

**UNIVERSITY FOR DEVELOPMENT STUDIES, TAMALE**

**ALCOHOL CONSUMPTION AND KNOWLEDGE OF ITS EFFECTS  
ON MOTHER AND CHILD AMONG WOMEN OF CHILDBEARING  
AGE IN THE NANDOM DISTRICT**

**EVELYN-EDA DANGNIKU**



**2017**

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AGE IN THE NANDOM DISTRICT**

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**UDS/CHD/0091/12**

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DEGREE IN COMMUNITY HEALTH AND DEVELOPMENT**



UNIVERSITY FOR DEVELOPMENT STUDIES

**FEBRUARY 2017**

**DECLARATION**

**STUDENT**

“ I hereby declare that this thesis is the result of my own original work and that no part of it has been presented for another degree in this university or elsewhere”

Student’s Signature..... Date:.....

DANGNIKUU EVELYN-EDA

**SUPERVISOR**

I hereby declare that the preparation and presentation of the dissertation was supervised in accordance with the guidelines on supervision of the thesis laid down by University for Development Studies, Tamale.

Supervisor’s Signature..... Date:.....

DR. BABA SULEMANA MOHAMMED



## ABSTRACT

Alcohol consumption is prevalent among young women in Ghana. Many of these women are becoming heavy drinkers. Alcohol has negative effects on pregnancy and health. It is on this backdrop that the researcher carried out this survey to determine the prevalence, and the factors that affect the consumption of alcohol among women of childbearing age in Nandom district of the Upper West region of Ghana. The study, a descriptive cross-sectional, was conducted in seven health facilities providing reproductive health services in the district between the months of August and September 2014. The sample size was 200 women within their reproductive age.

The main findings of the study were that 84.3% of respondents affirmed drinking alcohol and younger women of age group 21-30 years were the majority (50.5%) among these drinkers, while married women made of 72.2%. Many women (15.1%) consumed above four bottles of standard measure of various alcoholic beverages per drinking session per day, while 21.7% drank three bottles per day per drinking session. The results also showed that only 32.8% of the women had adequate knowledge of the effects of alcohol on the fetus while majority (67.2%) did not have any idea about alcohol effects on pregnancy. However, with respect to knowledge about the effect on both fetus and mother, 33.3% of the respondents had adequate knowledge as against 66.7% who did not know that alcohol have effects on both mother and baby in pregnancy. Many of the respondents (31.8%) received the information about the negative effects of alcohol through health workers during ANC attendance.

The chi-square test on the socio-demographic characteristics and intention to stop alcohol showed that all p values were less 0.05, and education and residence had strong association on the intention to stop drinking.

It is recommended that District Health Management Team strengthen health education through social gatherings and through local FM stations in the district. Ghana Health Service to embark on vigorous school health education to sensitize the pupils and student on the harmful effects of alcohol to health.



This study is dedicated to my family members for the support and prayers, my husband Stephen Kuusoyir of his eminence support and most especially to Jude Dong-una and siblings, and to all friends and sympathizers.



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**GSS:** Ghana Statistical Service

**DHM:** District Health Management

**WIFA:** Women in Fertility Age

**SSA:** Sub Saharan Africa



## CHAPTER ONE

### 1.1 BACKGROUND

The consumption of alcohol by childbearing age women is a complex issue and a public health concern to many nations in the world today (Rehm et al 2009). Alcohol consumed by women has negative effects on both the pregnant mother and the unborn baby, although moderate alcohol intake is reported to have health benefits such as reduced heart diseases (NIAAA, 2008). Studies have also suggested a link between alcohol consumption and low mortality, (Pearson, 1996, Simons et al 2000). Besides the aforementioned evidence, it has also been strongly reported that excessive alcohol consumption by women of childbearing age has many reproductive health problems (Juhl et al, 2001). Alcohol effects during childbearing age are more serious on fetuses, and really do not matter the amount of the alcohol consumed by the pregnant women. The well-known effect of alcohol during pregnancy is the fetal alcohol syndrome (FAS) and although preventable is among the top three known causes of birth defects (CDC, 2014).

Alcohol is often part of the foods of local cultures and is used in everyday life in celebrating life events at which both young and old, men and women alike consume it (Peadon et al 2010). However, there is no recommended quantity of alcohol considered safe with clear guidelines for consumers (ICAP, 2014). Others have defined heavy drinking as taking more than three drinks a day, for women and more than four drinks, for men (NIAAA, 2008).

Many social changes might be responsible for alcohol consumption by women. According to the Institute of Alcohol Studies, (IAS, 2009) the role change of women in society contributed to their alcohol consumption habit. In recent years young women in their 20s and 30s gain financial independence early through gainful employment with little responsibilities.



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This leaves them with a high disposable income, providing the opportunity for these women to drink excessively, (IAS, 2009).

Many people, including women, drink alcohol excessively without considering the negative effects it has on their personal health, their family and the general population. Anthony et al (2015) in their study found women from Upper West Region more likely to drink alcohol and 37% of them consume alcohol 2-3 times in a day. The economic effects of excessive alcohol consumption are as damaging to the nation as the health effects affect the family, the community, and persons of all ages. The costs for health care for families with an alcoholic member are twice those for families without one, and up to half of all emergency room, admissions are alcohol related in the USA, (Burke 1988).

Alcohol consumption by women not only has physiological and social effects, it also causes family problems and disharmony.

Alcohol is a contributory factor in all marital violence cases, child molestation and about 13% of child abuse cases in the United States of America, (Burke, 1988).

With regards to the direct effect of the consumer, excessive alcohol consumption has been associated with debilitating illnesses such as liver cirrhosis (Schuppan and Afdha, 2008) and cardiovascular diseases (Djousse and Gaziano, 2008). A study by Reynaud et al, (2001) estimated alcohol related illnesses in both ambulatory and hospitalized patients to be approximately 3% and 10% respectively, costing the equivalent of 1.02\$ billion and 1.04\$ billion, respectively. This makes it important for women to be aware of the risks associated with alcohol consumption and avoid giving women oversimplified advice about drinking. Women give various reasons for alcohol consumption including reasons as calming their nerves and reducing their stress. There are reports of many other contributory factors to alcohol consumption by women, such as family history of heavy drinking, traumatic life



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events, and history of sexual abuse or eating disorders (Medicine net, 2010). Globally, 55% of women have never consumed alcoholic beverage (PMNCH, WHO, 2011) and despite this high rates of abstinence from alcoholic beverage consumption, there is high-risk pattern of women consuming alcohol in many low and middle-income countries (WHO, 2011). A study by the Ghana Organization on Fetal Alcohol Syndrome (GOFAS) in three regions of Ghana (Kunatey, 2007) estimated that the annual per capita consumption of alcohol in women was between 1.5 liters and 7 million gallons. Study has showed that 4% of women in Ghana who drink alcohol are considered heavy alcoholics (Martinez et al, 2011).

There is no working policy document on alcohol in the country regarding the consumption, importation, manufacturing and marketing of alcoholic beverages (Modern Ghana, National alcohol draft policy launch, 2009), which has led to the inconsistent information on alcohol consumption in the past decade (GSS, MOH and ICF Macro, 2009). It has also led to the proliferation of alcoholic beverages with regular advertisements on televisions, radio and on billboards, with usually women unfortunately playing important roles in such advertisements. The consumption of either local or foreign alcoholic beverages among women can lead to undesirable results such as unplanned pregnancy (Luginaah et al., 2003) and other health hazards. In Ghana, there is limited data on the dangers and risks associated with alcohol consumption during the childbearing age among women, and the factors that may influence this consumption (Ghana Health Nest, 2013). This study sought to determine the magnitude and effect of socio-demographic characteristics on the consumption of alcohol among childbearing age women in the Nandom District of the Upper West Region of Ghana.





## 1.2 Problem statement

Alcohol consumption is prevalent among young women in Ghana (Adusi- Poku et al, 2011). Evidence from the literature confirms that 12.9% of all adult women in Ghana consume alcohol and 4% of these women are heavy drinkers (Martez 2011). As reported by Colley and Evans (1997) alcohol consumption among women of childbearing age caused nearly sixty three thousand (63000) incapacities, injuries and death in the Upper East Region of Ghana and that women are more vulnerable to alcohol effects than men.

Reproductive women who consume alcohol have higher risks of birth complications and other health problems. These women in active reproductive age are not aware of the negative effects certain foods and alcohol have on both the mother and the unborn baby, (Armstrong, 2005). In addition, in Ghana little or nothing is known about the dangers and risks of Fetal Alcohol Spectrum Disorders (FASD), (Ghana Health Nest, 2013). A pregnancy exposed to alcohol has the risk of the unborn baby developing FASD that is rising in some parts of SSA and has social and economic effects, (Popova et al 2011). Further researches on women alcohol consumption in Sub Saharan Africa (SSA) reveal an increase, with Zambia and Chad reporting binge-drinking rates of 15% and 30% respectively, (Martinez et al, 2011).

Majority of the women in the Upper West region brew and sell the local alcoholic beverage popularly called 'pito' and other types of alcoholic beverages as means of earning a living and both young and old in the district, men and women alike, consume these alcoholic beverages. Alcohol acts differently in women bodies and expose them to the negative effects of alcohol than men if even they drank the same quantity of alcohol.

From the aforementioned there is a firm believe among the people that consumption of alcohol exist among women of reproductive age but there is lack of empirical data to support this claim hence the need to carry out the research.



### 1.3 Justification

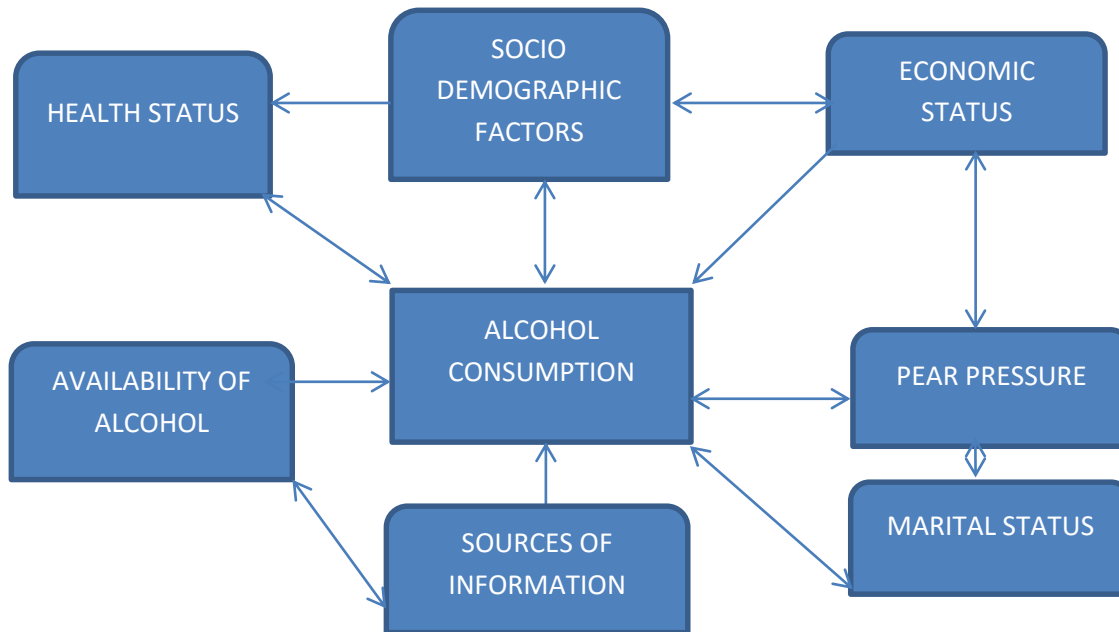
The findings of this study will expose the dangers of drinking alcohol during pregnancy to women and the general population of Nandom District and Ghana as a whole. The research was necessary to ascertain empirical evidence as to the prevailing alcohol problems among this group of women in the district.

The findings of this study would help management of the health ministry in the District to develop mechanisms and policies to educate women on the dangers of alcohol consumption especially during pregnancy.

Finally, the survey would contribute and complement the existing body of knowledge on the topic being investigated.



### 1.4 Conceptual framework



Researcher’s construct, 2015

Figure 1 Conceptual framework

The conceptual framework is the general over view of some of the factors that can contribute to alcohol consumption by women of childbearing age in the district and how these factors interact with each other. This study was conducted as shown in figure 1 above within the framework. There is no single reason why many people have problem with alcohol. There are myriad of factors that interact to influence the individual into alcoholism.

