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SCHOOL OF PUBLIC HEALTH

MASTER OF PUBLIC HEALTH (WEEKEND) PROGRAMME



**THE PREVALENCE AND DETERMINANTS OF ALCOHOL CONSUMPTION
AMONG GHANAIAN YOUTH AGED 15-24: A SECONDARY ANALYSIS OF A
NATION-WIDE SURVEY.**

BY

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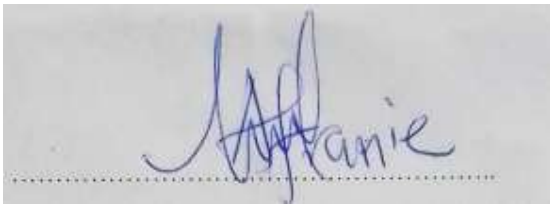
**THIS DISSERTATION IS SUBMITTED TO THE UNIVERSITY OF GHANA,
LEGON, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE**

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DECLARATION

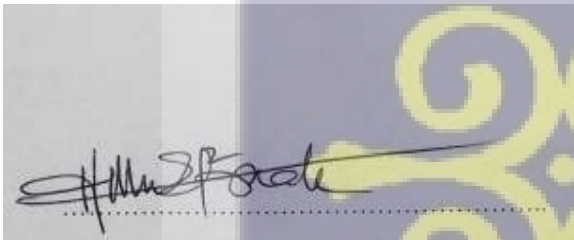
I, Samuel Afoakwah Afranie, hereby confirm that this dissertation is based on my original research carried out under the guidance of my supervisor, except where the work of others has been duly cited. I also affirm that no part of this dissertation, whether in whole or in part, has been submitted previously for the award of any other degree.



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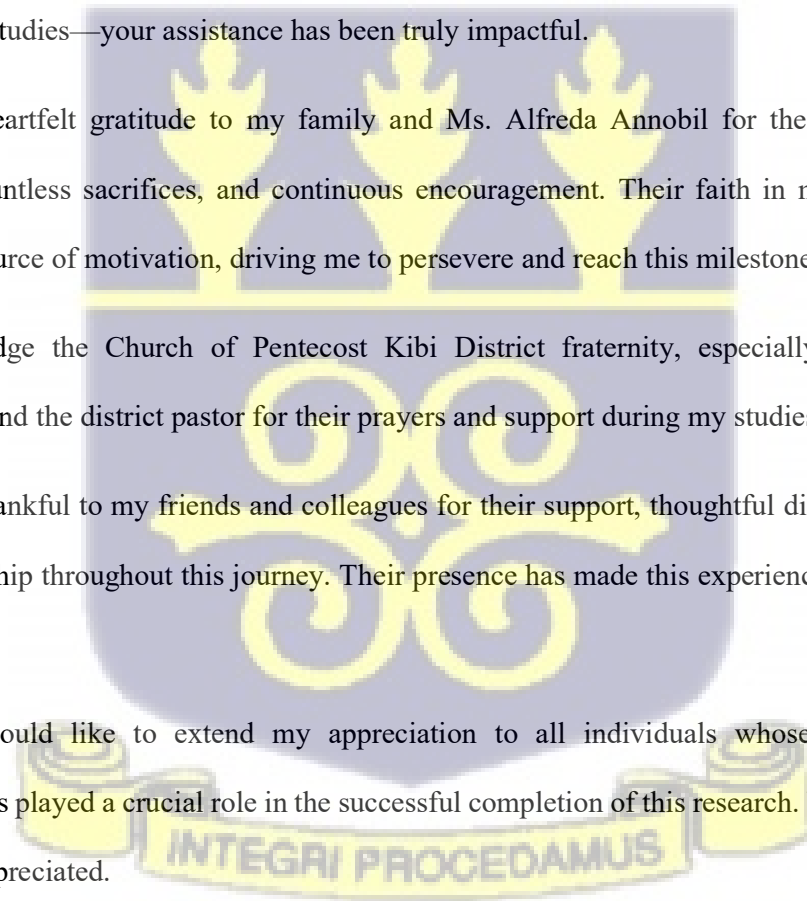


TABLE OF CONTENTS

DECLARATION.....	II
ACKNOWLEDGEMENT.....	III
TABLE OF CONTENTS	IV
LIST OF TABLES	VII
LIST OF ABBREVIATIONS	VIII
ABSTRACT.....	IX
CHAPTER ONE	1
1.0 INTRODUCTION.....	1
1.1 Study Background.	1
1.2 Problem Statement.....	3
1.3 Justification	5
1.4 Research Questions:.....	7
1.5 Aim and Objectives:	8
1.5.1 Aim	8
1.5.2 Specific Objectives:.....	8
1.6 Conceptual Framework.....	9
1.7 Narrative on Conceptual Framework.....	9
CHAPTER TWO	11
2.0 LITERATURE REVIEW	11
2.1 Introduction.....	11
2.2 Definition of Youth	11
2.3 Definition of Alcohol.....	12
2.4 Prevalence of Alcohol Consumption Among Youth	12
2.4.1 Global and Regional Prevalence.....	12
2.4.2 Prevalence Among Youth in Ghana	14
2.5 Consequences of Alcohol Consumption	15
2.5.1 Consequences of Alcohol Consumption on Physical Health	16
2.5.2 Consequences of Alcohol Consumption on Cognitive and Mental Performance.....	16

2.5.3 Consequences of Alcohol Consumption to Society.....	17
2.5.4 Consequences of Alcohol Consumption on the Economy.....	18
2.6 Determinants of Alcohol Consumption.....	18
2.6.1 Gender and Alcohol Use.....	19
2.6.2 Age and Alcohol Use.....	21
2.6.3 Marital Status and Alcohol Consumption.....	22
2.6.4 Education and Alcohol Use.....	24
2.6.5 Employment and Alcohol Use.....	25
2.6.7 Internet Use and Alcohol Use.....	28
2.6.8 Religion and Alcohol Use.....	30
2.6.9 Internal Migration and Alcohol Use.....	31
2.6.10 Place of Residence and Alcohol Use.....	33
2.6.11 Tobacco and Alcohol Use.....	34
2.8. Summary of Gaps in the Ghanaian Context.....	35
CHAPTER THREE.....	37
3.0 METHODOLOGY.....	37
3.1 Introduction.....	37
3.2 Study Area.....	37
3.3 Study Design.....	38
3.4 Data Source.....	38
3.5 Ethical Considerations and Approval.....	38
3.6 GDHS Sampling Frame and Design.....	39
3.7 GDHS Data Collection Instrument.....	39
3.8 Study Population, Inclusion, and Exclusion Criteria.....	40
3.9 Data Extraction and Processing.....	40
3.10 Study Variables.....	41
3.11 Statistical Analysis.....	41
3.12 Data Storage and Security.....	43
CHAPTER FOUR.....	45
4.0 RESULTS.....	45
I. Sociodemographic Characteristics of Study Participants.....	45
II. Alcohol Consumption Trend of Study Participants.....	47
III. Prevalence of Current Alcohol Consumption by Socio-demographic Characteristics.....	48
IV. Bivariate Analysis of Determinants Associated with Current Alcohol Consumption.....	50

