per day and for women, consuming is also an average of more than 1 drink per day. Anyone who has five or more drinks per occasion at least once a week also assumes as abuse consumption. (HHS & USDA, 2005)

2.4.1 Importance of Standard Drink Units

If consumers who choose to drink alcohol are to enjoy the experience and avoid harmful drinking, they first need to understand the amount of alcohol they are imbibing. It is difficult to calculate how much alcohol is in a beverage because the range of alcohol –by-volume (ABV) differs within beverage types and also the different serve sizes. By stating the amount in terms of Standard Drink, it becomes easier for a consumer to track how much alcohol they are really drinking and know to stop when he or she reach the limits considered damaging to health and professional efficiency.

Standard Drink is not a new deal. It has been used as a recommended guideline about alcohol drinking in many countries like Australia, France, the United Kingdom, the United States of America, Austria, Japan, etc. Although the Standard Drink varies in different countries, they all refer to the drinking standard of the World Health Organization.

The reason why adopted 10 g. of ethanol is that the number is not only because it is a measure that has been recommended by the Department of Mental Health here in Thailand but also because it is a standard adopted by many countries such as Australia, New Zealand, Hungary, Ireland, and Spain. Moreover, 10 g. is the approximate amount of alcohol that is metabolized by the average healthy liver in one hour.

Standard Drink in Thailand is still a suggested rate from the Department of Mental Health which has not been approved by the government yet. (TABBA, 2010)

2.4.2 Alcohol Use Disorders Identification Test (**AUDIT**) is a simple ten-question test developed by the WHO to determine if a person's alcohol consumption may be harmful. The test was designed to be used internationally, and was validated in a study using patients from six countries. Questions 1-3 deal with alcohol consumption, 4-6 relate to alcohol dependence and 7-10 consider alcohol related problems. A score of 8 or more in men (7 in women) indicates a strong likelihood of hazardous or harmful alcohol consumption. A score of 20 or more is suggestive of alcohol dependence. (Sauders et al, 1993)

There are 4 categories for AUDIT.

- *Low risk* refer to the risk of people who have consumed alcohol, in men not more than 2 standard drinks and in women not more than 1 standard drink
- *Hazardous Drinking* means to an alcohol consumption pattern that increases the risk of harmful consequences for the user or others. Alcohols drinking in men 4-6 standard drink and 2-4 standards drink in women.
- *Harmful drinking* regards as to be resulting in consequences to physical and mental health. Alcohol drinking in men is in more than 6 standard drinks and more than 4 standard drinks in women.
- *Alcohol dependence* refers to a cluster of behavioral, cognitive and physiological phenomena that may develop after repeated alcohol use. People may have some symptoms such as tolerance, withdrawal system, impaired control, and preoccupation with acquisition.

2.5 Prevalence of Alcohol Consumption

Harmful drinking can also be very costly to communities and societies. Worldwide per capita consumption of alcoholic beverages in 2005 was shown 6.13 liters of pure alcohol consumed by every person aged 15 years or older. Contrary to that fact, globally, more than 45.0% of total recorded alcohol is consumed in the form of spirits, predominantly in the Southeast Asia. The likelihood of heavy episodic drinking that is at

least 60 grams or more of pure alcohol at least in last week, is about 11.5% worldwide mainly man. The harmful use of alcohol is a particularly grave threat to men. Universally, 6.2% of all male deaths are attributable to alcohol and it is the leading risk factor for death in males ages 15–59, mainly due to injuries. Men consistently engage in hazardous drinking at much higher levels than women in all regions. (WHO, 2011b)

The centers for Disease control and Prevention (CDC) reported on the CBN news that 25.0% out of population age 18 to 34 years were involved in binge drinking behavior. Binge drinking related problem cause more than half of 79,000 annual deaths in the US, with 6.0% death were adolescents under 21 years old (CDC, 2008)

Between 1993 and 2001, the total number of binge drinking episodes among US adults increased from approximately 1.2 billion to 1.5 billion. Men accounted for 81.0% of binge-drinking episodes in the study years. Although rates of binge-drinking episodes were highest among those aged 18 to 25 years, 69.0% of binge-drinking episodes during the study period occurred among those aged 26 years or older. Binge drinkers were 14 times more likely to drive while impaired by alcohol compared with non-binge drinkers. (Naimi, et al., 2003)

Of the total 10.8 million underage Americans (12–20 years) who reported consuming alcohol in the past 30 days, 7.2 million (or 19.0%) were binge drinkers (≥5 drinks on the same occasion on ≥1 day in past 30 days) as defined by National Survey on Drug Use and Health .(Rockville, 2007)

Apart from the volume of consumption, the pattern of drinking has been linked to two main categories of disease outcome: injuries (both unintentional and intentional) and cardiovascular diseases (mainly ischemic heart disease). One of the key characteristics of the pattern of drinking is the presence of heavy drinking events. The volume and pattern of alcohol consumption lead to three mechanisms that directly impact disease and injury. These mechanisms are (1) toxic and other effects of alcohol on organs and tissues; (2) intoxication; and (3) dependence (Rehm, et al., 2003)

Among Myanmar migrant workers especially in Thailand, the situation of alcohol use was found to be 24.5%. (Howteerakul, 2005)

2.6 Migrants and Alcohol Drinking

According to the International Organization (IOM) for Migration's World Migration Report 2010, the number of international migrants was estimated at 214 million in 2010. If this number continues to grow at the same pace as during the last 20 years, it could reach 405 million by 2050. (IOM, 2011)

A handful of studies have explored the frequency and quantity of alcohol use among migrant farmworkers. Watson, et al., 1985 found that African American migrant men in western New York drank frequently and in large quantities. Twenty-four percent of the men drank daily, another 33.0% drank two to three times per week, and 38.0% consumed five or more drinks at each sitting.

A study by Mines, et al., 2001 on 467 farmworkers originating from the Mexican state of Zacatecas revealed that two-thirds of the subjects drink alcohol, 75.0% of men and 11.0% of women. Among those who reported drinking, the median is 2 days a week, 3 drinks per sitting. Approximately 13.0% drink 6 or 7 days a week and average 21 drinks weekly. In terms of alcohol level among migrant men in north ern California, (Alaniz, 1994) reported an average of 10 drinks per episode on the weekends. The range was 6 to 24 drinks per worker.

Finally, Alderete found that alcohol abuse—with a prevalence of 12.2 % was the most common psychiatric disorder among Mexican migrant men in Fresno County, California .(Alderete, et al, 2000) This level appears elevated. But their binge drinking does not always result in negative behavior because the migrants follow drinking norms, and violators of these norms are dealt with accordingly. Nonetheless, binge drinking does place them at a high risk for negative behavior, which results in problems in their housing units and in local communities.

2.7 Myanmar Migrants in Ratchaburi province, Thailand

In Southeast Asia regions, most of migrant prefer shifting toward to Thailand for various purposes. One of the neighboring countries of Thailand is Myanmar in which some races target Thailand for the major destination for migration reasonably. Therefore Myanmar Migrants were account for the dominant share. More than 1.27 million migrants including laborers and their families attempted to register under the state registry of Thailand in July 2004. 1,161,013 officially completed their registration. Nevertheless the real figure of migrants will be exceeding two millions (not including the 117,000 official refugees). (Aung, 2009)

Of those migrants working in Thailand, 849, 552 registered for a work permit in 2004, but only 810,730 fully completed issuing process for work permits. No work permits conditions occurred in over half of the total populations of migrant workers. New migrants are crossing the border for work every day. (Aung, 2009) According to the Thai Department of Employment, Ministry of labor in 2009, the number of foreign labor in Thailand was estimated to be about 2 million, out of which 1.3 million were from 3 neighboring countries and Myanmar migrant accounted for 82.0% of them. (Koichi, 2010)

Ratchaburi is one of the central provinces of Thailand. Neighboring provinces are (from north clockwise) Kanchanaburi, Nakhon Pathom, Samut Sakhon, Samut Songkhram and Phetchaburi. In the west it borders Tanintharyi Division of Myanmar. It is located 80 kilometers west of Bangkok and borders Myanmar/Burma to the west with the Tanaosi Range as a natural borderline. Population of Ratchaburi province is 835,231 people. There were 20,307 registered Myanmar migrants, 16,070 migrants have work permit and registered camp population is 8,353 people in 2005. But there are nearly 20,000 non-registered Myanmar migrants in Ratchaburi Province (WHO, 2005). 1.1% of the population is members of the hill tribes, mostly Karen living near the boundary to

Myanmar. Also some Mon, Lawa, Lao, Chinese and Khmer minorities live in the province (Travel Thai Net, 2001).

2.8 Situational Factors in Migrant for Alcohol Consumption

This interpretation will reveal that the situational conditions, identified in the studies on United States-based domestic migrants, are more intensive and complex for transnational migrants and place them at a higher risk for drinking. (Garcia, 2008) Transnational migrants are away from their homeland for an extended number of months, if not years, living in non-traditional housing. They are without their families and without the support systems of their established communities. Social ties between the migrants and immigrant relatives in local communities, if any, are tenuous, as will be described. Socially isolated, away from kin-based deterrents to problem drinking, and vulnerable to peer pressure, migrants may end up drinking for solidarity and camaraderie. Together, these and other migrant status-related stresses contribute to binge drinking.

Living Condition

Migrants' living conditions related to numerous health and social consequences outcomes. Generally, employers provide migrant workers with living quarters that they must pay rent for as part of the work arrangement. Generally, this arrangement is convenient for the migrants, as they do not have to concern themselves with paying for transportation and being exposed in public, however in many cases this arrangement also leads to health problems. Employers who provide residence for their migrant workforce often charge exorbitant rates and skimp on the quality of the facilities provided. The limited accommodation and/or the cost of rent forces migrants, many with families, to live in overcrowded, also considered. (Aung, 2009)

In factory dormitories at Mae Sot, Tak Province, Thailand, reports of over-crowding and poor ventilation are common. Migrant have reported that some factories have seven to twenty people living in a three and a half square meter room without

windows; whereas other factories have hundreds of people living in rows of bunk beds in a single, open room on an upper floor of a dusty warehouse with only curtains separating them (ARCM, 2003).

Work condition

Migrant status also aggravates work related stress. Since transnational workers do not return home frequently, they remain under work duress for a prolonged period of time. Illegal or undocumented migrants tolerate long work hours, unsafe working conditions, and low wages for fear of losing their jobs. Work related stress and nontraditional living situations have a compounding effect on their drinking behaviors and lead to more drinking over time (Hovey & Magana, 2001)

. Factory workers had a higher rate of alcohol consuming than non-factory workers (Khampang, et al., 2006)

Most of Myanmar migrants are at the mercy of their employers who frequently pay below Thai minimum wage. In 2006, migrant workers in Mae Sot generally earned 70 to 80 baht a day, well below the minimum wage requirement of 139 baht (Mizzima, 2006). Whilst those in the fishing and manufacturing sectors are generally better paid than those working in the domestic or agriculture sectors, they still only receive about 60.0% of the minimum wage they entitled to, once the number of hours worked, overtime and lack of days off are taken into consideration (MekongSub-regionalProject, 2006). These status of some of the migrants as an “illegal” in the country also makes them vulnerable at the work site and leads to anxiety about their perceived lack of rights in the country.

Peer Pressure and Alcohol

Peer pressure plays a major role in sustaining drinking alcohol (Florenzano, 1985), which is seen as a way of attainment social support, although it may lead to

disapproval if associated with toughness, rebelliousness, attractiveness and sociability. Like their elders, young people use alcohol as a quick way of reducing worry. Some young people, who are unable to cope with the pressure on them or to achieve some of the tasks of growing up (whether in the family, in their social relationships, at school, at work or in seeking employment), turn to drink for emotional relief (Thuta, 2002)

Language barriers

The examined relationship was done between language difficulties and cancer-preventive health behaviors using adherence scores among US Hispanics. Hispanics had greater odds of adherence to multiple behaviors compared to Non-Hispanics (Odds Ratio = 2.76 [2.27, 3.36]). Hispanics with greater English language use had lower odds of adherence (Odd Ratio = 0.45 [0.29, 0.69]). (Oh, et al., 2011)

Family history of alcohol drinking

The family history of drinking was notably high (66.0 %) in alcohol consumption in Myanmar and alcohol dependent syndrome was more prevalent among those with family history. (Thuta, 2002) Previous studies which was also found that 65.5% of studied students who drank alcohol have fathers having drinking habits. (Htike, 2006)

Age of first use in alcohol

In US, the average age of first use of alcohol was 13.1 years; in Czech Republic, 12 years; and in Spain, 16.7 years respectively (Royo-Bordonada, 1997). This may be related to the fact that the alcohol use is particularly for the younger age groups.

Perception upon Alcohol

Research and public-health perspectives on alcohol emphasize harms disproportionately relative to benefits. These positive findings are in the areas of subjective health, mood enhancement, stress reduction, sociability, social integration, mental health, long-term cognitive functioning, and work income/disability. Problem drinkers and alcoholics also seek mood and other benefits from alcohol, but are more

likely to drink to counteract negative feelings and to support their egos than are social drinkers. (Peele & Brodsky, 2000)

In contrast, the benefits of light and moderate alcohol consumption have been well documented for stress reduction, mood enhancement, reduced depression symptoms, and improved functioning in the elderly (Baum-Baicker, 1985; Pernanen, 1991)

2.9 Socio-demographic Factors

Alcohol abuse is characterized by a maladaptive pattern of drinking alcohol that results in negative work, medical, legal, educational, and/or social effects on a person's life. The individual who abuses this substance tends to continue to use it despite such consequences. Effects of alcohol abuse can include increased violence, lack in ability to make good or safe decisions, or lack of use of protection when engaging in sexual situations.

Age

It is not only that young people are drinking but the way they drink that puts them at such high risk for alcohol-related problems. Research consistently shows that people tend to drink the heaviest in their late teens and early to mid-twenties. Young adults are especially likely to binge drink and to drink heavily (SAMHS, 2004)

Overall, hazardous and harmful drinking patterns, such as drinking to intoxication and binge drinking seem to be on the rise among adolescents and young adults (McAllister, 2003).

Sex

Worldwide, about 11.5% of drinkers have weekly heavy episodic drinking occasions, with men outnumbering women by four to one. Men consistently engage in hazardous drinking at much higher levels than women in all regions.

Ethnicity

Common ethnicities to Thailand were Burma, Kayan, Mon, Shan, Kachin and Pa-O. Among these, some races like Shan, Kachin, Pa-O came from mountainous areas, which are accepted to some extent like on festivals and occasions, consumed the locally produced low level alcohol containing beverages traditionally. In developing countries experiencing rapid social change, new patterns of drinking are emerging, often built on traditional drinking behaviors but occurring without traditional social controls.

Marital Status

Thein's study expressed that married people constituted largest group among Migrant workers in Thailand (Thein, 2008). One of the previous study (Power, Rodgers, & Hope, 1999) reviewed that married condition was associated low volume of alcohol consumption and divorced had the highest consumption level.

Occupation

This study examined the associations between occupational groups; work-organization conditions based on task design; demands, social relations, and gratifications; and weekly high-risk alcohol consumption among Canadian workers. The prevalence of weekly high-risk alcohol consumption is estimated to be 8.1% among workers (Marchand, Parent-Lamarche, & Blanc, 2011).

