ALCOHOL USE IN GHANA

A Situational Analysis





GhNCDA

Ghana Non-Communicable Diseases Alliance

A Report Submitted to:

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List of Abbreviations

Acquired Immunodeficiency Syndrome	AIDS
Age-Standardized Death Rates	ASDR
Alcohol-Attributable Deaths	AAD
Alcohol-Attributable Fractions	AAF
Alcohol Liver Disease	ALD
Baraka Policy Institute	BPI
Cardiovascular Diseases	CVDs
Civil Society Organizations	CSOs
Corona virus disease of 2019	COVID-19
Cost, insurance, and freight	CIF
Daffiama-Bussie-Issa	DBI
Disability-Adjusted Life Years	DALYs
Economic Committee of West African States	ECOWAS
Food and Drugs Authority	FDA
Ghana Demographic and Health Survey	GDHS
Ghana Living Standards Surveys	GLSS
Ghana NCD Alliance	GhNCDA
Ghana Revenue Authority	GRA
Heavy Episodic Drinkers	HED
Human Immunodeficiency Virus	HIV
International Monetary Fund	IMF
Member of Parliament	MP
Ministry of Health	MoH
Motto Traffic and Transport Department	MTTD
National Alcohol Policy	NAP
National Health Insurance Scheme	NHIS
Non-Communicable Diseases	NCDs
Okwaikwei North	OKN
Overall	OVR
School Health and Education Programme	SHEP
Sustainable Development Goals	SDGs
Universal Health Coverage	UHC
Value Added Tax	VAT
Vision for Alternative Development	VALD
World Health Organization	WHO

Executive Summary

Globally, alcohol consumption has been on the ascendancy, reaching per capita consumption of 6.4 litres in 2016 from 5.4 litres in 2005. Unsurprisingly, as many as 200 health conditions (including liver diseases, road injuries and violence, cancers, cardiovascular diseases, suicides, tuberculosis, and HIV/AIDS) are linked to alcohol use globally. Indeed, as many as 3 million deaths annually are attributed to alcohol use, making it one of the leading causes of overall morbidity and mortality rates globally. In Ghana, alcohol consumption per capita reached 2.7 litres in 2016. Moreover, 9.4% of Ghanaian adults engage in binge alcohol consumption. Indeed, alcohol use disorders in Ghana was 4.1% in 2016, above the World Health Organization (WHO) Africa region average of 3.7%. Such is the extent of the risk and burden the use of alcohol poses to the overall health of Ghana's population. Furthermore, alcohol consumption in Ghana is largely dominated by men: 12.7 litres per capita alcohol consumption among alcohol consuming men, and 7.3% of Ghanaian men have an alcohol use disorder. About 74% of the adult population are past year alcohol abstainers, with 84.3% of all being women.

Meanwhile, the regulatory environment for the control of alcohol consumption, surprisingly, had been fragmented until March 2017, when the National Alcohol Policy-NAP (2016) was launched to provide a consolidated regulatory direction. Its implementation, however, has been far from expectations. Ensuring effective control and regulation of alcohol consumption is a function of adequate and relevant information on the menace to guide workable policies and interventions. Obtaining such policy-relevant information requires robust research to generate critical evidence for use by the Ghana National Alcohol Commission and other key stakeholders in devising alcohol-related policy. Consequently, the current study on alcohol use in Ghana, commissioned by the Ghana NCD Alliance (GhNCDA), is relevant and timely. The study, among others, provides comprehensive evidence, touching on all the ecosystems of alcohol use in Ghana and reviews the legal and policy context of alcohol abuse prevention. The study leverages existing studies, as well as primary and secondary data to provide a holistic assessment of the socio-economic impact of alcohol use in Ghana. The study provides support for the passage of National Alcohol Regulations for Ghana and evidence-based public health oriented alcohol policy solutions.

The study, among other things, found that alcohol consumption, although low, relative to WHO Africa region, poses a significant threat to public health and the economy at large. Alcohol use is a major risk factor for non-communicable diseases (NCDs) and road traffic crashes and fatalities, as well as infectious diseases and violence against women. Approximately 9% of adults in Ghana are High Episodic Drinkers, with the majority being males. Drinking among teenagers is high: male teenagers reported higher episodic drinking than their female counterparts. Children and the youth are exposed to numerous alcoholic beverages through advertisements in the media, visible sales outlets in the communities and relatives who have made consumption of alcohol a habit. Evidence from mystery shopping in Accra shows that in about 88 of the cases,

children between the ages of 12 – 16 years buy alcohol. These retailers sell to these children without asking questions. This confirms the anecdotal evidence that age limits for sale/purchase of alcoholic beverages in Ghana are lax. Alcohol disorder and dependence in Ghana are relatively higher than the average in the WHO Africa region. Frequent and visible adverts, affordable nature of alcoholic beverages, alcohol industry tactics, anxiety, depression, and unemployment are some of the major causes of alcohol consumption. COVID-19 pandemic has altered the production and the consumption of alcohol which calls for a shift in policies for alcohol production and use. During the pandemic, companies used donations to promote their business.

The study found further that there is binge drinking among a small cross-section of the population during the covid-19 pandemic. Alcohol intake may increase the risk of pulmonary infections and worsen covid-19 prognosis. Approximately 40 percent of the respondents are ignorant of the negative consequences of alcohol. Although Ghana has a National Alcohol Policy, implementation of the policy is ineffective, with the country lagging behind the WHO standards. Taxes are key policy tools the government of Ghana uses to control alcohol consumption. However, they are, to some extent, ineffective.

By way of recommendations, government must finalise and adopt the alcohol regulation (legislative instrument, LI) as a matter of urgency. Ghana also needs effective implementation of the National Alcohol Policy must be prioritized by all stakeholders. Taxes on alcohol could be raised further and be well targeted to specifically reduce alcohol consumption. Revenues from taxes on alcohol could also be used to finance healthcare related to alcohol consumption in Ghana. Rehabilitation and reformation centres must be resourced to treat people with alcohol use disorder and addiction. The social welfare department may also consider supporting children of parents with alcohol use disorder or addiction problems. Education and sensitization programmes on the negative consequences of alcohol use must be organized by the government and other stakeholders for the general population and children especially. Brewing of local alcoholic beverages should be well regulated by relevant authorities.

Acknowledgement

It takes the hard work of many hands-on decks to put together such comprehensive situational analysis as this. With the efforts of key multi-sectorial stakeholders in the field of alcohol regulations, the Ghana NCD Alliance completed this report successfully.

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Chapter One
Background

The Need For The Study

In many of today's societies, alcoholic beverages are a routine part of the social landscape for many globally. Alcohol use is part of many cultural, religious, and social practices, and provides perceived pleasure to many users.[1] In fact, culture, social norms, and religion determines what constitutes acceptable foods and drinks in any society. The use of any substance is socially accepted or rejected depending on the socio-cultural values and norms of the people.[2 3] In Ghana, alcoholic beverages such as schnapps are used for libation to appease the gods, performing marriages and funerals rites.

In 2016, the World Health Organization (WHO) conducted an assessment on alcohol use and health.[1] The findings from this study, known as the global status report on alcohol and health, show that in 2016, a total of 2.3 billion people consumed alcohol around the world. Globally, per capita alcohol consumption among adults (15 years or older) rose from 5.5 litres of pure alcohol in 2005 to 6.4 litres in 2010 and was still at the level of 6.4 litres in 2016.

Although the prevalence of Heavy Episodic Drinking (HED)[i] has decreased globally from 22.6% in 2000 to 18.2% in 2016, it remains high among drinkers in some sub-Saharan African countries (over 60% among current drinkers)[1]. Most African countries including Ghana consume more locally/traditionally brewed alcoholic beverages, which are not internationally recognized and classified, than other alcoholic beverages such as beer, wine, and spirits. Thus, the reported level of alcohol consumption in Ghana obviously does not include traditional alcoholic beverages, although this possibly represents a larger share of alcohol consumption.

The burden from drinking alcohol is great and widespread, resulting in millions of deaths, and a precursor to injury and violence globally. Alcohol consumption is considered a leading cause of the overall morbidity and mortality burden.[4] About 200 health conditions are linked to alcohol use, ranging from liver diseases, road injuries and violence, to cancers, cardiovascular diseases, suicides, tuberculosis, and HIV/AIDS. It is estimated that these diseases and injuries contribute to about 3 million deaths annually, representing 5.3% of all mortality globally and 132.6 million (5.1%) disability-adjusted life years (DALYs). In terms of gender, an estimated 2.3 million deaths and 106.5 million DALYs were attributable to the consumption of alcohol among men, whereas women experienced 0.7 million deaths and 26.1 million DALYs attributable to alcohol consumption. In every 10 seconds, a person dies from alcohol-related causes.[5] This means that countries are losing productive hours which is detrimental to their economic development.

Although a large proportion of Ghana's population abstain from alcohol consumption, it is increasingly becoming a major public health concern. Available data show an average yearly consumption to be 2.7 litres (4.6 and 0.7 litres among males and females respectively) per person[1ii]. Indeed, Ghana's alcohol consumption has fluctuated over the years. In 1960, per capita recorded alcohol consumption (all-types) stood at 1.46 litres. This increased to 2.43 litres per person in 1976 and later declined to 1.59 litres in 2019.[7] Between 2010 and 2019, per capita consumption averaged 1.69 litres. During the same period, aggregate consumption of pure of alcohol averaged 34 million litres per year, increasing from 29

[i] Heavy Episodic Drinking (HED) is defined as 60 or more grams of pure alcohol on at least one occasion at least once per month

[ii] Consumption relates to both recorded and unrecorded.

million litres in 2010 to 40.2 million litres in 2019[7]. While this seems relatively low, it is one of the highest risk factors for deaths and disability. Furthermore, the exposure of children and youth to alcohol poses a serious health threat to the country. Companies advertise alcoholic products without any regulation, and also sell to children, with only 11.6% of sales outlets refuse to sell to minors.[8 9]

Until March 2017, when Ghana launched the National Alcohol Policy-NAP (2016),[iii] there existed fragmented laws on the production, distribution and sale, advertisement, and consumption of alcohol. The launch of national policy in 2017, paved the way for a policy direction to regulate the alcohol industry, with the aim of preventing and reducing alcohol-related harm on the individual, family, and the society at large. To ensure the implementation and enforcement of the new policy, a central and independent coordinating body, the Ghana National Alcohol Commission (with district and national alcohol taskforce) was to be created. It is five years now since the launch of the NAP, but the Commission is yet to be created. The legislative instrument required to provide the legal framework to regulate in Ghana has taken years to be finalised.

Given the harmful health effects of alcohol, it is imperative to critically reflect on alcohol control in Ghana by undertaking relevant research to generate critical evidence for use by the Ministry of Health and other key stakeholders in devising alcohol-related policy. Consequently, the current study on the alcohol use in Ghana, commissioned by the Ghana NCD Alliance (GhNCDA), is relevant and timely. The study, among others, provides comprehensive evidence touching on all the ecosystem of alcohol use in Ghana and reviews the legal and policy context of alcohol prevention. The study leverages on existing studies, as well as primary and secondary data to provide a holistic assessment of the socio-economic impact of alcohol use in Ghana.

The study provides support for the passage of National Alcohol Regulations for Ghana and broader alcohol policy solutions. It also provides critical evidence, for use mostly by policymakers for effecting Public Health and Alcohol control policies that contribute to the objectives of the Public Health Act (Act 851)[10] and the National Alcohol Policy[11] in compliance with Government obligations under the ongoing implementation of the Global strategy to reduce the harmful use of alcohol and other WHO and United Nations instruments – including WHO's Global action plan for the prevention and control of non-communicable diseases (NCDs) and the United Nations' Sustainable Development Goals (SDGs) target 3.5 (i.e. strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol). Preventing the use of alcohol has several benefits to governments through reduced morbidity and mortality, lower health expenditure and increased productivity.[12] Ghana has an obligation to protect children and the youth.

Objectives And Scope Of Study

The study undertakes a comprehensive assessment of alcohol use in Ghana. The overall objective of the study is to provide support/recommendation for the Ministry of Health in preventing and reducing alcohol-attributable harms, and by extension reduce the incidence and burden of alcohol-related noncommunicable disease.

The scope of the study is mainly to provide critical evidence, framed around the five WHO SAFER initiative and the report on Trouble Brewing, with a comparative regional and global perspectives and make recommendations to inform alcohol control advocacy processes. SAFER is the WHO-led roadmap to support governments in taking practical steps to hasten progress on health, prevent and/or reduce noncommunicable diseases (NCDs) through addressing the harmful use of alcohol, and achieve development targets. The SAFER package requires governments to strengthen restrictions on alcohol availability; advance and enforce drink driving counter measures; facilitate access to screening, brief interventions and treatment; enforce bans or comprehensive restrictions on alcohol advertising, sponsorship, and promotion; and raise prices on alcohol through excise taxes and pricing policies. On the other hand, the "Trouble Brewing" report exposes industry tactics to market to youth and women and wreck regulation; and emphasize the urgency of implementing proven and evidence-based alcohol policies.

[iii] Ghana launches National Alcohol Policy: https://www.moh.gov.gh/ghana-launches-national-alcohol-policy/; Assessed, 6th January 2022. It is to be noted that the NAP is not available online to the public. The research team were privileged to access the document through Civil Society Organisation

Methodology

Data Collection

Considering the focus, objectives, and the duration (01 December 2021 – 28 February 2022) of the assignment, both secondary and primary data sources were used. The secondary data collection involved extensive content analysis of already existing relevant data on alcohol consumption from WHO and commercial databases, in-depth review of relevant alcohol control and policy documents.

The primary data sources involved the collection of both qualitative and quantitative data. A structured survey questionnaire, in-depth interview guide, and key informant interview (KII) guide were used (see appendix for draft survey tools). Whereas the qualitative data involved interviews with relevant key stakeholders, with the view to provide deeper understanding and contextualization on issues and information identified in the extensive content analysis and or literature review, the quantitative data involved a survey using random sampling of individuals, aged 15 and above in urban and rural settings. The researchers, in consultation with GhNCDA, identified relevant key stakeholders involved (or with significant influence in the decision-making process) in alcohol control policies to participate in the KII, using a semi-structured interview guide. These stakeholder institutions include, but are not limited to, the Ministry of Health, Ghana Health Service, Ghana Revenue Authority, Ministry of Finance, Food and Drugs Authority, Private sector actors, among others..