The socio-demographic factors include the age, place of residence, marital status, parity, educational background and their occupation. These factors mutually influence each other in causing alcohol abuse. The availability of alcohol in the form of advertisement, readily available in drinking pubs can also have positive influence on the individual alcohol-drinking pattern.



With likely improved adequate knowledge on the harmful effects of alcohol on the health of women of childbearing age and on pregnancy may greatly help them to make inform decision regard their alcohol intake.

### 1.5 Research Hypotheses

- There is a positive relationship between alcohol consumption and its effects on women of childbearing age.
- There is no effect of alcohol consumption on women of childbearing age.

### 1.6 Research Questions

- What is the extent of alcohol consumption among women of childbearing age in the Nandom district?
- Does the knowledge of the effects of alcohol influence the consumption of alcohol among childbearing age?
- What factors affect the consumption of alcohol among women of childbearing age?

### 1.7 General objective

To determine the factors that affects the consumption of alcohol among women of childbearing age in Nandom district.



## 1.8 Specific Objectives

1. To determine the extent of alcohol consumption among women.
2. To assess the knowledge of women on the adverse effects of alcohol consumption on childbearing.
3. To determine any association between knowledge and the consumption of alcohol by women.
4. To determine the effects of socio-demographic characteristics on alcohol consumption.
5. To determine factors that affected the intention of women to stop drinking alcohol.

## 1.9 Study location

The study was conducted in the Nandom District, situated in the Upper West region of Ghana. Created in 2012, by a Legislative Instrument (LI 2102), it shares borders to the east with Lambusie- Kani, south with Jirapa districts, and to the north and west by the Republic of Burkina-Faso.

The district covers an area of about 1,051.2 square kilometers, which is about 5.7 percent of the region's total land area, with an estimated 157 communities and 95 percent of the population living in the rural areas. Nandom district is one of the densely populated districts in the region (89 per square kilometers). Until its creation, it was part of Lawra District Assembly with the administrative capital at Lawra. The district capital is Nandom. The St Theresa's Hospital is the only Hospital in the district, one Poly Clinic, a private maternity clinic and a number of health Centers to cater for the health needs of the people. The district has two (2) senior high schools among them is the Nandom Boys Senior High School and a



Technical Vocational School. There are twenty-six (26) Junior High Schools and thirty-nine (39) Primary schools to take care of the educational needs of the children.

### 1.9.1 Population of the District

Being one of the young districts created barely four years ago, it has five sub-districts namely, Nandom sub- district, Gengenkpe, Ketuo- Puffien, Ko and Basele sub-districts. The total population is about 48,803 (DHM, 2013). The district is home largely to the Dagaaba tribe with just a few minority ethnic tribes of the Upper West Region of Ghana. The distribution of the women in fertility age (WIFA) in the district is presented in the Table1.

**Table 1 Population of the Sub Districts**

Sub District	Total Pop (2014)	WIFA (2014)
Basele	3981	938
Gengenkpe	3484	921
Ko	13186	3165
Nandom	18912	4454
Puffien	9953	2344



### **1.9.2 Vegetation/ climate**

Vegetation is the savannah dry land with temperature as high as 39<sup>0</sup> Celsius most part of the year during the day. There is one erratic rainy season in a year, which usually starts from the month of May to October with prolong dry period making farming non-lucrative to residents. The major activity of the people is peasant farming during the raining season that usually begins towards the end of the month of June. The Black Volta River runs along the north and west length of the district and shares borders with Burkina Faso. In view of this, the District Assembly is promoting dry season farming along its banks.

### **1.9.4 Organization of the Study**

The study was organized into five chapters. The first chapter looked at the background to the study, the statement of the problem, the objectives of the study and the research questions. The rest were the significance of the study, the scope of the study and the organization of the study. The second chapter reviewed the relevant literature on the subject under discussion from books, journals, newspapers, and the internet, among others. Chapter 3 contained the methodology used including the research design, the target population, the sample size and sampling procedure, the data collection instruments, the sources of data collection, administrative procedures and the data analysis.

Chapter 4 presented the results of the analysis of the data gathered, while Chapter 5 discussed the key findings in relation to reports from previous work. The final chapter contained the conclusions made from the findings and made recommendations towards tackling the alcohol consumption menace.



## **LITERATURE REVIEW**

This chapter presents a review of relevant literature on the topic under investigation. The concept of this research was refined by reviewing published works that were directly or indirectly related to the consumption of alcohol. The review, which is purely narrative, considered all article published in English and contained in PubMed, Medline and Scopus, Web of Science data bases. The search for articles was strategized to including articles that contained the key words, alcohol, consumption, childbearing aged women and adverse effects. The following discusses the state-of-the-art on alcohol, its use and effects on women and the economy as a whole.

### **2.1.1 The substance alcohol**

Alcohol according to Jean Kinney (2000) in his book, 'Loosening the Grip' is derived from the Arabic word 'alkohl'. Originally, it was a fine powder use in staining the eyelids. The word has evolved over the years to mean 'the spirit of the wine'. The alcohol consume by humans is ethanol, with the chemical structure  $C_2H_5OH$ . Unlike minerals, vitamins, and other substances, alcohol has no other nutritional value apart from calories (Kinney, 2000).

Alcohol is produced through two main processes, namely fermentation and distillation. Fermentation is an anaerobic biological process in which molecules such as glucose, fructose and sucrose are converted into cellular energy with byproducts being mainly ethanol and carbon dioxide (Kinney, 2000).

Distillation on the other hand, is a simple process where alcohol is produced by, yielding a high alcoholic content of almost 93% and was discovered by an Arabian physician called Rhazes in the 10<sup>th</sup> century (Kinney, 2000).





## 2.1.2 Types of Alcohol and Alcoholic Beverages Mostly Consumed

WHO, (2005) classified alcoholic beverages as Wines, Beer, Whisky, Rum, Brandy, Gin, Liqueurs and the locally brewed alcoholic beverages. All these alcohols are made from different raw materials in different methods.

### 2.1.2.1 Wines, beer, whisky, rum

Beer is made from cereals, like barley, wheat, corn or rye, where the mixture of the malted cereals and yeast known as wort is fermented and processed into the beer. It has been established that a 625mls, which is the average bottled beer, contains 5% of ethanol. Beer is consumed by all ages and by both men and women and it is regarded as a drink for the high class within society. Its consumption among both rural and urban population, young and old is a source of concern to health authority.

**Gin** It is white spirit flavored with juniper berries, assorted herbs and spices. It has high alcohol content of 40% to 50% and extracted from wheat or rye. Some varieties of gin are Frey Ranch gin, Dry gin, Navy strength gin, Midwestern dry gin and Westbourne strength gin among others.

**Whisky** is another type of alcoholic beverage commonly consumed in Ghana. This is fermented and distilled juice of cereals such as corn, rye or barley. Whisky is said to have originated from Scotland and the word “Scotch” is associated with good quality whisky from Scotland, (Adusi-Poku, 2011).

**Brandy** another distilled alcoholic beverage from fermented fruit juices. It contains 35-60% by volume alcohol and drunk after dinner. There are varieties across the winemaking world.



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The most popular type of brandy in the market is Cognac and Armagnac from Southwestern France, (“Brandy” BBC)

### 2.1.2. Locally produced alcohols

**Akpeteshie** is an alcoholic beverage, produced from sugar cane juice and palm wine by fermentation and distillation. The standard alcoholic content of akpeteshie is high and reported as between 40 and 50 % by volume (Adusi-Poku, 2011)). This locally produce alcohol is carried out mainly by men and do not meet the standards set by the Ghana Standards Board, who have noted that contamination of the final product, which is a reality, can occur through inefficient distillation processes, Adusi-Poku, 2011).

**Pito** is a traditional drink made from guinea corn and corn, and well associated with the people in the northern part of Ghana. However, north-south migration has led to the production of this beverage throughout the country. Pito brewing in Ghana is a major economic venture for women between the ages of 18 to 67 years in the northern parts of the country where majority of the inhabitants does not practice the Islam religion.

It is golden brown in colour with taste varying from sweet to sour and contains vitamins, proteins, sugars, lactic acids and amino acids. An average pot of pito, which has a volume capacity of about 1000 milliliters, contains about 5% ethanol (Zakpa et al, 2009). Four types of pito have been described in Ghana, which classification is according to the characteristic differences in the wort extraction and fermentation method employed. These are Nandom, Konkomba, Togo and Dagarti pito, (Zakpa et al 2009). The Nandom pito is associated with the people from the Upper West Region of Ghana particularly, the people from the Nandom district.



## 2.2 Alcohol metabolism

Several processes are involved in alcohol metabolism. The enzymes that control these processes are alcohol dehydrogenase (ADH), aldehyde dehydrogenase (ALDH), cytochrome P450 (CYP2E1) and catalase, which break the alcohol molecules making it possible for elimination from the body. ADH metabolizes alcohol to acetaldehyde a toxic and carcinogenic substance. In the second phase, acetaldehyde is further metabolized into a less active byproduct called acetate, which is broken down to water and carbon dioxide for easy elimination, (NIAAA,2007). According to Edenberg (2007), variation in the genes of these enzymes in the human body, have influence on alcohol consumption, alcohol-related tissue damage and alcohol dependence.

### 2.2.1. Gender differences in alcohol metabolism

The biological difference in alcohol metabolism between men and women make women more prone to alcohol effects no matter how small the quantity of alcohol ingested by women. Women have less of the enzyme (alcohol dehydrogenase) responsible for alcohol digestion in the stomach as such alcohol persists in the blood stream longer in women than in men (The Merck Manuel, 2009). Women biologically, have smaller volume of distribution for alcohol than men do because women have higher percentage body fat, which facilitates absorption of alcohol rapidly and increases its level in the entire body within a short period of consumption, (Cole- Harding and Wilson, 1987). These effects come together to accentuate in a woman the functional changes that alcohol causes in humans.



### 2.1.5 Uses of alcohol

Alcohol has been used as medicine since ancient times, because of its antiseptic and anesthetic properties, where it is combined with other substances to form salves and tonics in treating conditions such as knee pain and hiccups (Adusi-Poku 2011). In many cultures also, alcohol has been and continue to be used for social and ritualistic purposes including marriage ceremonies, cultural and religious celebrations. It can also be used for good fortunes and during the occasion of funerals. Alcohol has also been found and use as a compliment to certain foods and ingredient in special dishes and as a mood modification to reduce stress, feel powerful or confident, (Kunatey, 2007) as mention in Adusi-Poku, (2011).

### 2.2.0 Reasons for alcohol consumption among young women

Although a number of studies highlighting the negative effects of alcohol use by young women and pregnant mothers exist, the consumption of the substance continues to persist (Kockerit and Cavalier 2007). One major influencing factor of alcohol consumption among the youth is that the practice has been a part of social life for a long time. This practice however has disregarded the fact that almost all societies in which alcohol is consumed experience many health and social problems (McGovern, 2009). Excessive alcohol consumption is regarded as normal and acceptable by the youth during social gatherings such as naming ceremonies, funerals, festivals and feast days, which makes it difficult for societies to restrain their use (Robinson et al., 2010). Therefore, to better understand alcohol consumption and its consequences; there is the need to understand social and cultural settings within which the young find themselves. For example, Athanasakis et al. (2011) argued that in social and cultural systems in which there are loose rules governing the behavior of the people especially concerning drinking alcohol, the tendency to indulge in heavy drinking by the youth is very high. On the other hand, societies or cultures with tight systems to control



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behaviors towards drinking alcohol tend to experience low tendency to drink. According to Adams (2008), this is not exceptional about Ghana where for almost every twenty-three yards one can find a drinking spot selling all kinds of alcoholic beverages with impunity. Besides, added that subcultures also influence the drinking habits of members. For example, teenagers and peer groups shape their attitudes and behaviors around the rules and expectations of that sub-society about alcohol consumption. Thus, when the group shaped by the belief that one considered 'high' or 'a man' when he is heavily drunk, then the tendency for members of the group to adopt such attitudes especially during the period of festivities is very high.

Furthermore, studies have shown that alcohol consumption is associated with a context characterized by social and economic disadvantages (Luginaah and Dakubu, 2003). In other words, people more often drink in situations of poverty and unemployment, low education level, unstable family conditions, unstable social environments, and lack of resources and supports. The connections are complex between alcohol abuse and these other factors that affect health.