V. Multivariate Analysis of Determinants Associated with Current Alcohol Intake	52
CHAPTER FIVE	54
5.0 DISCUSSION	54
5.1 Prevalence of Current Alcohol Consumption.....	54
5.2 Age and Current Alcohol Consumption	55
5.3 Gender and Current Alcohol Consumption	56
5.4 Religious Affiliation and Current Alcohol Consumption.....	57
5.5 Educational Status and Current Alcohol Consumption.....	58
5.6 Employment and Current Alcohol Consumption	59
5.7 Marital Status and Current Alcohol Consumption	60
5.8 Residential Place and Current Alcohol Consumption.....	61
5.9 Internal Migration and Current Alcohol Consumption	62
5.10 Internet Use and Current Alcohol Consumption	63
5.11 Media Exposure and Current Alcohol Consumption	64
5.12 Tobacco Smoking and Current Alcohol Consumption.....	65
CHAPTER FIVE	67
5.0 CONCLUSION, SUMMARIES AND RECOMMENDATIONS	67
5.1 Conclusion	67
5.2 Strengths of the Study	67
5.3 Study Limitations.....	68
5.4 Recommendation for Policymakers	68
5.5 Recommendation for Future Research	69
REFERENCES.....	71
APPENDAGES	87
1.0 Data Extraction Sheet.....	87

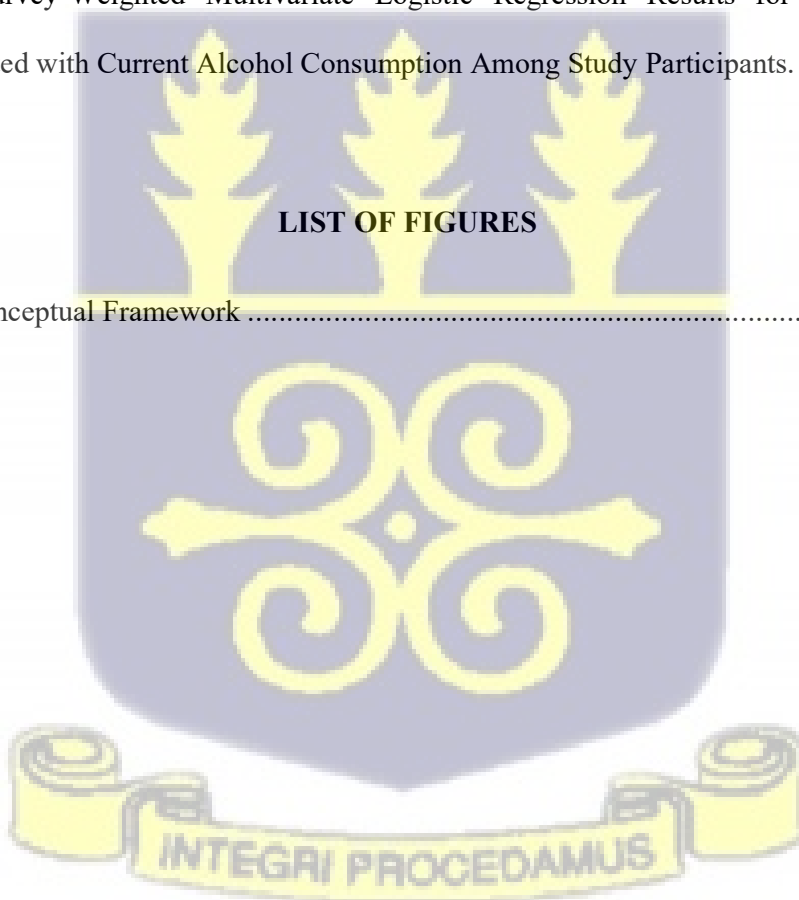


LIST OF TABLES

Table 1: Definition and Type of Variables with Their Scale of Measurement	44
Table 2: Survey-Weighted Descriptive Statistics of Socio-Demographic Characteristics of Study Participants, Youth Aged 15-24. (Weighted Sample = 7,834).....	46
Table 3: Survey-Weighted Alcohol Consumption Trend of Study Participants	47
Table 4: Prevalence of Alcohol Consumption by Socio-demographic Characteristics of Participants, Survey-Weighted. (Weighted Data = 7,834).....	49
Table 5: Survey-Weighted Bivariate Logistic Regression Results for Determinants Associated with Current Alcohol Consumption Among Study Participants.	51
Table 6: Survey-Weighted Multivariate Logistic Regression Results for Determinants Associated with Current Alcohol Consumption Among Study Participants.	53

LIST OF FIGURES

Figure 1. Conceptual Framework	9
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LIST OF ABBREVIATIONS

CDC - Centre for Disease Control and Prevention

DALYs - Disability-Adjusted Life Years

DHS - Demographic and Health Survey

ESPAD - European School Survey Project on Alcohol and Other Drugs

GDHS – Ghana Demographic and Health Survey

GHS - Ghana Health Service

GSS - Ghana Statistical Service

HIC – High-Income Countries

LMIC - Low- and Middle-Income Countries

NCDs - Non-communicable Diseases

NIAAA - National Institute on Alcohol Abuse and Alcoholism

SDG - Sustainable Development Goal

SSA - Sub-Saharan Africa

UN - United Nations

WHO - World Health Organisation



ABSTRACT

Background: Alcohol consumption among youth (15–24 years) presents a substantial public health concern, contributing to numerous behavioural, social, economic, and health-related problems. Understanding the prevalence and determinants of alcohol use within this age group is critical for informing effective, evidence-based interventions. However, most existing studies in Ghana have been limited in scope and geographical coverage, hindering the assessment of national trends and impeding the formulation of nationwide prevention and control strategies. To help fill this gap, this study utilised data from the 2022 Ghana Demographic and Health Survey (GDHS) to examine the prevalence and determinants of alcohol consumption among Ghanaian youth aged 15–24.