Data Analysis and Reporting

The data collected have been processed in line with best practices and guidelines. The qualitative data was analysed thematically using both induction and deduction methods by providing a narrative summary for each theme, based on the research questions. Excel and STATA were used to perform various quantitative data analyses to produce basic descriptive/summary statistics, graphs, and charts.

Quality Assurance Mechanisms and Ethical Concerns

To ensure data quality, in-depth training of research assistants, and debriefing sessions in the field were employed. Data collection was carried out with experienced data collectors, the vast majority of whom have had several years of experience working on similar studies. The survey instruments received inputs from the GhNCDA team.

Safeguarding and Adhering to COVID-19 Protocols

In the organization of all interviews and interface meetings, the team ensured and enforced strict compliance with national COVID-19 protocols such as wearing face/nose masks, observance of hygienic practices such as regular washing of hands, and social/physical distancing.

Chapter Two

Alcohol use and its consequences in Ghana

Introduction

This chapter provides information on alcohol use in Ghana. It details the profile of alcohol drinkers, quantity consumed, and various forms of alcoholic products consumed.

Alcohol Consumption Prevalence

Ghanaians consume both traditional alcoholic beverages (e.g., pito, palm wine, akpeteshi, burukutu among others)[iv] and foreign liquors (e.g., wines, whiskeys, beer, etc). Some beers, lagers and stouts are brewed in Ghana, including 'club', 'star' and 'root extra' among others. There are also other locally manufactured alcoholic drinks including 'pusher', 'opeimu', 'alomo', 'joy dadi', etc. There are three major companies producing alcohol (Accra Breweries Limited, Guinness Ghana Breweries Limited, and Kasapreko Limited).[7] These producers account for about 66% of the alcohol market in Ghana. In Ghana, the popular place to buy alcohol is drinking spots/bars. These spots usually sell both non-alcoholic and alcoholic beverages, and sometimes tobacco products.

Alcohol consumption in Ghana is increasingly becoming a public health concern, although the existing (recorded and unrecorded) consumption levels are low relative to other countries within the WHO African region. Prior to 2008, data on alcohol consumption patterns in terms of type consumed, the quantity consumed, and frequency of consumption were inconsistent, and this was a problem as far as using data to inform rigorous policy decisions and interventions in Ghana is concerned. Consequently, the Ghana Statistical Service included alcohol consumption-related questions in the 2008 Ghana Demographic and Health Survey (GDHS). As a result, the first nationwide data collection on alcohol consumption was in the 2008 GDHS. After 2008, however, none of the GDHS reports have included alcohol consumption data. The most recent and or consistent data/report on alcohol consumption in Ghana come from the WHO[1] and Euromonitor International.[7]

As clearly depicted in Tables 1-3, the latest available alcohol consumption data on Ghana shows that per capita alcohol consumption in 2016 was 2.7 litres of pure alcohol compared to a WHO African region figure of 6.3 litres. It is believed that the reported level of consumption is lower because alcohol consumption is underreported: most alcoholic beverages are produced and consumed in the home, and this possibly represents a larger share of alcohol consumption. Generally, the proportion of men who drink alcoholic beverages is higher than the proportion of women; and men who drink alcohol also tend to drink more frequently than women. The 2016 WHO statistics also show that on average males consume more alcohol (4.6 litres) than females (0.7 litres).[1] Among drinkers, the per capita consumption of pure alcohol in 2016 was 12.7 litres for men and 4.7 litres for females in the ages 15 years or higher.

[iv] Traditional alcoholic beverages in Ghana: Pito (local brew made from millet) is widely consumed in Ghana. The brewing of pito is traditionally associated with the people in the northern part of the country, but migration has led to its production throughout the country. The industry is mostly controlled by women between the ages of 18 and 67 years old. Pito is golden yellow to dark brown in colour with taste varying from slightly sweet to very sour. It contains lactic acid, sugars, amino acids, 2% to 3% alcohol and some vitamins and proteins. There are four types of pito in Ghana – nandom, kokomba, togo and dagarti. The peculiar characteristics of each lies in the differences in their wort extraction and fermentation methods. Palm wine (nsafufuo) is widely consumed and is produced from sugary palm saps. The most frequently tapped palms are raffia palms and the oil palm. Fermentation starts soon after the sap is collected and within an hour or two becomes reasonably high in alcohol content (up to 4%). Within 24 hours the alcohol content ranges from 1.5 to 2.1%. Within 72 hours the alcohol content will increase to around 4.5 to 5.2% by volume. Akpeteshie (local gin) is distilled from fermented palm wine or sugar-cane juice and requiring a simple apparatus of two tins (usually four-gallon kerosene tins) and copper tubing. The standardized alcohol strength of akpeteshie is between 40 and 50% by volume. Palm wine contains between 3 and 5% of alcohol by volume. Burukutu is a popular alcoholic beverage of a vinegar-like flavour prepared from sorghum grains.

Table 1 : Alcohol per capita (15+) consumption (litres, pure alcohol), 2010 and 2016

Description	2010*		2016*	
Recorded	1.9		1.6	
Unrecorded	3.4		1.1	
Total**	5.3		2.7	
Total males/females	9.1	1.6	4.6	0.7
WHO African Region	6.3		6.3	

Source: WHO[1] ; *Three-year averages of recorded and unrecorded for 2009-2011 and 2015-2017; **adjusted for tourist consumption.

According to the WHO[1], overall, 9.4 percent of Ghana's population 15 years and above are Heavy Episodic Drinkers (HED). In terms of gender dynamics, whereas 16.7 percent of the male population are HEDs, just 2.4 percent are females. This corroborates the general finding that males consume more alcohol than females. It is interesting to note that the data shows a sizeable proportion of teenagers, 6.2 percent (male 10.8%; females 1.4%) of Ghanaians aged 15-19 years, are heavy episodic drinkers. This should be a matter of great concern since these are teenagers given the fact that teenagers have a higher risk of alcohol dependence, and it may impact on their brain development.

Table 2: Prevalence of heavy episodic drinking* (%), 2016

Description	Population (15+ years)	Drinker only (15+ years)	Population (15-19 years)	Drinker only (15-19 years)
Males	16.7	45.5	10.8	48.7
Females	2.4	15.4	1.4	16.9
Both sexes	9.4	36.2	6.2	40.3

Source: WHO[1] ; *Consumed at least 60 grams or more of pure alcohol at least one occasion in the past 30 days

It is however refreshing to know that approximately 70% of Ghanaians are lifetime abstainers (males: 59%, females 80%).

Table 3: Abstainers (%), 2016

Description	Males	Females	Both Sexes
Lifetime abstainers (15+)	58.9	79.6	69.5
Former drinkers*	4.3	4.7	4.5
Abstainers, past 12 months	63.2	84.3	74.0

Source: WHO[1] ; *Persons who used to drink alcoholic beverages but have not done so in the past 12 months

Table 4: Net mass of alcohol imports and declared amount, 2015 – 2019

Year	Declared Amt Payable (GHS)	Net Mass (KG)
2015	**85,562,917**	**28,396,198**
2016	**82,573,782**	**25,988,615**
2017	**142,900,000**	**30,756,510**
2018	**187,200,000**	**38,269,844**
2019	**129,900,000**	**34,666,006**

Source: GRA

Using the quantity of imports as consumption, we see that consumption of alcohol increased during 2015 – 2019, by about 22% (Table 4).

Health Consequences Of Alcohol Consumption: Morbidity And Mortality Due To Alcohol Use

Alcohol use is a leading cause of preventable deaths in Ghana and is associated with numerous health and social and economic problems. Alcohol consumption is related to a myriad of negative health outcomes including morbidity, mortality, and disability. Research on alcohol-related morbidity and mortality considers the varying effects of overall alcohol consumption and drinking patterns; and most findings indicate that alcohol use increases the risk for many chronic health consequences (e.g., diseases) and acute consequences (e.g., traffic crashes).[13]

Available data show that in 2016, prevalence of alcohol use disorders and alcohol dependence in Ghana exceeded that of the WHO Africa region (Table 5). Alcohol use disorder in Ghana (4.1%) exceeded that of the WHO Africa region by 0.4 percentage point. Similarly, Ghana's alcohol dependence (1.4%) exceeded the WHO Africa region figure by 0.1%.

Table 5 : Prevalence of alcohol use disorders and alcohol dependence (%), 2016

Description	alcohol use disorders**	alcohol dependence
Males	7.3	2.5
Females	1.0	0.4
Both sexes	4.1	1.4
WHO African Region	3.7	1.3

Source: WHO[1] ; *12-month prevalence estimates (≥15 years); **including alcohol dependence and harmful use of alcohol.

Alcohol consumption is linked to NCDs and communicable diseases. For NCDs, prolonged alcohol consumption leads to diseases like cirrhosis, Alcohol Liver Disease (ALD), alcohol hepatitis and diabetes, among others.[14] Alcohol-related morbidity and mortality are, thus, significant public health concerns. A total of 2,194 and 442 deaths per 1000 000 population (≥15 years), from liver cirrhosis and cancer respectively in Ghana were attributable to alcohol in 2016. Table 6 presents alcohol-related diseases and death rates in Ghana.

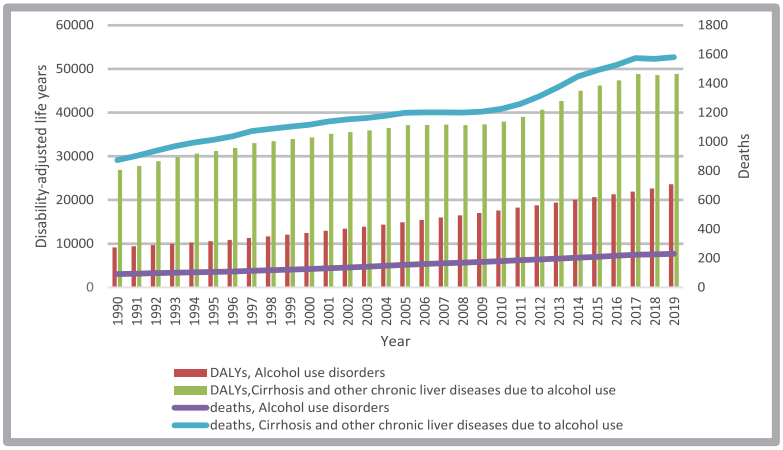
Table 6: Age-standardized death rates (ASDR) and alcohol-attributable fractions (AAF), 2016

Description	ASDR	AAF		AAD** (Number)	
Liver cirrhosis, males/females	77.5	36.0	39.6	21.3	2 194
Road traffic injuries, males/females	66.3	31.4	18.6	13.8	1 261
Cancer, males/ females	126.4	96.1	6.0	1.4	442

Source: WHO[1] ; *Per 100, 000 population (15+); **alcohol-attributable deaths, both sexes.

Over the last three decades (1990-2019), mortality from cirrhosis and other chronic liver diseases due to alcohol has increased by 80%, while deaths from alcohol use disorders rose by 152% during the same period (Figure 1). In 2019, about 72000 DALYs were due to alcohol use. The rising mortality and DALYs from alcohol use shows how dangerous alcohol is and the threat it poses to public health and Ghana's development.

Figure 1: Trends in mortality and disability-adjusted life years (DALYs) from alcohol use



Furthermore, many drivers have been found to practice drunk driving in Ghana, ranging from 8.7% to 74%.[15] [16] This drunk driving is a contributory factor for the high road traffic crashes and pedestrian deaths in Ghana. It is estimated that up to 35% of all road deaths are alcohol-related..[15]

Source:
Global Burden of Disease database.

Alcohol Industry Promotes Drinking Through Corporate Social Responsibilities (CSR)

Like the tobacco industry, the alcohol industry also uses CSR as a tool to promote their public image. They support various developmental activities in communities where they operate. Some of these CSRs became prominent in 2020. During the peak of the COVID-19 pandemic, Guinness Ghana Breweries provided 1,500 packs of Malta Guinness to the Ministry of Information to support frontline workers "to recognize them for their bravery and say thank you for their sacrifices". Accra Brewery also donated 3,000 facemasks to the Ministry of Tourism, Arts and Culture.[17] Even prior to the COVID-19 outbreak, alcohol producing companies were engaged in CSR such as supporting sanitation (by Kasapreko Company Limited (KCL)[18] and responding to water crises in hospitals (by Guinness Ghana Breweries).[19] The industry also benefits from government programmes. In December 2015, President Mahama inaugurated a multi-million dollar bottling plant of KCL in Accra.

This plant has the capacity to produce 70,000 bottles of alcoholic beverages per hour.[20] President Akufo-Addo also commissioned another plant of KCL in Kumasi to produce water, juices, and soft drinks.[21] These establishments promote the consumption of unhealthy products such as sugary drinks and alcohol and are therefore contributing to the rising NCDs in Ghana. Acts of providing support to in the name of CSR undermines public health. Unfortunately awards and government support are given to these companies to perpetuate drinking habits, especially among the youth.[22] As reiterated by Labram Musah (National Coordinator of Ghana NCD Alliance)[17]:

> **"These industries are gaining more grounds and winning the trust of the people through their actions - 'so called kind gestures'. They are deliberately and consciously penetrating into the hearts and minds of the people…"**

Thus, the aim of these kind gestures is to improve their public image, which allows them to profit from products shown to cause many NCDs.

Alcohol Consumption And COVID-19

COVID-19 has altered all aspects of human life including the production, distribution/delivery, and consumption of alcohol. The use and sale of alcohol during the pandemic have tremendously been altered. For instance, home-based production, online sales, and off-trade sales of alcohol increased; whilst factory production and retail outlets sales decreased. These changes are expected to linger, and thus policies to control alcohol production and consumption must take cognisance of them.[23] During the pandemic, Kasapreko shifted to the production and marking of alcohol-based sanitizers. Accra Brewery also donated re-usable facemasks to bar staff to enable its retailers boost sales.[17]

Indeed, a large majority of the respondents (363), out of a total of 786 respondents agreed that alcohol industry (363) as a major contributor of NCD risk factors.[17] Thus, the activities of the alcohol industry undermine public health and might have even contributed to spread of COVID-19.