A review of studies on the relationship between alcohol and work injuries revealed that Problem drinkers were 2.7 times more likely to have injury-related absences than non-problem drinkers, and subjects with low levels of job satisfaction were 2.2 times more likely than others to have injury-related absences (Webb, et al., 1994).

CHAPTER III
RESEARCH METHODOLOGY

3.1 Study Design

The research was designated as a cross-sectional descriptive study in order to find out the alcohol consumption with consequences among male adult Myanmar migrant workers.

3.2 Study Area and Duration

This study was done in Potharam and Banpong sub-districts, Ratchaburi province which is located in central Thailand; one of the ten provinces in Thailand which border Myanmar. Study time was taken during 10th to 17th March 2012.

3.3 Study Population

The study population was male adult Myanmar migrant workers (age 18-59 years) living in Ratchaburi Province, Thailand. Detail description of their working place and factories were shown as below.

Table 3.1 Description the location of participants' working places where the study was conducted by health volunteers' research assistants from Bann Luek Health care Center

No	Factory names	Address		
		Tambon (town)	Amphur (Sub-district)	Province
1.	Orchid Farm	Banlerg	Potharam	Ratchaburi
2.	Tofu Factory	Klongtakod	Potharam	Ratchaburi
3.	Turnip Factory (3 Factory)	Jedsamean	Potharam	Ratchaburi
4.	Metal Factory	Klongtakod	Potharam	Ratchaburi
5.	Mushroom production	Banlerg	Potharam	Ratchaburi
6.	fish sauce Factory	Potharam	Potharam	Ratchaburi

Table 3.2 Description the location of participants' working places where the study was conducted by researcher and volunteer migrant workers

No	Name Factory	Address		
		Tambon (town)	Amphur (Sub-district)	province
1	Rice mill	Nongpo	Potharam	Ratchaburi
2	Scorpions Factory (Noodle)	Jedsamean	Potharam	Ratchaburi
3	Rice vermicelli Factory	Jedsamean	Potharam	Ratchaburi
4	Patch mongkol Co,Ltd(PMK) (Glass)	Nong oar	Banpong	Ratchaburi
5	Sereekarnchang phutthanimit (Buddha)	Pakrat	Banpong	Ratchaburi
6	organic fertilizer Factory	Banlerg	Potharam	Ratchaburi
7	Export Furniture Factory	Banlerg	Potharam	Ratchaburi

3.4 Sample & Sample size

The sample size was calculated by the formula below:

$$n = \frac{Z^2 \alpha_{/2} (p \times q)}{d^2}$$ (Daniel W W, 2005)

n = minimum sample size

$Z^2 \alpha_{/2}$ = critical value for 95% confidence level = 1.96

d = error allowance = 0.05

p = proportion of targeted population who have alcohol consumption=50%= 0.5 (Maximum assumption variances)

q = 1 – p = 0.5

From above formula,

$$n = \frac{Z^2 \alpha_{/2} (p \times q)}{d^2}$$

$$n = \frac{(1.96)^2 (0.5 \times 0.5)}{(0.05)^2}$$

n= 384.16

Sample size = 384

Sample collected = 422 (after adding of 10% non-response rate)

3.5 Sampling Technique

Due to great mobility of Myanmar Migrant Worker, their different work place and house geographically were scatter distribution and large proportion of unregistered worker of target population had been existence. Therefore, multistage sampling method was used.

Firstly, purposive sampling was used from provincial to target district level in migrant host country, Thailand. The purposive sample area was chosen in Ratchaburi province because of a few studies had been carried out in that province comparing with other provinces in Thailand. From provincial level, the purposively selected districts were Photharam and Banpong districts with the reason of many factories situations.

Secondly, simple random sampling was used for selecting of sub district factories which had been situated at Ban lerg, Klong tokod, Jedsamean, Nong Po in Photharam and Pakrat and Nong oar in Banpong district.

Thirdly, at this factories level, the recruitment for participants was done as census sampling in accordant with inclusion and exclusion criteria.

Finally, the sample population was not enough samples due to various constrains. Therefore, by using chain sampling, most subjects had been enrolled at their residential especially during night times with the help of local key informant migrant workers themselves.

 Inclusion criteria

-Adult Myanmar migrant workers aged between 18 – 59 years (male)

- Those who could speak Myanmar language.

- Those who were willing to participate.

 Exclusion criteria

- Person who refused to be interviewed

- Those who would have mental problem as it might be to produce the mistake-information and difficulty communication between researcher and participants although

these conditions caused from alcohol consumption. In order to address the participants under these problems, the researcher should gather information from several resources including collateral informants; the client' medical history, laboratory tests and a through physical examination. Although the researcher himself and the research assistants were medical related field, we could take history, physical examination but couldn't access other confirmatory test and information.

3.6 Measurement Tools

The tool for data collection used was face to face structured interview questionnaires. The questionnaire was used in native Myanmar langue. It consisted of 5 sections;

1. Socio-demographic characteristic included:
    - age, ethnicity, marital status, length of stay, language abilities, education, occupation, income
2. Alcohol history and situational factors: it included:
    - drinking experiences, initial drinking behavior, familial history and quitted manners for alcohol history
    - migrant history, living condition, work condition, job difficulties, peer pressure, socialization and stress and others for situational factors
3. Alcohol consumption pattern and AUDIT screening test which included:
    - Type, frequency, magnitude of alcohol consumption pattern, heavy drinking characters, current drinking behaviors within one years
    - AUDIT screening test provided 10 questions asking about hazardous alcohol used (questions 1 to 3); dependency symptoms (questions 4 to 6) and harmful alcohol use (questions 7 to 10) and it was ranked into 4 levels
        - 1: low risk or abstain from drinking alcohol (<7 scores)
        - 2: hazardous drinker (8-15 scores)
        - 3: harmful drinker (16- 19 scores) and
        - 4: alcohol dependent (20-40 scores)

4. Michigan Alcoholism Screening Test (MAST) for drinking consequences within past one year: it was the most oldest and accurate alcohol screening test to identify the problematic stage of using alcohol. It was consisted of self-appraisal, familial, vocational and social problems associated with excessive drinking.
    - The original one (25 questions) was too complex scoring system. In this study, the modified MAST test (22 questions) was used when referring to within past one year. It was divided into 2 categories as:
        - scores less than 5 points were regarded as low risk of existing alcohol related consequences
        - scores more than 6 points were regarded as apparently existing the alcohol related consequences within past one year (Buddy, 2007)
5. Knowledge and perception upon the occurring complication or undesired effect of alcohol drinking and attitude of getting good manner or difficulty toward alcohol drinking

3.7 Data Collection

Because of the great mobility and geographically scattered distribution of the migrant workers, their working nature and working hours and their free time and willingness for interview, it way very difficult to arrange for data collection. Therefore, the researcher had been set the training course 2 times to 5 research assistants who were Thai health volunteers from Bann Luek health care center using Thai language translated questionnaires forms and language translator. But for the data collection, native Myanmar questionnaire sets were used.

Moreover, being introduced by local key informant, the researcher contacted with 3 local Myanmar migrant workers who at least high school level educated persons and understood very well Burmese language. The researchers also trained them and used them as volunteer research assistants. With the help of all local assistants, field visits, subject selection and interviewing were done in both day time; in the evening and in their residence and their workplace well.

Before the interview, the purpose process, confidentially, ethical issue and benefit of the study were explained. After getting the informed signed consents, migrant workers were interviewed as semi open forms and their feeling, expression on alcohol misuse were recorded. The whole interview was taken 25-30 minute in average.

3.8 Validity and Reliability

The structure of questionnaire was approved by 3 specialists with related field; alcohol-related experts; in order to gain content validity.

For reliability, face to face interviewing per-tests were testified 2 times among 50 adult male Myanmar migrant workers in Bangkok who had the same characteristics as the selected population as factories workers.

First Pre-test was conducted among 26 samples in Saim Tech factory located at Nonthaburi sub-district, Bangkok during January, 2012.

Secondly, another pre-test was done again among 24 samples at their residential places located at Bang Khun Thian sub-district, Bangkok during end of February 2012.

Cronbach's alpha coefficient will be used to test the reliability of the questionnaire among 50 samples. In this study, each scales' reliability was as follows:

AUDIT (10 items) : Alpha coefficient value= 0.857

MAST (22 items) : Alpha coefficient value= 0.746

Knowledge (10 items): Kuder-Richardson value (KR-21) =0.710

Attitude (10 items) : Alpha coefficient value= 0.650

In test retest study in 1992 indicated high reliability of AUDIT score r=0.86 (Sinclair, M, 1992). Studies indicated that the long version of the MAST possesses good internal-consistency reliability, as indicated by Cronbach's alpha coefficients of.83 to .93 (Gibbs, 1983).

3.9 Data Analysis

For data analysis, Statistical Package for the Social software SPSS version 17(licensed for Chulalongkorn University) was used. Followings were the statistics in use:

- Descriptive statistics: demographic characteristics, alcohol consumption, level of knowledge, and perception will present into frequency, percentage, mean and standard deviation.
- Inferential statistics: the relation between independent variables and dependent variables was presented by Chi-square test.

3.10 Ethical Consideration

According to the approval of Ethical Committee of Chulalongkorn University, this study was conducted. Signed informed consents as well as oral informed consents were taken from all the participants. Participants were informed about the general nature of the study as well as any potential harm or risk that the study might cause. They were assured of confidentiality, and they were told that they can be withdrawn from the study if they could not participate. They were informed that the data would not be used for other purposes besides academic and presentation would be anonymous.

3.11 Limitation

This study was conducted among adult Myanmar migrant workers in, Ratchaburi province only so that the results might not represent the whole Myanmar migrant workers in Thailand. This presented significant limitation on the type of data that were collected from the respondents since no biological and scientific validation were conducted to confirm their response. Interviewing volunteers in this study would be misunderstood on the translation would be presented during data collection. Being a cross-sectional study, it was not possible to describe the true causality between exposure and outcome. There would be limited information about the occupational environment. Random sampling could not be used with a consequent problem of selection bias.

3.12 Expected Benefit and Application

- The finding will be useful to develop the comprehensive health promotion education program in alcohol prevention
- The people in research area will get the more knowledge about alcohol misuse and expect to drink less or abstaining in the future.
- The result will be valuable to observe the base-line information about alcohol consumption among migrant population.
- The finding may assist to develop the alcohol control policy and strategies regarding to prevent the consequence that may occur by alcohol abuse consumption.

CHAPTER IV

RESULT

This chapter presented the result of study conducting among male adult Myanmar migrant who resided in Photharam and Banpong districts, Ratchaburi province, Thailand during 10th to 17th March 2012. Total 422 adult Myanmar migrant workers were conducted as face-to-face structured interviewing type. Among 422 participants, those answered all the questionnaires were 347 persons and the rest were answered a little part as the reasons of limited situations, time constrain, neglected responses and research assistant' language difficulties. Notwithstanding, the data were descripted and analyzed among 347 respondents accordingly.

This chapter documented the descriptive characteristics of

(1) socio-demographic; (2) alcohol drinking history and situational factors (3) alcohol consumption pattern (4) AUDIT and MAST score for consequences (5) knowledge and perception upon alcoholic effects among respondents.

Subsequently, the data analysis were reported as

(1) Association between amount of alcohol consumption and variable of interests,
(2) Association between MAST score consequences and variable of interests,
(3) Association between drinking behaviors among migrant workers and knowledge and perception upon alcohol.

4.1 Descriptive findings

4.1.1 Socio-demographic characteristics of Male adult Myanmar migrant workers

Table 4.1 explicated the socio-demographic characteristic of respondents containing age, ethnicity, marital status, living conditions, education, migration to Thailand experiences, work conditions and monthly income.

After reviewing from data collection, the result was found that most of the male participants more than half (57.9%) were young adult group age between18-29 with mean of 28.94 years and the range was varying from 18 to 57 years. The main ethnic group of domiciliation in Ratchaburi province was Burma (Dawei) (58.5%) and the rest were Karen, Mon and a few number of Shan, Rakhine and Pa Oi races. The respondents marital status were said to be more proportion married than unmarried situation; (50.43%) and (42.36%) respectively. The migrant workers predominantly lived in rental apartments 44.96% and some (37.75%) lodged in work place arranged by their owners. The workers who lived with their wife and family were (59.1%) followed by those lived alone were 23.1%. Most of migrant workers completed highest education at primary and secondary level; 32.56% and 34.29% correspondingly.

The participants those migrated to Thailand in periods of more than 6 years were 40.63%. The length of stay was range from 3 months to 34 years with mean of 6.22 years. Concerning with the Thai language ability, nearly half of the respondents (48.99%) could speak basically. Majority work occupied by Myanmar workers was in factories (81.84%) and some got at construction site and home business as domestic workers. Most of the respondents (72.75%) felt the 4 holidays per months especially on Sunday and those who didn't get free times or less than 3 days were 25.51%. Regarding to difficulties during working, over half migrant workers could easily manipulate their jobs (52.46%) undoubtedly. Total monthly household income ranged from 3,000 Bahts to 17,000 Bahts meanwhile (56.52%) of migrant workers got the salary between 5,000-7,000 Bahts.

Table 4.1: Number and percentage distribution of Male Adult Myanmar migrant workers by Socio-demographic Characteristics (n=347)

Socio-demographic Characteristics	Frequency (n=347)	Percentage (%)
Age (Years)		
18_24 years	124	35.73
25_29 years	77	22.19
30_34 years	69	19.88
35_39 years	37	10.66
40_44 years	21	6.05
45_49 years	12	3.46
50_54 years	6	1.73
55_59 years	1	0.29
Mean =28.94 SD=7.968 Range= 18-57		
Ethnicity		
Burma	203	58.50
Shan	17	4.90
Karen	61	17.58
Mon	61	17.58
Other	5	1.44
Marital Status		
Single	147	42.36
Co-habitat(or)Married	175	50.43
Divorced	11	3.17
Widow	3	0.86
Separated	11	3.17
Kinds of House		
Lodge in work	131	37.75
Rent apartment	156	44.96
Shared room	60	17.29
Type of Living		
Alone	80	23.05
With Friends	62	17.87
With Wife	86	24.78
With Family	119	34.30
Education		
Illiterate	33	9.51
Primary	113	32.56
Middle	119	34.29
High school and above/ University)	82	23.59

Table 4.1: (Continued) Number and percentage distribution of Male Adult Myanmar migrant workers by Socio-demographic Characteristics (n=347)

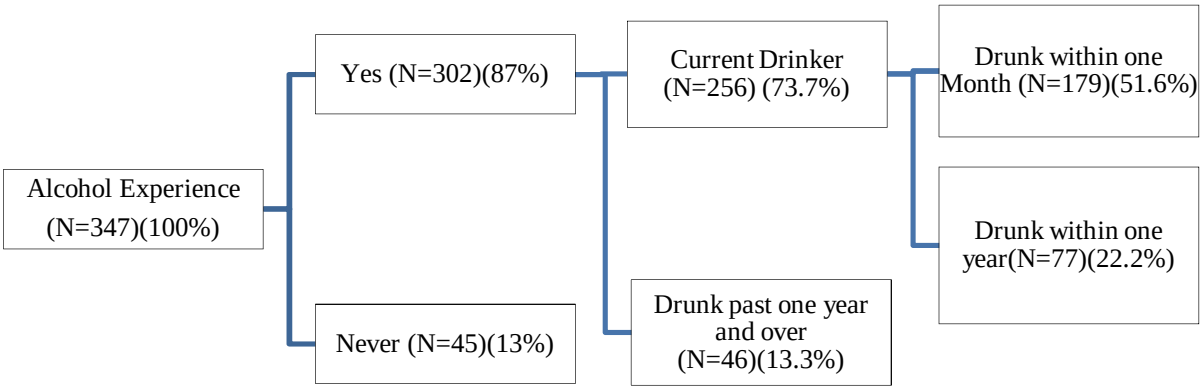
Socio-demographic Characteristics	Frequency (n=347)	Percentage (%)
Duration of staying in Thailand		
≤3 years	117	33.71
3-6 years	89	25.65
More than 6 years	141	40.64
Mean ± SD= 6.22 ± 5.00 Median= 5.00 Range= 0.25-34.17		
Thai Language Skill		
Can't speak Thai	43	12.39
Can speak Thai language basically	170	48.99
Can Speak Thai language fluently But cannot read and write	122	35.16
Fluently in Thai language both reading and writing	12	3.46
Occupation		
Factory Workers	284	81.84
Sellers	29	8.36
Construction workers	24	6.92
Housemaids	8	2.31
Temporary Not working	2	0.58
Work Holidays per month (n=345)		
0 – 3 days	88	25.51
4 days	251	72.75
More than 4 days	6	1.74
Mean ± SD =3.48± 1.19 Range= 0 – 8 (Exclude no job position)		
Job Difficulty(n=345)		
Easily to do	181	52.46
Difficult(a little)	103	29.86
Difficult(but Can do)	55	15.94
Difficult	6	1.74
Monthly Income (n=345)		
≤5,000 Bahts	76	22.03
5,001-7,000 Bahts	195	56.52
≥7,000 Bahts	74	21.45
Mean= 6,465.79 SD= 1,603.17 Range= 3,000-1,7000		

4.1.2 Situation of Alcohol drinking behavior of respondents

The graph described the prevalence of alcohol drinking behaviors among male adult Male adult Myanmar workers lived in Ratchburi province, Thailand.