Methods: This study analysed data from the 2022 Ghana Demographic and Health Survey (GDHS), involving a nationally representative sample of 7,834 youth aged 15–24 (31.4% male and 68.6% female). The primary outcome was current alcohol consumption, within the 30 days preceding the survey. The prevalence of this outcome was estimated using a simple proportion. Its association with the determinants- age, sex, marital status, religious affiliation, educational level, employment status, place of residence, internal migration status, internet use, mass media exposure, and tobacco smoking- was examined using bivariate and multivariate logistic regression models to report crude and adjusted odds ratios (cOR and aOR). The statistically significant level was set at 5%, and a 95% confidence interval was constructed around point estimates.

Results: The prevalence of current and lifetime alcohol consumption among Ghanaian youth was 12.93% (95% CI: 11.68–14.30%) and 32.24% (95% CI: 30.27–34.27%), respectively. After adjusting for all determinants, alcohol use was significantly higher among males (aOR: 1.36; 95% CI: 1.16–1.80), older youth aged 20–24 years (aOR: 1.44; 95% CI: 1.16–1.80),

employed individuals (aOR: 1.83; 95% CI: 1.48–2.26), internet users (aOR: 1.35; 95% CI: 1.09–1.68), and tobacco users (aOR: 2.24; 95% CI: 1.07–4.68). Compared to Christians, Muslims had significantly lower odds of alcohol consumption (aOR: 0.17; 95% CI: 0.11–0.24), while traditionalists were more likely to drink (aOR: 1.78; 95% CI: 1.10–2.88). Although marital status was significantly associated with alcohol use in the bivariate model, where separated/divorced and widowed youth had higher odds of consumption (cOR: 1.73; 95% CI: 1.07–2.78)—the association was not statistically significant in the adjusted model.

Conclusion: Alcohol consumption among Ghanaian youth is influenced by a complex interaction between demographic, economic, and behavioural factors. These findings call for stricter enforcement of legal drinking age, regulation of alcohol advertising on digital platforms, integration of alcohol prevention strategies with tobacco control efforts, and targeted awareness campaigns in collaboration with faith-based organisations.



CHAPTER ONE

1.0 INTRODUCTION

1.1 Study Background.

According to the Institute for Health Metrics and Evaluation (IHME), alcohol use ranked as the 10th leading risk factor for global deaths in 2021, up from 15th place in 1990 (IHME, 2024). Similarly, a report by the World Health Organisation (WHO) estimates that alcohol consumption was accountable for 2.6 million deaths yearly, representing 4.7% of all global deaths (WHO, 2024b).

The implications of alcohol use are particularly alarming among youth aged 15–24, who are susceptible to early initiation and risky drinking patterns due to developmental, peer, and social influences. In high-income countries (HICs) such as the United States and Europe, underage drinking remains widespread. For example, in the U.S., nearly 30% of adolescents aged 12–20 reported past-month alcohol use (Hoots et al., 2023; NIAAA, 2024b), while 47% of 16-year-olds across 35 European countries reported alcohol use in the previous 30 days (ESPAD, 2020).

In low- and middle-income countries (LMICs), principally sub-Saharan Africa (SSA), youth alcohol use is driven by socioeconomic challenges such as poverty, unemployment, urbanisation, and peer pressure. Traditional norms often discourage alcohol use, yet modern influences and economic factors are shifting youth attitudes. The growth of informal alcohol markets, limited regulation, and pervasive advertising have led to increasing consumption among youth in the region. A systematic review by Ebrahim et al. (2024) in SSA estimated a pooled lifetime alcohol prevalence of 36.2%, with the highest rates in Uganda (51.4%) and Rwanda (50.6%), and the lowest in Botswana (29.0%). Current alcohol use in SSA was 23.6%, with males (48.7%) consuming at significantly higher rates than females (14.3%). In Nigeria,

43.5% of university students reported lifetime alcohol use, with 31.1% being current users (Ajayi et al., 2019).

In Ghana, youth alcohol consumption is influenced by a mix of westernisation, media exposure, peer pressure, occupational stress, disposable income, and accessibility (Kwapong et al., 2022; Mohammed et al., 2024). Alcohol is culturally embedded as a symbol of celebration and hospitality (Asiedu et al., 2019), and the informal alcohol economy remains a livelihood source for many, complicating regulation efforts. Research from localised communities has shown that the lifetime prevalence of alcohol consumption ranges from 31.7% - 77%, with current alcohol consumption prevalence ranging from 13.4% to 64% (Asiedu et al., 2019; Osei-Bonsu et al., 2017; Kwapong et al., 2022; Ampofo & Antwi Abrefi, 2020). Also, student-specific studies have also reported lifetime alcohol intake prevalence from 27.9% to 45%, current alcohol consumption prevalence ranging from 5.8 to 22.2% (Annor, 2016; Bondah & Talboys, 2019; Amoah et al., 2023)

Youth alcohol use in Ghana is also shaped by a range of psychosocial and familial factors. These include peer influence, curiosity, low self-esteem, emotional distress, and attempts to cope with stress, alongside parental modelling. The lack of effective prevention programmes, weak enforcement of policies, and the social normalisation of alcohol consumption further compound the issue (Kyei-Gyamfi et al., 2023).

Despite Ghana's legal drinking age of 18, studies indicate that initiation often occurs in childhood or early adolescence (Kyei-Gyamfi et al., 2023; Oppong Asante et al., 2014). This early alcohol use is strongly associated with negative outcomes such as dependence, poor academic performance, mental health issues, accidents, and risky sexual behaviours. Evidence shows that many long-term alcohol-related problems have their roots in adolescence and often continue into adulthood (NIAAA, 2024a). Alcohol intake is also linked to over 200 health

conditions, including liver cirrhosis, cardiovascular diseases, various cancers, and mental and behavioural disorders (WHO, 2018). Harmful alcohol use also increases the likelihood of injuries, violence, unsafe sexual practices, and other risky behaviours (Rehm et al., 2009).

Given the increasing prevalence of alcohol intake among Ghanaian youth and its adverse health consequences, there is a pressing need for ongoing research into its determinants. Nationwide surveys such as the Ghana Demographic and Health Survey (GDHS) provide a valuable platform for generating nationally representative data. Secondary analysis of such datasets offers robust estimates of prevalence and allows for the examination of associations between alcohol use and various demographic, socioeconomic, and behavioural factors—helping to address the limitations of smaller, localised studies.