However, it is likely that when individuals do not have the tools to make a meaningful life, feel insecure in family and society, and/or do not have a sense of direction for a positive future, they may learn to use alcohol as a coping tool. For instance, Luginaah and Dakubo (2003) studied the impact of "akpeteshie" consumption among people in the Upper West region of Ghana and found chronic poverty as the main driving force of alcoholism among men. Thus, men will mostly drink "akpeteshie" to cope with the anxieties resulting from hardships. The most affected year group in alcohol consumption was between the 20 and 30 year old bracket, (NIAAA, 2008).



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It has however been found, that women tend to drink less, and mainly do so in order to socialize (Prescott and Kendler, 2001). These further reported that among women who drunk, those with problems in their marriages, such as divorced women tend to drink more alcohol than women who stayed unmarried (Prescott and Kendler, 2001).

The high illiteracy rate among women particularly in the rural areas of the developing world has also been cited to constitute a cause for the high prevalence of alcohol consumption (Adams, 2008). For instance, a study conducted in the three northern regions of Ghana puts the illiteracy rate among women as high as 60% with the majority of the number being women of childbearing age (Luginaah & Dakubo, 2003). According to these authors, women in such circumstances will find it difficult to acknowledge the negative effects of consuming alcohol during pregnancy and it will take substantial amounts of time, energy and resources to pursue aggressive education to enlighten the women on the issues related to the consumption of alcohol.

### **2.3.0 Effects of Alcohol consumption**

Alcohol consumption is associated with many conditions and high death rates among communities in some developed countries and United States is leading in death cause by alcohol consumption (Mokdad et al, 2005) and binge drinking is a common cause of alcohol-related death, (Chikritzhs et al, 2001). In the case of Ghana, studies have also indicated that a high rate of alcohol consumption and its attendant repercussions is among young women. Adusi-Poku et al. (2011) reported that as high as 20.4% of women consume alcohol during pregnancy in the Bosomtwe district in the Ashanti Region of Ghana.

Evidence from literature has confirmed that there is increasing women alcohol consumption in Ghana (Martez, 2011). According to this author 12.9% of all adult women in Ghana consume alcohol and 4.4% of these women are heavy drinkers. Furthermore, Colley and

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Evans (1997) reported that alcohol consumption among women of childbearing age has caused nearly 63000 incapacities, injuries and deaths in the Upper East Region of Ghana alone. The figures above indicate the alarming rate of the situation and represent a serious public health concern.

Many women in active reproductive age are not aware of the negative effects that certain foods and drinks, such as alcohol, have on both the mother and the unborn baby, (Armstrong, 2005). Lack of knowledge on the consequences of alcohol consumption during pregnancy has been shown to be most prevalent in developing countries (Nassar et al, 2009). Ayers et al (2009) indicated that religious messages from religious leaders could serve as reinforcement to influencing drinking behaviors in society better than the traditional indicators.

Ohannessian et al, (2004), revealed maternal involvement in alcohol consumption has consistent relationship with adolescent psychopathology such as alcohol dependency, depression and other behavior disorders. Other surveys affirmed that alcohol consumption involving both parents have repercussion of excessive alcohol consumption among sons and daughters, (Wills et al 2001). This has serious implications on the society as all these are born into the community and influence the society in one way or the other.

### **2.3.1. Effects on pregnancy**



The effects of alcohol consumption in pregnancy on the unborn child have been recognized for hundreds of years, and have been cited as miscarriages, premature births, stillbirths, and low birth weights (Robinson et al., 2010). In pregnant women, alcohol can be carried to all of the mother's organs and tissues, including the placenta, where it easily crosses through the membrane separating the maternal and fetal blood systems. When a pregnant woman drinks an alcoholic beverage, the concentration of alcohol in her unborn baby bloodstream is the same level as her (Boots, 2004).

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According to Daley et al. (1998), who studied two separate animal models of prenatal alcohol and nicotine exposure, there is a compelling evidence to suggest that alcohol consumption has a high-risk during pregnancy. Children born to mothers who consume alcohol during their pregnancy have characteristic facial features including small palpebral fissures, smooth philtrum and thin vermilion border of the upper lip. Such children have many developmental problems including growth retardation, and central nervous system structural and/or functional abnormalities (CDC, 2009).

In Chang and co-workers' (2005), study in the USA revealed a good number of pregnant women had knowledge about the harmful effects of alcohol in pregnancy and health yet pregnant women and women of childbearing age continue to drink alcohol. Other finding such as Ford, (2013) revealed that rural women dominated among women in alcohol consumption in Scotland. Abbey, (2002), argued that the quantity and frequency of alcohol consumption could predict the likely health consequences that one may encounter later in life.

According to Athanasakis et al., (2011) high intake of alcohol has been associated with hypertension as well as increased incidences of respiratory difficulties, including asthma in the offspring. May and Gossamer (2011) indicated that the use of alcohol during pregnancy may also result in an increase in sensitivity to environmental allergens therefore bringing about an increased risk of allergic inflammation in the offspring. Alati et al., (2008) demonstrated that for children born from pregnancies exposed to alcohol have a higher risk in early alcohol consumption in their life.

Kockerit and Cavalier (2007) indicate that alcohol is much more dangerous to the unborn child than to the mother. A study in France also revealed that exposures to legal substances that are more commonly used during pregnancy, such as alcohol and nicotine, have been





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shown to have both short- and long-term effects on the developing baby (Colley & Evan, 1997).

Adams (2008) has also found that consequences of prenatal exposure to alcohol through use as beverage by women who have attained the childbearing age include behavioral and reproductive abnormalities, increases in susceptibility for later developing mammary cancer, and alterations in reproductive systems. In his view, understanding the rate at which pregnant women consume certain beverages is particularly important, as the list of beverages that contain alcohol is growing and can pose health risk to the developing fetus. He further indicated that researchers must strive to identify the causes of consuming alcohol and proposed that preventative instructional measures be taken by prenatal care providers to teach pregnant woman about the dangers of foods containing alcoholic substances (Adam, 2008).

Research has also revealed that the amount and the duration of alcohol ingestion, the developmental stage of the embryo and fetus have a direct link with the effects of ethanol on the fetus, (Martinez-Frias et al. 2004).

In the view of Abdel-Latif et al., (2007), the severest effect of alcohol on the fetus is a constellation of varying physical and cognitive abnormalities called Fetal Alcohol Syndrome (FAS) whilst if it is less severe, it is referred to as Fetal Alcohol Effects (FAE). After birth, cognitive deficits become apparent, with the most serious manifestation being severe intellectual disability (Dowdily et al., 2007).

Alcohol consumption during pregnancy endangers the infant's physical and mental health and is associated with a wide spectrum of disorders: behavioral problems (including increased risk of distractibility, low attention span and slow reaction times), birth defects (heart, brain and other organs), learning disabilities (including intellectual disabilities) and low birth weight, facial birth defects, small head Pre-term birth. Others include sleeping and



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sucking problems, speech and language delays and vision or hearing problems, (May & Gossamer, 2011).

### 2.3.2 Effects on the woman

Moderate alcohol consumption among women is associated with fewer risks of heart diseases such as stroke, weakening of the bones and risks of breast cancer and liver problems, but excessive alcohol consumption patterns increases the risks of psychiatry disorders and intimate partner violence and sexual assault, Sharon et al., (2014) . Many married women drink alcohol without considering its teratogenic effects and other health conditions. Kinney, (2000) reported excessive drinking among married women. Meanwhile Ying et al., (2013) have demonstrated a strong association between breast cancer and the consumption of alcohol between menarche and first pregnancy. Excessive alcohol consumption has both immediate and long-term adverse effects on the brain and has been shown to be influenced by sex and age (Neiman, 1998). This is further supported by studies which have shown that excessive alcohol consumption by women makes them prone to sexual violence, (Abbey et al., 2004). Further work has confirmed this by demonstrating that women with problem drinking are more likely to report experiencing unwanted sexual advances, (Pino and Johnson-Johns, 2009). This sexual abuse and assault may come from intimate partners or someone outside the family, (Connor et al. 2009). These authors revealed in their study that about 7% and 3% of New Zealand men and women respectively reported being assaulted the previous year, with 1% of women reporting sexual assault. Because women in societies have accepted alcohol consumption as a normal activity, they need science- based information to help them decide when to drink and what amount of alcohol could be considered beneficial to health. Ayer and co-workers (2009) identified religious messages as reinforcement that can influence drinking behaviors.



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Analysis from literature so far has clearly shown that alcohol consumption by women who have attained the age of child bearing has disastrous consequences on their health. Women in their reproductive age, who become pregnant at the ages between 30 and 40 years, are likely to drink alcohol than younger women. This is evidenced by the finding that up to 17.7% of women between ages 35- to 44 years consumed alcohol during pregnancy in the United States, (Denny et al 2009). Women who consume alcohol excessively are at risk of other health conditions, such as has been described by Jimenez et al, (2012). These authors revealed that excessive alcoholism in women has higher risk of stroke than those who drink moderately (approximately one drink a day). Among the health problems encounter in women who consume alcohol is liver diseases. According to Eagon, (2010), women are more likely than men to develop liver cirrhosis and other liver conditions because of alcohol consumption.

Also Epstein et al., (2007), indicated that excessive alcohol consumption (averaging multiple drinks per day) increase the risk of fractures from falls. Borges et al., (2006), in their report of a study involving 28 hospital emergency-departments, revealed that the risks of injury in women occur rapidly and were associated with alcohol consumption 6 hours before the injury.



A survey in Sydney, Australia affirmed the great danger of injury of women who drink alcohol more than 90 grams in the 6<sup>th</sup> hour before injury, (Williams et al 2011). Excessive and hazardous alcohol consumption by women (more than 3 standard drink per day or more than 7 drinks per week), (NIAAA, 2015) have been shown to increase the chances of multiple recent injuries, which nearly doubles among such drinkers than in light to moderate drinkers (Chavez et al., 2012). In a study conducted in five U.S colleges showed a direct relationship

with alcohol consumption pattern ([www.udsspace.uds.edu.gh](http://www.udsspace.uds.edu.gh) (number of days of drinking five or more drinks) and recent injury among women (Mundt et al, 2009).

Nevertheless, what is making it difficult to eradicate or reduce the incidence of alcohol consumption among young women? There have obviously been challenges associated with the efforts made to address the issue as reviewed below. Women who drink alcohol are prone to many alcohol induced medical conditions. A study in Missouri in the USA confirmed an increased risk of AUDs in women who drank alcohol before attaining age 18 (Jenkins et al, 2011).

### **2.3.3 Effects on the family**

Family structures become more complex, growing from the traditional nuclear family to single-parent families, stepfamilies, foster families, and multigenerational families. Therefore, when a family member abuses substances such as alcohol, it affects the family structure (Wilinski, 2009).

Generally, the effects of alcohol consumption are wide ranging including physical, psychological, and economical (Klingemann, 2010). The first effects of excessive alcohol consumption are physical. These are of more importance because they can cause death of both the consumer and other unsuspecting victims. For example, excessive alcohol consumption before menarche among women can cause cancer of the breast (Ying Liu et al 2013) as well as brain, kidneys, and liver cancer (Alcohol Research and Health, 2003) that may lead to death. Besides, it has been indicated that alcohol consumption alters the digestion of nutrients that the body needs to stay healthy (Lyndsey et al. 2009). According to Robinson and Hassell (2008), alcohol is often a factor in homicides and suicides; thus, crimes caused by individuals influenced by alcohol put a strain on the criminal justice system, and inflict costs for police officers, legal fees, and property repair.



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Another negative effect of alcoholism as observed by Rutter and Quinton (2008) is psychological. The authors argued that at the beginning, alcohol makes you feel relaxed, but if you drink it in excess, it increases anxiety and causes depression. It also causes family and legal problems, violence, changes of behavior, including suicidal tendencies, among others. Alcohol is very powerful and alters all the bodies' normal behaviors (Mokdad et al 2005). Van Divest (2000) argued that in comparison with non-alcoholic families, alcoholic families demonstrate poorer problem-solving abilities, both among the parents and within the family as a whole. The communication problems many contribute to the escalation of conflicts in alcoholic families.

The levels of dysfunction and resiliency of the non-alcoholic adults are important factors in effects on children in the family (Silverstein, 1990). Children of untreated alcoholics score lower on measures of family cohesion, intellectual-cultural orientation, active-recreational orientation, and independence. They have higher levels of conflict within the family, and many experience other family members as distant and non-communicative. In families with untreated alcoholics, the cumulative effect of the family dysfunction may affect the children's ability to grow in developmentally healthy ways (Copake, 2009). Furthermore, Gellman (1993) argued that children of parents who consume excessive alcohol are more likely than children of non-alcoholic parents to be aggressive, impulsive, and engage in disruptive and sensational seeking behaviors.