Out of total 347 respondents, those who experienced of alcohol drinking in their whole lives were 302(87.0%) and never introduced alcohol was 13.0%. Among alcohol experienced respondents, current drinkers who drank within past 12 months were 256 respondents (84.76%) and former drinkers who experienced alcohol beverage more than one year were 46 respondents (13.3%).

Figure 4.1: Number and percentage description of alcohol drinking behaviors among Male adult Myanmar Migrant Workers



4.1.3 Alcohol Drinking History and situational factors of alcohol experienced respondents

More than half of the respondents first exposed to alcohol beverage at the age between 16 to 20 years old (66.56%) and youngest started drinking was 9 years old (Table 4.2). The one who persuaded to started drinking mainly by friends (63.58%) and followed by co-workers (25.83%). A few respondents expressed no introducers and started according to their own choice. In their family members, half of the respondents reported the existence of drinking history in which chronically parent's drinking history presented was (7.94%) and the rest were drunk occasionally(42.7%). The reasons for started drinking were (44.04%) at festivity and celebratory events; one quarters of

participant introduced to get experiments. The common types of first introduced alcohol were beer (43.05%), white spirit (32.45%) and home brew (palm toddy) or Htan yay in Myanmar language (8.28%).

Table 4.2: Number and percentage description of Alcohol Experience

Alcohol Experiences Profile	Frequency (N=302)	Percentage (%)
Age of Started Drinking alcohol		
less than 15 years	30	9.93
16 To 20 years	201	66.56
21 To 25 years	55	18.21
26 To 30 years	11	3.64
More Than 30 years	5	1.66
Mean ± SD=19.27±3.76 Range= 9 – 36 Median=19.00		
Reason for introduced Alcohol		
For Socialization at celebration	133	44.04
For Experiment	77	25.50
Due to Job	35	11.59
By peer pressure	27	8.94
To relief stress	26	8.61
Admire someone drinking alcohol	3	0.99
Other(Due to cold)	1	0.33

Figure 4.2: Type of alcohol consumed at first exposure among alcohol experienced respondents (N=302)

4.1.4 Pattern of alcohol drinking among currents drinkers (Answered by Drunk within one month and drunk within one year) (N= 256)

The pattern of alcohol consumptions was described among the respondents who were currently drunk during past 12 years in spite of using all alcohol experienced persons. Exclude the drinkers who had drunk more than one year ago.

In table 4.3 compared the types of beverage: beer was predominantly enjoyed by 71.90% of the drinkers while 36.70% of them drank white spirit specifically (Lao Kao). Other remarkably consumed types of alcohol were whiskey and home brew (Ya-dong) for 17.60% and 9.80% respectively.

The amount of alcohol was calculated into standard drink (STD) using the formula of $Units\ of\ Alcohol = \frac{volume(ml) \times alcoholpercentage(\%)}{1270(Standard\ Drink)}$. This calculation was used according to Australia Standard drink, 10g or 12.7 ml of pure alcohol (NHMRC, 2009). Regarding the quantity of drinking, 58.2% of respondents binged heavily alcohol more than 5 standard drinks per single occasion. The minimum amount of consumed alcohol was 1 standard drink which ranged to maximum 47.20 standard drinks.

Table 4.3: Frequency distribution of Pattern and Alcohol consumption behavior among Current Drinkers (N=256) (Answered by **Current Drinker Only**)

Pattern of alcohol consumption	Frequency	Percentage%
Type of alcohol drinking within past one year (multiple response) N=256		
Beer	184	71.90
White Spirit	94	36.70
Whiskey	45	17.60
Home Brew	25	9.80
Rum	6	2.30
Gin	3	1.2
Wine	3	1.20
Amount of alcohol consumption (N=256)		
Less than 5 standard drink	107	41.80
≥ 5 standard drink	149	58.20
Mean=7.17 Median= 5.00 SD=7.74 Range= 1.00 – 47.20		

Although beer was consumed by migrant workers mainly on one to 2 times a week (20.3%) followed by 2-3 times a month (16.8%), whiskey type was drunk by (6.2%) of respondents once a month frequently. In addition, the white spirit type of beverage was consumed 3 to 4 times a week for 9.4% while nearly 8.0% of drinkers took white spirit almost daily. Respondents drank home brew even less than once a month for 2.3%. (Described in Table 4.4)

Table 4.4: Frequency and percentage distribution of alcohol consumed within one year according to different types of alcohol beverage (Percentage in Total 256 drinkers)

Frequency	Beer n (%)	Whiskey n (%)	Spirit n (%)	Rum n (%)	Gin n (%)	Home Brew n (%)	Wine n (%)
Every Day	3(1.2)		10(3.9)	1(0.4)		1(0.4)	
5-6times a week	6(2.3)		10(3.9)	1(0.4)		1(0.4)	
3-4 times a week	24(9.4)	3(1.2)	24(9.4)	2(0.8)	2(0.8)	2(0.8)	
1-2 times a week	52(20.3)	4(1.6)	16(6.2)	1(0.4)	1(0.4)	5(2.0)	1(0.4)
2-3 times a month	43(16.8)	14(5.5)	21(8.2)			5(2.0)	
Once a month	33(12.9)	16(6.2)	9(3.5)	1(0.4)		5(2.0)	
< Once a month	23(9.0)	8(3.1)	4(1.6)			6(2.3)	2(0.8)
Total	184(71.9)	45(17.6)	94(36.7)	6(2.3)	3(1.2)	25(9.8)	3(1.2)

Figure4.3: Frequency of alcohol consumed within one year according to types of beverage

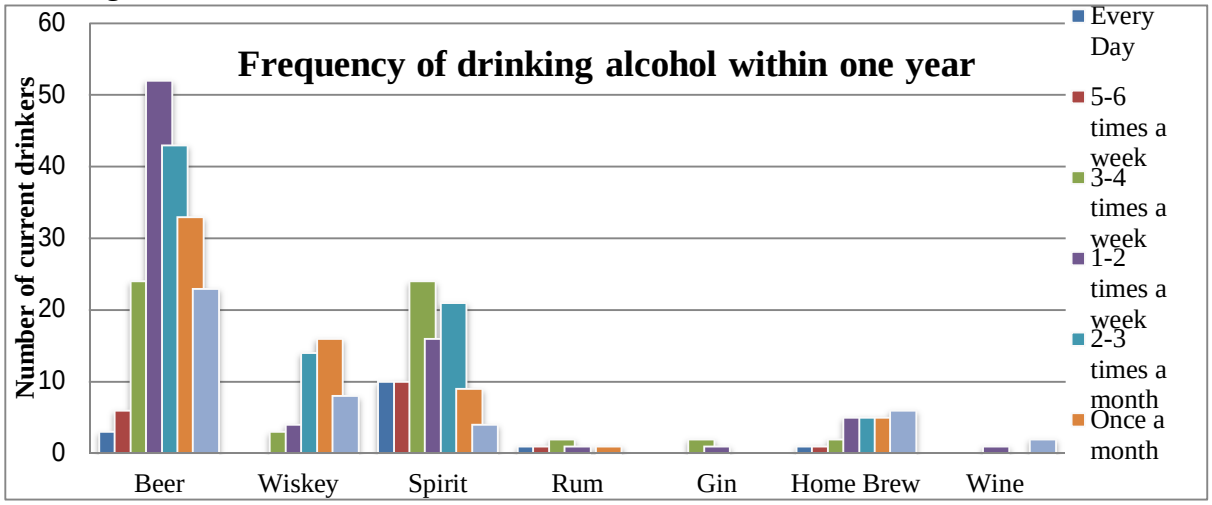


Table 4.5: Frequency distribution of Heavy drinking patterns among current drinkers

Heavy drinking >6 cans of Beer (or) > 5glasses of Whiskey	Frequency (n=256)	Percentage (%)
No	76	29.69
Yes	180	70.31

As can be seen from (Table 4.5), (70.31%) of current drinkers had been binged drink characters in past 12 months meaning of amount more than 3 bottle (large) beers (or) one fourth of large bottle of strong alcoholic beverage types which were more than 6 standard drinks per single occasion. Nearly half of the respondents consumed alcohol in uncontrollable heavy characters commonly once a month and less than once a month per time; (25.0%) and (26.67%) respectively. Significantly, 4% of them were daily consumed excessive drinking.

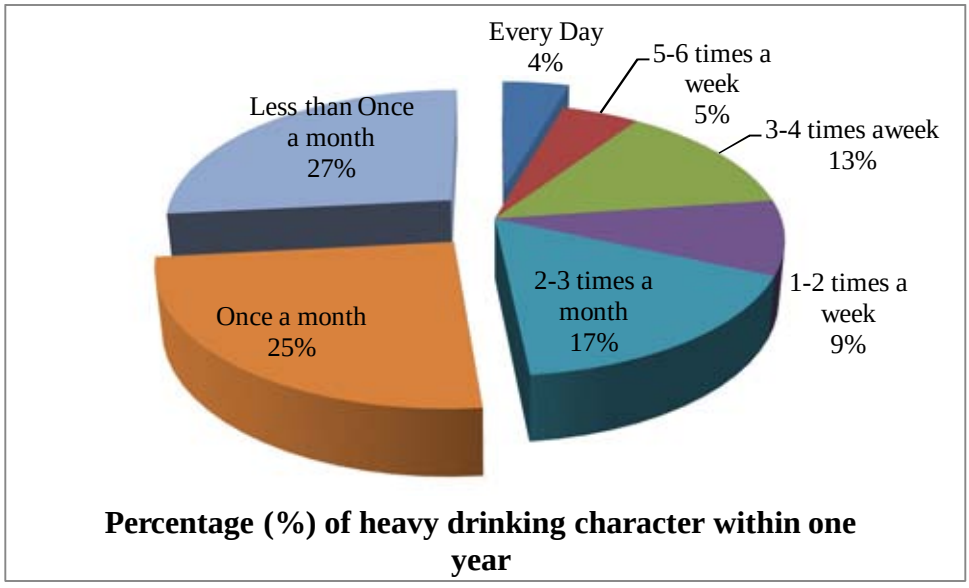


Figure 4.4: Percentage of heavy drinking character within one year among current drinkers

4.1.5 Description of drinking behaviors and situation factors among current drinkers

The report of table (4.6) elucidated the behavior of drinkers such as their usually place of drinking, frequent partners; spending money on alcohol monthly income and the reason for last time consumed alcohol.

Myanmar workers spent their luxurious drinking time commonly at their home place (36.33%) and similarly took place around their friend neighbor house or restaurants for purpose of drinking like (25.0%) and (27.0%). Nearly half of the respondents drank together with their friends (45.31%) and followed by co-workers (24.22%). Contrary to that result, some (18.0%) of migrant workers had alcohol consumption alone.

Among current drinkers who had job position, 34% of them spent money on alcohol less than 5 % of their monthly income. Those who spent 5 to 10% of their salary were similar to those who spent 10 to 20 % of income. Notwithstanding, (5.0%) of drinkers used more than 40 % of their income on alcohol consumption. Their expenditures on alcohol per monthly income were range from 0 to 94%.

Complexity reasons for drinking were existences among Myanmar migrant drinkers. The result found out the explanations of last times drunk. Approximately one third of the current drinkers accounted for alcohol consumption due to socialization (35.55%) reasons.

The other nearly same proportions of responsive answers were for job facts (15.63%), to relieve stress (10.16%), peer pressure (10.16%) and like taste of alcohol (12.89%). In addition, some expressed their feeling upon alcohol consumption for the purpose of amusements (5.08%). A very few admitted the reason for drinking was due to alcohol inebriation. Meanwhile, some used alcohol 'wishing to relax tired', 'not familiar with the new situation due to migration' and easily access to liquor shop from their current situation.

Table 4.6: Number and percentage distribution of drinking behaviors and situational factors among current drinkers

Characteristic	Frequency n=256	Percentage (%)
Place of Drinking		
Own House	93	36.33
Neighbor house	64	25.00
Workplace	20	7.81
Restaurant	69	26.95
Club/Bar	10	3.91
Drinking Partner		
Drink Alone	46	17.97
With Family/Spouse	10	3.91
With Friend	116	45.31
With Neighbor	22	8.59
With Co-workers	62	24.22
Spend money on Alcohol per monthly Income (n=254)		
Less than 5%	86	33.86
5% to 10%	56	22.05
10% to 20%	62	24.41
20% to 30%	25	9.84
30% to 40%	12	4.72
more than 40%	13	5.12
Mean= 13.22% Median= 8.73% SD= 13.65% Range= 0%- 94%		
Reason for drinking Last time		
For Socialization	91	35.55
For Job	40	15.63
To relieve Stress	26	10.16
Peer Pressure	26	10.16
Due to Migration	5	1.95
Like Taste	33	12.89
Become Alcohol Dependent	7	2.73
Easily Access to Liquor Shop	6	2.34
To relax Tired	8	3.12
purpose of amusement	13	5.08
For good appetite	1	0.39

4.1.6 AUDIT (Alcohol Use Disorders Identification Test)

This screening test was used to identify the individuals with hazardous and harmful pattern of alcohol consumption which developed by WHO. It is very useful and assists to find out the level of risk related to alcohol and its consequences. Brief intervention could also be set according to its levels like education message, medical advice, counseling, encouragement, monitoring and referral to specific treatment.