Since alcohol consumption is generally known to impair judgment at even low and moderate levels,[24] it can affect the ability of individuals to comply with COVID-19 preventive measures such as social distancing and wearing of facemask. Moreover, people who are used to drinking alcohol with others may find it exceedingly difficult to comply with restrictions on gatherings or movements aimed at combatting COVID-19.[25] In fact, COVID-19 resurgence in a number of countries has been linked to the re-opening of night clubs and bars among others[26] [27] where people drink alcohol, shout, sing and dance together.[25]

Moreover, people with severe health disorder as a result of alcohol use may be more probable to be poor, smoke, have chronic medical conditions, as well as live in crowded dwellings, all of which are known risk factors of COVID-19 infections. These individuals may even have worse COVID-19 outcomes when infected.[25] It is therefore not surprising that, COVID-19 deaths are estimated to be higher among persons with underlying health conditions (such as diabetes, cirrhosis, obesity, cardiovascular diseases, and hypertensions), and these conditions are known to be partly caused by intake of alcohol.[28] Globally, the rate of alcohol-related liver diseases during the pandemic is estimated to have increased, about 1.2 times more than the pre-outbreak period.[29] Also, heavy alcohol consumption may increase the risk of pulmonary infections and worsen COVID-19 prognosis.[30]

Given that approximately 23.3% of Ghanaians are estimated to be consumers of alcohol,[31] its consumption in a COVID-19 era may pose dire consequences for Ghana's fragile health system and economy because of the increased expenditure on the treatment of COVID-19 infections and the loss of productivity due to COVID-19-related deaths and morbidities.

Alcohol Consumption, NCDs And Ghana's Universal Health Coverage

Alcohol consumption is responsible for over 200 injury and disease conditions. These include major NCDs such as cardiovascular diseases (CVDs), some cancers, liver cirrhosis and stroke.[1] [32] Globally, in 2019, the prevalence of CVDs alone was 523 million with 18.6 million deaths, making them the highest cause of disability and mortality.[33] [34]

As indicated already, in Ghana, 9.4% of the population (15+ years) are heavy episodic drinkers.[1] Meanwhile, cases and deaths associated with NCDs have been increasing. For instance, from 1990 to 2010, the reported outpatient cases of hypertension in mission and public health facilities (excluding teaching hospitals) rose from about 60,000 cases to 700,000 cases.[35] Also, from 2015 to 2019, deaths associated with NCDs such as CVDs and stroke have increased[36]. Alcohol consumption poses major threats towards attaining universal health coverage (UHC) in Ghana. This is because the burden of NCDs (which are expensive to treat), coupled with other infectious diseases such as malaria and HIV/AIDS, would weaken the already fragile nature of the Ghanaian health system. Thus, Ghana's health system lacks enough of most of the building blocks of UHC such as human resources, service delivery, technology, and financing to meet the rising burden posed by alcohol-related NCDs.

Moreover, since individuals with low socio-economic status (people living in poverty) are greatly affected by the harm associated with alcohol relative to those with high socio-economic status,[17] the inability of people living in poverty in Ghana to cater for their health needs would be exacerbated if they are affected by alcohol-related NCDs and injuries, especially when several NCDs (cancers (other than breast and cervical), heart surgery (except those attributable to accidents), and dialysis for chronic kidney failure) are not covered under the national health insurance scheme (NHIS).[37] Hence, to attain UHC in Ghana, there is the need to institute measures to curtail the consumption of alcohol.

Chapter Three

Alcohol prevention and control in Ghana

Alcohol Policies And Interventions

Generally, alcohol policy refers to the set of measures aimed at minimizing the health and social harms from alcohol consumption. For the purposes of the WHO Global Survey on Alcohol and Health, alcohol policy was referred to as an organized set of values, principles, and objectives for reducing the burden attributable to alcohol in a population.[1] Ghana's National Alcohol Policy (NAP), which was launched on 16 March 2017, was developed by the MoH, with support from the WHO and civil society organisations such as Vision for Alternative Development (VALD), and Baraka Policy Institute (BPI). After years of working with key stakeholders to combine the fragmented laws, the policy sets out a direction aimed at regulating the production, distribution, sale, advertisement, and consumption of alcohol. The NAP is aimed at preventing and reducing alcohol harm on the individual, family, and society. To ensure the implementation and enforcement of the NAP, a central and independent coordinating body, the Ghana National Alcohol Commission was supposed to be created.

Aside the NAP, it is worth noting that Ghana is lagging behind in some of the WHO standards and conventions on alcohol as clearly depicted in Table 6 below. Although not specifically mentioned in the NAP, there is national legal age limit for on and off-premises purchasing of alcohol which is set at 18 years but not enforced.[1 3] This is presumably so because there is no national monitoring system in place. Generally, there are no restrictions on hours of sale, days of sale, and density of outlets.

Again, alcohol advertising on television, radio, print media and billboards have not been banned, but there are legally binding regulations on alcohol advertising or product placement. For instance, all adverts on alcoholic beverages must be vetted and approved by the Food and Drug Authority (FDA), and these (TV and radio) adverts shall not be aired between 6 AM and 8 PM,[38] but it is possible to find/listen/watch alcoholic beverage adverts during these hours. Alcohol sponsorship and sales promotions regulation are voluntary in nature since there are no legally binding restrictions on alcohol sponsorship and sales promotion. Additionally, there are no legally required health warning labels on alcohol advertisements and containers, although retailers are required by FDA guidelines to display health warnings on premises (or display them during TV adverts)[38]. There has been calls from Ghana's parliament to regulate alcohol advertising in Ghana since 2017:

> **...Hundreds of advertisements on alcoholic beverages are aired on radio and television daily. And as if that is not enough, they are displayed on huge billboards as well as small ones. The alcohol industry is conscious of the power of advertisements, so they waste no time in investing heavily in .... illicit alcohol ....**
>
> **Ernest Norgbey,**
> **(MP for Ashaiman constituency)[39]**

Other MPs have called for a more aggressive way to regulate alcohol use in Ghana to protect the youth, yet the legislative instrument that will ensure that the nation does not lose its young ones is yet to be adopted. In terms of control of retail and production, no monopoly exists on production and sales in Ghana. Industry players need a license for the production and/or sale of alcohol. Because these are administrative directives/guidelines, enforcement poses a challenge as industry may challenge the legal basis for such guidelines.

The WHO recognizes tax and price policies as the most cost-effective strategy for reducing alcohol use, especially among young people. Value Added Tax (VAT), Corporate Income Tax and excise tax stamps exist on alcoholic beverages in Ghana (see section on taxation). Table 7 summarises alcohol prevention strategies/policies in Ghana.

Table 7 : Alcohol Prevention Measures in Ghana

Description	Rating/Response
National Maximum legal blood alcohol concentration (BAC) when driving a vehicle (general / young / professional), in %	0.08 /0.08 /0.08
Legally binding regulations on alcohol advertising / product placement (any)	Yes / Yes
Legally binding regulations on alcohol sponsorship / sales promotion (any)	Yes /No
Legally required health warning labels on alcohol advertisements containers	Yes
National government support for community action (any)	Yes
National monitoring system(s) (any)	No
Written national Policy adopted/revised)/ National Action plan	Yes (2016/-)/Yes
Excise tax on beer/wine/spirits	Yes/Yes/Yes
National Legal minimum age for off-premise sales of alcoholic beverages (beer/wine/spirits)`	18/18/18
National Legal minimum age for on-premise sales of alcoholic beverages (beer/wine/spirits)	18/18/18
Restrictions for on-/off-premise sales of alcoholic beverages (any): Hours, days/places, density Specific events/ intoxicated persons /petrol stations	No, No/Yes, Yes Yes/No/No

Source: WHO[1]

Indeed, Ghana's public health act which was enacted in 2012 enjoins the Minister of Health to provide a legislative instrument to regulate the use of alcohol in the country.[10] The NAP laid the foundation for a legislative instrument to be passed. However, this legislative instrument has not been provided. This makes it legally difficult to regulate alcohol consumption in the country.

Trends In The Prices Of Alcoholic Beverages In Ghana

Table 8 presents the trends in the prices of alcoholic beverages in Ghana for 2013 and 2017, based on data from the Ghana Living Standards Survey (GLSS). The table shows that there is a lot of variation in prices based on the type of alcohol.

The price per litre of the cheapest type of alcohol (palm wine) rose from GHS1.67 in 2013 to GHS2.74 in 2017, about 61% increase during the period. The most expensive type of alcohol, whisky, had its retail price increase by 41% per litre. Although prices increased significantly during the last few years (in nominal terms), rising inflation would imply a decline in real prices of alcoholic beverages. Further, income growth without corresponding increases in prices will make alcoholic beverages affordable. In this regard, excise taxation adjusted regularly is key to make alcoholic products less affordable to the population.

Table 8: Average nominal price (GHS) per litre of alcohol in Ghana

Description	2017				2013			
	Mean	Std. Err.	95% CI		Mean	Std. Err.	95% CI	
Gin	**15.20**	0.69	13.84	16.55	**9.23**	0.25	8.73	9.73
Whisky	**56.14**	11.68	33.02	79.26	**23.14**	0.98	21.22	25.07
Akpeteshie	**12.54**	0.24	12.06	13.02	**6.02**	0.10	5.83	6.22
Bitters (e.g., Alomo)	**15.66**	0.84	14.00	17.33	**7.65**	0.42	6.82	8.47
Schnapp	**25.68**	2.02	21.68	29.68				
Palm wine/raffia palm wine	**2.74**	0.29	2.17	3.32	**1.67**	0.07	1.53	1.82
Imported Wine	**21.62**	3.72	14.23	29.01	**12.47**	0.45	11.59	13.35
National Beer (star/club)	**7.24**	0.09	7.06	7.42	**4.59**	0.16	4.29	4.90
Dark beer (Guilder/ Guinness)	**11.60**	0.40	10.82	12.39	**8.55**	0.21	8.14	8.95
Imported Beer	**11.50**	0.54	10.42	12.57	**9.44**	1.93	5.65	13.23
Traditonal Beer (Pito/brukutu)	**4.62**	0.66	3.31	5.92	**2.10**	0.20	1.71	2.50
Average for all	**16.04**				**8.16**			

Source: Authors' computation based on GLSS 6 and 7 data

Excise Taxation As A Prevention And Control Strategy

Excise taxes have been recognized as one of the tools to promote health at the population level aside from regulations such as minimum age laws, and advertising and promotion regulations, among others. In fact, among all preventive strategies for alcohol, taxation is the most cost-effective alcohol prevention and control policy. In many countries (e.g., South Africa and Nigeria), excise taxes have been used to control the consumption of sugar sweetened beverages, tobacco, and alcohol. These health taxes are usually implemented alongside the provision of health information through warning signs/pictures (in the case of tobacco), educational campaigns, and age restrictions among others to combat the use of harmful products. Thus, health taxes are not implemented in isolation, but are implemented along with non-tax/price measures.

The main goal of health taxes is to reduce population level consumption of harmful products to protect and improve health to alleviate the strain on health systems, the social fabric and the economy that is exerted by the harms due to unhealthy products. Although there has not been extensive analysis of the benefits of alcohol taxation/price policies in Ghana, the only simulation study on Ghana has shown that aside from promoting health, such taxes can generate significant revenue for the government of Ghana.[40] Revenue from these taxes can therefore be earmarked for other public sector activities such health insurance or treatment coverage of certain services. Tax and price policies also provide a lot of cost saving to government.[12] Health taxes are therefore seen as win-win strategies for governments.

International creditors like the International Monitory Fund (IMF) implores Ghana to redesign the alcohol and tobacco excise tax structure to generate additional revenue, about 0.45% of GDP. Indeed, the simulation exercise demonstrated that there can be significant fiscal gains from alcohol taxation.[40] In Ghana, different types of alcoholic beverages are taxed at different rates and based on the source of the raw materials used in the production process (Table 9).

Table 9 : Taxes on alcohol.

Alcohol type	Tax (% of ex-factory price/CIF)
Beer	
Percent of local raw materials	
0	47.5
30	30
50	20
70	10
Wine	22.5
Spirits	
Distilled/rectified/ Blended/compounded	25
Other	
- For laboratory/drugs	0
- Denatured	10
- "Akpeteshie"	20

Source: GRA[41 42]

Like tobacco, Ghana uses an ad valorem tax system for alcohol. For 2008 and 2009, the excise tax structure was specific. The excise tax rate for beer is about 48% of the ex-factory price (with no local raw materials used) or Cost Insurance and Freight (CIF) value (for imported beer). Using local raw materials reduces the tax rate for local producers.[41] Indeed, a large proportion of the beer consumed in Ghana is locally produced, with most beer sourcing local raw materials for production. This implies that, majority of locally produced beer are taxed at an average rate of about 30%. The rationale for these concessions has been to encourage the use of local raw materials for job creation. Wine is taxed at a flat rate of 22.5% of the ex-factory price or its equivalent CIF value, while spirits attract 25% of the ex-factory price or its CIF equivalent (for distilled or rectified/blended or compounded). One of the most common spirits which is locally produced either from sugar or palm trees, akpeteshie, attracts an excise tax of 20% of ex-factory price. The government has waived taxes for spirits meant for compounding of medicines or laboratory purposes. Imported alcohol also attracts some other taxes such as import VAT, health insurance levy, ECOWAS levy among others (see Table 1 in appendix). The revenues from alcohol taxes during for the period 2008 – 2018 are presented in Table 10.

Table 10 : Revenue from alcoholic beverages, 2008 - 2018

Year	Tax system	Total Tax, million GHS	Excise, million GHS
2008	Specific	1.97	0.45
2009	Specific	1.64	0.26
2010	Ad valorem	2.22	0.81
2011	Ad valorem	3.97	1.45
2012	Ad valorem	7.69	2.81
2013	Ad valorem	5.31	1.91
2014	Ad valorem	9.74	3.28
2015	Ad valorem	9.66	3.26
2016	Ad valorem	10.62	3.58
2017	Ad valorem	18.26	6.14
2018	Ad valorem	22.18	7.37

Source: GRA[41]

In 2020 and 2021, the revenues from domestic excise taxes on alcoholic beverages were GHS440.14 and GHS526.48 million, respectively. This shows that a well-designed alcohol tax policy can reduce consumption and contribute to the public purse.

The Tax Structure Is Important

The way that countries impose or compute the excise tax liability on the alcoholic products is important in determining its consumption effect. Ghana taxes alcohol based on the factors like the source of raw materials, source of production and the type of alcohol. The system is ad valorem, although a specific tax was used in 2008 and 2009.

The excise tax, implemented as a specific tax, is the simplest form. Here, an amount based on the litres, weight, or content of alcohol is levied.[43] Such taxation makes no reference to the packaging or price of the product. If the specific tax liability is calculated based on the content of alcohol, it forces producers to reduce alcohol content by reformulating their products. This product reformulation improves quality and ensures reduced alcohol content. In Ghana, the specific tax rate of GHS0.24 per litre of about 5% alcohol was implemented in 2008 and 2009.[44] The specific tax structure needs regular adjustment to account for inflation and income growth to reduce the affordability of alcoholic products.