Incest and battering are common in families of alcoholics as reported by Werner, (2003), that almost 30 percent of father – daughter incest cases and 75 percent of domestic violence cases involve a family member who is an alcoholic. Incest and battering victims often blame themselves for what has happened because they feel so guilty, ashamed, and helpless, and may turn to drinking as the way to escape the pain

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Berger (1993) further indicated that the effects of substance abuse frequently extend beyond the nuclear family. Extended family members may experience feelings of abandonment, anxiety, fear, anger, concern, embarrassment, or guilt; they may wish to ignore or cut ties with the person abusing substances. Some family members even may feel the need for legal protection from the person abusing substances. Moreover, the effects on families may continue for generations.

Again, according to Wilinski, (2009) intergenerational effects of substance abuse can have a negative impact on role modeling, trust, and concepts of normative behavior, which can damage the relationships between generations. For example, the author argues that, a child with a parent who abuses substances may grow up to be an overprotective and controlling parent who does not allow his or her children sufficient autonomy.

Also in his contributions on the effects of alcohol on the family, Brecklin (2012) indicated that the effects of alcohol consumption are seen in the daily routine of persons in the family. In other words, a likely consequence of problem drinking is that the drinker's behavior becomes unpredictable, and naturally, this makes it very difficult for the family as a whole to plan anything or to stick to familiar routines. Will he or she be in a fit state to collect the child from school? Clearly, this sort of constant uncertainty can be highly disruptive. This helps to explain a commonly found paradox in the families of problem drinkers: that while the problem drinker may be withdrawing from the family, by no longer playing their routine roles, they turn to dominate the family.

Secondly, Wekesser, (2004) contended that the daily roles of the various family members can be affected negatively by alcohol consumption. Alcohol misuse tends to change the roles played by family members in relation to one another, and to the outside world. Most families operate some form of division of labour, one person managing the family's finances, the other



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supervising the children, one doing the gardening, the other doing the cooking, and so on. However, as one member of the family develops more of a drink problem, the other members are likely to find themselves having to take over his or her role themselves. This means that eventually, one member may be performing all the roles, finances, disciplining, shopping, cleaning, household management, and so on.

Again, rituals regarded as special occasions can also suffer negatively due to excessive alcohol consumption (Kellerman and Templeton 2003). Thus, these occasions are especially important precisely as they help cement family relationships; some of the occasions include Christmas celebrations, birthdays, weddings and so forth. Werner (2003) noted that alcohol could play an important part in special occasions within the families and can disrupt these occasions. For example, the occasion may be overlooked or forgotten - a child's birthday for example – resulting in plans and preparations made at the last minute and minimal. Other family occasions may be avoided, as one parent seeks to hide a situation from the rest of the family, or the occasions may be spoilt as a problem drinker seizes the opportunity to drink more freely as it is a 'special occasion'. According to Werner (2003) at family gatherings, children may become tense and nervous, keeping a watchful eye over the parents or simply be upset and embarrassed by an incident that will inevitably happen – arguments breaking out.



Excessive alcohol consumption can also affect communication among people and disrupt healthy relationships. According to Downs & Miller, (2004), one area of family functioning often affected by alcohol and alcohol misuse relates to the kind of communications that takes place between family members. It may be that the partners with the problem refuse to talk about it, even though it is clearly beginning to dominate their lives and the lives of their families.

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In a study conducted by Abele (2008) on the effect of excessive alcohol consumption on the family it was found that 25% of participants said the partner or person they lived with become irritated because of the other partners' drunkenness or behavior. They also reported that 12% said they had started intense arguments or fights with their partner because of drinking alcohol. Besides, children rose in families where other members abuse alcohol or are addicted to it and other substances are at a high risk of being physically and sexually abused (Klingemann, 2010). Families with one or more members suffering from disorders related to drug abuse frequently demonstrate a transmission pattern of drug abuse and other associated psychiatric disorders across multiple generations, such as antisocial personality disorder and pathological gambling. In the view of Kroll & Taylor (2007), pathological behavior is a risk factor favoring the existence of psychiatric and clinical disorders in parents and siblings of alcohol users. High levels of social and cross-cultural stress also play a role in the development and perpetuation of the disorder due to alcohol effects on the family, the society and the economy as a whole.

#### **2.3.4 Effects on the economy**

According to the National Institute on Alcohol Abuse and Alcoholism, drug abuse and dependence cost an estimated \$98 billion (NIAAA, 2007). Alcohol is not cheap; drinking two or three times in a week, could cost about \$1000 or more a week as in the study of Brecklin, (2012) People do not think about the money and spend almost everything when they are drunk. Discussing the economic implications of excessive alcohol consumption, Brecklin (2012) mentioned seven major effects of alcohol consumption. One of the major economic implications of alcohol overuse is the cost of drunk driving. The National Road Safety Commission of the USA reported that alcohol-related motor vehicle crashes killed someone every day and non-fatally injured someone every two minutes (NHRSA, 2012). In 2012,





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nearly 16,885 people in the country died in alcohol-related motor vehicle crashes, comprising 39% of all traffic-related deaths, (Brecklin, 2012). Another large portion of the cost to the economy is the impact on employers by their alcohol-abusing employees. Health care costs have already skyrocketed, and because of the increased risk of medical problems with alcoholics, these individuals will incur higher health care costs. Absenteeism is another issue among alcoholics for employers. This is derived from the fact that, because of poor health, hangovers, or other alcohol-related problems, alcohol abusers are more likely to miss work than many of their co-workers (Robinson & Hassell, 2008).

According to Robinson & Hassell (2008), loss of productivity is a strain businesses have to manage with employees that abuse alcohol. Even if an alcoholic is present at work and not drinking, their performance at work is often compromised by hangovers, health complications, lack of focus, or psychiatric issues (Kroll and Taylor, 2007). Lost productivity also includes lost earnings resulting from work missed due to alcohol-related illness or disease. The lost productivity that results from alcohol abuse is difficult to measure precisely because of the lack of data on goods and services not produced (Lyndsey, Fergusson, & Hopwood, 2009).

There is also the issue of associated medical costs. Health-related costs include the costs of treating alcoholism and alcohol dependency, as well as the medical costs of treating alcohol-related diseases, such as cirrhosis of the liver, infectious diseases and also injuries sustained through accidents while drunk (Burke, 2013). These treatments have been estimated to be around billions of US Dollars, which are often passed on to employers who may have to take higher health insurance premiums (Baumberg, 2006).



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The authors further noted that alcohol abuse also imposes costs on the criminal justice system. Law enforcement officials and legal authorities spend millions investigating and prosecuting alcohol-related offenses, including drunken driving and alcohol-fueled violence.

Premature deaths resulting from alcohol abuse are another category of economic cost. This area is the subject of controversy because it involves assigning a monetary value to human life.

Some estimates measure the cost in terms of lost future earnings resulting from premature deaths, absenteeism and unemployment, (Baumberg, 2006)

#### **2.4 Types of alcoholic beverage and frequency of consumption by women**

Alcohol consumption used to be the eighth highest ranked risk factor in health in the early 1990s and now fifth ranked risk factor since 2010 (Lim et al 2010). According to Abbey, (2002) one is prone to negative alcohol effects depending on the frequency and quantity the person consumes.

Traditional local alcoholic beverages are popular in Africa (WHO, 2004) and tend to be cheaper than factory-made drinks and common among poorer population groups. A study by Albertsen et al., (2004) on alcohol consumption during pregnancy and the risk of preterm delivery among Danish women showed that majority of pregnant women drank wine (71.0%) followed by beer (11.5%), and spirit (0.9%), while most of the women took a mixture of drinks (16.7%). The consumption of either foreign or local alcoholic beverages such as wines, whiskeys or the locally produced pito and liquers (Alomo bitters, Kasapreko, Striker, Pusher or Ginseng) and gin (Akpeteshie) among women can lead them to undesirable and unplanned pregnancy (Luginaah et al, 2003, Adusi-Poku et al., 2011).



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Greenfield and Graves (2002) in their study on the preference of alcoholic beverages among native and African-American urban women revealed that the Native American women prefer beer (accounted for one-third) and spirit (one-quarter) of their total intake. The African-American women in the study preferred malt liquor and spirit, each accounting for one-quarter of their intake approximately.



## **METHODOLOGY**

This chapter of the report describes the methodology used to gather the relevant data to answer the questions posed in the research. It describes the study site and population and the methods used in sampling study participants. The methods used for data collection and techniques of data analysis are also described

### **3.1 Study Type**

The study was a prospective cross sectional evaluation of the alcohol consumption pattern among childbearing women and their knowledge on the effects of the alcohol on pregnancy. This design approach was chosen to obtain primary data, thus ensuring quality. The study was conducted between August 2014 and December 2015.

### **3.20 Study area**

Data was collected from seven (7) health facilities that were randomly selected from 12 static facilities located throughout the Nandom district. These include the district hospital, one Polyclinic, a private maternity home and 4 health centers.

The district has twelve static health facilities. Seven health facilities were randomly selected, based on quota and convenience techniques. Each of the health facility visited was apportioned specific number of respondents. In facilities where the number of respondents was more than the required number, a systematic random sampling method was used, and where the respondents were less all eligible respondents were interviewed.



### 3.1.3 Study design and sample size determination

The study was designed as cross sectional descriptive study that collected quantitative data from participants utilizing the seven selected facilities. Data was collected with the aid of structured questionnaires administered to women of child bearing age that met the inclusion criteria of the study and willing to participate after they were adequately informed of the study.

The number of women to be included in the study was estimated to be 200 using the formula:

$$n = \frac{t^2 \times p(1-p)}{m^2},$$

where, n= number required to be recruited

t= is the value for normal distribution assuming a 95% confident level at 1.96 critical value.

p= is the prevalence rate of alcohol intake by child-bearing women (11.9%)

m= is the margin of error (0.5%)

Taking a 95% confidence interval and 11.9% as the prevalence of alcohol consumption among women of child –bearing age, and 0.5% margin of error, the sample size (n) was arrived at below

$$\frac{(1.96)^2 \times 0.13(1-0.13)}{0.05^2} = 174$$

In order to compensate for recording and responding error the sample size was increased by 15% of the calculated value giving 200 respondents for the study. Based on the population of



the women in fertility age (WIFA) in the various sub-districts selected, a proportionate allocation of the number of participants to be recruited for each study site was arrived as presented in Table 2.

**Table 2 Sample allocation according to facilities (WIFA)**

Facility	Quota
Baseble Sub district Clinic	16
Gengenkpe Sub district Clinic	14
Ko Sub district Poly Clinic	54
Nandom Sub District Clinic	20
St Theresa's Hospital	40
Puffien Sub District Clinic	40
Good Shepherd Maternity Home	16

*Field survey, 2015*

#### 3.1.4 Data collection tool

Both open and closed ended questionnaires were administered to 200 respondents; two of the questionnaires were not included in the analysis because respondents were overaged. The questionnaires were designed in sections that were intended to gather responses for corresponding objectives of the study (Appendix 1). Section A of the questionnaire contained questions that sought information on the socio-demographic characteristics such as educational level, occupation and marital status, of the participants. Section B contained questions to probe respondents of their alcohol consumption habits. In addition, questions on the types and quantity of the alcohol one can drink in a day, awareness of the negative effects of alcohol on health and some possible effects on the unborn baby in uterus and health were asked. The final questionnaires were obtained after an initial draft was prepared and pre-



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tested. Pre-testing was carried out in Fielmon a community in the Sissala West District of the Upper West Region, which has similar demographic characteristics to check for consistency, clarity and acceptability of the questions and corrections made.

### **3.1.5 Inclusion criteria**

For a woman to be included in the study she was to have been of childbearing age and should have resided in Nandom district for at least 6 months prior to the study. The minimum and maximum age limits for respondents were from 15 to 49 years respectively. The women within the study criteria could either be married or not married, and religion did not determine the inclusion of a participant.

### **3.1.6 Exclusion criteria**

Women were excluded from the study if they were severely ill and were above 50 years old. Those who resided in the district for a period that was less than six months were also excluded from the study. Menopausal women and childbearing age women who were not willing to take part were not included in the study.