Concerning the four categories based on the AUDIT score (Table 4.7); almost half of the respondents (49.22%) were fallen in "low risk category" which referred to drinkers who drank less than 2 standard drinks. Among all current drinkers, one third of them were hazardous drinkers (35.94%) taking between 4-6 standard drink. One out of ten was considered as a harmful drinker and alcohol dependent for 6.64% and 8.20% respectively. This meant an excessive drinking together with cluster of behavioral, cognitive and physiological phenomena. The mean score was 9.03 which range between 1 to uppermost 29 score.

Table 4.7: AUDIT score of the respondents

AUDIT Categories		Frequency (N=256)	Percentage (%)
Low Risk	(0-7)	126	49.22
Hazardous Drink	(8-15)	92	35.94
Harmful Drink	(16-19)	17	6.64
Alcohol Dependent	(20-40)	21	8.20
Mean=9.03	Median= 8.00		
SD=6.33	Range=1-29		

4.1.7 Description of Michigan Alcohol Screening Test (MAST) score for consequences of Alcohol

These test score establish as one of the oldest and most accurate alcohol screening test available, effective in identifying the problem outcomes among the excessive alcohol drinkers since 1971. Even though the original MAST test also focus on problems over the

patient 's life time, rather than on current problems, this study allowed the MAST test referring to consequences within past one year period.

Questions on the MAST test relate to the respondent's self-appraisal of social, vocational, and family consequences frequently associated with heavy drinking. Out of total 22, the score of six or more indicates hazardous drinking or alcohol dependence and are regarded as highly suspicious existing consequences. (Buddy, 2007) The score less than 5, is regarded as low consequences. In regards to the alcohol consequences within past one year among respondents, 21.48% of them were considered developing alcohol-related consequences. The MAST score for consequences was range from 0 to maximum of 15 scores with the mean of approximate 4. And the results of classification are presented as (the table 4.8) below.

Table 4.8: MAST score for consequences of Alcohol drinking within past one year

MAST score for consequences	Frequency	Percentage (%)
Low Consequences	201	78.52
Consequences	55	21.48
Mean=3.89 Median= 3.00 SD=2.93 Range=0-15		

4.1.8 Description of Quit/ Stopped experiences of alcohol consumption (Include all the alcohol experienced respondents) (N=302)

The part describes the characteristics of quit or stopped drinking alcohol for a certain period encountered by the respondents in their whole life. Among the participants who had alcohol experiences, 32.0% of them were happened the quit or stopped drinking alcohol for a while due to certain reasons. (Table 4.9)

The duration for quit period was vary from 3 months to 15 years. 53% of quit respondents had been lasted for the duration of less than one year. Meanwhile those who could stand quit duration more than 3 years were 19% obviously. The main reason for quitting was health reasons (27.27%) in detail prescription as during illness episode

according to doctor's advice. Seventeen percent of them could quit during Buddhist Lent periods. Remarkably, (12.0%) of them concluded quit manner according to their family such as affection to wife and children; and peer pressure. One of them said he was prohibited and quitted from drinking after being as a membership to Shwe Yin Kyaw gang which assumed as religious organization and believed that the adverse effect would come if break the promise. The rest of causative events for quit were boring, religious reason, acknowledge of alcohol effect, migration and work condition etc. member

Table 4.9: Description the characteristic of Quit/Stopped experiences of alcohol consumption

Characteristic of Quit Experiences	Frequency	Percentage (%)
No	203	67.22
Yes	99	32.78
Quit Duration (N=99)		
≤1 Year	53	53.53
1-3 Years	27	27.27
>3 years	19	19.20
Mean=2.28 SD=3.00 Median=1.00 Range=0.08-15		

Reasons for Quitted/stopped Alcohol	Frequency N=(99)	Percentage (%)
Health Reason(illness time, Doctor's advice)	27	27.27
Avoid Buddhist Lent periods	17	17.17
Family Reason(Pressure, love, Scold)	12	12.12
Didn't wish to continue drinking by himself(Boring)	8	8.08
Religious reason(During period of Monk/Meditation, commitment)	6	6.06
Marriage Reason	5	5.05
Economic reason	5	5.05
Knowing not goods and consequences	5	5.05
Migration and work condition	5	5.05
Depression	3	3.03
Social reason (not meet with friends)	2	2.02
Afraid the neighbor drinker's death due to over drinking	1	1.01
As Their Boss treat them, then drink	1	1.01
Can't stand the effect of alcohol, like abdominal pain, Dizziness, Headache	1	1.01
Tattooing after membership of Shwe Yin Kyaw Gang	1	1.01

4.1.9 Level of knowledge about the effect of alcohol in adult Myanmar migrant workers

The knowledge and perception parts were asked to all respondents. After revealing from the result of data collection, nearly (80%) of the respondents knew themselves that alcohol could give harm to health while the rest still neither knew nor neglect the effect of alcohol. Within the migrant worker's atmosphere, the messages of alcohol side effect on health were learnt mainly from their family members (49.57%). One third of respondents heard these acknowledge from media and health person. Concerning with the news of the alcohol intervention program near their environments, more than 60% of participant still lack of knowledge and information on its (Table 4.10). Regarding to the question for alcohol associated health effects and some disease (Table 4.11), (28.2%) of migrant workers could answer correctly on the HIV and other STI were associated with alcohol consumption. Furthermore, the statement of low birth weight in women was associated with alcohol consumption was correctly answered by 33.7% of respondents. The rest of alcohol associated disease and effect were responded correctly by more than 50% of the participants.

Table 4.10: Number and percentage distribution of participants' knowledge upon Alcohol

Knowledge Statement	Frequency (n=347)	Percentage (%)
Do you think that alcohol can give harm to health?		
No	33	9.51
Yes	267	76.95
Don't know	47	13.54
From where do you usually hear about the health effect of alcohol misuse?		
Family	172	49.57
Friend	88	25.36
Media	120	34.58
Health Person	122	35.16
Other	5	1.44
Do you also hear about any alcohol abuse preventive program in your surrounding?		
No	128	36.89
Yes	126	36.31
Don't Know	93	26.80
Total	347	100.00

Table 4.11: Number and percentage distribution of respondents who answer correctly to Health or health effects due to Alcohol beverage (N=347)

`	Frequency of respondents answered Correctly	Percentage (%)
4. Which of the following health or health related effects may be associated with the consumption of some of the alcohol beverage?		
Liver diseases	272	78.4
Traffic and other accidents	245	70.6
Stroke and sudden death	235	67.7
Gastrointestinal problems	211	60.8
Mental illness	194	55.9
Respiratory Diseases	183	52.7
Lung cancers and other cancers	168	48.4
Heart Disease	167	48.1
Low Birth weight in women	117	33.7
HIV and other STIs	98	28.2

The level of knowledge was classified into three categories by using the mean score ± standard deviation of total corrected answers on alcohol associated health effects. The mean score was 5.44; standard deviation 2.79 and the total score range varied from 0 to 10. Therefore, those participants got score less than 2.65 regarded as low knowledge; score between 2.65 and 8.23 regarded as moderate knowledge and greater than 8.23 as high level of knowledge. The proportions of low and high knowledge were almost equal distribution among respondent; 17% and 19% respectively.

Table 4.12: Distribution of the respondents towards the knowledge concerned with the alcoholic health effect

Knowledge level	Frequency	Percent
Low Knowledge(<2.65)	59	17.0
Moderate Knowledge(2.65-8.23)	222	64.0
High Knowledge (>8.23)	66	19.0
Mean ± SD = 5.44 ±2.79 Median=6.00 Range= 0 – 10	347	100.00

4.1.10 Level of attitude towards drinking alcohol among adult male Myanmar migrant workers

According to attitudes towards drinking alcohol (Table 4.13), 27.1% of migrant workers agreed drinking alcohol mixed with water would affect worse their health than taken straight. Some perceived that if mixed water could more chance to get bacteria which might result into worsen health and moreover mixture status would soften the potency of alcohol effects. Besides, 33.14 % of respondents accepted the disease which caused by alcohol consumption could easily be cured. Currently, many of them didn't knew about the seriously adverse effect of alcohol on health and they experienced on some of minor abdominal pain due to alcohol drinking had been easily cured.

Almost half of the participants agreed on responsible drinking could result in relaxation and enhance social interactions. All of the study populations were workers and respecting to their culture and natures, they perceived drinking after jobs helped them to feel refreshed and escape from tired. Prohibit drinking in children were accepted from almost 84% of them also. After that, 20% of workers agreed on the statement of the behavior of drinking manner in media or famous person could not urge people to drink more. Most of them regarded drinking was the personal choice.

Drinking only beer could not be addiction of alcohol was disagreed 42.07% of respondents. They regarded beer as the same kinds of other alcohol beverage. Nearly 22% of migrants disagreed on another statement of alcohol enhance moment of sex. As they perceived the drunk men could neither do nor effort something after getting drunk. More than half of the respondents similarly agreed on alcohol could effect to its surrounding and no drink could get more job opportunities.

Table 4.13: Distribution of respondents' perception towards Alcohol drinking behavior

No	Perception towards alcohol consumption	Frequency (n=347)	Percentage
*1	Alcohol taken straight will affect worse your health than mixed with water.		
	Agree	94	27.10
	Uncertain	82	23.60
	Disagree	171	49.30
*2	Disease which causes by alcohol consumption can be easily cured.		
	Agree	115	33.14
	Uncertain	120	34.58
	Disagree	112	32.28
3	Responsible drinking can result in relaxation; enhanced social interactions.		
	Agree	172	49.57
	Uncertain	91	26.22
	Disagree	84	24.21
4	Drinking alcohol in children is unacceptable and should be prohibited.		
	Agree	290	83.57
	Uncertain	32	9.22
	Disagree	25	7.20
*5	Alcoholic beverage behavior in media or important person can't pursue people to drink more alcohol.		
	Agree	72	20.75
	Uncertain	110	31.70
	Disagree	165	47.55
*6	A person cannot become an alcoholic by just drinking beer.		
	Agree	114	32.85
	Uncertain	87	25.07
	Disagree	146	42.07
7	Alcohol intake enhances moment of sex		
	Agree	135	38.90
	Uncertain	136	39.19
	Disagree	76	21.90
8	Drinking isn't the individual right; can affect your environment		
	Agree	219	63.11
	Uncertain	79	22.77
	Disagree	49	14.12
9	Not drinking alcohol can get more jobs opportunities.		
	Agree	219	63.11
	Uncertain	96	27.67
	Disagree	32	9.22
10	Alcohol intake gives the sense of warmth		
	Agree	169	48.70
	Uncertain	109	31.41
	Disagree	69	19.88

* Negative Statements

Level of perception was categorized into three groups using scoring values. Score values were given depend upon positive statements and negative statements.

For positive statements

Choice	Scores
Agree	3
Uncertain	2
Disagree	1

For negative statements

Choices	Scores
Agree	1
Uncertain	2
Disagree	3

The cutting point of attitude was divided into three groups by using Bloom's classification (Bloom, 1956). High attitude means >80% of total score, moderate level means 60-80% of total score and low level means <60%. After revealing from the result, the scores were ranged between 12 and 30. Mean was 23.07, Median 23.00 and standard deviation 2.99 respectively.

Table 4.14: Description of level of attitude upon alcohol among respondents

Level of Attitude	Frequency	Percent
Low Attitude (<18 scores)	12	3.46
Moderate Attitude (18-24 scores)	231	66.57
High attitude (> 24 scores)	104	29.97

4.2 Analytical finding: Relationships among variables

This section summarized hypothesis testing to examine

1) the association between socio-demographic characteristic and amount of alcohol consumption
2) the association between situational factors, variable of interests and amount of alcohol consumption
3) the association between socio-demographic characteristic and MAST score drinking consequences
4) the association between situational factors, variable of interests and MAST score drinking consequences
5) the association between level of knowledge, level of perception toward alcohol drinking and alcohol drinking behaviors

Amount of alcohol

After calculating the amount of alcohol into standard drink units, the total standards drinking units of alcohol was testified by normality test (Kolmogorov-Smirnov test). The result of total amount of standard drinking units of alcohol was not normal distribution. The frequency distribution of it was mean 7.17; median 5.00; standard deviation 7.74 and units vary from 1 to 47.2 standard drinks. In order to classify the variable into 2 categories, used the median scores 5.00 as cut of point according to non-parametric methods. The cut of point 5 standard drinks was also meaningful with the WHO classification; hazardous or harmful drinking of alcohol for male who drunk more than 4 to 6 standard drinks.

Regarding to find out the association between variables of interest and amount of alcohol, the Chi-square test was used and the level of statistical significant was 0.05. The association was also found out among the current drinkers those drank alcohol within one year.

4.2.1 Relationship between socio-demographic characteristic and amount of alcohol

Statistical significant difference was found between age groups and amount of alcohol consumption at p-value (0.02). Even though the magnitudes of alcohol drinking were not significantly disparate in young age group (less than 25 years), the excessive drinking (≥ 5 standard drinks) characters were higher proportion than less amount of drink (< 5 standard drinks) while increasing in each age groups; 61.3% in age 26-35 and 72.3% in age more than 35 years.

In term of ethnicity groups, there was no significant difference between magnitudes of drinking alcohols among groups (p=0.2). Notably, more prevalence of heavy drinking was found among Karen and Shan races that were almost double situation comparing with low amount of drinking (69.6% and 63.2%) respectively.

The results showed that no statistical significant difference was between marital status and amount of alcohol consumption (p=0.22). 46.7% of single drinkers were low consumption of alcohol whereas 72.7% of divorced statuses were heavy drinking.

Current drinkers' education status and amount of alcohol were compared in the study. The result revealed that there was no significant difference between education level and their drinking amount (p=0.08). 65.7% of low education status (illiterate and primary level) consumed alcohol heavily and this heavy drinking character was decreasing in nature in accordance with increasing in possession of high education status.

Regarding the relationship between occupation and amount of alcohol, there was no significant difference (p=0.919). 58.7% of factory workers drank alcohol more than 5 standards drinks but 45.2 % of those not working or housemaid and sellers consumed fewer amounts.

When looking at the monthly income, analysis showed no significant relationship between household income of drinkers and amount of alcohol consumption. Among

drinkers got salary more than 7000 bahts, 64.3% of them were heavy drinking. Similarly, low income drinkers (<5000 bahts) also consumed large amount of alcohol (55.8%).

Table 4.15: Association between Socio-demographic characteristic and Amount of Alcohol consumption (STD)

Characteristic	Amount of Alcohol consumption		$\chi 2$	p-value
	<5 standard Drink	≥5 standard Drink		
	n(%) total (107)	n(%) total (149)		
Age			7.88	0.02
Less than 25 years	54(50.9)	52(49.1)		
26 To 35 Years	41(38.7)	65(61.3)		
More than 35 years	12(27.3)	32(72.3)		
Ethnicity			4.65	0.2
Burma	64(43.0)	85(57.0)		
Shan + Other	7(36.8)	12(63.2)		
Karen	14(30.4)	32(69.6)		
Mon	22(52.4)	20(47.6)		
Marital Status			3.05	0.22
Single	49(46.7)	56(53.3)		
Married	52(40.3)	77(59.7)		
Divorced, Widow and separated	6(27.3)	16(72.7)		
Education			5.01	0.08
Illiterate; Primary	36(34.3)	69(65.7)		
Middle School	40(44.0)	51(56.0)		
High school and over	31(51.7)	29(48.3)		
Occupation			0.17	0.919
Temporary Not working+ Housemaid + Seller	14(45.2)	17(54.8)		
Factory Workers	85(41.3)	121(58.7)		
Construction Worker	8(42.1)	11(57.9)		
Income per Month			1.09	0.58
<5000 Bahts	23(44.2)	29(55.8)		
5001-7000 Bahts	63(43.2)	83(56.8)		
>7000 Bahts	20(35.7)	36(64.3)		
Total {Exclude no job position(n=2)}	106	148		

4.2.2 Relationship between situational factors and amount of alcohol

In these part, the amount of alcohol was testified for association status with some of situation facts that encountered by the migrant workers like their living condition, length of stay in foreign countries, language skill and work condition.