This study, therefore, seeks to examine the prevalence and determinants of alcohol consumption amongst Ghanaian youth aged 15–24 using data from the 2022 Ghana DHS. By identifying key predictors of alcohol use, the findings will inform targeted public health interventions and policymaking. This research aims to enhance epidemiological knowledge and provide a stronger evidence base for reducing alcohol-related harm and promoting the well-being of young people in Ghana.

1.2 Problem Statement

Harmful alcohol consumption is a major global public health challenge, causing approximately 3 million deaths annually (WHO, 2024b). Youth aged 15–24 are especially vulnerable: early initiation increases the risk of long-term dependence and adverse health, social, and economic outcomes. This developmental stage, marked by identity formation and risk-taking, makes early intervention critical.

Despite global strategies such as legal drinking age laws, public health education, and advertising restrictions, youth alcohol use remains high. For instance, in the United States, 47.5% (16.9 million) of 18–25-year-olds reported alcohol use in the past month (NIAAA, 2025), while over 50% of health sciences students in Europe reported similar behaviour (Colomer-Pérez et al., 2019). Sub-Saharan Africa shows equally concerning rates: pooled lifetime and current use among youth are 36.2% and 23.6%, respectively (Ebrahim et al., 2024) (Ebrahim et al., 2024), with some countries reporting lifetime prevalence above 50%.

In Ghana, alcohol consumption among youth is increasingly prevalent, with lifetime use estimates ranging from 22.2% to 77% (Amoah et al., 2023; Ampofo & Antwi Abrefi, 2020). Several factors have been noted to contribute to this problem. These include peer pressure, limited parental supervision, socioeconomic hardship, and cultural norms that normalise drinking (Hormenu et al., 2018; Osei-Bonsu et al., 2017). Additionally, urbanisation, exposure to Western media, easy access to alcohol, and the perception of drinking as a symbol of social status or maturity further exacerbate the issue (Dimova et al., 2023; Sudhinaraset et al., 2016).

If left unaddressed, rising alcohol consumption among Ghanaian youth may have far-reaching consequences. At the individual level, early alcohol use is linked to substance dependence, mental health challenges, risky sexual behaviours, and poor academic performance (Cho & Yang, 2023; Degenhardt et al., 2018; Kwapong et al., 2022). At the societal level, it contributes to increased injury rates, healthcare costs, and economic losses due to reduced productivity (Aboagye et al., 2021; Kwapong et al., 2022). Moreover, the normalisation of alcohol threatens traditional values and undermines social cohesion (Kyei-Gyamfi et al., 2023).

Despite these risks, few studies in Ghana have focused specifically on youth aged 15–24. Again, existing research has often been geographically limited, focusing on university or senior high school (SHS) students (Mohammed et al., 2024; Oppong Asante & Kugbey, 2019) or

specific local communities (Asiedu et al., 2019; Osei-Bonsu et al., 2017). Such narrow scopes limit the generalisability of findings and hinder the formulation of effective, nationwide interventions. Furthermore, many studies have overlooked important determinants such as marital status, mass media exposure, internal migration, and internet use, thus limiting a holistic understanding of the drivers of alcohol use in Ghanaian youth.

This study, therefore, seeks to address these gaps by conducting a secondary analysis of nationally representative data to estimate the prevalence and determinants of alcohol consumption among Ghanaian youth aged 15–24. The findings aim to inform culturally relevant, evidence-based interventions and national policy measures to reduce alcohol-related harm in this population.

1.3 Justification

Worldwide, alcohol consumption is a major public health issue linked to accidents, addiction, mental health disorders, and chronic diseases. The World Health Organisation (WHO) reports that alcohol use causes 5.3% of global deaths and contributes to 4.9% of the worldwide disease burden (WHO, 2024b). These statistics reveal the health and social costs of alcohol consumption, putting substantial pressure on healthcare systems. Early alcohol use during adolescence or young adulthood is especially troubling, potentially leading to harmful habits that persist into adulthood, increasing healthcare costs and societal harm.

While alcohol consumption can be measured in different ways, such as lifetime use, ever use, or heavy episodic drinking, this study focused on current alcohol consumption because it provides an accurate and timelier picture of ongoing behaviours and their associated risks. Thus, unlike lifetime or ever-use measures, which may capture experimentation that no longer reflects present behaviour, current use highlights those actively engaging in drinking and at

risk of immediate health and social consequences. This measure is therefore more actionable for public health interventions, aligns with WHO monitoring frameworks, and ensures findings are directly applicable to designing effective, context-specific prevention strategies.

In Ghana, alcohol-related issues disproportionately affect youth (aged 15–24), a demographic at a critical stage for shaping lifelong health and social behaviours. The country’s rapidly urbanising population, combined with its expanding youth demographic, faces increasing public health risks related to alcohol consumption. Several factors, including peer pressure, cultural acceptance of alcohol, and socioeconomic challenges, have been identified as key drivers of alcohol use among this age group in Ghana (Amoah et al., 2023; Hormenu et al., 2018; Osei-Bonsu et al., 2017).

Addressing these determinants is crucial for developing a comprehensive public health strategy, but existing knowledge remains fragmented. Additionally, critical determinants—including internal migration patterns and the role of the internet and mass media among youth—are underexplored. Expanding the understanding of these disparities is essential for designing effective, context-specific interventions that address the unique challenges Ghanaian youth face.

The 2022 Ghana DHS offers a timely and crucial opportunity to address these research gaps. As a nationally representative dataset, it provides robust information on alcohol consumption, enabling an in-depth examination of the prevalence and determinants of alcohol use among Ghanaian youth.

This research is particularly significant in light of ongoing global and national efforts to mitigate the burden of non-communicable diseases (NCDs), with harmful alcohol use recognised as a major contributor. Specifically, it aligns with Sustainable Development Goal

(SDG) Target 3.5, which seeks to reduce harmful alcohol use globally (WHO, 2024b). On the global stage, the study will contribute to understanding alcohol consumption patterns in low- and middle-income countries (LMICs), thereby supporting international initiatives aimed at reducing substance abuse.