An excise tax may also be levied on an ad valorem basis. In this case, a percentage of the value of the alcoholic product is imposed as tax. The basis for such computation is usually the ex-factory price or the CIF value, although some countries use the retail price. The ad valorem tax system gives no weight to alcohol content or other characteristics. Therefore, an increase in ex-factory price or CIF value increases the tax liability while the alcohol content remains unchanged. Because increases in tax results in higher prices and causes consumption to decline, producers have an incentive to reduce or adjust their products to reduce the tax burden.[36] This is usually achieved through reformulation, reduction of brewing period or changing the quality of packaging with an aim to reduce the ex-factory price. One of the advantages of ad valorem system is its ability to automatically adjust the amount of the tax for inflation since it is based on the current value of the product. However, an ad valorem tax structure provides an opportunity for producers to undervalue their products to reduce their tax liability. It may also encourage producers to engage in transfer pricing and pricing wars which requires strong technical capacity on the part of tax administrators.

Due to the advantages and disadvantages, these structures can be applied in various ways. For instance, countries can use a mixture of specific (e.g., GHS0.02 per litre of alcohol)[v] and an ad valorem tax system (e.g., 30% of the ex-factory price/CIF). The rates may be uniformly applied to all alcoholic products, with some product differentiation, or set a minimum specific tax in addition to an ad valorem system.[43] Thus, depending on country circumstances, a mixture of specific and ad valorem systems is used. The experience from tobacco taxation suggests that simple tax systems are always generally better than complex tax systems. The hallmark of a good tax structure is that it reduces the possibility of drinkers downtrading to low quality alcohol following an increase in the retail price. At the same time, such taxes are easier to administer which implies that a tiered tax system should be avoided.

Thus, the structure of the tax influences revenue, consumption, and creates incentives for producers. For this reason, excise taxes should be carefully designed to achieve the win-win for public health and to the fiscus. Evidence from tobacco control has shown that specific excise tax structure provides significant gains in terms of prevention since it significantly increases the tax burden compared to an ad valorem excise tax structure. Since there is no evidence on the consumption effect of both structures in Ghana, further analysis of alcohol tax may be useful. As of 2022, Ghana uses a homogenous tax method (the ad valorem system) and a heterogeneous tax rate for different categories of alcohol (see Table 9).

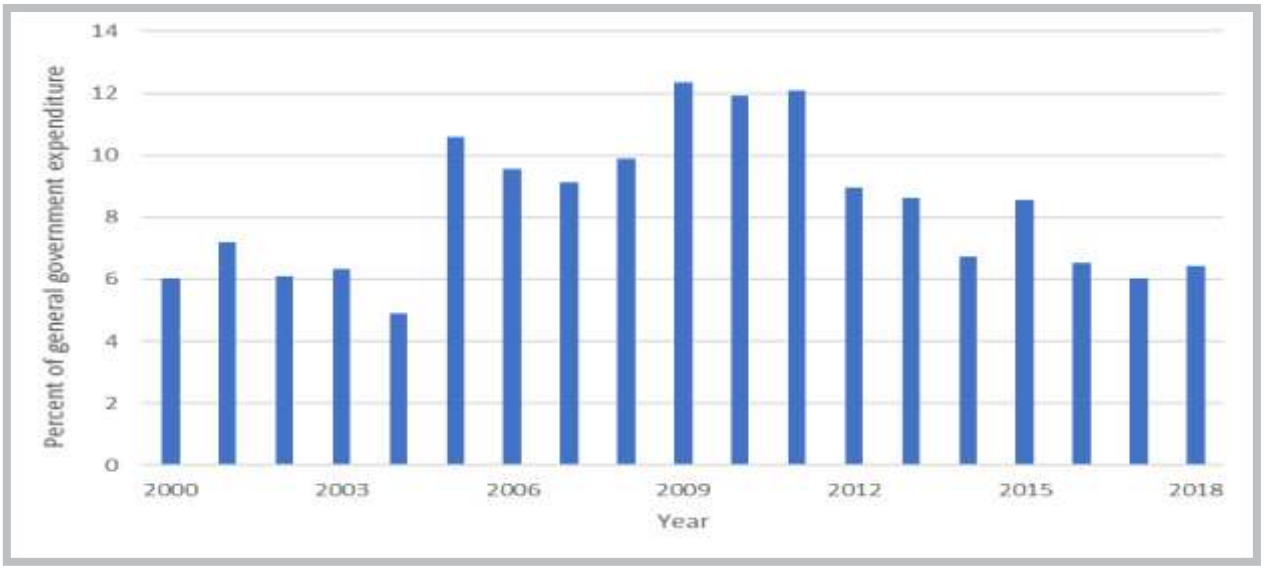
[v] The specific excise rate can also be based on the alcohol content, for instance GHS0.02 for each percent of pure alcohol.

Health Financing For Universal Health Coverage: The Role Of Alcohol Taxation

Health financing is a core activity of every health system to enable progress towards universal health coverage (UHC). It is concerned with the mobilization, accumulation, and allocation of money to cover the health needs of the people, individually and collectively, in the health system.[45] This ensures effective service coverage and financial protection for the people. The core areas of health financing are revenue mobilization, pooling of funds and purchasing of healthcare services for the population.[45]

To make funds available for health, African governments pledged, in 2001, to allocate a minimum of 15% of the respective national budgets to health. It has been more than 20 years since this pledge was made in Abuja, Nigeria, yet allocations to the sector have been lower than targeted due to fiscal constraints. The allocations have averaged 8.3% p.a. (Figure 1) in the last two decades due to fiscal constraints.

Figure 2 : Percent of national budget allocated to health sector in Ghana, 2000 – 2018



Source: Authors' compilation based World Development Indicators.

Ghana's health taxes such as excise tax on alcohol can contribute to the revenue mobilization aspect of health financing in achieving the UHC agenda. First, because alcohol taxes and pricing regulations prevent and reduce consumption of alcohol, it implicitly reduces the alcohol-related healthcare needs. This provides a significant cost saving for the government. In South Africa, for instance, alcohol taxation/price regulations avert about 22,600 alcohol-related deaths, about 560,000 cases of catastrophic health expenditures and saves government about US$295 million in healthcare cost.[12]

Secondly, revenues from alcohol can be earmarked to the health sector to enable access to healthcare. Along this line, countries like Estonia, Australia, the Philippines and Thailand use alcohol and/or tobacco taxes to finance health promotion activities or to address UHC funding shortfalls to ensure that all people needing care can have access.[43 46 47] Thus, all or part of revenues from alcohol taxation (Table 10) can be directed towards the health promotion activities in a bid to achieve universal health coverage in Ghana. Consequently, a well-designed tax system for alcohol can raise substantial funding for health in Ghana

Chapter Four

Alcohol use: perspectives and evidence from field survey

Methods

The study employed the mixed-method study design to enable different but matching data on the same topic to best address the research question.[48] These involved quantitative techniques designed to elicit information on the subject from the people. A qualitative technique was also used, where key informant interviews were carried out among key stakeholders in the prevention and control of alcohol use. In addition, in-depth interviews were used to explore lived experiences among people who currently use alcohol and/or are drunkards/addicts.

The Upper West region was purposively selected as the rural region with Daffiama-Bussie-Issa (DBI) district randomly selected from the region. Greater Accra region was selected as the urban region using the purposive sampling technique, with Okwaikwei North Municipal in the region randomly selected for the survey. This approach provides a representative view of the urban and rural landscape for alcohol use in Ghana. Sample size calculation for the study was done using established methods,[49] [50] with data from the Ghana 2010 census for the selected districts.[51] Even though the results from the 2020 population and housing census have been published, the district population data is yet to be released to the public. As a result, we relied on the estimates from the 2010 census.

The confidence interval of 95% and margin of error of 5% were used. The resulting sample sizes were 381 and 384 for DBI and Okwaikwei North, respectively. These sample sizes were rounded to 400 each, giving a total sample size of 800 respondents in both districts for the survey. The rounding was also to account for non-response usually associated with surveys. It was also to account for any differences that may arise between the current census data and the 2010 results.

Households were surveyed using the systematic approach where only one eligible respondent was interviewed in each household. The respondent was supposed to be in the age group of 18 years or above, being either a male or a female. To ensure data quality, we organized training for fieldworkers before embarking on data collection to orientate them on the study objectives and to improve their technical expertise in conducting interviews.

Survey Results

Socio-demographic Characteristics Of Participants

Of the total 799 responses received, 399 respondents were from the Daffiama-Bussie-Issa District (DBI) in the Upper East region and 400 respondents from the Okwaikwei North district (OKN) in Greater Accra. Overall, about two-thirds of the respondents were males and almost the same for both the urban and the rural districts. Respondents were within the age groups of 15-19 years (6.9%), 20-30 years (30.5%) and >30 years was 62.6%. All respondents have some level of education from the basic level/Middle School Certificate (14.5%) to tertiary level (28.2%) except 19.4% who did not have any formal education. More than half of the respondents were Christians, recording 51.9% with Muslims and Traditionalists recording 28.7% and 13.3% respectively (Table 11). Furthermore, among the Christians, 53.8% are Catholic, 19.5% Pentecostals, 17.5% Charismatics and 9.1% Protestants.

Ever Drank Alcohol: Overall, close to half of the respondents (47.4%) reported having ever drank alcohol in their lifetime: 51.3% reported for the urban district and 43.6% for the rural district.

Frequency of alcohol intake: Among the current users of alcohol, overall, 19.8% of respondents drink alcohol occasionally, whiles 13.0% reported drinking alcohol every day. Also, the urban dwellers drink more (14.5%) compared to the rural (11.5%) Table 11).

Alcohol intake in the past 30 days: However, in respect of alcohol use among the current drinkers within 30 days preceding the survey, there was very little difference between urban use (34.5%) and rural (34.1%) with an overall percentage of 34.3 (Table 11).

Regarding respondents' income in the past 30 days preceding the survey, an overall average income of GHS 992.5 was recorded with an average expenditure of GHS 563.7 made on health, education, transport, and electricity, among others. The participants were asked to indicate whether their expenditures on alcohol affects their ability to afford basic needs, such as food, clothing, shelter, health, etc for their dependents. Most of the participants did not consider the money spent on alcohol as a constraint to purchasing other items for themselves, but rather regarded it as very insignificant as seen in the quotes below:

> No, I have been unemployed for some years now, so my wife takes care of most of the bills. The two or three cedis I spend is small **(#1 Participant).**
>
> I have only one child. He is in London with the mother. I pay my rent and my bills. I only come here on weekends and after work. I do not have financial problems **(#3 Participant).**
>
> " No, I spend within my means and take care of my responsibilities " **(#2 Participant).**
>
> No, I have no problem with that, not at all **(#4 Participant).**
>
> No, I don't have that problem, my husband also supports me ***(#5 Participant).***

Table 11 : Descriptive Socio-demographic Characteristics of the participants

	DBI (n=399)		OKN (n=400)		Overall (N=799)	
	n	%	n	%	n	%
Gender						
Females	156	39.10	121	30.25	277	34.67
Males	243	60.90	279	69.75	522	65.33
Age						
15-19	19	4.76	36	9.00	55	6.88
20-30	121	30.33	123	30.75	244	30.54
>30	259	64.91	241	60.25	500	62.58
Education						
None	143	35.84	12	3.00	155	19.40
Basic/Middle School Certificate	56	14.04	60	15.00	116	14.52
SHS/O-Level/A-Level	78	19.55	225	56.25	303	37.92
Diploma/BA/BSc/Masters/PhD	122	30.58	103	25.75	225	28.16
Religion						
Christian	241	60.40	174	43.50	415	51.94
Muslim	98	24.56	131	32.75	229	28.66
No religion	4	1.00	45 1	1.25	49	6.13
Traditionalist	56	14.04	50	12.50	106	13.27
Marital status						
Single	99	24.81	198	49.50	297	37.17
Married	282	70.68	156	39.00	438	54.82
Divorced	14	3.51	35	8.75	49	6.13
Others	4	1.00	11	2.75	15	1.88

Ever drank alcohol	174	43.61	205	51.25	379	47.43
Frequency of alcohol intake						
2 to 3 times a week	25	6.27	11	2.75	36	4.51
During occasions	43	10.78	115	28.75	158	19.77
Everyday	46	11.53	58	14.50	104	13.02
Once a week	26	6.52	10	2.50	36	4.51
Twice a week	34	8.52	11	2.75	45	5.63
Alcohol intake in the past 30 days	136	34.09	138	34.50	274	34.29

The insignificant share of alcohol expenditure in the total household budget indicates that alcohol is relatively cheap and affordable, or many participants are not consuming large quantities. Our intuition is that the former is the case.

Alcohol Drinking Experience And Motives

Age and alcohol intake in the 30 days preceding the survey: about 11% of the youth in the age group 15-19 years are drinking alcohol, and that was higher among the urban youth (11.1%) compared to the rural (10.5%). Among the adult group, however, prevalence was highest among respondents in the 30 years and above (42.0%), with the urban district reporting the higher (43.2%) use compared with the rural of 40.9% (Table 12).

Table 12 : Alcohol intake in the past 30 days by Age

Age	Alcohol intake in the past 30 days		
	DBI %	OKN %	OVR %
15-19	10.5	11.1	10.9
20-30	23.1	24.4	23.8
>30	40.9	43.2	42.0
Total	n=399	n=400	N=799

Regarding the gender with alcohol use in the past 30 days preceding the survey show that 23.8% of females drank alcohol compared to close to 40% of men. Among the females, 30.8% of women in DBI drank alcohol in the past 30 days before the survey. However, compared to the urban women, less than half (14.9%) did so. The prevalence of alcohol use was higher among urban men (43.0%) (Table 13).

Table 13 : Alcohol intake in the past 30 days by Gender

Gender	Alcohol intake in the past 30 days		
	DBI %	OKN %	OVR %
Females	30.8	14.92	3.8
Males	36.2	43.0	39.9
Total	n=399	n=400	N=799

Table 14 presents the distribution of alcohol use in the 30 days among the respondents against their religion. Overall non-religious groups recorded the highest prevalence of 59.2%, followed by traditionalists (56.6%) and Christians with 41.9%. The greater concern is that respondents from all religions use alcohol including Muslims (4.8%) although alcohol consumption is prohibited by the Islamic religion. Among the districts, the urban districts recorded a higher prevalence compared to the rural district (Table 14).