Concerning with kinds of house of the respondents, the result showed that there was no significant relationship between kinds of house and amount of alcohol drink ($p=0.8$). And also their living types was tested for the association with amount of alcohol drinking, the result described also not statically significant differences between them ($p=0.14$).

However, when emphasizing upon the analysis of association between length of stay in Thailand and amount of alcohol, there was found highly significant ($p<0.001$). For workers who stayed less than 5 years duration, the percentage of heavy drinking (47%) was found not so much different while comparing with percentage of low drinking (53%). But as far as duration of stay was taken longer, the percentage of heavy drinking was higher significantly like (71.2%) in excessive amount of drink comparing with (28.8%) in less amount among the category of 5 to 10 years duration. For drinkers staying in Thailand for more than 10 years, 69% were heavy consuming alcohol and 31% were less drinking.

In term of language skill, there was no significant difference between Thai language skill of workers and amount of alcohol drinking ($p=0.65$). Half of the workers who couldn't speech Thai language at all consumed excessive alcohol amount.

Regarding to the migrant workers job condition, the analysis was found out between holidays they got and amount of alcohol. The finding was there was no significant association between them ($p=0.71$). And also for their difficulties in job analyzing with amount of alcohol, no statistical difference ($p=0.34$) was discovered. There were nearly same distribution of excessive drinking characters in both less difficulties groups and extremely difficulties to do job (54.8%) and (57.4%).

Table 4.16: Association between situational factors and amount of alcohol

Characteristic	Amount of Alcohol consumption		χ^2	p-value
	<5 standard Drink	≥5 standard Drink		
	n(%) total (107)	n(%) total (149)		
Kind of House			0.45	0.8
Lodge in work	43(43.0)	57(57.0)		
Rent apartment	44(42.7)	59(57.3)		
Shared Room	20(37.7)	33(62.3)		
Type of Living			0.14	0.14
Alone	21(35.0)	39(65.0)		
With Friends	25(55.6)	20(44.4)		
With wife	22(36.1)	39(63.9)		
With Family	39(43.3)	51(56.7)		
Duration of Stay in Thailand			14.52	<0.001
Lower than 5 years	71(53.0)	63(47.0)		
5 To 10 years	23(28.8)	57(71.2)		
More than 10 years	13(31.0)	29(69.0)		
Language Skill(Thai)			8.6	0.65
Can't	18(48.6)	19(51.4)		
Can(a little)	49(40.2)	73(59.8)		
Fluently speaking+(Read & Write)	40(41.2)	57(58.8)		
Work Holidays per month			1.31	0.717
Less than 4 days	30(40.0)	45(60.0)		
≥ 4 days	76(42.5)	103(57.5)		
Total {Exclude no job position(n=2)}	106	148		
Job Difficulty			2.13	0.345
Easily to do	61(45.2)	74(54.8)		
Moderately to do	25(34.7)	47(65.3)		
Difficultly to do	20(42.6)	27(57.4)		
Total {Exclude no job position(n=2)}	106	148		

4.2.3 Relationship between drinking behavior and amount of alcohol consumption among current drinkers (N=256)

Following Table (4.17) showed that there was the association between interested drinking behavior and amount of alcohol consumption. The result between 1st introduced

age of drinking and amount of current alcohol consumption, revealed no statistical significant (p=0.13) association. The current drinkers consumed more than 5 standard drinks of alcohol were 76.9% of those who had first introduced alcohol at the age of less than 15 years. And also the parent history and amount of alcohol drinking were found no statistical significant (p=0.13). In order to find the association between the fraction spend money on alcohol per income and amount of alcohol, there was strong significant (p<0.001). 86% of drinkers who spent money on alcohol consumption more than 20% of their income were behaved like heavy drinking more than 5 standard drinks. Concerning about the frequency of drinking, it was also strongly significant association with amount of alcohol consumption (p<0.001). Excessive amount of alcohol were consumed by 67.3% drinkers who drank more than once times a week. Among people drank alcohol less than once a month, almost all (90%) were less amount of alcohol drinking character.

Table 4.17: Association between situational factors and amount of alcohol

Characteristic	Amount of Alcohol consumption		$\chi 2$	p-value
	<5 standard Drink n (%) Total 107	≥5 standard drink n (%) Total 149		
1st introduced age of Alcohol			5.611	0.13
Less than 15 years	6(23.1)	20(76.9)		
16 to 20 years	75(45.5)	90(54.5)		
21 to 25 years	18(36.7)	31(63.3)		
More than 26 years	8(50.0)	8(50.0)		
Parent History			2.3113	0.13
No	62(46.3)	72(53.7)		
Yes	45(36.9)	77(63.1)		
Expenditure on alcohol per monthly income			19.69	<0.001
Less than 20% of income	99(48.5)	105(51.5)		
More than 20% of income	7(14.0)	43(86.0)		
Frequency of Drinking			27.0815	<0.001
Less than once a month	19(90.5)	2(9.5)		
1 to 3 times a month	35(47.9)	38(52.1)		
more than one time a week	53(32.7)	109(67.3)		

4.2.4 Relationship between AUDIT score and amount of alcohol

As shown in table (4.18), there was strong positively association with the amount of alcohol consumption (<0.001). In detail, 13% of men who drank more than 5 standard drinks were highly susceptible to alcohol dependency. Consequently, more than half of drinkers consumed excessive drinks were also suspicious in hazardous drinking characteristic.

Table 4.18: Association between AUDIT and amount of alcohol consumption

AUDIT Score	Amount of Alcohol consumption		$\chi 2$	p-value
	<5 standard Drink n (%) Total 107	≥5 standard drink n (%) Total 149		
Low Risk(0-7)	93(86.92)	33(22.15)	105.199	<0.001
Hazardous Drink(8-15)	12(11.21)	80(53.69)		
Harmful Drink(6-19)	1(0.93)	16(10.74)		
Alcohol Dependent(20-40)	1(0.93)	20(13.42)		

4.2.5 Relationship between MAST score for consequences and amount of Alcohol

According to alcohol related consequences were determined by using the MAST scores which measured the alcohol related personal behavior; family, job-related and social consequences associated with drinking. When looking in the analysis of association between volume of alcohol and consequences, the result was highly statistical significant relationship between them. Among those who experienced highly the alcohol related consequences in natures, 81.8% of them drank alcohol ≥5 standard drinks.

Table 4.19: Association between MAST consequences and amount of alcohol

Drinking Consequences	Amount of Alcohol volume		$\chi 2$	p-value
	<5 standard Drink n(%) total (107)	≥5 standard drink n(%) total (149)		
Low Consequences	97(48.3)	104(51.7)	16.0581	<0.001
Consequences	10(18.2)	45(81.8)		

4.2.6 Relationship between Socio-demographic and MAST consequences

Purposing to discover the alcohol related consequences and socio-demographic characteristic among migrant workers, the Chi-square test was used.

According to analysis (Table 4.20), age of respondents was statically significant with alcohol-related consequences ($p=0.02$). In younger age group less than 25 years old, percentage of low consequences was higher than high consequences (86.8% comparing with 13.2%). In contrary to that fact, the analysis found that the older the age, the higher the proportion of gradual consequences outcomes.

For the ethnicity of migrant workers, there was no statistically significant difference between that variables and consequences. And also for the association between their jobs position and alcohol-related consequences, the result revealed that no statically differences between occupational status and alcohol-related outcome ($p=0.30$).

Moreover, there as statically significant association between marital status and alcohol related consequences ($p<0.05$). The result illustrated that less proportion of single status in high consequences (14.3%). Besides, divorced and widow person were more situated in highly consequences comparing with other marital status, (45.5%) considerably.

In term of education status, the result stated that there was no significant difference between migrant's education level and alcohol-related adverse effect ($p=0.72$). Either low education or high education status were happening nearly same proportion of alcohol-related consequences (23%).

Table 4.20: Association between Socio-demographic and MAST score consequences

	Low Consequences n (%) Total=201	Consequences n (%) Total=55	$\chi 2$	p-value
Age			7.53	0.02
Less than 25 years	92(86.8)	14(13.2)		
26 To 35 Years	78(73.6)	28(26.4)		
More than 35 years	31(70.5)	13(29.5)		
Ethnicity			1.72	0.64
Burma	119(79.9)	30(20.1)		
Shan + Other	16(84.2)	13(15.8)	Fisher's Exact value	
Karen	33(71.7)	13(28.3)		
Mon	33(78.6)	9(21.4)		
Marital Status			10.19	<0.05
Single	90(85.7)	15(14.3)		
Married	99(76.7)	30(23.3)	Fisher's Exact value	
Divorced, Widow and separated	12(54.5)	10(45.5)		
Education			0.66	0.72
Illiterate; Primary	81(77.1)	24(22.9)		
Middle School	74(81.3)	17(18.7)		
High school and over	46(76.7)	14(23.3)		
Occupation			2.51	0.30
Temporary Not working+ Housemaid + Seller	27(87.1)	4(12.9)		
Factory Workers	161(78.2)	45(21.8)		
Construction Worker	13(68.4)	6(31.6)		

4.2.7 Relationship between MAST score consequences and variables of interest

Regarding to the duration of stay in Thailand, there was positively significant differences between length of stay in Thailand and alcohol-related consequences ($p<0.001$). And 86.6% of the respondents having duration of stay in Thailand less than 5 years occurred low outcome of consequences while those were only (13.4%) in high consequences. But, when times took long duration in Thailand rendered the higher proportion of high alcohol-related consequences than low consequences (28.8% in 5 to 10 years, and 33.3% in more than 10years, respectively).

Analysis (Table 4.21) showed there was statistical significance association between language skill and alcohol-related drinking consequences (p=0.02). Although the migrant drinkers who couldn't and could speak Thai language basically were a little different situation of developing alcoholic consequences (13.5%) and (16.4%) respectively, the migrant workers who could speak Thai language fluently were major proportion of high consequences (30.9%).

Concerning with work conditions, migrant workers' holidays and difficulties in work condition were testified with alcohol related consequences. The result revealed that there not significant association between work holidays and alcohol-related consequences (p=0.80). And also there was the same not statically significant between job difficulties and drinking consequences.

Table 4.21: Association between variables of interest and MAST score consequences

	Low Consequences n (%) Total=201	Consequences n (%) Total=55	$\chi 2$	p-value
Duration of Stay in Thailand				
Lower than 5 years	116(86.6)	18(13.4)	11.15	<0.001
5 To 10 years	57(71.2)	23(28.8)		
More than 10 years	28(66.7)	14(33.3)		
Language Skill(Thai)			8.40	0.02
Can't	32(86.5)	5(13.5)		
Can(a little)	102(83.6)	20(16.4)		
Fluently speaking+(Read & Write)	67(69.1)	30(30.9)		
Work Holidays per month			0.06	0.80
Less than 4 days	58(77.3)	17(22.7)		
≥ 4 days	141(78.8)	38(21.2)		
Total {Exclude no job position(n=2)}				
Job Difficulty			2.45	0.29
Easily to do	107(79.3)	28(20.7)		
Moderately to do	59(81.9)	13(18.1)		
Difficultly to do	33(70.2)	14(29.8)		
Total {Exclude no job position(n=2)}				

For parent history among those current migrant drinkers, the result was found out no statistical significant differences between parent history and MAST score drinking consequences (p=0.13). Among the drinkers who didn't have parent drinking history, 17% of them were highly susceptible to alcohol-related consequences as well as 26.2% of drinkers with parent' drinking history met the same situation of drinking consequences.

Another analysis was discovered between the drinking behavior and MAST score consequences. Concerning the types of alcohol, there were positively significant association between MAST score consequences and the migrant workers who drank beer and white spirits types of alcohol beverage (p<0.001). Over 80% of beer drinkers happened low alcohol-related consequences. Notwithstanding, nearly 40% of drinker consumed white spirit type were highly associated with alcohol consequences. Regarding to the frequency of drinking, there was also strongly significant association with MAST score consequences (<0.001). Highly alcohol related consequences were developed among 27% of drinkers who drank more than 4 times monthly.

Table 4.21 (Continued)

	Low Consequences n (%) Total=201	Consequences n (%) Total=55	$\chi 2$	p-value
Parent History			3.11	0.078
No	111(82.8)	23(17.2)		
Yes	90(73.8)	32(26.2)		
Type of Alcohol				
Beer			10.41	<0.001
No	47(65.3)	25(34.7)		
Yes	154(83.7)	30(16.3)		
Whiskey			0.018	0.89
No	166(78.7)	45(21.3)		
Yes	35(77.8)	10(22.2)		
White Spirit			28.14	<0.001
No	144(88.9)	18(11.1)		
Yes	57(60.6)	37(39.4)		
Home Brew			0.38	0.54
No	184(79.7)	47(20.3)		
Yes	17(68.0)	8(32.0)		
Frequency of Drinking			8.43	<0.004
Less than 4 times per month	83(88.3)	11(11.7)		
More than 4 times per month	118(72.8)	44(27.2)		

4.2.8 Relationship between level of knowledge and alcohol drinking behavior (n=347)

To find out the differences among the level of knowledge upon health effect of alcohol and drinking behavior among Myanmar migrant respondents, Chi-square test was run. The statistical significant was used by 0.05. Among respondents, drinking behavior was classified into three groups like current drinkers who drank alcohol within one year; formal drinkers who had experienced by alcohol drinking more than one year ago and those participants who never drink alcohol. Level of knowledge was also categorized into three groups by using mean score of total knowledge marks.

When looking at the analytical result of association between knowledge and drinking behaviors, there was no statistical differences were found out between them. Among current drinkers, the prevalence of high knowledge level was nearly coincided with low knowledge prevalence. Nevertheless, higher knowledge of level of no drink alcohol respondents was noticeable (26.7%); after comparing with low knowledge among them (4.4%).

Table 4.22: Association between knowledge upon health effect of alcohol and drinking behavior among male adult Myanmar migrant workers (n=347)

	Current Drinkers (N=256)		Former Drinkers (N=46)		No Drink (N=45)		$\chi 2$	p-value
	Frequency	%	Frequency	%	Frequency	%		
Low knowledge (<2.65)	49	19.1	8	17.4	2	4.4	7.65	0.10
Moderate knowledge (2.65-8.23)	159	62.1	32	69.6	31	68.9		
High Knowledge (>8.23)	48	18.8	6	13.0	12	26.7		

4.2.9 Relationship between level of attitude and drinking behavior among respondents

The level of attitude was classified into three categories by using Bloom's classification. It was analyzed with the drinking behavior and the result was shown in table.