At the national level, the findings will provide critical evidence for policymakers to strengthen alcohol regulations and design effective public health campaigns. These initiatives are essential for reducing the NCD burden and promoting healthier behaviours among Ghanaian youth, a priority for national development. Furthermore, the study will shed light on the societal, economic, and environmental factors influencing youth substance behaviours, aiding in the formulation of interventions that address these root causes.

At the individual level, the findings will offer valuable insights to healthcare providers, educators, and community leaders. These gatekeepers can use the results to design interventions targeted at reducing alcohol consumption among Ghanaian youth, ultimately contributing to improved health outcomes, reduced risky behaviours, and enhanced life trajectories for this vulnerable population.

1.4 Research Questions:

1. What is the prevalence of current alcohol consumption among Ghanaian youth aged 15–24?
2. What demographic factors (age, sex, marital status, religious affiliation, place of residence, internal migration status) are associated with alcohol consumption among Ghanaian youth?
3. What economic factors (educational level, employment status) are associated with alcohol consumption among Ghanaian youth?

4. What behavioural factors (internet use, mass media exposure, tobacco smoking) are associated with alcohol consumption among Ghanaian youth?

1.5 Aim and Objectives:

1.5.1 Aim

To determine the prevalence and determinants of alcohol consumption among Ghanaian youth aged 15–24, utilising the 2022 Ghana Demographic and Health Survey (DHS), to inform the development of targeted public health interventions and policies.

1.5.2 Specific Objectives:

1. To estimate the prevalence of current alcohol consumption among Ghanaian youth aged 15–24.
2. To identify the demographic factors associated with current alcohol consumption in this population.
3. To examine the economic factors associated with current alcohol consumption in this population.
4. To assess the behavioural factors associated with current alcohol consumption in this population.