Table 14 : Alcohol use in the past 30 days by religion

Religion	Alcohol intake in the past 30 days		
	DBI %	OKN %	OVR %
Christian	43.2	40.2	41.9
Muslim	5.10	4.6	4.8
Nonreligion	25.0	62.2	59.2
Traditionalist	46.4	68.0	56.6
Total	n=399	n=400	N=799

Additionally, regardless of the respondent's education, alcohol use was observed at all levels within the 30 days preceding the survey. There was less variation in the prevalence. However, there was wide variation between the urban district compared to the rural. Among respondents who attend secondary level education (SHS), 18% was reported in the rural district DBI whiles almost double was reported in the urban district (35.1%) (Table 15).

Table 15 : Alcohol intake in the past 30 days by Education

Age	Alcohol intake in the past 30 days		
	DBI %	OKN %	OVR %
Basic	39.3	36.7	37.9
None	34.3	58.3	36.1
SHS	18.0	35.1	30.7
Tertiary	41.8	29.1	36.0
Total	n=399	n=400	N=799

Analysing two main variables; "everyday" and "during occasions" alcohol users with other independent variables such as age, gender, religion and level of education, various findings were reported. The overall prevalence for "everyday" alcohol users by age showed that adults in the age above 30 years had a prevalence of 16.2% compared to 19.9% in the Urban district (OKN) and a rather lower prevalence of 12.7% in the rural districts (DBI). Also, the prevalence in both variables shows a declining trend from the adolescents (15-19) years to older years (Table 16).

Table 16 : Frequency of alcohol intake by age

	Alcohol intake in the past 30 days					
	DBI		OKN		OVR	
Age	During occasions	everyday	During occasions	everyday	During occasions	everyday
15-19	0.0	10.5	19.4	0.0	12.7	3.6
20-30	11.6	9.1	26.8	8.1	19.3	8.6
>30	11.2	12.7	31.1	19.9	20.8	16.2
	n=399		n=400		N=799	

Religious affiliations with alcohol use frequency show that all forms of religions, traditionalists and even the non-religious respondents either drink alcohol every day and also occasionally. The traditionalist reported 40.0% and 42.0% for both variables in the urban district compared to a lower prevalence of 16.1% and 19.6% in the rural district (Table 17).

Table 17 : Frequency of alcohol intake by religion

	Frequency of alcohol intake					
	DBI %		OKN %		OVR %	
Age	During occasions	everyday	During occasions	everyday	During occasions	everyday
Christian	12.0	13.7	40.2	11.5	23.9	12.8
Muslim	3.1	1.0	6.9	2.3	5.2	1.8
No-religion	50.0	25.0	33.3	33.3	34.7	32.7
Traditionalist	16.1	19.6	42.0	40.0	28.3	29.3
	n=399		n=400		N=799	

The frequency of "everyday" alcohol use by gender showed an overall prevalence of 17.1% among males compared to 5.4% among females (Table 18). Also, the males still reported a higher prevalence of occasional alcohol use of 22.2% compared to the females.
Within the districts, the rural one reported 12.2% of occasional use of alcohol among females compared to their male counterpart's 9.9%. However, for everyday use, the males reported 14.8% compared to 6.4% among females (Table 18).

Table 18 : Frequency of alcohol intake by gender

	Frequency of alcohol intake					
	DBI		OKN		OVR	
Age	During occasions	everyday	During occasions	everyday	During occasions	everyday
Females	12.2	6.4	19.0	4.1	15.2	5.4
Males	9.9	14.8	33.0	19.0	22.2	17.1
	n=399		n=400		N=799	

Table 19 shows that alcohol use occasionally and/or every day is recorded among respondents regardless of level of formal education. Overall, occasional users of alcohol who attained a Senior High School level education reported the highest prevalence of 22.1% followed by 21.6% among respondents with a basic level of education. Generally, for both variables, the urban district respondents reported a higher prevalence compared to the rural district (Table 19).

Table 19 : Frequency of alcohol intake by education

	Frequency of alcohol intake					
	DBI		OKN		OVR	
Education	During occasions	everyday	During occasions	everyday	During occasions	everyday
None	13.3	9.8	25.0	41.7	14.2	12.3
Basic	8.9	19.6	33.3	18.3	21.6	19.0
SHS	7.7	7.7	27.1	13.8	22.1	12.2
Tertiary	10.7	12.3	30.1	10.7	19.6	11.6
	n=399		n=400		N=799	

Regarding the quantity of alcohol consumed daily, about half (48.6%) reported that they take a few tots; about one-third drink a bottle; whiles about 11% said they drink one glass of alcohol a day. Some respondents, however, reported drinking 2 to 5 bottles of Guinness in a day. Others reported being able to drink a pot of pito (locally brewed drink) in a day. Among the type of drinks, beer (28.7%) is the most patronized, followed by the local gins (adonko, kasapreko) and pito, palm wine, "akpetetsi" (20.8%) (Table 20). Averagely, GHS16 was spent daily on alcoholic beverages, where more than half (50.7%) of them said they buy alcohol in sachets, with 48.3% buying sachet packages of 50 to 100ml, which cost an averagely of GHS5.5.

Table 20 : Types of Alcoholic beverages normally consumed

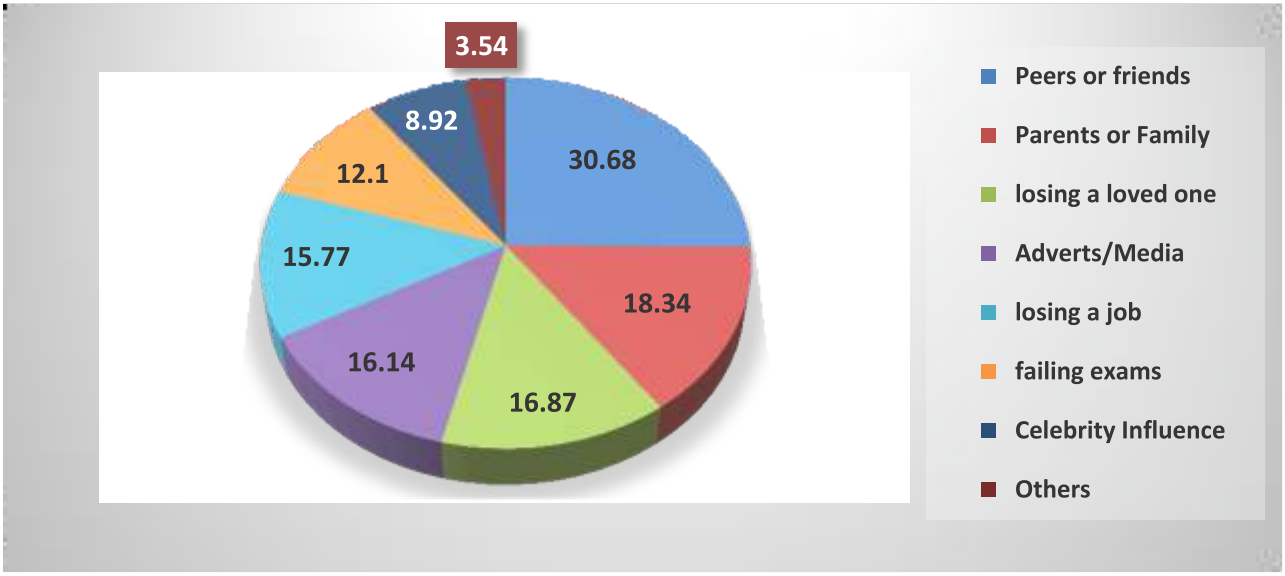
Type of Drink	Frequency	Percentage
Beer	215	28.7
Local Gin (Adonko)	153	20.4
Pito, palm wine, akpetsetshie	151	20.2
All types of spirits	114	15.2
Wine	109	14.6
Others	7	0.9

It was revealed that participants buy both local (such as local gins) and foreign alcoholic beverages (such as Club Beer and Guinness). They spend as high as 40 cedis and as low as GHS 1 in a day:

> "I just take some three tots of "apioo" [local gin] as appetite before meals, it costs just GHS1.00 per tot, I do not buy beer with my money, I only drink it when someone buys it for me ***[#2 Participant]***.
>
> I have stopped taking "Apeteshie" because people regard you like a drunkard if you drink it. I only take beer and Guinness and it costs like GHS 40.00 on average, and sometimes other people usually buy for me ***[#3 Participant]***.
>
> I only drink a bottle or two in the evening after work and it usually costs me about GHS20.00. I pay for my drinks. ***[#1 Participant]***.
>
> I mostly take the local gin because that is better than the chemical ones that are in the market now. I only take a quarter bottle on a good day, which is just GHS 3.00 and share it with friends. I usually pay for it myself ***[#5 Participant]***.
>
> Now I am old… I only drink on occasions, I take only one or two bottles even that I hide it, I do pay for my drinks that is why I work ***[#4 Participant]***."

Among the people who drink alcohol, 30.7% said they had been influenced by their peers' whiles 18.3% of them were introduced to it by their parents or family. Furthermore, 16.1 % of the respondents also said through advertisements and celebrities, they become attracted and started using alcohol whiles some due to loss of loved ones (16.9%) and loss of job (15.8%) (Figure 2).

Figure 3 : Who influenced you to start drinking alcohol



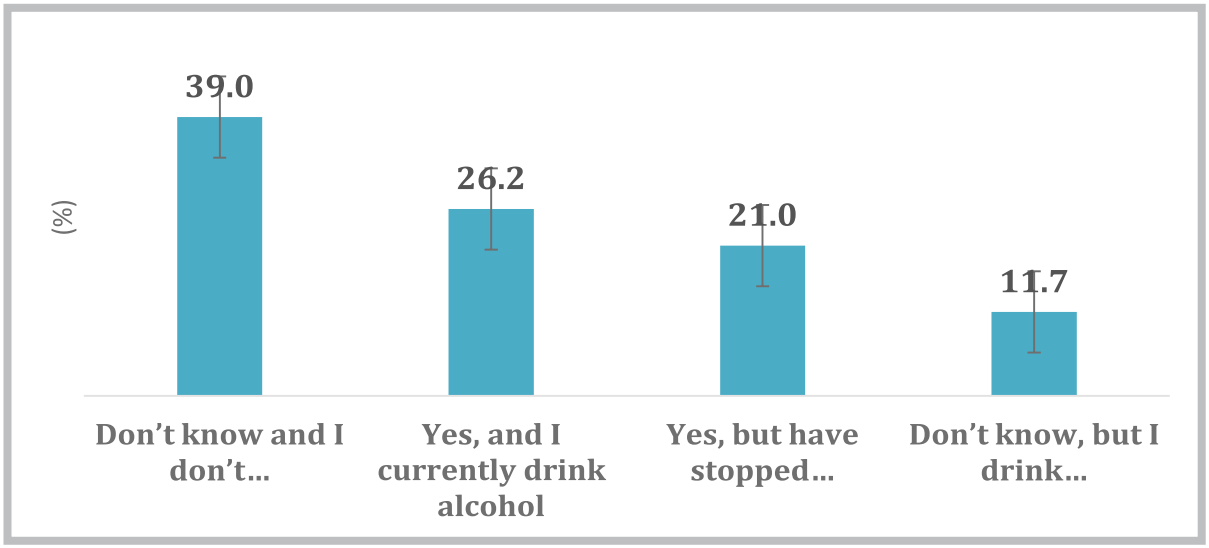
In an in-depth interview with people who used alcohol, we sought to explore when, why and how long participants indulged in the act of drinking alcohol. Out of these, varying responses were obtained, ranging from poor parenting; peer pressure; through friends in schools; and going out for celebrations and gatherings. Below are some quotes from the participants:

> I was introduced to drinking alcohol by my father. He used to send me to buy it for him and I taste it small, small. This was when I was about 12 years old. Am now 58 years ***(#1 Participant).***
>
> I began drinking through the adventures with friends. We grew up in the village and there was this friend whose father was a palm wine tapper, so we go to where the father does his tapping and when he is not there, we satisfy ourselves, I was around 10 years by then ***(#2 Participant).***
>
> I started drinking when I completed JSS, and we had an end of year party ***(#3 Participant)***
>
> I was introduced to alcoholism when I was in my third year at secondary school. There was this girl that I was admiring but could not approach her, so my friends made me drink to go face her, it was a disaster but that was how it all started ***(#4 Participant).***
>
> When I was around 17 years, I used to go out with my big sisters to drinking bars to have fun that was how I started drinking ***(#5 Participant).***
>
> **Also from the Ghana Education Service, School health and Education Programme (SHEP),** there is no research to outline specific outcome, but we do observe the student behaviour when they come to school. Most of the case are brought from home; the parents send them to buy alcohol and they end up tasting it and at the end, it becomes a habit ***(SHEP).***

It can be deduced from the responses that most of the participants acquired their alcohol consumption behaviour through someone (family, friends, etc), while others do so because of low self-esteem. By way of rating individuals' intake of alcohol during the Covid-19 pandemic, 47.3% said the pandemic did not affect their drinking habit; 43.9% reduced the habit; whiles about 10% said the pandemic made them drink more.

More than half (55%) of the respondents reported knowing close relations, friends or neighbours who drink alcohol. Asked about their awareness of the negative health effects of alcohol use, close to 40% did not know any health implications of alcohol consumption; 26.2% currently drink alcohol regardless of the awareness of the negative health effects, and 21% of them quit drinking alcohol when they knew about the negative health effects of alcohol (Figure 3).

Figure 4 : Awareness of the negative effects of alcohol use



Among the negative effects of alcohol use participants talked about include the challenges they faced in their marriages, diseases, and unnecessary fight which could have been prevented:

> My wife has been a nagging one from day one, she has just increased it *(#3 Participant)*.
>
> At times when I get home drunk, I feel bad, but it has not been often *(#1 Participant)*.
>
> I, at times, wish I could stop drinking completely but I still go back to drink *(#4 Participant)*.
>
> I was once involved in an accident and because of that I have stopped driving *(#2 Participant)*.
>
> When I was young, I used to fight and even got hurt. There were occasions when I fell in gutters and so on... *(#5 Participant)*.
>
> No, once in a while you feel tipsy and miss my steps, the results may be some bruises *(#1 Participant)*.

Regarding sicknesses and diseases due to alcohol intake, respondents complained of many illnesses as stated in the following quotes.