### **3.1.7 Sampling procedure**

The researcher and a trained research assistant administered the questionnaires. On the day of the data collection, at the study site, women who had visited the facility were randomly selected using a set of computer-generated numbers from 1 to 100. The researcher approached each respondent and explained in a language that was understood by the respondent, what the study was about. The consent of the participant was then sought for them to be part of the study. The participant was only recruited into the study if she freely agreed to take part. After the respondent indicated her free intention of participating, each question was read to her and interpreted, for her responses to be used in completing the form. Each respondent was involved in the study for a maximum of 20 minutes.



### **3.1.8 Definition of variables and their measurement**

Knowledge was defined as the information available to respondents about the effects of alcohol on health. On the effects of alcohol on fetus and pregnancy, it was measured by series of questions that were categorized into ‘adequate’ if respondents were able to mention at least two correct effects and ‘inadequate’ when it was less than two correct answers. To the consumer respondents’ knowledge was categorized adequate if 4 to 8 correct answers were mentioned and inadequate if less than four answers.

### **3.1.9 Data handling and storage**

Each questionnaire was numbered serially and coded without names of participants indicated to maintain anonymity. The identification number was kept throughout and the coded data entered into statistical software, Statistical Package for Social Sciences (SPSS) version 20 (Illinois, USA). All data entered onto the software was checked visually, cleaned, and password protected. For safety, data were stored on laptop with backup storage and pen drive.

### **3.1.10 Ethical considerations**

Approval for the conduct of the research was obtained from the Ethical Committee of the University for Development Studies School of Medicine and Health Sciences. Further the study was also approved by the Regional Health Directorate Wa and the District Health Management Team of the Nandom district. In applying for the approval, the study protocol, participant information sheet and a consent form were submitted for review of the various ethics committees. In the participant information sheet, participants were assured of confidentiality of data and that, the information collected was purely for the purpose of the study.





### **3. 1.11 Analysis of data**

The data obtained from the survey and entered into SPSS were analyzed and the results presented as frequencies and summarized using means with standard deviations or medians with ranges where appropriate. Results were presented with the aid of tables and figures to enhance explanation. The Chi-square test was used to test for any associations between socio-demographic characteristics and alcohol consumption among the women. The socio-demographic characteristics included; age, marital status, educational level, residential address, occupation and religious affiliation. The chi square test was also used to assess the effect of the women's knowledge on alcohol consumption. A p-value less than 0.05 was considered statistically significant.

### **3.1.12 Limitation of the study**

Many societies and other religious groups in Ghana look down on women who consume alcohol and this made it difficult for women to openly discuss their drinking habits, which could have affected the responses they offered. Besides, participants could not, with certainty, quantify the amount of alcoholic beverages they consumed which made it difficult to adequately assess the economic implications of the consumption of alcohol.



## **RESULTS**

The presentation of the results has been done in accordance with the specific objectives of the study. Starting is the socio-demographic characteristics of respondents, their alcohol consumption pattern and the knowledge and awareness of the effects of alcohol.

### **4.1.0 Summary characteristics of participants**

#### **4.1.1 Socio-demographic characteristics respondents**

.Of the 198 women interviewed for the survey, their ages ranged from a minimum of 15 to a maximum of 49 years. Married women included in the study were 72.2% while 27.8% were not married and more than half (62.6%) had no formal education. Most respondents (70.2%) dwelled in rural communities, and 29.8% lived in urban centers. Christians (78.3%) were majority of the survey participants followed by Traditionalists (16.7%). Moslem (4.5%) and Freethinker (0.5%) were the minority groups.

The mean age of the respondents was 29.2years with standard deviation of 7.9 while the modal age was 25 years and the median age was 27 years. The mean age for married women among the respondents was 30.8 years and standard deviation of 7.7. Among the single women, the mean age was 25.1 years and standard deviation of 7.0. The mean age for those who had some form of education was 28.5 years and standard deviation of 8.1 and that of those without any form of education the mean age was 29.7 years with standard deviation of 7.8. Table 3 below is a summary of the Socio-demographic characteristics of all participants.



**Table 3 Socio- demographic characteristics of respondents**

Variable	Frequency	Percentage
<b>Age</b>		
15-20	25	12.6
21-30	100	50.5
31-40	52	26.3
41-50	21	10.6
<b>Education</b>		
None	124	62.6
Junior High School	7	3.5%
Senior High School	26	13.1%
Vocational Institution	12	6.1%
Tertiary Institution	29	14.6%
<b>Occupation</b>		
Homemaker	64	32.3%
Trader	16	8.1%
Farmer	37	18.7%
Career Woman	40	20.2%
None	41	20.7%
<b>Residential status</b>		
Urban	59	29.8%
Rural	139	70.2%
<b>Marital status</b>		
Yes	143	72.2%
No	55	27.8%
<b>Religion</b>		
Christian	155	78.3%
Moslem	9	4.5%
Traditionalist	33	16.7%
<b>Delivery record</b>		
Previously delivered	142	71.7%
Nulliparous	56	28.3%
<b>Pregnancy outcome</b>		
Live babies at term	128	64.6%
Preterm delivery	2	1.0%
Spontaneous abortion	5	2.5%
Still birth	7	3.5%

*Field survey, 2015*



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In all, 167 (84.3%) of the respondents affirmed they drink alcohol. The highest age groups that were recruited in the study were 21-30 year group (100) 50.5%, followed by the 31-40 year group (52) 26.3%. The 15-20 year group constituted (25) 12.6% with the least being the 41-50 year group (21) of 10.6%.

Majority of the respondents (143) 72.2% were married women as against (55) 27.8% for the single women. Considering education among respondents, women without formal education were the highest (124) 62.6%, tertiary (29) 14.6%, and senior high graduates (26) with 13.1%. The rest are vocational (12) 6.1% and junior high school graduates (7) 3, 5% the least.

In terms of occupation, homemakers who had some form of economic ventures were (64) 32.3%; followed by none that is women without any form of economic venture and are single or married (41) made up of 20.7%. Professionals within the inclusive criteria formed (40) 20.2% of respondents, farmers (37) 18.7% and traders (16) made up of 8.1% the least. The rural women (70.2%) found to be the majority of respondents as compared with (29.8%) urban dwellers. Among all religious groups of women of childbearing age who took part in the study, Christians (155) 78.3% were the majority, traditionalists (33) 16.7% and Moslem woman interviewed were 4.5%.

The thrust of the study centered on studying the knowledge of reproductive women on the effects of alcohol intake on childbearing women. It was imperative to unearth the obstetric history of the women selected for this survey. From the survey (142) 71.7% women said they had delivered before and (56) 28.3% were nulliparous. As seen in Table 3 above (128) 64.6% of women had delivered live babies at term (2) 1.0% premature delivery and 3.5% (7) had stillbirth. Women who had spontaneous abortion constituted 2.5% (5) of all deliveries among respondents.

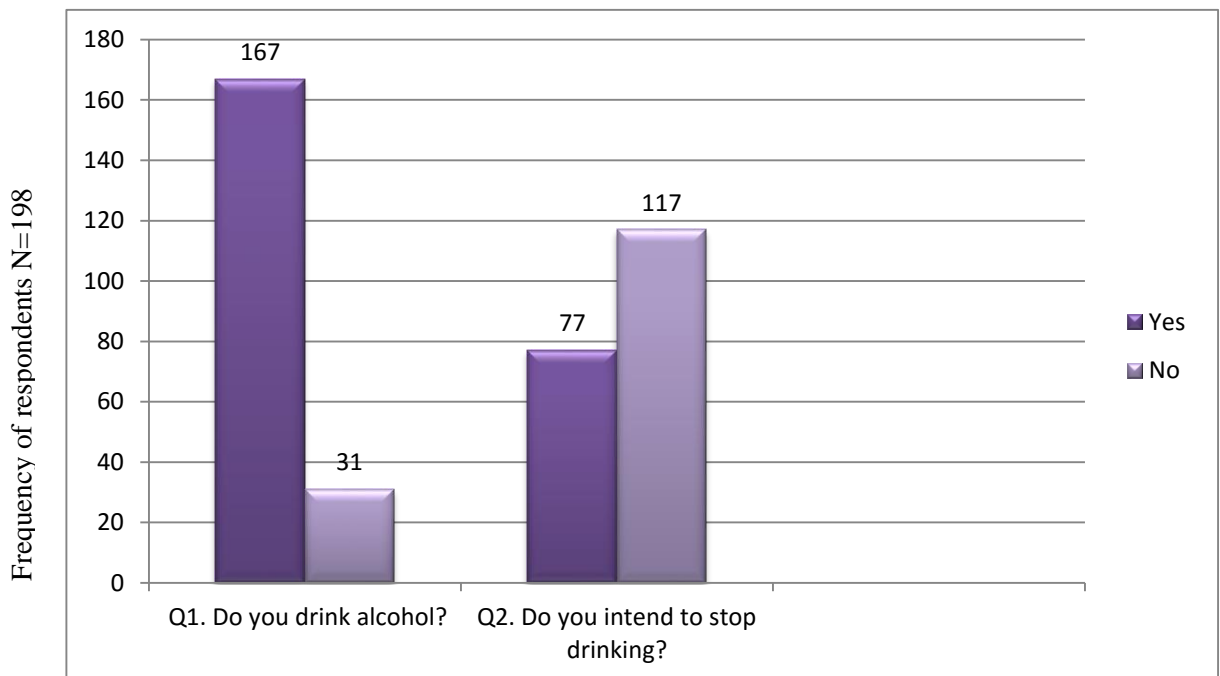


#### 4.1.2 Alcohol Consumption among Women

##### 4.1.3 Respondents' alcohol consumption

All respondents interviewed answered both open and closed ended questions concerning their alcohol consumption behavior and knowledge about its harmful effects. Responses to the various questions presented in bar charts and tables

**Figure 2 Respondents' alcohol consumption**



##### *Field survey, 2015*

Respondents answered to a “Yes” or “No” predetermined parameters set out to uncover the prevalence and patterns of alcohol consumption of respondents. Find above in figure 2 the details of the data arrived at in this section. In total, 84.3% (167) of respondents indicated yes for drinking alcohol in their life, 15.7% (31) said they do not consume alcohol, while majority of respondents 59.1%, (117) do not want to stop drinking.

The researcher was interested to know how much of alcohol these women can consume in a day per drinking session. Below in table 4 is the summary of responses

**Table 4 Quantity of alcohol consumption**

How often do you drink alcohol?	Frequency	Percent (%)
1 bottle a day	31	15.7
2 bottles a day	63	32.2
3 bottles a day	43	21.7
4+ a day	30	15.1

*Field survey, 2015*

#### **4.1.3 Quantity and frequency of alcohol consumption**

Some women of childbearing age affirmed drinking various quantities of alcohol at drinking session per day. Results in table 4 above showed 15.1% of women consumed above four bottles of standard measure of various alcoholic beverages per drinking session per day, while 21.7% of women drank three bottles per day per drinking session.

#### **4.1.4 Types of alcoholic beverages drunk and venue preferred at one drinking session**

It was prudent for the researcher to know the type of alcoholic beverages these women prefer drinking and why. Several open-ended questions were posed to unearth their choices of alcohol consumed per drinking session per day. The responses categorized in table 5 as shown below.



**Table 5 Types of alcohol consumed and the preferred venue at a session**

Type of alcohol	Frequency	%
Beer, Pito and Guinness	66	33.3
Akpeteshie, Gin and Guinness	21	10.6
Gin only	6	3.0
Pito and Guinness	49	24.7
Guinness only	9	4.5
Shandy only	12	6.1
Akpeteshie or Gin	4	2.3
<b>Preferred venue to drink</b>		
Social gathering	59	35.3
Drinking spot	44	22.2
Privately	64	38.3

*Field survey, 2015*

In all responses, 33.3% affirmed that they drink beer, Guinness and the locally brewed “pito” at a drinking session. Another group 10.6% drinks Guinness, gin and the local alcoholic beverage “akpeteshie” and 24.7% women drink Guinness and “pito”. Some women 3.0% drink gin and 4.5% consume Guinness only. The rest 6.1% drink only shandy while 2.3% drinks akpeteshie or gin respectively. The women who consume alcohol indicated the preferred places they enjoy drinking alcoholic beverages as shown in the table 5 above.

**4.1.5 Duration of alcohol consumption by age grouping**



Again, the researcher wanted to determine at what age each respondent started drinking alcoholic beverages. Below in table 6 are responses from respondents. Women between the ages of 21-30 years (47.3%) started drinking alcohol early in their life and continue to drink, followed by 31-40 (26.9%). The least group (10.7%) were the 41-50 years.