Table 4.23: Association between attitude and drinking behavior among respondents

	Current Drinkers (N=256)		Former Drinkers (N=46)		No Drink (N=45)		$\chi 2$	p-value
	Frequency	%	Frequency	%	Frequency	%		
							0.41	0.98
Low Attitude (<60%)	126	49.2	24	52.1	24	53.3		
Moderate Attitude (60-80%)	83	32.4	14	30.4	14	31.1		
High Attitude (>80%)	47	18.3	8	17.3	7	15.5		

* According to Bloom classification

There was a not statistical significant difference between level of attitude and difference drinking behaviors. Half of respondents in each category (current, former and no drink) perceived low attitude upon alcoholic effect correspondingly.

CHAPTER V

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 DISCUSSION

The purpose of this study was to identify the characteristic of drinking pattern in relation to demographic, situational facts that encountered among interested migrant drinkers, their knowledge and perception as well as to find out their alcohol related drinking consequences. This study was cross sectional study conducting among adult male migrant workers lived in Photharam and Banpong districts, Ratchaburi province; Thailand. The following parted were discussed about the research findings.

5.1.1 Prevalence of alcohol consumption among male adult Myanmar Migrant workers

The current drinking situation prevailed approximately 73.8% among male migrants atmosphere. Even though no previous overall prevalence of alcohol measured in Myanmar migrant societies, some of the relevant studies were carried out in same interest migrant workers but different age groups. One study was done at Samut Sakhon province in 2005 stated that the situation of alcohol used was found to be 24.5% of Myanmar youth workers (Howteerakul, 2005). Moreover, after 4 years later, another study was found the result of 35% alcohol drinking prevalence among Myanmar migrant adolescents in Bang Bon district, Thailand (Khinge, 2009). However, in this study, the overall prevalence was described above, and while it was inferred into young adult groups, age between 18 and 25 years, the situation of drinking among that group was 41.4% of current drinkers. But in the southern Shan State of Myanmar, 18% of current male users were the age of 15 and 25 years (WHO, 2009). This result proved that alcohol drinking behaviors was increased among Myanmar migrant workers in comparison with previous studies. The reasonable answers for tardily increases in nature are seemed to be increase migration to Thailand, accept as social behaviors and situational factors which will be discussed in later part. The result of this study male current drinker prevalence

was likewise the same proportion of alcohol consumption in male Thai nationalities 74.6% (Thanawat, 2010). It is also accordance with the report of 75.0% of male Mexican Migrant farmworkers drank alcohol (Mines,et al., 2001).

5.1.2 Pattern of alcohol consumption

Information on the pattern of alcohol used in migrants communities was described in detail. Foremost the favorite alcohol beverages were beer and followed by white spirit. The situation of alcohol percentage in each types were varied. Among different brand names and potency of beer , most of Myanmar migrant enjoyed standard 5% alcohol contained beer (72%). In spite of less varying in standard alcohol beverages, the white spirit brands were differents. In many countries, that type of beverage is varying the strength of pure alcohol from 30 to 90 % depend on the brand, and the laws of the country. In Thailand the most favorite brand name of alcohol was Lao Kao which is also vary from 30% to 45% according to the produced companies. Nevertheless, most of the migrant workers (37% of current drinkers) usually drank the 35% of pure alcohol contained Lao Kao while some daily drinkers prefer to drink 40 or 45% pure alcohol contained white spirit significantly . The rest types of alcohol were rarely introduced by migrant workers because of expensive and concering with their salaries, migrant workers could able to consume that few times. Another remarkable beverage type they introduced was home brew in Thai named (Ya_Dong) which was traditional herbal medicine combined with white spirit for conceiving the strength. This contingent result was that those interest Myanmar workers were migrated to Thailand and seemed likely to be cultural behavior adpation with Thai people. Because in comparision with WHO report, it was similarly expressed that in Thailand, beer was the most popular alcoholic beverage consumed, followed by white spirits, whiskey, medicinal alcohol, home-made alcohol and wine, in that order (WHO, 2009). But that result was contray to the study done in Myanmar that revealed that country liquor (white spirit type) was consumed by 45.5% of current male drinkers firstly and followed by whiskey and beer (Htike, 2006).

With regards to the quantity of alcohol consumption, the hazardous drinking behavior for male was set as those who consumed alcohol more than 5 standard drinks on any single occassion (NHMRC, 2009). In this study, prevalence of drinkers more than standard drink was 58.2% of participants. The avearnge drinking amount was 7.17 drinks and maximum quantity of alcohol drink on single occasion was 47.2 standard drinks. Most of the migrant workers regarded the alcohol for their amusements as their daily lives were similar as robots and didn't have free times. They said that they were drank alcohol after sometimes and once started then stopped until drunk unless they were inebriations. But, these alcohol abuse will lead them to possible three processes 1) directly impact on disease and injury 2) alcohol intoxication and 3) alcohol dependent. The migrant participants in this study were less binged drink alocohol in term of comparision with Alaniz (1994) report. That reported stated that migrant men in North ern California, were average of 10 drinks per episode and the range was vary from 6 to 24 drinks per worker.

Respect to the frequency fo drink in this study, it was clarified the migrant drinkers' character according to their choice of drink. Approximately beer was consumed by migrant drinkers was mostly especially on every weekend day and follwed by 2-3 times monthly. They entertained their luxurious times with alcohol beverage in order to feel relax and escape from tired. Some of migrant wokers (9.4%) could drink the whiskey type beverage only once a month infrequently. The almost ever daily drinkers; nearly 8% of respondents were consumed white spirit in order to cover the budget. This result was lower than the study done in Sri Lanka that enounced 12.8% of respondents were daily or almost daily alcohol user while the rest consumed alcohol on special occasions only or infrequently (Hettige & Paranagama, 2005). However, this Migrant Myanmar woker's daily frequency on alcohol consumption was much lower than the study done in Yangon, Shan and Mon states of Myanmar in which revealed that the proportion of daily or almost daily users varied between 25% and 28% of respondents (WHO, 2009). One of the respondent expressed his feeling that we couldn't consumed daily samed as in our country and we might control about drinking for the reason relevanted with migrantion condition,

financial and work condition. The overall frequency of alcohol drinking among Myanmar Migrants was mostly in 1-2 times a week and was accordance with report that stated the Maxican migrant men drank alchol 2 days a week (Mines, et al.,2001).

All of the male curren drinkers enrolled in this study were already screened as they were low risk drinkers whether at hazardous; harmful or alcohol dependence. According to the volume consumed by occasion, male who were binge drinkers were 58.2%. This result was more contingent result comparing with the study done in African American migrant who consumed more than five drinks at each sitting were 38%(Waston J., et al,1985). After screening by the WHO recommended AUDIT classification, 36% of the respondents were clarified as hazarous drinkers. A study of binge drinking recommended that harzardous drinkers could become harmful drinkers and alcohol dependence. Drinkers might have some problem with their health (Kann., et al, 2009).

5.1.3 Socio-demographic characteristics and pattern of alcohol consumption with drinking consequences

Concerning about the age factor, this study revealed that the age of the respondents was associated with both highly volume of alcohol consumption and drinking consequences (p=0.02). Reviewing the overall age of the participants, adulthood is considered as drinkers of high volume of alcohol and appeared to be problemic consequences. This is in line with the finding of a study done in Japanese people which stated that Japanese have consumed more alcohol and had a higher proportion of heavier drinkers in the adult age group and there was the association between age and drinking problems (Higuchi S., et al, 1994). Besides, this study was consistently corresponded with another result that revealed that increasing age was associated with increasing odds of being current drinkers by Martine. et.al in 2011.

But, this study contray to the report done in 2004 which expressed that young adult were especially to binge drink and to drink heavily (SAMHS, 2004). Because this

study found out half of less consmers upon alcohol were young adult (< 25 years old). However, for the drinking consequence of this study, the molded odd ratio of having drinking consequences is 2.35 more chance in adult age group (26-35) than younger age group. Although their amount of drinking was lower, some of these young age groups behaved like problemic drinking.

In this current research, the most participants were Burma maily camed from Ta Ninthar Yi division, Myanmar which races was namely called Da Wei and the remaining were Karen and Mon races. In relation to the alcohol consumption and its consequences with ethinic groups, the result revealed no statistical significant association. It was contradicated to the study of race and ethnicity with rates of alcohol and drug testing among adult US trama patients which stated that Black and Hispanic patients were more frequently tested alcohol than caucasian (OR for Black men and hispanic men were 1.31 and 1.45 respectively) (Kon AA, et al., 2004).

In term of Marital status, 50.43% were married and 42.36% were single. This research was accordance with previous study stated that married people constituted largest group among Migrant workers in Thailand (Thein, 2008). Regarding to maginitude of alcohol consumption, the marital status was not relevanted (p=0.22). But for the association between alcohol-related consequences, married and divorced men were more vulnerable to develop alcoholic problematic stages than those with single status. The binary logestric regerssion pointed out the strength of the association was, the molded ORs of occuring the consequences outcome in Married and Divorced than Single status were 1.8 and 5 times correspondingly. It is in contrast to one of the previous study (Power, Rodgers, & Hope, 1999) regarding to the fact that married condition was associated with low volume of alcohol consumption and those who were divorced had the highest consumption level.But in this research found out that the alcohol-related consequences were more likely to develop in Married persons for a long times due to social pressure, economic stress, familial condition and so forth.

As Mekong Sub-regional project,2006 illustrated the migrants form Myanmar tend to be less educated and less literate than their population of origin, most of migrants had low level of education: 33% of primary education and 34 % of middle education. Education level was not statistical significant with the amount of alcohol consumption and its related consequences in this research (p=0.08) and (p=0.72) respectively. This result is contrast to the study done in Myanmar which described men with low eduation were found moer vulnerable to higher amount of drinking and lower awareness of the alcohol related diseases and problems (p=0.39) (Htike, 2006). Notwithstanding, this study was similar to the study done in migrant non-Hispanics in USA stated that the risk of dependence did not increase across all level of education (Gilman SE, et al., 2008).

Regarding to occupation and income of Myanmar migrant workers, almost 90% of the respondents were factories workers, and average their income was run between 5000 to 7000 Bahts. This study analyzed both of type of occupation and incomes were not associated with heavy alcohol consumption and drinking consequences. And also, it was contrast to a study done in Canada workers that stated occupation and workplace harassment are important factors associated with alcohol use and misuse (Marchand, 2008). This research finding was also opposite to the Thanawat's report in 2010 in which income was associated with health consequences. In this study, almost all of the respondent migrant drinkers were homogeneously worked in the factories zones of Thailand. And also they were basic manual labors and ranks in job position were not so much varied and the highest rank was Head of labor (Wa_na). For that reasons, their salaries were not varied significantly and association with alcohol consumption and its consequences was not expressed the different outcomes.

5.1.4 Situational factors; variables of interest and pattern of alcohol consumption with drinking consequences

The situations that had been encountered by migrants' realm were their living conditions, work conditions, migration history and so on. Either those factors or some of

interested drinking behaviors were inferred with alcohol consumption with its consequences.

Concerning with migrant workers' living condition, nearly 45% of the participants were lived in the rent apartments which situated not so far from their workplaces and some lived in lodging in work compound (38%). Migrant workers resided like a colony in surrounding foreign environment which made them neither isolated nor lack of social support. Unless wandering around the community far from their place, those migrant different colonies had information network each other within sub-district. And also most of their living status was lived with their wife and families although apparently overcrowded condition. Even though quality of living condition was not prefer good and could associate to numerous health and social consequences, the association for excessive alcohol consumption and its consequences were not relevant with this condition ($p=0.14$).

The proportion of male Myanmar workers migrated to Thailand more than 5 years duration was 47% of participants in Ratchaburi province, Thailand. The mean duration of stay in Thailand among respondents was 6.22 years. This result persisted with the previous Thein's study done in Samut Sakhon province (Thein, 2008). Many migrated from Myanmar to Thailand for working since 2000 because of the economic disparity and political situation (Huget & Punpuing, 2005). In this study, those 20% of major excessive drinkers were long resided period in Thailand more than 10 years. The migrantion period and heavy drinking with alcohl-related consequences were statistically significant association both ($p<0.001$) values. This study revealed that longer in duation of stays, higher the chance of excessive drinking and alcohol-related consequences because the migrants felt as though they were free from migration-related impacts and could adapt to Thai culture and local societies. This study was in opposite to one study which stated that hazardous/harmful drinking was associated consistently with rural-urban migration and the association between late migration and alcohol problems was (OR = 1.5) (Tawanchai, 2004).

In respect of Thai language skills, 49% of respondents could speak basically. Although excessive drinking character was not associated with Thai language ability, the vulnerable outcomes for alcohol-related problematic situation were statistically significant associated with that skill. The chance of getting alcohol-related problematic stage was more vulnerable in those who could speak Thai language fluently comparing with weakness in language abilities. During out of control drunk situation, the language fluent migrant drinkers didn't need to take care about the violence, harassment, police arrest and even illness as they could solve without lenguage difficulty. Migrant language difficulties was inconsistent with the report of Oh (2011) which stated that Hispanic were at gerater odds of adherence to multiple behaviors compared to Non-Hispanic (OR=2.76).

With regards to work conditions, most of migrant workers got one holiday a week usually on Sundays. But one quarter of participants suffered no or less holidays as usual 4 days.The statistical association between excessive drinking with its adverse effects and working holidays, revealed no significance. In concerning job free holidays, migarnt workers mostly consumed alcohol on that holidays regarding alcohol beverage as entertainment. Nevertheless, some migrants who even didn't get no holiday, they drank almostly ever daily perceiving alcohol as relaxant for tired. Therefore, alcohol was consumed whatever did the migrants get less or more hoildays. But for the alcohol-related job consequences, all of the migrants workers were dutiful to their jobs and no or less job consequences had happened. Another difficulties in their works also didn't relavent the heavy alcohol consumption. This result opposited to Marchand's report in 2008.

In this study, the mean age for first exposure to alcohol was 19 years and the youngest initiation age was 9 years old. The alcohol use was culturally unacceptable in Myanmar perticularly for the younger age groups and most of migrants percieved the started drinking should be according to legal conditions. But this study first started age was lower than Htike' finding, 21 years of first age in Myanmar (Htike, 2006). One study done in columbia supported that unequivocally a relationship between early use of

alcohol and the probability of becoming involved in adulthood with alcohol (Gomez , 2011). Turning now to look at this study, 76.9% of current drinkers who has history of the first introduced age < 15 years, were highly consumed alcohol more than standard drink apparently.

For detail of parent drinking history, this study stated that excessive drinking and alcohol-related consequences among migrant current drinkers were not associated with family alcoholic history. But, the reported family history of drinking was notably high (63%) in excessive drinking amount and the alcohol related consequences were more prevalent among those with family history (26.2%). This result was consistent with the previous studies done in Myanmar which found 65.5 of drinkers have father having drinking habits (Thuta, 2002).

The alcohol dependence and related outcomes were significantly association according to the type, frequency and amount of drinking. When looking at the amount of alcohol, 30% of the current drinkers who drink more than 5 standard drinkers were reporting the alcohol related consequences. This result agreed with study by Mattiko of alcohol use and negative consequences in which found that higher levels of drinking were associated with higher rates of alcohol porblem (Mattiko, 2011).