1.6 Conceptual Framework

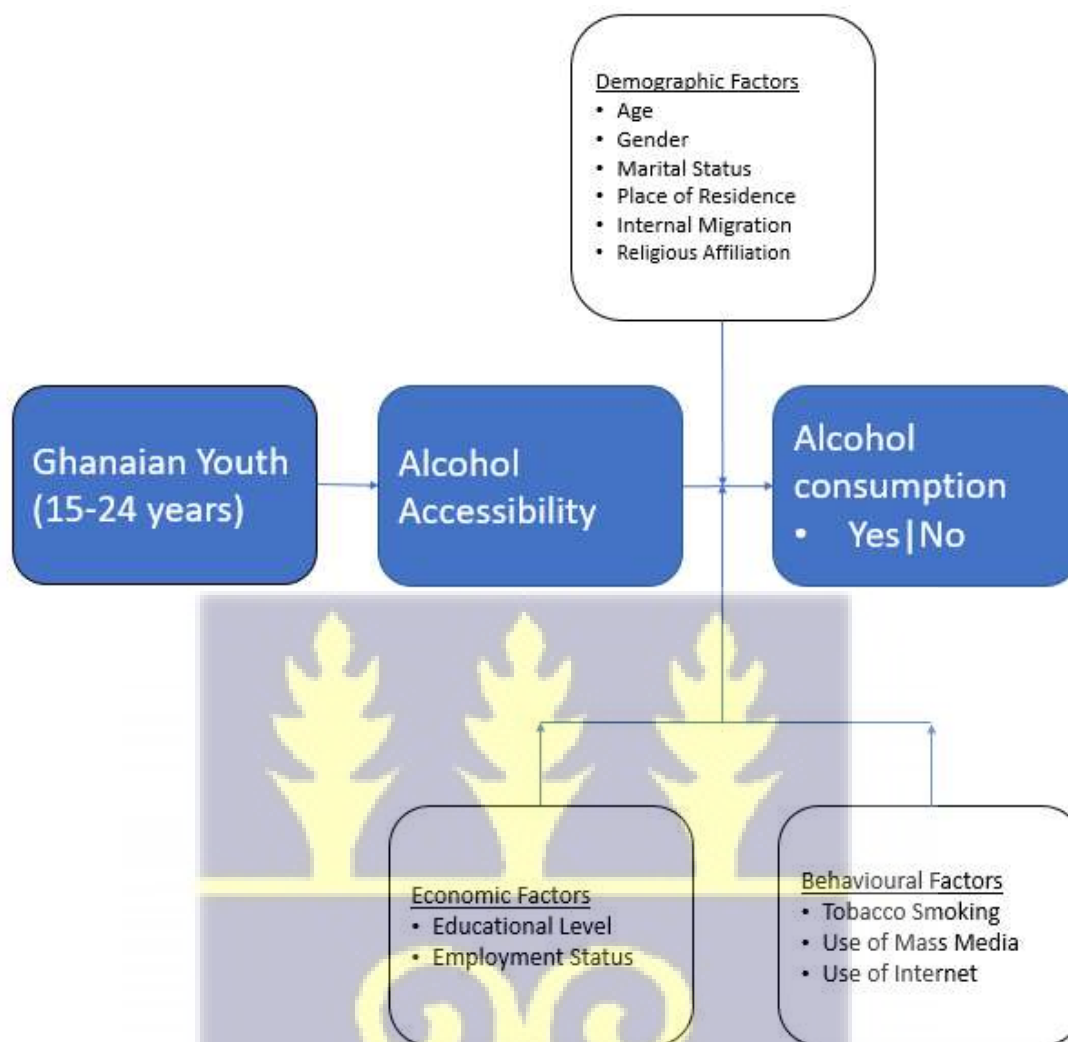


Figure 1. Conceptual Framework

1.7 Narrative on Conceptual Framework

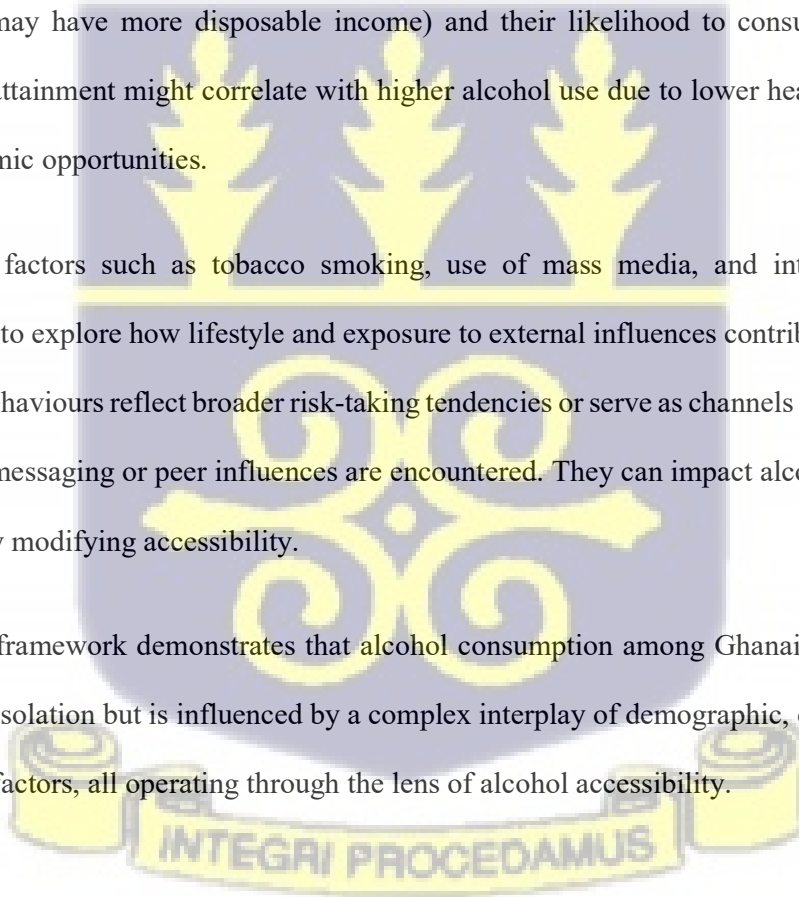
The conceptual framework illustrates the determinants of alcohol consumption among Ghanaian youth aged 15–24. Alcohol accessibility is shaped by a combination of demographic, economic, and behavioural factors, highlighting the multifaceted drivers of alcohol use in this population.

Demographic determinants such as age, gender, marital status, place of residence, internal migration, and religious affiliation influence both accessibility and the likelihood of consumption. These factors determine young people's exposure to alcohol, their social norms, and cultural attitudes toward drinking. For instance, older youth or those living in urban areas may have higher exposure and access to alcohol. Similarly, certain religious affiliations or marital statuses may deter or promote alcohol use, either directly or through modifying accessibility.

Economic factors, namely educational level and employment status, also play a dual role. These variables influence both how accessible alcohol is to the youth (e.g., employed individuals may have more disposable income) and their likelihood to consume it. Lower educational attainment might correlate with higher alcohol use due to lower health literacy or fewer economic opportunities.

Behavioural factors such as tobacco smoking, use of mass media, and internet use are incorporated to explore how lifestyle and exposure to external influences contribute to alcohol use. These behaviours reflect broader risk-taking tendencies or serve as channels through which pro-alcohol messaging or peer influences are encountered. They can impact alcohol use either directly or by modifying accessibility.

Overall, the framework demonstrates that alcohol consumption among Ghanaian youth does not occur in isolation but is influenced by a complex interplay of demographic, economic, and behavioural factors, all operating through the lens of alcohol accessibility.



CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This literature review examines global and Ghanaian studies on youth alcohol consumption, focusing on socio-demographic, cultural, and socioeconomic determinants. It also highlights knowledge gaps, particularly regarding geographical influences, marital status, parenthood, and internal migration.

2.2 Definition of Youth

Youth is a dynamic concept shaped by socio-cultural, institutional, economic, and political contexts across countries and regions. It represents a transitional phase between childhood dependency and adult independence, marked by milestones such as completing education and beginning employment. The United Nations (UN) and World Health Organisation (WHO) statistically define youth as individuals aged 15 to 24 (United Nations, 2021); hence, this work will adhere to this age range.

Globally, youth comprise approximately 1.2 billion people, representing 16% of the world's population (United Nations, 2021). Sub-Saharan Africa (SSA) has one of the largest and fastest-growing youth populations, with individuals under 25 years comprising over 60% of the region's population (Rocca & Schultes, 2020). In Ghana, youth aged 15–24 years constitute approximately 18% of the population (Ghana Statistical Service, 2021). While this demographic presents a significant opportunity for economic growth, it also faces public health challenges, particularly concerning alcohol use. Addressing this requires a deeper understanding of the factors driving alcohol use.

2.3 Definition of Alcohol

Alcohol, or ethanol, is a colourless, flammable liquid commonly found in beverages like wine, beer, and spirits, produced through the fermentation of sugars and starches by yeast or other microorganisms. It is also used in industrial and fuel applications (Bai et al., 2008). As a psychoactive substance, alcohol is classified as a depressant, slowing vital functions and impairing coordination, speech, and judgment through its direct effect on the central nervous system (Messing, 2014; WHO, 2024b)

Once consumed, alcohol is rapidly absorbed in the small intestine, enters the central nervous system, and is metabolised in the liver. The effects vary depending on factors like age, gender, body composition, food intake, and genetics. Although fewer people develop alcohol dependence compared to illicit drugs, alcohol's widespread availability and consumption pose significant public health challenges (National Collaborating Centre for Mental Health (UK), 2011; WHO, 2024a).

2.4 Prevalence of Alcohol Consumption Among Youth

2.4.1 Global and Regional Prevalence

Alcohol consumption among youth remains a significant public health concern worldwide, with notable regional variations. In the United States, 16.9 million (47.5%) individuals aged 18–25 reported alcohol consumption in the past month, with nearly equal rates among males and females (NIAAA, 2025). Similarly, in Europe, among university students studying health-related courses, over 50% reported alcohol use, with 73% combining alcohol with other substances (Colomer-Pérez et al., 2019). In Spain, weekend drinking is prevalent and often associated with multi-drug use (Font-Mayolas et al., 2019). A study in Italy found that 65.2% of participants reported lifetime alcohol use (Giustino et al., 2018).

In Asia, adolescent alcohol consumption remains a concern. The Thailand Global School-based Student Health Survey reported an adolescent alcohol use prevalence of 14.8%, with males (21.2%) consuming significantly more than females (9.3%) (Peltzer & Pengpid, 2012).

In sub-Saharan Africa (SSA), alcohol use among youth varies considerably across countries. A systematic review on adolescent substance use reported a lifetime alcohol prevalence of 32.8% (Olawole-Isaac et al., 2018). A more recent review also estimated a pooled lifetime prevalence of 36.2%, with the highest rates in Uganda (51.4%) and Rwanda (50.6%), and the lowest in Botswana (29.0%). Current alcohol use in SSA was 23.6%, with males (48.7%) consuming at significantly higher rates than females (14.3%) (Ebrahim et al., 2024).