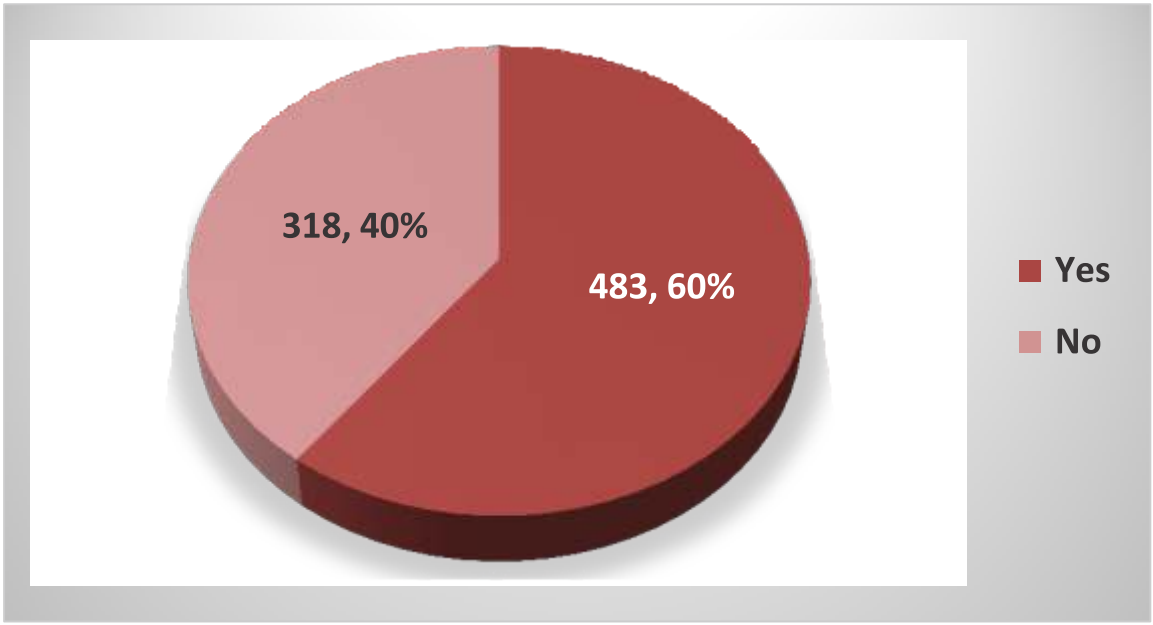
Regarding sicknesses and diseases due to alcohol intake, respondents complained of so many illnesses as stated in the following quotes.

> I am not all that well: I have BP and some heart problems. I find it difficult to sleep and that is why I spend most of my time at this bar ***(#1 Participant)***
>
> We are managing, though I have BP which I know it is the alcohol that is the cause. But I drink because it helps me to cope with my numerous troubles ***(#2 Participant)***
>
> I currently have a heart problem, and diabetic ***(#5 Participant)***
>
> I have a stomach ulcer, and also suffering from heart disease and high blood pressure ***(#3 Participant).***

Exposure Of The Youth To Alcohol In The Community

The activities of the alcohol industry expose children to alcohol. This occurs through various forms of adverts and targeting. About 84% of children in Accra were exposed to alcohol in 2020.[8] The frequent advertising of alcoholic beverages on TV, radio, and billboards are contributory factors.
Consistent with a previous study,[8] we find that children are exposed to alcoholic beverages. Generally, 60% of the respondents admitted that children and the youth are the most vulnerable and are highly exposed to alcohol in their communities in several ways (Figure 4).

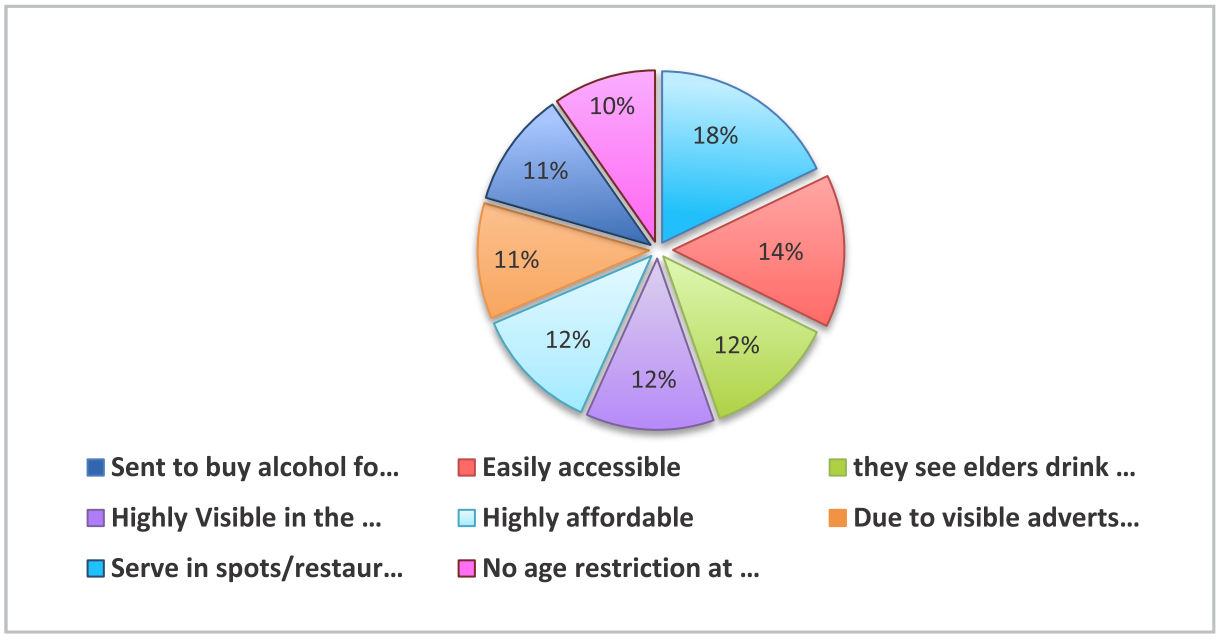
Figure 5 : Have you seen people below age 18 drinking alcohol?



Among them were: 1. exposure through parents or close relations to alcoholic lifestyle; 2., exposure by sending to buy alcohol; and 3. exposure by seeing the elderly drink alcohol. Others were high visibility of alcohol in the community with the springing up of kiosks for the sale of alcohol at vantage points; easily affordable because of very cheap sales of alcohol and sales of alcohol in sachets; TV, radio, and billboard advertisements exposures; youth working at restaurants and drinking bars; and "no age restriction" of buying and selling of alcohol as shown in Figure 5. This further confirms earlier findings from previous surveys that focused on Accra only.[8]

Due to this, some respondents (49%) believed that alcohol consumption in their communities is on the rise, predisposing the youth to pick up the bad habit from their role models, elders and some close family or relatives in the community. They believed that their attitudes (32%) regarding alcohol might have a strong influence on the youth in the community negatively.

Figure 6 : Various Modes of Youth Exposure in the Communities



Some participants believed many people in their communities drink alcohol. However, some prefer to drink in the open or hide to drink while others do that at home. As a result, it is difficult to tell the real story about alcohol drinking. Below are a few quotes;

> This is a big community, and a lot of people drink alcohol here so you can't put a figure to it, most of our youth are unemployed and spend most of their time drinking ***(#4 Participant).***
>
> In this community, almost everybody drinks. We have those of us who do it openly, those who do it secretly, and those who drink in their homes. You never see them come to buy the drinks but when you visit them, they always have drinks to share. The youth are mostly unemployed so they spend their time drinking and smoking, I cannot put a number to it, but they are in the majority ***(#1 Participant).***
>
> The youth in the area have taken to drinking these few years and they drink more than the elderly, but I can't put a figure to it, I can only assume ***(#3 Participant).***
>
> Look at the number of drinking bars around. They all make very good sales, though the youth are mostly unemployed, and I don't know how they make ends meet. When we were young, the drinking places were not that many, so I think the level of drinking has gone high, and I think the younger ones are in the lead ***(#1 Participant).***
>
> In my time we used to have girls-girls- groups where we drink and do all sort of girls' things, but now I do not see such groups around, so I think the drinking among the ladies is a bit low, but the boys are now worse. They drink like alcohol is brewed in their stomach. They drink too much. And we cannot stop them ***(#2 Participant).***

Many of the youth also consume due to lack of employment, springing up of alcohol drinking spots at strategic locations which attract adults and some youth groups to consume alcohol. The increasing number of drinking spots increases the availability of the beverage.

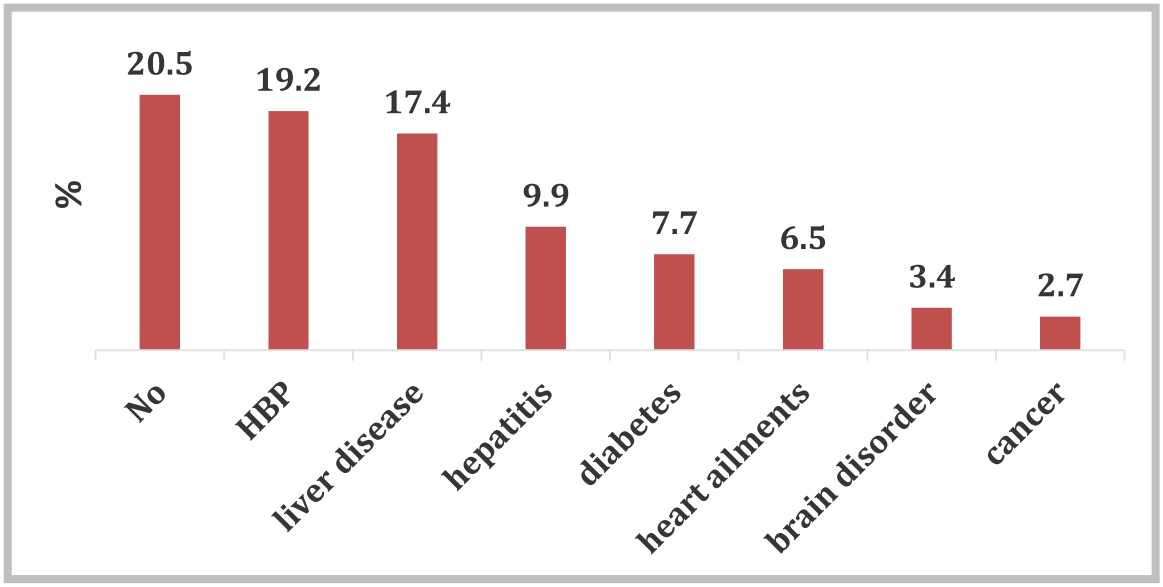
Alcohol Use Related Challenges

Among current drinkers, about half reported not being able to work effectively at their workplaces because of alcohol intake. About 38.0% said they sometimes could not work because of the effects of the alcohol in their system, and another 3.2% most often could not work. Only 2.4% reported not being able to always work at all due to alcohol. Within this group, 32.7% have experienced alcohol-related injuries. Some of the respondents summarized their experiences as follows:

> I was once involved in an accident because of that I have stopped driving *(#2 Participant)*
>
> When I was young, I used to fight and even got hurt out of it, there were occasions when I fell in gutters and so on.. *(#5 Participant)*
>
> "No, once in a while you feel tipsy and miss my steps, the results may be some bruises *(#1 Participant)*.

Many drinkers (32.2%) were worried about peoples' perceptions and expressions about their behaviour. Such concerns were also expressed in some respondents' marital affairs where 16.6% of them lamented how negatively their marriages are been affected as a result of alcohol use. Alcohol use is a risk factor for many diseases including liver diseases, high blood pressure, cancers, diabetes etc. We enquired from respondents who drink whether such diagnoses had been carried out and reported to them by a health professional. Figure 6 below shows the various diseases reported by the respondents such as high blood pressure (19.2%), liver diseases (12.7%), and 2.7% reporting cancers (Figure 6).

Figure 7 : Diseases diagnosed among alcohol users



Regarding awareness of any form of support to quit through medical therapy and/or psychosocial support, more than two-thirds (72.3%) were not aware of any such support. However, more than half (52.5%) of them is willing to access such facilities to assist them to quit if available. Other drinkers were not sure of whether to quit or not.

> I wish I could stop, but the last time I tried I ended up in the hospital. If there is help, I will go for it *(#2 Participant)*
>
> I am not an addict, but I will think about it *(#5 Participant)*
>
> I know those who are addicts and I am certainly not one, thank you *(#3 Participant)*
>
> I will be glad to receive it *(#1 Participant);*
>
> I am willing and I know I will surely quit *(#4 Participant)*

We found that many drinkers are willing and ready to quit, even though some are afraid since their past attempts to quit were unsuccessful. However, providing the needed support, such people would be able to quit. Finding out whether there are adequate health facilities in the country to treat or rehabilitate alcohol addicts, the participants mentioned facilities such as Komfo Anokye Teaching Hospital, Accra Psychiatric Hospital, Ankaful and Pantang Psychiatric Hospitals, but they considered them inadequate for Ghana. Those patients suffering from such health challenges are not even aware of those facilities' readiness to provide such services.

> It is not even prioritized so people do not even know such exist to support people with alcohol problems to that extent. Just as they did with tobacco, we will recommend that they may have more district centres to handle alcohol-related disease *(CSO)*.

However, the Health Promotion office at the Ministry of Health said, the Pantang Psychiatry Hospital is the main facility equipped with services, while plans are underway to provide such facilities also in all regions and districts across the country – we have rehabilitation centres with the main one at Pantang Hospital. We are thinking of establishing regional and district ones (Health Promotion-MOH). According to MOH, the facility is designed to provide a comfortable in-house service where patients can have a full-time rehabilitation within six to nine months as far as family members can support because it is not free –

> To some extent, the patient pay for his/her treatment. I think with the support of family you are treated until we are sure you can go out alone without being tempted to go drinking before we release you *(Health Promotion-MOH)*.

The MOH further called on traditional, religious and opinion leaders to assist since they know and live with people who need alcohol-related help in our society.

The CSOs complained about a general lack of awareness of the availability of such facilities, hence those who exhibit signs of alcohol dependency or disorders, do consider it as normal because they do not know where to seek medical assistance: "It is the responsibility of the government first and foremost to educate the citizens by creating the awareness so that people may know that there is this or that facility at so and so places, but unfortunately we don't see any deliberate plan of action by the government to embark on the educational programme" (CSO).

Furthermore, when asked whether an increase in prices of alcoholic beverages will help them to quit, less than 20% believed this will be a measure to assist them to quit. On the other hand, 72.6% were not willing to pay an extra GHS1 on a litre of any alcoholic beverages they purchase. The fact that most drinkers were unwilling to pay higher prices suggests that taxes can reduce alcohol consumption in Ghana.