**Table 6 Duration of alcohol consumption by age grouping**

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	<b>1 but less than</b>	<b>5 but less than</b>	<b>More than</b>	<b>%</b>
<b>Age of respondents</b>	<b>5yrs</b>	<b>10yrs</b>	<b>10 yrs.</b>	
15-20	15	3	7	14.9
21-30	31	31	17	47.3
31-40	10	14	21	26.9
41-50	3	7	8	10.7

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*Field survey, 2015*

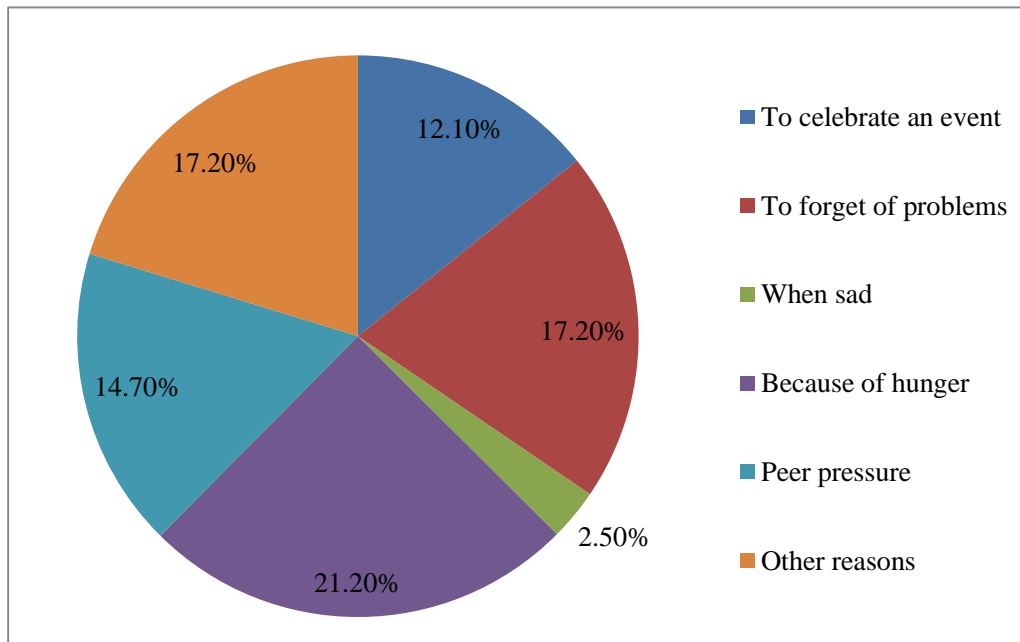
#### **4.1.6 Reasons for alcohol consumption**

To unfold the reason(s) why women of childbearing age consume alcohol some questions were posed with several options to choose from. Question such as “Why do you drink alcoholic beverages”? (1) To celebrate an events (2) To forget of problems (3) When sad (4) Because of hunger (5) Peer pressure (6) Others (include for pleasure, availability of drinks and can afford to buy the drink).





**Figure 3 Reasons for alcohol consumption**



*Field survey, 2015*

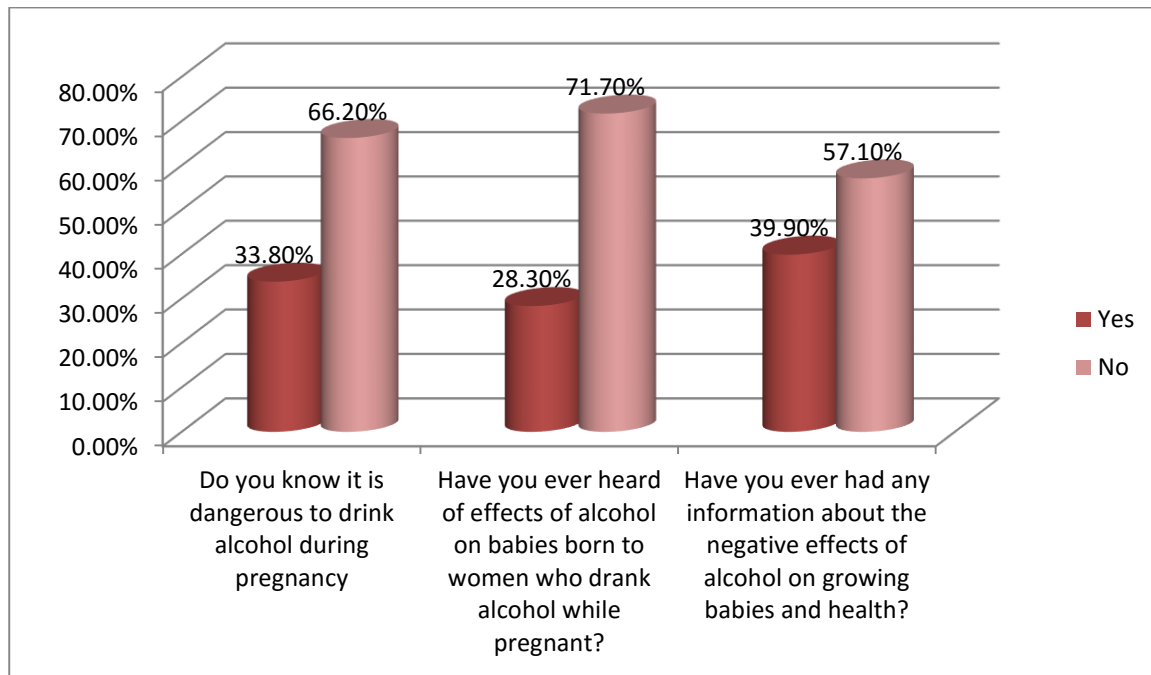
In their responses, 12.1% drink to celebrate events, 17.2% to forget of their problems while 2.5% of women drink alcohol when sad. In addition, 21.2% of women responded that they consume alcohol anytime they were hungry and 17.2% have various reason(s) for drinking alcoholic beverages. Those who drink due to peer pressure formed 14.7%. Figure 3 above showed the summary of responses.

#### **4.1.7 Knowledge and awareness of effects of alcohol**



The knowledge of respondents on the possible dangers associated with drinking alcohol was assessed by asking for right responses to a set of questions on the adverse effects of alcohol. Their responses categorized and presented in bar chart and tables as below.

**Figure 4 Knowledge and awareness of the effects of alcohol on pregnancy**



*Field survey, 2015*

More than half of respondents, 66.2% do not know the dangers of alcohol intake on reproductive women particularly when pregnant, while 33.8% had some knowledge about the detrimental effects of alcohol on pregnancy. Additionally, 57.1% of women responded that they had no information on the adverse effects of alcohol on the babies.

**4.1.8 Knowledge on the effects of alcohol on fetus and pregnant woman**



The researcher went further to probe their knowledge on alcohol effects by asking more questions for their responses as shown in table 7 below.

In assessing the women’s knowledge about the effects of alcohol on the fetus, the responses were scored based on stating up to three effects. These were scored from 0 to 3, and categorized into “adequate knowledge” if a woman mentioned at least two correct effects, and “inadequate knowledge” when she stated less than two effects. The results showed that only 32.8% (65/198) of the women had adequate knowledge of the effects of alcohol on the



fetus. Concerning respondents' [www.udsspace.uds.edu.gh](http://www.udsspace.uds.edu.gh) knowledge about the effects on the woman, there were 53.6% (106/198) who had adequate knowledge. However, with respect to knowledge about the effect on both fetus and mother, fewer women (33.3 %) of the respondents had adequate knowledge, while majority (66.7%) did not know alcohol was dangerous to both mother and baby during pregnancy.

**Table 7 Knowledge of effects of alcohol on fetus and woman**

<b>Knowledge of effects on woman</b>	Frequency	Percentage
Adequate knowledge (3 to 5 correct answers)	106	53.6
Inadequate knowledge (0 to 2 correct answers)	91	46
<b>What are the effects of alcohol on babies/ fetus?</b>		
Adequate knowledge (3 to 5 correct answers)	65	32.8
Inadequate knowledge( less than 2 correct answers)	133	67.2
<b>Knowledge on the adverse effects of alcohol consumption</b>		
Adequate knowledge (4 to 8 correct answers)	103	52
Inadequate knowledge (0 to 3 correct answers)	95	48
<b>Are you aware that it is dangerous drinking while pregnant?</b>		
Yes	66	33.3
No	132	66.7

*Field survey, 2015*

#### **4.2.0 Effects of alcohol consumption**

##### **4.2.1 Effects of alcohol on the woman and family**

Alcohol consumption can have effects on the individual as well as the family. To establish this fact varied questions were posed for responses from individual participants. Below in

table 7 are responses from participants on the effects of alcohol on the drinkers and their families.

Twenty-eight women (14.1%) confirmed they have had injuries resulting from recklessness occasioned by the drinking of alcohol while 72.2% indicated they have never had alcohol-induced injuries. The injury include 6.1% stubble and fell after alcohol consumption, 4.0% of the women fell from bicycles and 3.0% of the respondents had other (kitchen accident, abdominal discomfort, hung over) form of injuries resulting from alcohol consumption.



**Table 8 Showing response to other effects of alcohol on the woman and the family (N = 198)**

<b>Characteristics</b>	<b>Number (%)</b>
<b>Injury from alcohol consumption</b>	
Yes	28 (14.1)
No	143 (72.2)
<b>Type of injury</b>	
Fall when trying to walk	12 (6.1)
Fell from a bicycle	8 (4.0)
Others (Headache, weak, disoriented)	6 (3.0)
<b>Unprotected sex under alcohol influence</b>	
Yes	44 (22.2)
No	154 (77.8)
<b>Violet under alcohol influence</b>	
Yes	25 (12.6)
No	173 (87.4)
<b>Spousal compliant about drinking</b>	
Yes	38 (19.2)
No	160 (80.8)
<b>Domestic problem from drinking</b>	
Yes	43 (21.7)
No	128 (64.6)

*Field survey, 2015*



**Type of Domestic problems**

Financial problem	5(2.5)
Child neglect	8(4.0)
Disharmony among family members	30(15.2)

**Feeling after drinking alcoholic**

High	33 (16.7)
Loss of senses	17 (8.6)
Sad	2 (1.0)
Weak, Vomiting, Headache	116 (58.6)

**Feeling of guilt after drinking**

Yes	42 (21.2)
No	158 (78.8)

**Hospital because of drinking**

Yes	5(2.5)
No	193(97.3)

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**Field survey, 2015**

Asked if any of the respondents had ever had unprotected sex because of alcohol, 22.2% affirmed ever had unprotected sex under the influence of alcohol and 12.6% reported violent behavior induced by alcohol drinking.



On the other hand, 19.2% women revealed their husbands do not support their drinking habit and have made several complains, 80.8% of them said their husbands do not have any problems with them drinking and have not shown any sign of discomfort with their spouses drinking habit. Among the respondents, 15.2% reported that their alcohol consumption ever caused problems among family members, 4.0% reported child neglect and 2.5% financial problems.

As to whether respondents self-fulfill with their known act of drinking alcohol, 21.2% of women indicated they feel some degree of guilt when drinking. This suggests that these women in principle believe alcohol intake has moral issues and therefore not very comfortable drinking. The remaining 78.8% women do not feel any shame in drinking.

Excessive alcohol consumption is associated with some form of ill feelings, asked how they feel after consuming alcoholic beverages, 16.7% confirmed they feel high, 8.6% loss their senses, 1.0% become sad after drinking alcohol and 58.6% have varied ill feelings after drinking alcohol. Some of the ill feelings resulted in 2.5% ending up in hospital as shown in the table 7 above.

#### 4.2.2 Information on the Effects of Alcohol

The researcher was interested in knowing the sources of information pertaining to the effects of alcohol, which they indicated actually exist. The responses of the participants summarized in table 9 below.

**Table 9 Source of information**

	<b>TV</b>	<b>Radio</b>	<b>Reading</b>	<b>Health providers</b>	<b>Parents</b>	<b>Total</b>
<b>Frequency</b>	16	42	30	63	16	167
<b>Percent (%)</b>	8.1	21.2	15.2	31.85	8.1	84.3

*Field survey, 2015*

Out of 198 respondents, 31.8% heard about the negative effects of alcohol through health providers; 21.2% through the radio broadcast; 15.2% through reading while 8.1% through parents and television respectively.