Country-specific studies further highlight the extent of alcohol consumption among African youth. In South Africa, the 2014–2015 National Income Dynamics Study found that 25.2% of young people were current alcohol users (Vellios & van Walbeek, 2018). A study conducted in 20 high schools in Limpopo province also reported that 22% of students had ever used alcohol (Onya et al., 2012). In Ethiopia, university students reported a lifetime alcohol use prevalence of 36.3%, with 17% currently consuming alcohol (Gebremariam et al., 2018). Additionally, data from the Ethiopian DHS indicated that 36.34% of young people were current alcohol users (Kassew et al., 2023). In Nigeria, 43.5% of university students reported lifetime alcohol use, with 31.1% being current users (Ajayi et al., 2019).

These variations in alcohol use across various countries reflect cultural and policy differences, with high-prevalence countries needing stricter controls and lower-prevalence ones offering potential best practices.

2.4.2 Prevalence Among Youth in Ghana

Alcohol consumption in Ghana reflects global and regional trends, presenting significant public health challenges. In 2019, per capita alcohol consumption stood at 4.55 litres, slightly above the African average but below the global average. Men consumed substantially more alcohol (7.41 litres of pure alcohol per person per year) than women (1.75 litres). By 2021, alcohol use disorders affected approximately 195,120 men and 162,600 women in Ghana (Ritchie & Roser, 2022).

Alcohol use among Ghanaian youth is particularly concerning, with substantial reported variations. In New Edubiase, 31.7% of youth reported ever consuming alcohol, while 13.4% were current users, with drinking occurring throughout the day (Asiedu et al., 2019). In Tokorni-Hohoe, 43% of youth reported current alcohol consumption, with 70% indicating lifetime use and 16% consuming alcohol daily (Osei-Bonsu et al., 2017). Similarly, in the Bosomtwe District, 51.7% of respondents had consumed alcohol at least once, while 71.86% were current consumers (Kwapong et al., 2022). In Wa Zongo Communities, 77% of respondents had engaged in alcohol use at least once, while nearly 64% were current alcohol consumers (Ampofo & Antwi Abrefi, 2020).

Studies among high school students further highlight the widespread nature of alcohol consumption. A lifetime prevalence of 45% was reported among high school students aged 15–25 (E. K. Bondah & Talboys, 2019). Another study covering students from four senior high schools found a lifetime alcohol use prevalence of 38.2% (E. Bondah et al., 2020). In the Bono East Region, research conducted in four public senior high schools reported that 27.9% of students had ever tried alcohol, while 22.2% were current alcohol users (Amoah et al., 2023).

Given the high prevalence of alcohol consumption and its associated health and social risks, periodic nationwide research is essential. Existing research has focused on sub-populations, leaving gaps in understanding alcohol use among youth across the country. This limits the development of large-scale, evidence-based interventions. This study aims to fill these gaps by providing comprehensive data to guide targeted interventions, mitigate harmful drinking behaviours, and promote healthier lifestyles among Ghanaian youth.

2.5 Consequences of Alcohol Consumption

Alcohol, the most widely used psychotropic substance globally, is a major public health issue linked to over 200 diseases and injuries. It causes approximately 3 million deaths annually and accounts for 132.6 million disability-adjusted life years (DALYs). Despite a 20.2% reduction in alcohol-attributable deaths from 2010 to 2019, alcohol still contributed to 2.6 million deaths in 2019, with 700,000 from injuries, 300,000 from communicable diseases, and 1.6 million from non-communicable diseases (WHO, 2024).

Heavy episodic and continuous drinking are the primary sources of alcohol-related harm, though even low consumption levels present significant risks. Globally, 400 million people aged 15 and older suffer from alcohol use disorders, including 209 million with alcohol dependence. These harms are more concentrated in certain regions, notably the WHO European and African Regions, which had the highest alcohol-related death rates in 2019—52.9 and 52.2 per 100,000 people, respectively (WHO, 2024b).

Young people are particularly vulnerable to alcohol's negative effects, with alcohol responsible for 13% of deaths in 2019. It was also the second-leading risk factor for disease burden among individuals aged 10–24 globally (Murray et al., 2020). This issue impacts not only individuals

but also families and communities, highlighting the need for continual research, especially among youth.

2.5.1 Consequences of Alcohol Consumption on Physical Health

Excessive alcohol consumption is associated with a range of health issues, particularly non-communicable diseases such as liver disease, heart disease, certain cancers, and weakened immune function. It also contributes to risky sexual behaviours, increasing the likelihood of sexually transmitted infections (Bagnardi et al., 2015; Degenhardt et al., 2018). Furthermore, alcohol use is linked to traumatic outcomes, including injuries and fatalities, resulting in a significant loss of life years globally (Marmorstein et al., 2010; WHO, 2018).

In Ghana, several studies highlight similar adverse consequences of alcohol consumption among youth. Aboagye et al. (2021) found that young people associated alcohol use with excessive vomiting, stomach pains, unprotected sex, liver infections, and diarrhoea. Asiedu et al. (2019) identified motor accidents and general injuries as prominent health risks linked to alcohol use. Kwapong et al. (2022) reported that nearly 90% of youth who consumed alcohol in the Bosomtwe District had been involved in physical fights, often sustaining injuries from accidents and violence. In Wa, Ampofo & Abrefi (2020) found that approximately 49% of participants reported experiencing injuries while drunk. The authors noted that many young people engaged in regrettable behaviours under the influence of alcohol, which they later regretted upon becoming sober.

2.5.2 Consequences of Alcohol Consumption on Cognitive and Mental Performance

Alcohol consumption among youth has been shown to negatively affect cognitive functions such as attention, memory, and learning, ultimately impairing academic performance. Early alcohol use is associated with poor grades, increased absenteeism, and higher school dropout

rates (Adriana Nasui et al., 2016; Mekonen et al., 2017). In Ghana, Asiedu et al. (2019) found that alcohol consumption contributed to poor academic performance, absenteeism, and suspensions, indicating that alcohol disrupts students' academic engagement. Similarly, Ampofo & Abrefi (2020) reported that 68% of their respondents strongly agreed that alcohol use leads to low academic performance.

In addition, alcohol abuse is closely linked to mental health issues, including depression, anxiety, and suicidal ideation. The depressant effects of alcohol can exacerbate pre-existing mental health conditions, often resulting in severe psychological outcomes (Connor et al., 2016). In Ghana, Aboagye et al. (2021) reported that depressive feelings were frequently self-reported by young alcohol users. Kwapong et al. (2022) further found that over 60% of respondents had experienced suicidal or homicidal thoughts after drinking, while 35% reported symptoms indicative of alcohol dependency.