To deter or discourage consumers of alcohol, participants were of the view that increasing taxes on alcohol as in tobacco will lead to a reduction in consumption, prevent initiation, increase quit rate as well as increase government revenues to drive many health policy interventions.

> We can come out with a holistic policy that can protect human lives and then increase revenue we need for Ghana. I believe when taxes are raised on these products, the consumption will go down ***(MP)***.
>
> **From the CSOs,** … the point is that the taxes on alcohol need to be considered and see if it is punitive enough to warrant an increase in the cost of alcohol.

Alcohol consumption is a major risk factor for road accidents which contribute immensely to high mortality and morbidity in the country. Interacting with the personnel at the agencies concerned to ascertain how this is impacting road safety in Ghana, a participant indicated it is mandatory not to drink and drive and all offenders face the rigour of the law when caught

> … drivers are not supposed to drink alcohol to some level and drive, the road safety act states that the use of alcohol and drugs when driving is considered as one major offence under the road traffic act, so to some extent I may say yes there are laws governing alcoholism and driving ***(Lawyer- MTTD)***.

It was not surprising that about 60.9% of the respondents attributed accidents on our roads to alcohol use by drivers. Also, compliance has been identified as a challenge because some drivers are always apprehended during routine checks whenever it is carried out. According to the participant, the Division lacks some key equipment for effective service rendering –

> Though we have been doing snap-checks on the roads I think it is still not enough as we still lack most of the equipment for the job but there is still room for improvement ***(Lawyer- MTTD)***.

As a measure to reduce the carnage on our roads due to drunk driving, the participant believed that tax increases on alcoholic beverages will be a great deterrent to the driver not to drink…

> we should consider increasing the taxes on these products (alcoholic beverages) to make them unprofitable to deal in, this will help reduce the quantity of (alcohol) consumption ***(Lawyer- MTTD).***
>
> **Other key stakeholders also share a similar opinion.**

Alcohol Prevention And Control Measures

The control and prevention of the use of alcohol are important in reducing the burden of alcohol. Respondents were asked about their opinion on the state of regulation and compliance of alcohol laws in Ghana. From policymakers' and stakeholders' perspectives on the laws and regulation of alcohol consumption, some participants confirmed the existence of laws and directives. However, these laws are not fully enforced or complied with, either because they are outdated to the current needs of the society or lack of resources to enforce them. As expressed:

> there is a regulation that governs them but from the discussion so far, there is the need to review all the existing laws or to amend them to suit the current situation at hand ***(Member of Parliament (MP).***
>
> … It is classified as food so since we have enough laws for food then there are enough laws to regulate alcohol and to control it. We can enhance it but for now, this is what we have, and it is ok we have used it since 2012 till date after the passage of Act 851 ***(Lawyer-FDA).***

Policymakers believed that coming out with a Legislative Instrument (LI) which they are currently working on will further assist in its enforcement and compliance

> Though we are working on an LI to further tighten the regulation ***(Lawyer-FDA).***
>
> **The Civil Society Organisations also reiterated that -**
>
> we need laws…, I know there are some laws, but they are colonial laws; things have changed a lot and we need modern laws to deal with current trends, and also some practical laws that control consumption and improves health care and help government raise revenue ***(CSO).***

Concerns were raised about the level of compliance with the existing laws, in connection to importation of goods, smuggling of goods, unregistered brands of goods and products, as well as porous borders by some institutions including CSOs:

> Compliance is an individual activity, and we hope the individual will take responsibility for their habits *(MP)*.
>
> … when it comes to the laws, I will say the compliance is ok though we have issues when it comes to importation, smuggling, and unregister brands as our borders are porous. We have prosecutorial powers and that tells how far we can go but I will say we can do better *(Lawyer-FDA)*.

Some stakeholders indicated that there are alcohol prevention strategies in place such as "health warning labels, the requirement for advertisement, time to place an advert on both radio and Television (TV) and also the personalities involved in such advert for instance celebrities are banned to engage in such advert since the younger ones look up to them as role models:

> When it comes to advertisements, we have written alcohol is not good; when it comes to billboards too, there are places like some distances from schools and churches and places that are closer to young ones you cannot place adverts; *(Lawyer-FDA)*.
>
> When it comes to time, there are times, I think from 6 am to 8 pm you are not to advertise alcohol *(Lawyer-FDA)*.
>
> Celebrities are people that the young ones look up to, so they are not allowed to engage in advertising alcohol *(Lawyer-FDA)*.

Compliance was described by CSOs to be ineffective to the extent that some industries demand self-compliance-

> the industry always want self-compliance. You cannot have your own rule and then be part of the implementation …they want self-compliance or self-regulatory *(CSO)*.
>
> **However, there are measures in place to regulate alcohol advertisement**
> I can say at least when it comes to advertisement, the administrative laws were passed restricting the time to advertise; yes, it has worked and will continue to work because we are not seeing more adverts during the daytime, and fewer celebrities advertising though some are still doing it and some media houses are not complying *(CSO)*.

Overall, the stakeholders recommend a high level of enforcement and compliance both at individual and corporate levels to achieve the goal of alcohol control and prevention.

From the perspective of the respondents, the laws for the regulation and control of alcohol are very relaxed hence need to be enforced. Respondents made various recommendations for effective control of alcohol including a ban on all forms of alcohol advertisement (22.4%), an increase in taxes (22.3%), and minimum age restriction for the purchase of alcohol (19.4%).

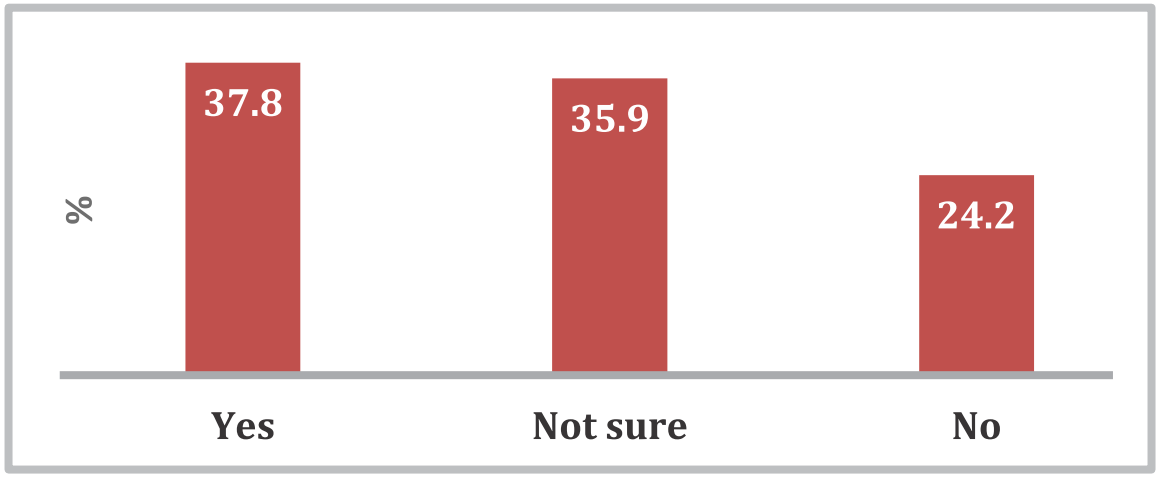
Respondents were further asked about their reaction when taxes are raised on alcoholic beverages to help reduce the negative health outcomes such as heart diseases, liver diseases, cancers etc. As shown in figure 7, more than half of them said they will support the tax increase.
Currently, both domestic and imported alcohol beverages attract all forms of taxes which include the usual import duty taxes, the Value Added Tax (VAT), the National Health Insurance Levy (NHIL), Covid-19 Levy and many other levies, whiles the local productions only attract VAT, Covid-19 Levy and other duties on them (see Table 8 and Appendix Table 1):

> "The rates and structures depend on the tax point: if the products are imported, they attract import duties whilst domestically produced products don't ***(GRA)***.
>
> The tax structure has evolved over the years which has seen upward adjustment and changing the regime from specific to ad valorem; "For the last ten years some taxes have varied greatly. For tobacco, for instance, in 2015 the taxes changed from 150% to 175%, and this has been changing with time. We changed from specific excise duty rate to ad valorem for some specific product ***(GRA)***."

Figure 8 : Reaction to taxes on alcohol

More than a third of the respondents were in favour of a total ban on all forms of alcoholic beverages in Ghana, whiles close to the same number were not sure whether to support the ban or not (Figure 8).

Figure 9 : Support for Ban of Alcohol



Regarding effective means of controlling alcohol, various means were suggested by CSOs as follows: planned awareness creation, ensure children and youth restriction and prevention, limited access to all forms of alcohol, ban all forms of advertisement and clear standard for local production and registration enforcement. It was re-emphasized by CSOs that alcohol is still cheap in the market, and these beverages are sold in sachets or tots with no restrictions on how much an individual can purchase. Hence, they suggested that "taxes on alcohol be increased enough to prevent children and the poor who are more vulnerable from buying" CSO). Indeed, only 25% of the respondents do not support alcohol taxes (Figure 7).

Chapter Five

Summary of findings, conclusions, and recommendations

The study provides a comprehensive assessment of alcohol use in Ghana by leveraging on existing studies on alcohol control and consumption in Ghana and elsewhere, as well as field interviews and consultations with relevant stakeholders to provide a holistic assessment of alcohol use and its consequences (Alcohol Consumption Prevalence, Health Consequences of Alcohol Consumption, Alcohol consumption and COVID-19); Alcohol Prevention and Control (Alcohol Policies and Interventions, Prices of Alcoholic beverages, Excise Taxation as a prevention and control strategy); Lived Experiences (Alcohol Drinking Experience and Motives, Alcohol use related challenges) and perspectives from key stakeholders and Policymakers. After a thorough review of the literature, consultations with stakeholders and field interviews, the study among other things established the following key findings:

1. Results from the survey shows that about 34% of respondents consumed alcohol in the past 30 days prior to the survey. Alcohol consumption is a major cause of non-communicable diseases and road accidents in Ghana, and therefore poses a significant threat to public health and the economy at large.
2. Approximately 9 percent of adults in Ghana are High Episodic Drinkers, with the majority being males.
3. Prevalence of alcohol use among teenagers is high (11%) and it is concentrated among boys.
4. Children and the youth are exposed to alcohol through advertisements in the media (radio and TV), visible sales outlets in the communities and drunk relatives. Given that there is no specific time designated for online/internet advertisement, companies advertise alcoholic beverages anytime.
5. Alcohol use disorder and dependence in Ghana are relatively higher than the average in the WHO Africa region.
6. Document review showed that binge drinking is reported among a small section of the population during the COVID-19 pandemic.
7. Advertising, industry tactics, cheap alcohol, anxiety, depression, and unemployment are some of the reasons that led people to consume alcohol. Alcoholic beverage companies are using corporate social responsibilities to improve public image and increase their sales.
8. Approximately 40 percent of the respondents are ignorant of the negative consequences of alcohol.
9. Although Ghana has a National Alcohol Policy, implementation of the policy is ineffective, lagging the WHO standards.
10. Taxes are one of the key policies tools the government of Ghana uses to control alcohol consumption. However, the potential of the alcohol has not been fully utilized.

Conclusion

Alcohol consumption is generally low in Ghana: majority of Ghanaians are lifetime abstainers of alcohol. However, alcohol dependence and alcohol disorder in Ghana are among the highest in sub-Saharan Africa. Alcohol consumption poses significant threats to the health system. Furthermore, productivity losses from alcohol through morbidity and mortality have significant impact on the economy. The increasing alcohol-related non-communicable diseases poses threats to not only the budgets of individual households, but also to that of the entire health system. Further, the exposure of children and the youth raise serious concern about the intergenerational transmission of alcohol consumption and harm. Overall alcohol use imposes significant cost on families, governments, and the entire society.

Although Ghana has done well in developing NAP and other administrative guidelines on alcohol, much more needs to be done. Effective implementation of the National Alcohol Policy and FDA guidelines, as well as passage of a legislative instrument (similar to that of tobacco) could save the looming danger posed by alcohol consumption in Ghana.

Recommendations

From the findings, the following policy-oriented recommendations are worth considering by government:

1 As a matter of urgency, it is recommended that the Government of Ghana finalises and adopts a legislative instrument necessary to control alcohol use in the country.

The foundation has already been laid through the launching of the National Alcohol Policy, which has laid down the policy directions. Alcohol poses greater danger to the Ghanaian youth and therefore needs a more aggressive way to address the issue. Finalising and adopting legislative instrument through parliamentary process will give legal backing to enforce various directives or administrative guidelines supposed to guide alcohol use and trade in the country. Adopting a legislative instrument or a legal framework is a first and necessary step towards effective control of alcohol use.

2 The Ministry of Health and other relevant agencies should sensitize the public on the NAP and FDA guidelines on advertising alcohol in Ghana. By this, the NAP should be publicly available through online platforms (e.g., MoH website) and print copies:

It is worth noting that since the launch of the NAP in 2017, the document is not readily available to the public and thus there is extremely low awareness among relevant stakeholders and the general public about the content of the document. It is recommended that as a matter of priority, the MoH and its relevant agency should make the NAP publicly available by disseminating it widely by publishing it on the website and printing copies for distribution. The MOH can take a cue from the FDA who has published and disseminated widely the guidelines for the advertisement of foods including additional requirements for alcoholic beverages on their website. It is also suggested that the MOH could collaborate with the FDA, as well as health-focused non-governmental organizations, such as the Ghana NCD Alliance to sensitize the public on the NAP and the guidelines for advertisements of alcohol.

3 Ensure and/or prioritize effective implementation and enforcement of the National Alcohol Policy to among other things help improve Ghana's rating on the WHO standards and conventions on alcohol:

To ensure the implementation and enforcement of the NAP, a central and independent coordinating body, the Ghana National Alcohol Commission (GNAC) was supposed to be created. However, our investigations reveal such a body is yet to be established. It is overly critical for the government to as a matter of priority see to the establishment of the GNAC. The existence of such a body will aside from the key role of serving as a coordinating unit, will also contribute in no small way to lead in the proposed sensitization on the NAP as suggested earlier. It is also suggested that the GNAC should work closely with the FDA to ensure comprehensive monitoring system are put in place to effectively monitor and ensure adherence to the NAP and the guidelines for the advertisement of alcoholic beverages. Ghana is lagging some of the WHO standards and conventions on alcohol.