#### 4.3.0 Factors affecting alcohol consumption

##### 4.3.1 The influence of socio-demographic characteristics on alcohol Consumption

The results of the chi-square analysis indicated that all the measured sociodemographic characteristic were significantly associated with the consumption of alcohol. Education influenced the consumption of alcohol in the sense that more of the participants who had no form of education drank ( $p = 0.007$ ). In terms of occupation, with 30.3%, women who were housewives drunk more compared with those in other occupations ( $p = 0.002$ ). More of the women who were married drank alcohol than those who were single (64.1 vs. 20.2 %,  $p = 0.005$ ). More of those drank were Christians, with 67.2% ( $p < 0.001$ ). Place of residence also influenced the consumption of alcohol, as more rural compared with urban women drank (73.0 vs 26.9%,  $p = 0.042$ ).





**Table 10 Socio- demographic characteristics and alcohol consumption**

	Do you drink alcohol?				Total	X <sup>2</sup>	P-Value
	Yes		No				
	N	%	N	%			
<b>Education</b>							
JHS	6	3	1	0.5	7		
SHS	19	9.6	7	3.5	26		
Vocational	11	5.6	1	0.5	12		
Tertiary	19	9.6	10	5.1	29		
None	112	56.6	12	6.1	124	<b>14.13</b>	<b>&lt;0.007</b>
<b>Occupation</b>							
House wife	60	30.3	4	2.0	64		
Trader	12	6.1	4	2.0	16		
Farmer	33	16.7	4	2.0	37		
Carrier woman	35	17.7	5	2.5	40		
None	27	13.6	14	7.1	41	<b>16.92</b>	<b>&lt;0.002</b>
<b>Marital Status</b>							
Married	127	64.1	16	8.1	143		
Single	40	20.2	15	7.6	55	<b>7.78</b>	<b>&lt;0.005</b>
<b>Religion</b>							
Christian	113	67.2	22	11.1	135		
Moslem	2	1.0	7	3.5	9		
Traditionalist	31	15.7	2	1	33		
Free thinker	0	0	1	0.5	1	<b>29.03</b>	<b>&lt;0.001</b>
<b>Resident</b>							
Rural	122	73.0	17	10.2	139	<b>4.14</b>	<b>&lt;0.042</b>
Urban	45	26.9	14	8.4	59		

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**Field survey, 2015**

### 4.3.2 The influence of knowledge on the consumption of alcohol

Knowledge about the adverse effect of alcohol on the fetus only and the mother only was not associated with the consumption of alcohol. However, knowledge that alcohol adversely affects both mother and fetus was significantly associated with the consumption of alcohol, where more of those with adequate knowledge consumed alcohol, compared with those with inadequate knowledge of the effects ( $p = 0.023$ ).

**Table 11. The effect of knowledge about the adverse effects of alcohol and its consumption**

Effect	N (%) Adeq Know.	N(%) Inadeq. Know.	P value
Fetus	57 (33.5%)	113 (66.5%)	0.780
Woman	95 (55.9)	75 (44.1)	0.097
Woman & Fetus	93 (54.7)	77 (45.3)	0.023

*N = Number of participants who drink alcohol and have adequate or in adequate knowledge.*

### Field survey, 2015

#### 4.4.0 Intention to stop

##### 4.4.1 Knowledge of negative effects of alcohol and intension to stop drinking

Of the 169 participants who drank alcohol, 52 representing 30.8 % indicated their intention stop drinking. In exploring factors that may influence the intention to stop drinking, the chi-square test of association was conducted as presented in Table 12.



**Table 12 Knowledge of negative effects of alcohol and intention to stop drinking**

	<b>Intention to stop alcohol consumption</b>				Total	X <sup>2</sup>	p-value
	Yes		No				
	N	%	N	%			
Had information on negative effects of alcohol on health and babies	79	39.9	113	57.1	192	18.96	< 0.001
Ever heard of effects of alcohol on babies born to alcoholic women	56	28.3	142	71.7	198	20.26	< 0.001
Aware that it is dangerous drinking alcohol in pregnancy	67	33.8	131	66.2	198	12.72	< 0.001

**Field survey, 2015**

The further analysis shows that the intention to stop alcohol has a strong association with information obtained on the negative effects of alcohol on pregnancy and babies born to alcoholic mothers with p=0.000

**4.4.2 Demographic Characteristics and Intention to stop alcohol Consumption**

A test of the effect of demographic characteristics on the intention of the woman to stop drinking indicated significant associations between the variables (all p values were less than 0.05). More of those who did not have formal education intended to stop (15.2%), and those who resided in rural areas intended to stop (21.7%).



**Table 13 Socio- Demographic characteristics and Intention to stop alcohol consumption**

	Intention to stop alcohol					X <sup>2</sup>	P-Value
	Yes		No		Total		
<b>Education</b>	N	%	N	%			
JHS	4	2	3	1.5	7	40	<.000
SHS	12	6.1	14	7.1	26		
Vocational	8	4	4	2	12		
Tertiary	24	12.1	5	2.5	29		
None	30	15.2	94	47.5	124		
<b>Residential</b>							
Rural	43	21.7	96	48.5	139	13.97	<.001
Urban	35	17.7	24	12.1	59		
<b>Occupation</b>							
House wife	14	7.1	50	25.3	64	35.66	<.000
Trader	7	3.5	9	4.5	16		
Farmer	6	3	31	15.7	37		
Carrier woman	26	13.1	14	7.1	40		
None	25	12.6	16	8.1	41		
<b>Marital Status</b>							
Married	47	23.7	96	48.5	143	9.18	<0.002
Single	31	15.7	24	12.1	55		
<b>Religion</b>							
Christian	62	31.3	93	47	155		
Moslem	9	4.5	0	0	9	19.08	<037
Traditionalist	7	3.5	26	13.1	33		
Free thinker	0	0	1	0.5	1		

**Field survey, 2015**

The researcher was also interested in knowing the respondents alcohol consumption behavior and their intention of stopping alcohol consumption. The results from the further analysis shows, that there is very strong and significant association of the various demographic variables and the intension to stop alcoholic beverages (p<0.05).



## **5.0. DISCUSSION**

As has been stated in earlier chapters of this report, this study was conducted with the aim of assessing the knowledge of childbearing age women in the Nandom district on the likely harmful effects of alcohol consumption. The data was gathered between 6<sup>th</sup> August to 3<sup>rd</sup> October, 2014 using self-developed questionnaires. The chapter discusses the key findings of the context of already published data.

### **5.1 Socio- demographic Characteristics of Respondents**

The prevalence of alcohol consumption among women of childbearing age in the Nandom district was estimated to be 84.3% and the highest age group of drinkers was those women within the age group 21-30 years. The prevalence of alcohol consumption as observed here is high when compared with the 18% estimated among Ghanaian women in the Ghana Demographic and Health Survey conducted in 2008, (Ghana Statistical Survey, 2008). The difference between the current finding and that of the national survey could be due to the fact that the current study was located within a district which is known for its high alcohol consumption, at least reported for men (Luginah and Dakubu. 2003).

Tampah-Naah et al (2015) in their study found women from Upper West Region more likely to drink alcohol and 37% of them consume alcohol 2-3 times affirming the findings by Luginah and Dakubo (2003) that alcohol consumption is high among inhabitants in the region. The high level of alcohol consumption among the women could also be due to the lack of sustainable economic ventures and high unemployment in the district. Sometimes, these women consume alcohol for purpose of socializing with their peers as affirmed by the results of the survey that 14.7% of the women drank alcohol because of peer pressure as



affirmed by Abdel Latif et al ([www.udsspace.uds.edu.gh](http://www.udsspace.uds.edu.gh)) (2007). In their work, they stated that subcultures have influence in the drinking habits of members, yet 12.1% of them drank because they wanted to celebrate an event. The district is highly noted for pito a locally brewed alcoholic beverage and other alcoholic beverages are readily available to them. Beside, these women are always present at social occasions where these drinks are readily served. Others drank alcohol due to hunger (21.2%) while 17.2% drank to forget of family problems and other social pressures respectively. Rutter and Quintor (2008) observed that many people derived psychological satisfaction from alcohol consumption as affirmed by the results of this survey where 17.2% respondents drank alcohol in order to forget certain family pressures. Alcohol is also used as mood modification to reduce stress, feel powerful or confident as in the survey of Kunatey, (2007) mentioned in Adusi-Poku (2011).

Also women who lived in rural dwellings made up 70.2% of those who consume alcohol. This is consistent with the study by Ford (2013) on understanding of the use of alcohol in pregnancy amongst women in Scotland. The author reported that rural women dominated among women of alcohol consumption in Scotland. In the current study, there was a high illiteracy rate, which also linked with high alcohol consumption. The high illiteracy rate found among the alcohol-consuming women is supported by Adams (2008) who reported that high illiteracy rate among women in rural areas in developing world was a cause for high prevalence of alcohol consumption.

In the study being reported, it was revealed that younger women of the age group 21-30 years were the majority (50.5%) among alcohol consumers. Age has been shown to have an effect on the consumption of alcohol among women. However, this was not the case in our findings. The effect of age on alcohol consumption has been demonstrated in an earlier work by NIAAA, (2008). The authors of this reported also cited the age group between 20 and 30 years as the age brackets in which most women drink alcohol. It is not so clear why women



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in this age category drink alcohol. It is however known that, women in this age group represent the active youth, are usually full of energy, and may want to explore whatever the society throws at them including life styles that may let them have a sense of belonging to their peers. This age group is young and strong with less responsibility and can carry out any miniature job that can earn them money. According to Adams (2008) alcohol use in events such as ceremonies, festivals, funerals and feast days are acceptable in society and hence, difficult to restrain its use. Most at times, the youth patronized these events. This may explain the reason for which they form the largest group among the women who drink.

The reason for which majority of the youth involve in alcoholism could partly be due to that, many societies regard excessively alcoholism among the youth as normal during ceremonies like funerals, festive occasions and feast days where alcoholic beverages are readily available for consumption (Robinson et al 2010).

Married women (64.1%) were the majority of those who consumed alcoholic beverages. There was a significant association between marital status and alcohol consumption ( $p < 0.005$ ). This is in line with the longitudinal study by Prescott and Kendler, (2001), Yaw Adusi-Poku (2011) and Kinney (2000) who found strong associations between marital status and alcohol consumption and that most alcohol consumption by women takes place during occasions such as ceremonies, funerals, festivals etc. (Robinson et al 2010). They however, stated that women with problems with their marriages tend to drink more alcohol. One could also say that those women who drank alcohol had various reasons for doing so and among them, was to forget of problems.

Religion was also found to have association and predictive on alcohol consumption. Ayers and others (2009) in their study found religion and religious messages as one of social reinforcement that religious leaders and institutions could use to influence drinking



behaviors. It is obvious from the results of the current study that the prohibitions that make up the completeness of the values of a given religion is a strong determinant of how the followers would behave. It was seen in this study that Christians drunk more than Muslims.

## **5.2 Extend of alcohol consumption among women**

It was found out in this study that about 15.1% of women consume more than four bottles of alcoholic beverages per drinking session per day. Majority of women who drank alcoholic beverages (33.3%) preferred Star or Club beer, Pito and Guinness at a specific drinking session. Other group of women (24.7%) preferred the locally produced pito and Guinness. The preference of locally manufactured alcoholic drinks is consistent with the report by World Health Organization (WHO, 2004) on the global status on alcohol, that traditionally produced alcoholic drinks are very popular, particularly in Africa more especially in poorer populations. The women who viewed their alcohol drinking positively and important, may not stop drinking alcohol during pregnancy. Those who said they do not drink alcohol in the study, probability were aware of social expectations that they stop drinking during pregnancy and responded by abstaining.

According to the Global report, these locally produced alcoholic beverages have high alcohol content and can easily be contaminated with lethal substances like car battery resulting in blindness, illness and death of consumers. This has been reported in some African countries such as Kenya, Zimbabwe, and Somalia, (WHO, 2004).

Again, the mixture of drinks by these women is consistent with the study by Albertsen et al (2004) who found that Danish women (16.7%) took a mixture of drinks. The combination of different types of alcohol with varied alcoholic content and strength can lead to alcohol abuse and can have adverse effect on the unborn child if the woman is pregnant because no amount of alcohol is considered safe (Kinney, 2000).