In this study, the drinkers who drank white spirit were more likely to outcome drinking consequences but those who consumed beer were less likely to develop alcoholic adverse effect. This study supported previous study which stated that drinking of more than 14 drinks of beer and spirit had a risk of 1.8 of rectal cancer comparing with non drinkers (Pedersen, 2004). Another study confirmed to this result was Benjamin's study wich stated spirit consumption among men was strongly associated with lifetime manic episodes ($F=81.8$, $df=1$, $p <.001$) (Benjamin, et al., 2006). In detail about the frequency of drinking, migrant workers who drank more than one times a week were highly suspectible for developing alcohol-related consequences.The some of alcohol-related consequences commonly happened among Migrant drinkers were short effects from drinking like personal and social violence. They did not have obviously diseased

caused by alcohol consumption except minor abdominal pain, headache etc. But later, the excessive drinking characters would have trouble with their health effect.

With the purpose of getting general knowledge about the alcohol and its related condition, this study measured all of migarnt participants. Most of them accept the alcohol could give trouble to health unless more than 20% still known about it. The most information of alcohol adverse effect was mainly came from family members. The commonly migrant societies were workers and they usually not familiar with education and intervention program related to alcohol. Although the knowledge level was not statistically difference between current, former and non-drinkers groups, most of the participants still have lack of knowledge about alcohol on HIV tramission and pregnancy in women. Many pevious studies pointed out on the knowledge that heavy alcohol use has been correlated with a lifetime tendency toward sex-risk behaviors (windle, 1997) which also revealed on HIV studies on Myanmar migarnt workers (Htun, 2008).

The association between attitude upon alcohol and alcohol drinking behavior stated no correlation result. More than 60% of participants were moderate attitude upon alcohol. These finding was opposite to the previous study which revealed that not being binge drinkers were associated with positive attitude towards preventive counceling on alcohol consumption (OR=2.61, CI= 1.3-5.4; p=0.009) (Duperly, et al., 2009)

Like other studies, this study also found out the various kinds of reasons for last times drinking such as socialization, job conditions, stress and entertainments. It was accorndent with the Htike's finding among Myanmar drinkers who consumed alcohol for socialization (31.8%) (Htike, 2006). In contrast, another study documented that the reason of like and moderate alcohol consumption was for stress reduction, mood enhancement reduced depression and improve functioning in the elderly (Pernanen, 1991).

However, this study found out either quitted or stopped manners on alcohol consumption and its duration was lasting at least 3 months to 15 years. Although the

health-related rationales was majority, the secound was avoid during Buddish lent period as Myanmar and Thailand country were top Buddhist population all over the world and the third one was familial reasons. All these finding could assist for intervention.

5.2 Conclusion

Changing the world economy from industrialization to globalization in recent years, the cheaper labor market adventure is uncontrollable growth all around the world. The overflows of Myanmar people flee into Thailand over years have been made millions of major migrant population in Thailand which purchase on occurrences of risky behavior and health related adverse outcomes among them. This study was done with the expectation to figure out the alcoholic pattern among migrant populations together with drinking consequences male adult Myanmar migrant workers in Ratchaburi Province, Thailand.

Among 347 male adult Myanmar migrant workers in Photharam and Banpong districts, Ratchaburi province, Thailand; cross sectional study was carried out during 10^{th} to 17^{th} March 2012 When inferential statistic examined the association between independent variables and alcohol consumption by using Chi-Square test, the statistical significance at the level of $p<0.05$ were with increasing in age, especially in married and divorced condition, more durable in length of migration and fluently in language skill ability.

The overall finding indicated that that current drinking behavior was prevailed 73.8% among male migrant workers and 41.4% of them were young age between 18 and 25 years. The excessive amount of alcohol consumption than standard drink per occasion was behaved by 58.2% of current drinkers. The types of alcohol beverage that migrant workers preferred most were beer, white spirit and whiskey in order. Approximately 63.3% of migrant drinkers consumed more than once times a week meanwhile 8% of respondents drank white spirit daily. The migrants whom were classified as alcohol related problematic consequences according to MAST scores, were 21.48% of current drinkers.

The determine facts for alcohol drinking among migrant workers were mainly for socialization, job condition as they regarded alcohol for amusement and relaxant for tired condition. The other frequent reasons for drinking were to relieve stress, like taste and peer pressure. Most of migrants still lack of knowledge about the alcoholic health effect on low birth weight in women and HIV. Knowledge and perception upon alcohol were not quite different among current drinkers and no drinkers. Common quitted characters were health reason and avoided during Buddhist Lent period.

Those finding result would be valuable to use as baseline information for further studies. The control assessments and preventive measures for alcoholic behavior ought to be considered and established due to high prevalence of hazardous drinking behaviors among cavalier migrant workers realm. To be an efficacy in control measure, host country should incorporate the migrant's interest groups/organizations, local community authorities, employer-related groups as well as migrant workers themselves including their kin support. The existing alcohol control act and some local interventions set among Thai nationalities should also be promoted among migrant workers atmosphere. This will be in accordance with universally recommended alcohol reduction strategies only to the extent that there is a missing on the vulnerable migrant groups.

5.3 Limitation

- Conduction research only in one area and male migrant population in Thailand couldn't represent the whole characteristic of drinking behavior of Myanmar Migrant workers in Thailand.
- This research could not possible directly to determine for holistic finding and relationship between alcohol drinking pattern and its past alcoholic consequences as being and cross-sectional study.
- Although data collection type was structured face to face interviewing types, there was no validation to confirm their response for volume of alcohol consumption and past recalled bias for its consequences. The structured type of questionnaire could limit the more information and qualitative findings.

- Due to Migrants' work position and working times such as day shift and night shift, times was constrained as each interviewing last for 20-30 minutes and most data collection proceeded during evening 5:30 pm to 10 pm. And also the whole data collection times was available only 1 week. One of these time limitation perhaps rendered the respondents' impatience, negligence, boring and data missing.
- Though 8 research assistants and researcher himself in data collection, they could not always communicate well with researcher which may lead to developing various kinds of confounders, language barrier and observation bias.

5.4 Recommendation

Regards as almost all migrant population were workers; the alcohol control act should be accompanied with work-related control act programs. Therefore, not only the local authorized associations but also cooperation of employer-related groups could be core value of emerging the alcohol reduced control measure among migrant population.

Drinking among young adult groups age between 18 and 25 years were (41.4%) more and more infected situation. The strongest moments of young adult in the whole life should be habituated by healthy practice unless catastrophic drinking alcohol. The providence of health promotion activities such as game, soccer and participatory educative motivation programs should be organized during their working free times in order to deviate from using alcohol by local authorized persons, and employer-related groups.

The youngest started age was 9 years and more than 60 % of them started under 20 years old. The efficient forbiddance of legislation over alcohol control act should be enforced in both migrated countries and also at their mother land Myanmar. While emphasizing on the liquor selling shops, the official governments should make a careful supervision on them for not to sell under age and total ban for un-legislation conditions.

Most of migrant workers preferred to drink the cheap price of alcohol beverage according to their budget with regardless of intensity of alcohol percentages and illegal status of alcohol. The legitimacy on the price in concordant with alcohol intensities at local cheap liquors production (especially Lao_Kao) should be fit by relevant authorized government.

Behavior change process couldn't easily to achieve success. It only relied upon self-awareness of the drinkers himself. According to AUDIT classification, almost half of migrant populations were hazardous and harmful drinking characteristic. This significant prevalence among migrants shouldn't be neglect. One of the effective reductions the alcohol consumption ought to be work-related incentive methods by processing of commitments, alcohol-free bonus, rewards and punishments with the support of employers, community and workers' family members.

Most of migrants still lack of knowledge about the alcoholic health effect on low birth weight in women and HIV. Knowledge There should be set the education program concerning with the alcoholic adverse which won't take times and disturb the migrant working times. The poster, handbooks education within the work place boundaries; edutainment, preshow, role-plays and Quist related to alcohol adverse effect held on the memorial and festival holidays should be promoted with the kindness help from the employer related groups.

These study findings on the explanation of quitted/stopped alcohol consumption were health reason, avoiding during Buddhist lent period and family reasons. This was the consistent with the current Thailand's alcohol interventions such as Children calling on Fathers to Quit Drinking Campaign, "Giving Alcohol = Cursing" Campaign and Reduction Alcohol Consumption during Buddhist Lent Campaign. Unfortunately, while inquiring about the ability of these interventions around the Ratchaburi's migrants workers, more than 60% of those participants still lack of knowledge upon those interventions. As being a Buddhism country, the settlement of alcohol band on religious important days such as full moon days, should be introduced to all Buddhism dominant

countries. And other countries should also be banding policy on alcohol consumption on the most important days depend upon their own rule.

Therefore, Thailand government, local authorities, employers and community should share and inform about the current existing Alcohol control law as well as alcohol reduction programs to all of the whole population in Thailand either Thai workers or migrant workers especially for them with language translated information if it is possible. This will be accordance with universally recommended alcohol reduction strategies unless missing the vulnerable migrant groups.

The longitudinal studies to explore the more detail examination about the alcoholic consequences should be carried out and the effectiveness of work related alcohol control measure should be intervened among most vulnerable and cavalier migrant workers realm. Further assessments for the whole picture of migrant population including female should be done.

The full accomplishment of behavior change communication upon alcohol consumption couldn't be walked alone with single intervention. There must have participatory motivated involvement with various kinds of support especially from familial, social, environmental and governmental aspects concerning with all of the societies.

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APPENDICES

APPENDIX A
Form of
Patient/ Participant Information Sheet

Title of research project … **Determinants and consequences of alcohol consumption among male adult Myanmar migrant workers in Ratchaburi province, Thailand.**

Principle researcher's name ...Mr. Tay Zar Soe…. **Position** ……MPH Student……

Office addresses …College of Public Health Sciences, Chulalongkorn University…

Home address …521/3-4 Soi Sriayuthaya 2-4, Sirayathaya Road, Prayatai Distric, Rajthavee,Bangkok 0400……...…
Telephone (office)…….. **Telephone (home)** ……..

Cell phone …0881865321…….. **E-mail:** ……quazal85@gmail.com……
Local Contact Person: Mrs. Somruedee danthaithun (the leader of Bann Luek health center)... ……..**Telephone Phone**: 032-389-623……

1. You are being invited to take part in a research project. Before you decide to participate it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and do not hesitate to ask if anything is unclear or if you would like more information.

2. This research project involves " the reasons that make up to drink alcohol and the effects occur after drinking it"

3. Objective (s) of the project. are
   - 3.1 To find out the information about the nature of alcohol drinking characteristics of male adult Myanmar migrant workers in Ratchaburi province, Thailand
   - 3.2 To know the effect of alcohol use among male adult Myanmar migrant workers

4. Details of participant.

   The participants are adult Myanmar migrant workers who shall be male and age between18 to59 lived in Ratchaburi Province, Thailand. And also those can be speak Burmese language easily and have desire to join in this research project. The one who isn't willing to participate and has chronically illness and mental problems are excluded. This study needs at least 422 eligible participants.

   The participants are approached by the 4-5 assistant interviewers, preferably volunteer migrant workers, who have been

recruited with the help of local community leaders and local health care center. Those shall have proper at most four hours of training course per day about this project criterion, ways of discussion issue in structured face to face interview and approaching technique to participants . The participants have been invited to be a part of this study because you are the one of adult Myanmar migrant workers residing in Ratchaburi Province.

5. The researcher and assistant well-trained volunteers preferably Myanmar have been recruited with the help of community member, translator. Those interviewers will explain to you the purpose of project .Once you accept the invitation; you will be taken a series of questions including general information, knowledge, belief and effect of alcohol misuse in structured face to face interview.

   This will take about 25-30 minutes to complete. The interviewing would be recorded by audio recorder which will be deleted after research project finished. Only presenting the research result will be performed and the rest information will be kept confidential. In some case, time can be extended a few minutes for more information.

6. Process of providing information which also be stated in the proposal.
   - 6.1 The researcher or assistant interviewers will provide you verbally all the explanation about the purpose of project, through this sheet which you can keep one copy for yourself. Upon your voluntary participation, you will be requested to sign on the informed consent form which one copy will be for you.
   - 6.2 The questionnaire is available in Myanmar language and will be asked during your free time apart from work hour.

7. You will not harm due to the participation of this project. The participation in this research is voluntary and you have right to refuse or withdraw it at any time on your benefit.

8. You can stop or refuse the questions throughout any interviewing time if you feel uncomfortable or inconvenient to answer.

9. There is no remuneration or gift for participate in research.

10. Information that is directly related to you will be kept confidential. Results of the study will be reported as an overall statement with anonymity.

11. In case you have any inquiry or need further information, please contact the research at all time. Should the researcher have any additional information which may benefit or may harm regarding the research project, the researcher will inform you immediately so that the research subjects may review if they are still voluntary to take part in the research project.

12. If researcher does not perform upon participants as indicated in the information, the participants can report the incident to the Ethical Review Committee for Research Involving Human Research Subjects, Health Sciences Group, Chulalongkorn University (ECCU). Institute Building 2, 4th Floor, Soi Chulalongkorn 62, Phyathai Rd., Bangkok 10330, Thailand, Tel: 0-2218-8147 Fax: 0-2218-8147 E-mail: eccu@chula.ac.th.

APPENDIX B
Form of
Informed Consent Form

Code number of participant …….

Address ……..
Date ……..

I who have signed here below agree to participate in this research project
Title "**Determinants and consequences of alcohol consumption among male adult Myanmar migrant workers in Ratchaburi province, Thailand**"

Principle researcher's name…….. Mr. Tay Zar Soe……..……

Contact address 521/3-4 Soi Sriayuthaya 2-4, Sirayuthaya Road, Prayatai Distric, Rajthavee, Bangkok 10400……**Telephone** ……0881865321……
Local Contact Person: Mrs. Somruedee danthaithun (the leader of Bann Luek health center)... ……...**Telephone Phone**: 032-389-623……..…

I have **been informed** about rationale and objective(s) of the research project, what I will be engaged with in details, risk/ham and benefit of this project. The researcher has explained to me and I **clearly understand with satisfaction.**

I willingly **agree** to participate in this project and consent the researcher to ask a series of questions in this structured face to face interview which covers general information, living condition, working condition, speaking Thai language, knowledge about alcohol misuse, belief, value and feeling about alcohol drinking, alcohol consumption pattern, problems suffered from drinking alcohol, and cessation of drinking.

The interview time will be last approximately 30 minutes and will be done only one time.

I have **the right** to withdraw from this research project at any time as I wish with no need to **give any reason**. This withdrawal **will not have any negative impact upon me (still receive the usual services).**

Researcher has guaranteed that procedure(s) acted upon me would be exactly the same as indicated in the information. Any of my personal information will be **kept confidential.** Results of the study will be reported as total picture. Any of personal information which could be able to identify me will not appear in the report.

If I am not treated as indicated in the information sheet, I can report to the Ethical Review Committee for Research Involving Human Research Subjects, Health Sciences Group, Chulalongkorn University (ECCU). Institute Building 2, 4 Floor, Soi Chulalongkorn 62, Phyat hai Rd., Bangkok 10330, Thailand, Tel: 0-2218-8147 Fax: 0-2218-8147 E-mail: eccu@chula.ac.th,

I also have received a copy of information sheet and informed consent form

Sign ……..……
(……Mr.Tay Zar Soe……..…)
Researcher

Sign ……..……
(……..……)
Participant

Sign ……..……
(……..……)
Witness

APPENDIX C

Questionnaire

Instruction: The following questions are about demographic information. Please mark √ in the parenthesis ( ). Please also write down in the blank space where provided.