4 Strengthen sensitization on the deleterious effects of alcohol use, considering that alcohol consumption is one of the major causes of non-communicable diseases and road accidents in Ghana:

An integrated approach to the sensitisation on the effect of alcohol consumption is recommended, where the Ghana Health Service (GHS) should collaborate with Civil Society Organizations (CSOs) involved in alcohol control advocacy such as the Ghana NCD Alliance, Vision for Alternative Development, Ghana Alcohol Policy Alliance, traditional and religious leaders as well as the media to embark on sensitization and awareness campaigns on the adverse effects of alcohol use. Such campaigns should focus on tailored messaging about the dangers of alcoholism. Again, given the important role played by both traditional and social media in disseminating information, such sensitization campaigns should resort to the media.

5 Alcohol taxation and pricing measures should be implemented alongside non-tax/price measures and revenues from alcohol taxes should be earmarked to finance health care:

It is an undeniable fact that a well-designed tax system for alcohol can raise substantial funding for health in Ghana. However, to ensure significant fiscal gains, as well as controlling alcohol consumption it is suggested that alcohol taxation measures should not be implemented in isolation. To maximize revenue generated from excised duties from alcohol, such taxation measures should be implemented as specific tax alongside non-tax/price measures such as the provision of health information through warning signs/pictures, educational campaigns, age restrictions, among others.

It is also suggested that the Ministry of Finance could consider earmarking the revenues accrued from alcohol taxation to the health sector. Countries like Estonia, Australia, the Philippines, and Thailand have either used alcohol and/or tobacco taxes to finance health promotion activities or to address UHC funding shortfalls to ensure that all people needing care can have access. Ghana could also decide to earmark the revenue from alcohol taxation to support health insurance coverage for NCDs.

6 Encourage the establishment of rehabilitation and/or reformation centres to treat alcohol addiction:

Government should provide enabling environment to encourage individuals and organisations establish rehabilitation and reformation centres and services, to treat people with alcohol use disorder and addiction. Collaboration with faith-based organizations, NGOs, and other relevant bodies will be particularly important in this regard. However, proper regulation from relevant government institutions will be extremely critical. Additionally, the social welfare department and the Ministry of Children and Gender should consider developing specific human rights and child rights-based services and support for children of parents with alcohol use problems. They could collaborate with CSOs on child protection and welfare in this regard.

7 Finally, strict regulation of advertising alcohol is needed.

This should include the timing and medium of adverts. The 6AM – 8PM designated time should be changed to 5AM – 10PM so that companies air alcohol adverts outside these hours. The latter time will prevent exposure of many children and youth to alcohol adverts. Further, online/internet adverts should be restricted.

References

1. World Health Organization. Global status report on alcohol and health, 2018. Geneva: World Health Organization, 2018.
2. Nwagu E, Dibia S, Odo A. Socio-cultural norms and roles in the use and abuse of alcohol among members of a rural community in Southeast Nigeria. Health education research 2017;32(5):423-36.
3. Mandelbaum DG. Alcohol and culture. Current Anthropology 1965;6(3):281-93.
4. Degenhardt L, Charlson F, Ferrari A, et al. The global burden of disease attributable to alcohol and drug use in 195 countries and territories, 1990–2016: a systematic analysis for the global burden of disease study 2016. . Lancet Psychiatry 2018;1; 5(12):987–1012. doi: https://doi.org/10.1016/S2215-0366(18)30337-7
5. World Health Organization. [Available from: https://www.who.int/initiatives/SAFER accessed 6 January 2022.
6. World Health Organization.[Available from: https://www.who.int/data/gho/data/indicators/indicator-details/GHO/alcohol-recorded-per-capita-(15-)-consumption-(in-litres-of-pure-alcohol) accessed 6 Jan 2022.
7. Euromontior International. Alcoholic drinks 2021, Ghana: Euromonitor International, 2022.
8. Vision for Alternative Dvelopment. Rapid assessment of tobacco products, alcohol and sugar-sweetened beverages (SSBs) in the Greater Accra Accra: Vision for Alternative Dvelopment, 2020.
9. Endal D. Adherence to age limits for alcohol sale very poor 2018 [Available from: http://www.add-resources.org/adherence-to-age-limits-for-alcohol-sale-very-poor.6126821-315750.html accessed 23 April 2022.
10. Gov't. of Ghana. Public Health Act, 2012 Act 851. Ghana 2012.
11. Government of Ghana. National Alcohol Policy: Ministry of Health, Ghana 2016.
12. Gibbs N, Angus C, Dixon S, et al. Equity impact of minimum unit pricing of alcohol on household health and finances among rich and poor drinkers in South Africa. BMJ Global Health 2022;7(1):e007824.
13. Rehm J, Gmel G, Sempos CT, et al. Alcohol-related morbidity and mortality. Alcohol Res Health 2003;27(1):39-51.
14. Parry CD, Patra J, Rehm J. Alcohol consumption and non-communicable diseases: epidemiology and policy implications. Addiction 2011;106(10):1718-24.
15. Opoku G. Factors Contributing to Impair Driving in Ghana. A Case Study of the Ashanti Region of Ghana. Texila International Journal of Public Health 2019 doi: 10.21522/TIJPH.2013.SE.19.02.Art016
16. Damsere-Derry J, Afukaar F, Agyemeng W, et al. PREVALENCE OF DRUNK DRIVING IN GHANA. Injury Prevention 2012 doi: 10.1136/injuryprev-2012-040590a.1
17. Collin J, Ralston R, Hill S, et al. Signalling virtue, promoting harm unhealthy commodity industries and COVID-19: NCD Alliance 2020.
18. Gyasiwaa A. Kasapreko supports sanitation campaign 2014 [Available from: https://www.modernghana.com/news/584000/kasapreko-supports-sanitation-campaign.html accessed 23 April 2022.
19. GGBL responds to water crisis at KATH 2017 [Available from: https://www.ghanaweb.com/GhanaHomePage/NewsArchive/GGBL-responds-to-water-crisis-at-KATH-527025 accessed 23 April 2022.
20. Bokpe SJ. Prez Mahama inaugurates Kasapreko Company's bottling plant 2015 [Available from: https://www.graphic.com.gh/business/business-news/prez-mahama-inaugurates-kasapreko-company-s-bottling-plant.html2022.

21. Yeboah RM. President Akufo-Addo Commissions Kasapreko Water, Juice and Soft Drinks Factory Under 1D1F 2020 [Available from: https://ghanatoday.gov.gh/business/president-akufo-addo-commissions-kasapreko-water-juice-and-soft-drinks-factory-under-1d1f/?noamp=mobile accessed 23 April 2022.
22. Ghana Beverage Awards. Empowering the Ghanaian beverage industry through recognition, the mission of Ghana beverage awards 2017 [Available from: https://ghanabeverageawards.com/empowering-the-ghanaian-beverage-industry-through-recognition-the-mission-of-ghana-beverage-awards/ accessed 23 April 2022.
23. Plata A, Motoki K, Spence C, et al. Trends in alcohol consumption in relation to the COVID-19 pandemic: A cross-country analysis. International journal of gastronomy and food science 2022;27:100397.
24. Rao R, Topiwala A. Alcohol use disorders and the brain. Addiction 2020;115(8):1580-89.
25. Andreasson S, Chikritzhs T, Dangardt F, et al. Alcohol and Society 2021: Alcohol and the coronavirus pandemic: individual, societal and policy perspectives. . Stockholm: Swedish Society of Nursing, SFAM, SAFF, CERA, The Swedish Society of Addiction Medicine, SIGHT, Movendi International & IOGT-NTO., 2021.
26. Sotne W. How bars are fuelling COVID-19 outbreaks. 2020 [Available from: https://www.npr.org/sections/health-shots/2020/08/18/902328016/how-bars-are-fueling-covid-19-outbreaks accessed March 26 2022.
27. White T, Nikas S, D D. Europe Clamps Down on Night Life to Regain Grip on Pandemic. 2020 [Available from: https://www.bloomberg.com/news/articles/2020-08-16/spain-toshut-famed-nightclubs-after-links-to-covid-outbreaks accessed March 01 2022.
28. Mallet J, Dubertret C, Le Strat Y. Addictions in the COVID-19 era: Current evidence, future perspectives a comprehensive review. Progress in Neuro-Psychopharmacology and Biological Psychiatry 2021;106:110070.
29. Itoshima H, Shin J-h, Takada D, et al. The impact of the COVID-19 epidemic on hospital admissions for alcohol-related liver disease and pancreatitis in Japan. Scientific reports 2021;11(1):1-8.
30. Bailey KL, Samuelson DR, Wyatt TA. Alcohol use disorder: A pre-existing condition for COVID-19? Alcohol 2021;90:11-17.
31. Gatorwu S. Alcohol consumption and kidney diseases in Ghana. 2021 [Available from: https://kidneyhealthinternational.org/2021/07/23/alcohol-consumption-and-kidney-diseases-in-ghana/ accessed 22 Jan 2022.
32. Wood AM, Kaptoge S, Butterworth AS, et al. Risk thresholds for alcohol consumption: combined analysis of individual-participant data for 599 912 current drinkers in 83 prospective studies. . The Lancet 2018; 391:1513-23.
33. World Hearth Foundation. The impact of alcohol consumption on cardiovascular health: Myths and measures. n.d. [
34. Roth GA, Mensah GA, Johnson CO, et al. Global burden of cardiovascular diseases and risk factors, 1990–2019: update from the GBD 2019 study. . Journal of the American College of Cardiology 2020;76(25):2982-3021.
35. Ministry of Health Ghana. National Policy for the Prevention and Control of Chronic Non-Communicable Diseases in Ghana. Accra: Ministry of Health, 2012.
36. Global Burden of Disease Collaborative Network. Global Burden of Disease Study 2019 (GBD 2019) Results. Seattle, United States: Institute for Health Metrics and Evaluation (IHME), 2020.

37. National Health Insurance Authority. Benefits package. 2022 [Available from: https://www.nhis.gov.gh/benefits.aspx accessed March 26 2022.
38. Food and Drugs Authority. Guidelines for the advertisement of foods. . Accra: Food and Drugs Authority, n.d.
39. Mensah B. Parliament denounces advertisements on alcohol 2017 [Available from: https://www.modernghana.com/news/766644/parliament-denounces-advertisements-on-alcohol.html accessed 23 April 2022.
40. Van Walbeek C. Raising Additional Government Revenues in Ghana by Raising the Excise Tax on Tobacco and Alcohol Washington, D.C.: WBG Global Tobacco Control Program, World Bank Group; 2014 [Available from: http://documents.worldbank.org/curated/en/133561561707742558/pdf/Raising-Additional-Government-Revenues-in-Ghana-by-Raising-the-Excise-Tax-on-Tobacco-and-Alcohol.pdf accessed 15 July 2019.
41. Government of Ghana. Act 878 Excise Duty Act, 2014. Ghana, 2014.
42. Ghana Revenue Authority. Tobacco and Alcohol Import Tax in Ghana (2008-2018). Accra: Customs Policy and Programmes Department, Ghana Revenue Authority., 2021.
43. Sornpaisarn B, Shield KD, Österberg E, et al. Resource tool on alcohol taxation and pricing policies. Geneva: World Health Organization 2017.
44. Gov't. of Ghana. Customs and Excise (Duties and Other Taxes) Amendment Act 739. , 2007.
45. World Health Organization. Monitoring the building blocks of health systems: a handbook of indicators and their measurement strategies. Geneva: World Health Organization 2010.
46. MOVENDI. Philippines: New Survey Data Illustrate Alcohol Harm, But Alcohol Taxation Provides Solution: MOVENDI; 2021 [Available from: https://movendi.ngo/news/2021/08/26/philippines-new-survey-data-illustrate-alcohol-harm-but-alcohol-taxation-provides-solution/March 30.
47. Marquez PV. Addressing Alcohol Use Disorders through Taxation: A Public Health and Economic Win-Win in the Time of COVID-19.: MOVENDI; 2022 [Available from: https://movendi.ngo/blog/2022/03/14/addressing-alcohol-use-disorders-through-taxation-a-public-health-and-economic-win-win-in-the-time-of-covid-19/ accessed March 30 2022.
48. Schoonenboom J, Johnson RB. How to construct a mixed methods research design. KZfSS Kölner Zeitschrift für Soziologie und Sozialpsychologie 2017;69(2):107-31.
49. How to Determine the Correct Sample Size - Qualtrics [Available from: https://www.qualtrics.com/experience-management/research/determine-sample-size/ accessed 4 Feb 2022.
50. Boachie MK. Preferred primary healthcare provider choice among insured persons in Ashanti Region, Ghana. International journal of health policy and management 2016;5(3):155.
51. Ghana Statistical Service. 2010 Population and Housing Census Final Results Ghana Statistical Service. Accra: Ghana Statistical Service, 2012:1-11.

Appendix

Tax Rates for various (Non) Alcoholic products, June 2021

Table 1: Tax Rates for various tobacco products, June 2021

			1	2	4	5	6	7	8	9	10	11
UN Comtrade HS Code	Hs Description	Standard Unit of Quantity	I/Duty Rate	I/VAT Rate	Eco Levy Rate	EDIAF Rate	I/NHIL Rate	Special I/Levy Rate	GET Fund levy	AU Import levy	CHRL	IRS Tax Deposit
2207	Ethyl alcohol and other denatured spirits of any strength	Kg/tonnage	10%	12.5%	0.50%	0.50%	2.50%	2%	2.5%	0.2%	1%	1%
2202, 2202, 2206	Mineral, aerated and other unsweetened waters, Non-alcoholic beer, energy drinks, non-alcoholic beer and other beer not made from malt	Kg/tonnage	17.5%	12.5%	0.50%	0.50%	2.50%	2%	2.5%	0.2%	1%	1%
2204-5	Champagne and wine	Kg/tonnage	22.5%	12.5%	0.50%	0.50%	2.50%	2%	2.5%	0.2%	1%	1%
2203, 2206	Beer made from malt, other fermented beverages		47.5%	12.5%	0.50%	0.50%	2.50%	2%	2.5%	0.2%	1%	1%
2207-8	Other undenatured ethyl alcohol, liqueurs and cordials, whiskeys, brandies, vodka, etc.		25%	12.5%	0.50%	0.50%	2.50%	2%	2.5%	0.2%	1%	1%

Source: Ghana Revenue Authority; PricewaterhouseCoopers Tax Summaries, 2021

Notes: 1. Processing Fee of 1% is charged on the CIF when the product is exempted from Import Duty, and usually applies to embassies and other diplomatic organizations.

2. CHRL is COVID-19 Health Recovery Levy

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