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These women who consume several alcoholic beverages per drinking session are likely to take in a high volume of alcohol as compared to those who take one type of alcoholic drink. This finding is different from the study by Adusi-Poku (2011) which indicated that 50.6% of pregnant women in the Bosumtwi district preferred the locally manufactured alcoholic beverages such as Akpeteshie, Pito and Palm wine. They took Akpeteshie and the liqueurs in 'half- tot' and 'tot' per drinking session respectively. Martez (2011) found increasing number of women (12.9%) consuming alcohol in Ghana with 4.4% of these women becoming heavy drinkers.

About 38.3% of these alcohol consumers prefer to take it privately. This finding is supported by the work of Boots (2004) who when studying women in substance abuse found that women in most Western countries have long abused substances such as alcohol in private. It has also been demonstrated that such habits exposes the bodies of these women to alcohol related harmful conditions (Sharon et al., 2015). About 21.2% of respondents in the current study affirmed that they drank alcohol because of hunger. This attitude gives the impression that an attempt is made by the consumers of this substance to replace food that will provide the necessary materials for the building of the body, which should normally be a balance diet, with alcohol. As a result, the ignorance of the women with regards with nutritional statutes is exposed. It has been reported that alcohol per se has no nutritional value apart from calories, (Kinney, 2000).

### **5.3 Knowledge and Awareness of Effects of Alcohol**

The research results revealed that 66.2% of the women had no knowledge about the effects of alcohol on pregnancy while over 70% never heard of the effects of alcohol on babies born to alcoholic women. This was in line with the study by Nasser et al. (2009) on maternal alcohol consumption and the effects on fetal growth that indicated lack of knowledge of the effects of alcohol on pregnancy. The authors also reported that the unavailability of material on the

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effects of alcohol in developing countries could be a contributory factor to the high number of women without knowledge on the subject matter. Although majority of respondents (53.6%) had adequate knowledge on the adverse effects of alcohol on women, a relatively few of them (32.8%) knew that alcohol has detrimental effects on the fetus if pregnant women drank it, while majority (67.2%) could not mention any possible effects of alcohol on babies. When asked the question about information of alcohol effects on babies only 28.3% had adequate knowledge but could not mention any possible effect. In the current study, 39.9% had information on the harmful effects of alcohol on babies. This may seem a bit out of place if there should be a prevalence of alcohol consumption as we have estimated. However, having knowledge has been shown not to deter women from drinking as is reported in survey in USA by Chang et al (2006). The authors revealed that a good number of pregnant women had knowledge of the harmful effects of alcohol on pregnancy and health yet women continued to drink

The relatively poor knowledge about the effects of alcohol on babies could have stemmed from the lack of formal education in majority of respondents. More than half of the women (62.6%) interviewed had no formal education. Therefore, educating these women on the harmful nature of alcohol can only be effective through radio discussion or face-to-face oral education in the local language. On the effects of drinking on the woman, the study revealed that about 78.8% of the women who drank do not feel guilty of drinking, while 22.2% do have unprotected sex under the influence of alcohol. Pino and Johnson-Johns, (2009) in their study found that women with problem drinking experience unwanted sexual advances. Of those who drank alcohol, 21.7% of the women experienced various kinds of problems at home. Among such problems included disharmony among family members and other effects. According to Robinson and Hassel (2008), individuals influenced by alcohol, consumption is often a factor in homicides and suicides and other crimes. The psychological effects of



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alcoholism as stated in Rutter and Quinton, (2008) increases the anxiety and causes violence and behavior changes including suicidal tendencies. A family member involve in alcoholism often affect family cohesion ( Silverstein, 1999) as indicated by Berger (1993) that extended family members might experience abandonment, anxiety, fear, embarrassment or guilt and wish to cut ties with their relation.

Some of the women (31.9%) revealed that they received education on the detrimental effects of alcohol from health providers during antenatal clinic attendance, 21.2% got the information through radio discussions, 15.2% through reading and a small number (8.1%) received the information from their parents. The study showed that knowing that alcohol had adverse effect on both mother and fetus was associated with intake of alcohol, where more of women who had the right knowledge drank. Such an association is not clear on the face of the study. Studies have shown that alcohol intake during pregnancy and even after can affect the development of the child (Copake, 2009). It has been demonstrated that children from families where alcohol is consumed excessively have destructive and sensational seeking behaviors (Gellman, 2009).

#### **5.4 Intention to stop alcohol consumption**

Generally, there was a low level of intension to stop drinking alcohol among the women. It was surprising that even more of women who have information on the negative effects of alcohol on their health and babies' did not intent to stop. There was no ready reason for this observation except that it is most likely that these women did not have a deeper appreciation of the far-reaching implications of these negative effects. It could also be that there is an overriding influence of the poverty in the area, which acts strongly against their will to stop. This assertion is coming from the backdrop that the intension to stop consuming alcoholic beverages is associated with an individual's economic status (Elgar et al, 2005). For instance in an area such as the one in which this study was conducted, high poverty levels will redirect



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the little resources of the inhabitants into drinking, which is one way many see as a means to forget their problems. Additionally poorly resourced communities may even take drinking of alcoholic beverages as a means of meeting their food requirements. As has been shown in this study, over 21% of the women drank alcohol in the district because of hunger. Luginah and Dakubu, (2003) who said people more often drink in situation of poverty and unemployment have also reported this. Also low level of education, unstable family conditions, unstable social environments and lack of resources and support could be the driving forces to women involvement in alcoholism in the district. Tampah-Naah and co-workers (2015), who revealed that women within the middle and rich wealth quintiles of the society were less likely to initiate alcohol consumption compared to the poor wealth quintile women, had earlier noted this assertion. The result of this study has revealed that those women who attained some form of education are likely to be in better economic state and in better position to make informed decision about the effects of alcohol consumption on health. These are all supposed to invoke a high sense of willingness of these women to stop, but this is not what we observe.



## **CONCLUSION AND RECOMMENDATION**

### **6.1 Conclusion**

The current study was undertaken to assess the knowledge of women of childbearing age on the effects of alcohol. A survey was conducted using a questionnaire to gather data, which were analyzed in the SPSS. Base on the findings of data analyzed, the following conclusions and recommendations were arrived at:

There was a high prevalence of alcohol consumption among the women (84.3%), with women in the 21-30 year group being the highest among the alcohol consumers. These age groups are in their active reproductive ages and have the tendency to continue reproduction beyond these ages. Most women (70.2%) who consume alcohol dwell in rural areas

About 15.1% of women drank more than four bottles of alcohol per drinking session per day and 33.3% prefer Beer, Guinness and Pito. The combination of alcoholic beverages at a drinking session exposed these women to alcohol abuse and its rippling effects on their health.

There was poor knowledge (62.6%) among the women about the effects of alcohol on both the pregnant women and their unborn babies. The knowledge gap on alcohol effects may expose these women to continue to drink alcohol even when they are pregnant. Most of the women received the information of the detrimental effects of alcohol from health officers through the antenatal visits and through other media.

Majority of women who consume alcoholic beverages were married (64.1%). Occupation, marriage and religion influenced the consumption of alcohol.



All variables such as education, type of resident, occupation, marital status and religion strongly affected the intention to stop alcohol with  $p < 0.05$ .

## 6.2. Recommendation

**Health Officers:** Most respondents received the information about the effects of alcohol through health officers during antenatal visit. There should be a policy document on alcohol consumption and adopted by all health facilities to enhance concise transmission of messages on harmful alcohol consumption. All health personal should have training and proper planning of health education programs and undertake vigorous health education in all social gathering. This should be carried out in collaboration with the District Health Management Team and Ghana Health service. The health education should involve all local FMs stations in the district using the local dialect for wider listening audience.

**District Health Management Team and Ghana Education Service:** The DHMT should collaborate with GES to embark on education of school pupils and students on the harm alcohol can cause to health and pregnancy. These health educations should be supervised for quality of content.

**District Administration:** The district should have effective programs on Free Compulsory Universal Basic Education to increase the girl child enrolment to reduce the percentage of reproductive women without basic education in the district.



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## QUESTIONNAIRES

Dear Respondent

You are invited to be part of this study, which is a student project work on knowledge of the effects of alcohol consumption among women of childbearing age. Please kindly answer the questions as directed in each section. All information would be kept as confidential as possible. Your refusal to take part of this study will not affect the treatment you would receive, and you also have the right to withdraw from participation in this research at your own will at any time.

### SECTION A: - DEMOGRAPHIC DATA

1. Age .....

2. Educational background

- a. JHS
- b. No formal education
- c. SHS
- d. Vocational
- e. Tertiary

3. Residence



- a) Rural
- b) Urban

4. Occupation

- a. House wife
- b. Trader
- c. Farmer
- d. Carrier woman
- e. No

5. Marital status

- a. Married
- b. Single

7. Which of the religious domination do you belong?

- a. Christian
- b. Moslem
- c. Africa traditional religion

**SECTION B: - OBSTETRIC HISTORY**

8. How many times have you delivered?

- a. Previously delivered
- b. Nulliparous

9. If previously delivered what was the outcome?

- a. Delivered live babies at term
- b. Premature delivery
- c. Still birth
- d. Spontaneous abortion

**SECTION C: -PREVELANCE AND PATTERNS OF ALCOHOL CONSUMPTION**

10. Do you drink alcoholic beverages?

- a. Yes
- b. No



11. If yes how often do you drink?

- a. Monthly or less
- b. 2 to 4 times per month
- c. 2 to 3 times per week
- d. 4+ times per week

12. Where do you prefer to take this/ these drink(s)?

- a. Social gatherings
- b. Drinking spot
- c. Privately

13. Do you intend to stop drinking alcoholic beverages?

- a. Yes
- b. No

14. Which of the following alcoholic beverages do you prefer most?

- a. Beer
- b. Akpeteshie
- c. Gin
- d. Pito
- e. Guinness
- f. Shandy

16. How many bottle(s) of drink (s) can you drink in a day?

- a. Beer ..... bottles
- b. Akpeteshie.....totts
- c. Gin... totts
- d. Pito..... pots
- e. Guinness.....bottles
- f. Shandy.....bottles

17. How long have you been drinking?

- a. Between 1 and less than 5 years



- b. Between 6 and less than 10 years
- c. 11 years and above.

18. Why do you drink alcoholic beverages?

- a. Peer pressure
- b. To celebrate an event
- c. To forget of problems
- d. When sad
- e. Because of hunger
- f. Others

19. How do you feel after taking alcoholic beverages?

- a. Feel high
- b. Loss of senses
- c. Sad
- d. Others

20. Have you ever had injury because of drinking alcohol?

- a. Yes
- b. No
- c. Others

21. If yes what type of injury?

- a. A fall when trying to walk
- b. Fell from a bicycle
- c. Knock down by a moving vehicle
- d. Others

**SECTION D: - EFFECTS OF ALCOHOL CONSUMPTION ON FAMILY**

22. Do you ever drink to get drunk?

- a. Yes



b. No

23. Have you ever had unprotected sex while under the influence of alcohol?

a. Yes

b. No

24. Have you ever become violent while drinking?

a. Yes

b. No

25. Does your spouse (or parents) ever worry or complain about your drinking?

a. Yes

b. No

26. Has your drinking ever cause problems at home?

a. Yes

b. No

27. If yes what type of problem

a. financial difficulty

b. child neglect

c. Disharmony among family members

28. Do you ever feel guilty of your drinking?

a. Yes

b. No

29. Have you ever ended up at the hospital because of your drinking?

a. Yes

b. No

**SECTION D; KNOWLEDGE AND AWARENESS OF EFFECTS OF ALCOHOL**

31. Are you aware that it is dangerous drinking while pregnant?

a. Yes



b. No

32. Have you ever heard of any effects of alcohol on babies born to women who drank alcohol while pregnant?

a. Yes

b. No

33. If yes, to the above, mention the defects.

.....  
.....

34. In which way(s) do you think alcohol can affect pregnant woman?

.....  
.....

35. What are the effects of alcohol on babies/ fetuses?

.....  
.....  
.....

36. Have you ever had any information about the negative effects of alcohol on growing babies and health?

a. Yes

b. No

37. If yes to the above, through which media? (You can tick more than one)

a. Through the radio

b. Through TV

c. Reading from books and news papers

d. Through health Officers

e. Parents



**SECTION E: - PERCEPTION OF WOMEN ABOUT ALCOHOL CONSUMPTION**

38. Do you feel ashamed taking alcoholic beverages?

- a. Yes
- b. No
- c. Unconcerned

39. How do you think society perceives your drinking?

- a. Respect your views
- b. Disrespect your views

**THANK YOU**

Serial number.....Signature/Thump  
print.....