A: Socio-demographic characteristics

1. Age ……Years

2. What is yours ethnicity? 1. ☐ Burma 2. ☐ Shan 3. ☐ Karen 4. ☐ Mon 5. ☐ Other (Please Specify)……

3. Marital Status

1. ☐ Single (Never get married) 2. ☐ Co-habitat or Married 3. ☐ Divorced 4. ☐ Widow 5. ☐ Separated

4. In What kinds of house do you live in?

1. ☐ lodging in work compound 2. ☐ Rent apartment/room 3. ☐ Partitioned shared room provided by the employers 4. ☐ Other (Please Specify)……

5. Type of Living 1. ☐ Alone 2. ☐ With Friends 3. ☐ With Spouse/wife 4. ☐ With family 5. ☐ Other (Please Specify)……

6. Education 1. ☐ Illiterate 2. ☐ Primary School 3. ☐ Middle School 4. ☐ High School 5. ☐ Higher Level (University) (Please Specify)……

7. How long have you been staying in Thailand?

…….years ……..months

8. Thai language skills 1. ☐ I can't 2. ☐ Can (A little) 3. ☐ Can fluently (Speaking Only) 4. ☐ Fluently (Including reading and writing)

9. Occupation 1. ☐ Temporary not working ***(Skip to Part: B)*** 2. ☐ Factory workers 3. ☐ Construction worker 4. ☐ Housemaid 5. ☐ Seller 6. ☐ Other (Please specify)……

Q: (10) to (11) answered by employed only

10. How many days do you get off per month?

……days/month

11. Job Difficulty

1. ☐ Easily to do 2. ☐ Difficult (A little) 3. ☐ Difficult but can do
4. ☐ Difficult

12. Person income pre months ……Baht per month

B: Alcohol Drinking History and situational factors

1. In your whole life, have you ever drunk alcohol?

☐ Never Q: *if never, skip to **E:** knowledge and perception part*

☐ Yes

2. Age of started drinking Alcohol ...…….Years

3. Who introduced you into alcohol drinking <u>at first</u>? 1. ☐ Family members

2. ☐ Friend 3. ☐ Neighbors 4. ☐ Co-workers

5. ☐ Others (Please Specify)……

4. Reasons <u>for started</u> drinking *(tick only one)*

☐ 1. For socialization at celebration /

☐ 2. due to job

☐ 3. for experiment

☐ 4. to relief stress (social, familial, economic, job problems…)

☐ 5. by peer pressure

☐ 6. Admire someone drinking alcohol (father, brother, actors….)

☐ 7. Other (please specify ……)

5. Type of alcohol started drinking <u>initially</u> *(Tick only one)*

1. ☐ Beer 2. ☐ Whiskey 3. ☐ White Spirit 4. ☐ Rum
5. ☐ Gin 6. ☐ Home Brew 7. ☐ Wine

6. Drinking History within family

	No Drink	Drinking Occasionally	Drink always
-Parents/Guardian			
-Relative			
-Brother/Siblings			

7. Have you been experience of quit drinking alcohol?

1.☐ No 2.☐ Yes

7.2.1. If YES, how long have you been quit? ……..years……..months

7.2.2 Reason for quit drinking ……..……
…….. *(Skip to **E:** knowledge and perception part)*

8. Last time of drinking alcohol

1. ☐ within past one month
2. ☐ Within past one year
3. ☐ Past one year and over *(skip to **E:** knowledge and perception part)*

9. Type of alcohol usually drunk in past 12 months ***(more than one answer allow)***

1.☐ Beer 2.☐ Whiskey 3.☐ White Spirit 4.☐ Rum
5.☐ Gin 6.☐ Home Brew 7.☐ Wine

Q: 10	**Following type of alcohol beverage, how much do you regularly drink with described amount of alcohol in <u>single occasion</u>?**
Beer	 640 ml 5% alcohol  330 ml 5% alcohol  330 ml 5% alcohol  375 ml 5% alcohol  255 ml 5% alcohol ☐ ☐ ☐ ☐ ☐ Number of Drink / single occasion *For Researcher Only* = ……...Standard Drink
Whiskey	 750 ml Whiskey 40% alcohol  300 ml Whiskey 40% alcohol  30 ml Whiskey 40% alcohol ☐ ☐ ☐ Number of Drink/ Single occasion *For Researcher Only* = ……...Standard Drink

White Spirit	750 ml White Spirit 40% alcohol  occasion ☐ 30 ml White Spirit 40% alcohol  ☐	*For Researcher Only* = ……...Standard Drink Number of Drink/Single
Rum	300 ml Rum 40% alcohol  ☐ 30 ml Rum 40% alcohol  ☐ occasion	*For Researcher Only* = ……...Standard Drink Number of Drink/ single
Gin	750 ml Gin 40% alcohol  ☐ 30 ml Gin 40% alcohol  ☐ occasion	*For Researcher Only* = ……...Standard Drink Number of Drink / Single
Home Brew	750 ml Home brew 20% alcohol  ☐ 330 ml Home brew 20% alcohol  ☐ 60 ml Home brew 20% alcohol  ☐ occasion	*For Researcher Only* = ……...Standard Drink Number of Drink / Single
Wine	60ml Port/Sherry Glass 18% Alc./Vol. 100ml Standard Serve of Wine 12% Alc/Vol 180ml Average Restaurant Serve of Wine 12% Alc/Vol 750ml Bottle of Wine 12% Alc/Vol  ☐ ☐ ☐ ☐	*For Researcher Only* = ……...Standard Drink Number of Drink/ Single occasion

If the above picture isn't suitable for your drinking amount, please write down your type of drinking in which amount that you consumed regularly in single occasion.

…….amount of drink / Single occasion

Q:11	How often did u drink the following type of alcohol beverage over the past 12 months?						
	Every Day	5-6 times a week	3-4 times a week	1-2 times a week	2-3 times a month	Once a month	Less than Once a month
Beer	☐	☐	☐	☐	☐	☐	☐
Whiskey	☐	☐	☐	☐	☐	☐	☐
White Spirit	☐	☐	☐	☐	☐	☐	☐
Rum	☐	☐	☐	☐	☐	☐	☐
Gin	☐	☐	☐	☐	☐	☐	☐
Home Brew	☐	☐	☐	☐	☐	☐	☐
Wine	☐	☐	☐	☐	☐	☐	☐

12. In the past year, have you ever had the following drinks at one time?

≥6  OR **≥3** 

11.1More than 6 can or 3 bottles (large) of beer

☐ No

☐ Yes 10.1.1how many times? …….

≥5 

11.2More Than 5 glass of whisky OR  OR 

(Or) half a bottle (185ml, medium) or ¼ large bottle of whisky

☐ No

☐ Yes 10.2.1How many times? …….

13. Place of alcohol drinking in past year mostly *(tick only one)*

1. ☐ Own house 2. ☐ Neighbor house 3. ☐ Workplace 4. ☐ Restaurant

5. ☐ Club/Bar 6. ☐ Other (Please Specify)……

14. With whom did u usually drink in the past year? *(Tick only one)*

1. ☐ Drink alone 2. ☐ With Family/Spouse 3. ☐ With friends
4. ☐ With Neighbors 5. ☐ With Co-workers

15. How much money do you usually spend on alcohol drinking per month?

…….Baht per month

16. Reasons for alcohol drinking in the last time (tick only one answer)

☐ 1. for socialization

☐ 2. for job

☐ 3. To relieve stress (social, familial, job, economic problems…)

☐ 4. Peer pressure

☐ 5. due to migration

☐ 6. like taste

☐ 7. Become alcohol dependent

☐ 8. Easily access to liquor shop

☐ 9. Other (specify……)

C: Alcohol Use Disorders Identification Test (AUDIT)

Please circle the answer that is correct for you.					**Score**
1. How often do you have a drink containing alcohol?					
Never	*Monthly or less*	*2 to 4 times a month*	*2 to 3 times per week*	*4 or more times per week*	
2. How many drinks containing alcohol do you have on a typical day when you are drinking?					
1 or 2	*3 or 4*	*5 or 6*	*7 to 9*	*10 or more*	
3. How often do you have six or more drinks on one occasion?					
Never	*Less than monthly*	*Monthly*	*2 to 3 times per week*	*4 or more times per week*	
4. How often during the last year have you found that you were not able to stop drinking once you had started?					
Never	*Less than monthly*	*Monthly*	*2 to 3 times per week*	*4 or more times per week*	
5. How often during the last year have you failed to do what was normally expected from you because of drinking?					
Never	*Less than monthly*	*Monthly*	*2 to 3 times per week*	*4 or more times per week*	
6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?					
Never	*Less than monthly*	*Monthly*	*2 to 3 times per week*	*4 or more times per week*	
7. How often during the last year have you had a feeling of guilt or remorse after drinking?					
Never	*Less than monthly*	*Monthly*	*2 to 3 times per week*	*4 or more times per week*	
8. How often during the last year have you been unable to remember what happened the night before because you had been drinking?					
Never	*Less than monthly*	*Monthly*	*2 to 3 times per week*	*4 or more times per week*	
9. Have you or someone else been injured as a result of your drinking?					
No	*Yes, but not in the last year*		*Yes, during the last year*		
10. Has a relative or friend, or a doctor or other health worker, been concerned about you're drinking or suggested you cut down?					
No	*Yes, but not in the last year*		*Yes, during the last year*		

D: Drinking Consequences

In past 12 months, did u encounter the following situation

under the influence of alcohol consumption?

	YES	NO
1. Do you feel you are a normal drinker? ("normal" is defined as drinking as much or less than most other people)		
2. Have you ever awakened the morning after drinking the night before and found that you could not remember a part of the evening?		
3. Does any near relative or close friend ever worry or complain about your drinking?		
4. Can you stop drinking without difficulty after one or two drinks?		
5. Do you ever feel guilty about your drinking?		
6. Have you ever attended a meeting of Alcoholics Anonymous (AA)?		
7. Have you ever gotten into physical fights when drinking?		
8. Has drinking ever created problems between you and a near relative or close friend?		
9. Has any family member or close friend gone to anyone for help about your drinking?		
10. Have you ever lost friends because of your drinking?		
11. Have you ever gotten into trouble at work because of drinking?		
12. Have you ever lost a job because of drinking?		
13. Have you ever neglected your obligations, family, or work for two or more days in a row because you were drinking?		
14. Do you drink before noon fairly often?		
15. Have you ever been told you have liver trouble, such as cirrhosis?		
16. After heavy drinking, have you ever had delirium tremens (DTs) 2, severe shaking, visual or auditory (hearing) hallucinations?		
17. Have you ever gone to anyone for help about your drinking?		
18. Have you ever been hospitalized because of drinking?		
19. Has your drinking ever resulted in your being hospitalized in a psychiatric ward?		
20. Have you ever gone to any doctor, social worker, clergyman, or mental health clinic for help with any emotional problem in which drinking was part of the problem?		
21. Have you been arrested more than once for driving under the influence of alcohol?		
22. Have you ever been arrested, or detained by an official for a few hours, because of other behavior while drinking?		

E: Knowledge and perception attribute towards alcohol consumption

Instruction: The following questions are about knowledge on alcohol misuse. Please mark √ in the parenthesis ( ). Please also write down in the blank space where provided.

1. Do you think that alcohol can give harm to health?

1. ☐ No 2. ☐ Yes 3. ☐ Don't know

2. From where do you usually hear about the health effect of alcohol misuse? *(Multiple answers allow)*

1. ☐ Family 2 ☐ Friends 3. ☐ Media

4. ☐ Health care professional 5. ☐ Other (please, specify……)

3. Do you also hear about any alcohol abuse preventive program in your surrounding?

1. ☐ No 2. ☐ Yes 3. ☐ Don't Know

4. Which of the following health or health related effects may be associated with the consumption of some of the alcohol beverage?

	Associated	Likely Associated	Not associated
(1)Traffic and other accidents			
(2) low birth weight in women			
(3) stroke and sudden death			
(4)HIV and other STIs			
(5)Liver diseases			
(6)Heart diseases			
(7)Respiratory diseases			
(8)Lung cancers and other cancers			
(9)Mental illness			
(10) Gastrointestinal problems			

Perception upon alcohol consumption

Instruction: The following questions are about perception towards alcohol consumption. Please mark √ in the column for the one best answer only.
When you think that the statement is correct, click mark on Agree.
If the statement is incorrect, click mark on Disagree.
If answers cannot be decided whether agree or disagree, choose "Uncertain (N/A)"

NO.	**Statements**	Agree	N/A	Dis-agree
1	Alcohol taken straight will affect worse your health than mixed with water.			
2	Disease which causes by alcohol consumption can be easily cured.			
3	Responsible drinking can result in relaxation; enhanced social interactions.			
4	Drinking alcohol in children is unacceptable and should be prohibited.			
5	Alcoholic beverage behavior in media or important person can't pursue people to drink more alcohol.			
6	A person cannot become an alcoholic by just drinking beer.			
7	Alcohol intake enhances moment of sex			
8	Drinking isn't the individual right; can affect your environment			
9	Not drinking alcohol can get more jobs opportunities.			
10	Alcohol intake gives the sense of warmth.			

APPENDIX D

BUDGET

No	Activities	Parameter	Price (Baht)	Unit (Number x Price)	Total Budget
1	**Pre-testing**				
	Photocopy	Questionnaire	10 baht/1 Quest:	30set x 10	300
	Stationery	set	200/set	1 set	200
	Rapport Buildup and Loading food	Person	100/person	4 x 100	400
				Sub Total	900 Bahts
2	**Data Collection**				
	Photocopy Questionnaire	Quest	10baht/1Quest:	422 x 10	4,220
	Assistant Training Cost	Course/day	1500baht/day	1500 x 3 days	4,500
	Data collected interviewing cost	person	300 baht/day	4 x 300 x 14 days	16,800
	Souvenir for respondent	Set	30 baht/1 set	422 x 30	12,660
	Accommodation	person	600 baht/Day	600 x 14 days	8,400
	Transportation Cost	Trip/ Day	200 baht/ Days	200 x 14 days	2,800
	Communication Cost	Network/Tel	50 baht/ Day	50 x 14 Days	700
	Data Processing	Person	200 baht/Day	200 x 14 Days	2,800
				Sub Total	52,880 Bahts
3	**Document + Printing**				
	Paper + Printing	Page	5 baht/ page	800 pages x 5	4,000
	Copy(Exam + Final Submit)	Page	0.5baht/ page	12 x 400	2,400
	Stationery	Set	400/ set	2	800
	Binding Paper	Set	200/set	6	1,200
				Sub Total	8,400 Bahts
				Grand Total	62,180 Bahts

APPENDIX E

TIME SCHEDULE

Procedure	Time Frame (Months)									
	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12
1.Literature review										
2. Writing thesis proposal										
3. Submission for proposal exam										
4. Ethical consideration from Chulalongkorn University(CPHS)										
5. Pretest questionnaires										
6. Field preparation and data collection										
7. Data analysis										
8. Thesis writing										
9. Final thesis exam										
10. Submission of article for publication										
11. Submission of thesis										

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		Worked at YMCA (Young Men Christian Association) Charity Clinic, Yangon, Myanmar
		Volunteer Medical Coordinator
		During Cyclone Nargis in Myanmar (2008)