2.5.3 Consequences of Alcohol Consumption to Society

Alcohol use among youth is also associated with various social problems, including strained relationships, domestic violence, poor parenting, and child neglect. Kyei-Gyamfi et al. (2023) observed that intoxicated youth often exhibited negative behaviours such as disrespect, rebellion, and disregard for authority. Furthermore, alcohol-related actions, such as drunk driving and underage drinking, heighten the risk of accidents and violence. Kwapong et al. (2022) found that 8% of respondents admitted to causing injury to others, with accidents being the most commonly reported type of harm. Similarly, Asiedu et al. (2019) highlighted that alcohol consumption led to behaviours such as fighting, the use of foul language, and sexual advances, all of which disrupted social interactions and contributed to interpersonal conflicts.

Additionally, Ampofo & Abrefi (2020) reported that 78% of their respondents agreed alcohol use led to petty quarrels, 25% believed it strained relationships, and 68% associated it with vandalism and the destruction of school property. These findings suggest that alcohol misuse can contribute to relationship breakdowns, with the families of alcohol users often experiencing psychological distress, and children within such households being more likely to adopt similar drinking behaviours.

2.5.4 Consequences of Alcohol Consumption on the Economy

Economically, alcohol abuse imposes substantial burdens, including job loss, financial instability, and increased healthcare costs. Aboagye et al. (2021) found that 60.6% of respondents reported losing valuable possessions due to alcohol consumption, while 22.4% experienced incidents of petty theft. Similarly, Kwapong et al. (2022) identified work-related challenges among alcohol-consuming youth, such as neglect of responsibilities, low productivity, layoffs, and financial difficulties. Furthermore, Asiedu et al. (2019) reported that 30% of respondents experienced absenteeism from work due to alcohol use, underscoring the detrimental impact on job performance and employment stability.

Alcohol abuse among youth in Ghana has far-reaching consequences across physical, academic, mental, social, and economic domains. Addressing these multifaceted challenges requires a comprehensive approach, including a thorough investigation into the underlying determinants of alcohol consumption.

2.6 Determinants of Alcohol Consumption

Alcohol consumption results from a complex interplay of socio-demographic, cultural, economic, and behavioural factors. This section examines key determinants of alcohol use across global, regional, and national contexts, with a focus on Ghanaian youth. The variables

included are age, gender, place of residence, education, occupation, marital status, internal migration, tobacco use, exposure to mass media, and internet use.

2.6.1 Gender and Alcohol Use

Gender plays a significant role in shaping alcohol consumption patterns globally (Goh et al., 2024). Research consistently demonstrates that men are more likely than women to consume alcohol across diverse cultural contexts, including low- and middle-income countries (LMICs) (Sørensen et al., 2022). A 2016 study across 47 African countries, including Ghana, revealed that men experienced a disproportionately higher burden of alcohol-related morbidity and mortality, with a male-to-female ratio of 4:1. This disparity is largely attributed to men's higher frequency and heavier drinking patterns (Ferreira-Borges et al., 2016). Additionally, societal perceptions often link masculinity with adventure and social drinking, making outdoor or group alcohol consumption more socially acceptable for men than women (Lasebikan et al., 2018).

In Rwanda, 67% of men and 33% of women reported alcohol use, reflecting cultural norms that favour male drinking (Kanyoni et al., 2015). In Ethiopia, DHS data showed a significant association between sex and alcohol consumption, with prevalence rates of 45% among men compared to 31% among women (Kassew et al., 2023). In Nigeria, Ajayi et al. (2019) reported that men had higher odds of alcohol consumption than women in both bivariate (84%) and multivariate (59%) analyses. Similarly, Adekeye et al. (2015) found higher alcohol use among male university students in Southwest Nigeria compared to their female counterparts.

In Ghana, gendered drinking patterns are also evident. In the Volta Region, 73.7% of men reported alcohol consumption compared to 26.2% of women, with 47.9% of male participants and 34.3% of female participants identified as active drinkers. Females had 43% lower odds of consuming alcohol compared to males (Osei-Bonsu et al., 2017). Some explanations for this

male dominance link alcohol use with stress relief following physical labour, particularly in rural settings (Kanyoni et al., 2015; Osei-Bonsu et al., 2017). Among adolescents in Ghana, Kyei-Gyamfi et al. (2023) found that males aged 10–19 had 27% higher odds of alcohol consumption than their female counterparts.

Gender norms continue to shape alcohol consumption patterns across societies. Masculinity is frequently associated with alcohol use, portraying abstinent men as weak, while female drinking is often stigmatised as socially unacceptable (Kugbey, 2023; Ngesu & Kaluku, 2017). However, emerging evidence suggests these norms are evolving in certain contexts. Studies in Norway (Bratberg et al., 2016) and South Africa (Morojele & Ramsoomar, 2016) observed a narrowing gap between male and female drinking patterns, linked to women's improved socioeconomic status and increased social independence.

Despite the overall trend of higher alcohol use among men, some studies show mixed results. Bondah and Talboys (2019) reported higher alcohol prevalence among females (68%) compared to males in selected Ghanaian high schools, potentially reflecting the influence of urbanisation and changing gender norms. Kwapong et al. (2022) found no statistically significant association between gender and alcohol consumption. However, their data still revealed that 61.62% of individuals who had ever consumed alcohol and 72.73% of current drinkers were male, aligning with broader trends. Similarly, Shibiru et al. (2023) found that Ethiopian males were 1.22 times more likely to consume alcohol than females, although the association was not statistically significant.

These patterns emphasise the influence of gender norms and cultural expectations on alcohol consumption. While men consistently report higher levels of alcohol use across most contexts, the increasing prevalence of drinking among women in certain regions suggests that societal shifts, urbanisation, and economic changes are reshaping traditional gendered drinking

behaviours. This evolving landscape calls for the need for more research to explore the intersections of gender and socio-economic factors on alcohol drinking among youth.

2.6.2 Age and Alcohol Use

Age consistently emerges as a critical determinant of alcohol consumption patterns, even among youth. The transition to early adulthood, particularly around the age of 20, often marks a pivotal phase when young people begin to explore new behaviours, including alcohol use. This period is also characterised by increased social pressure and stress, which can further contribute to alcohol initiation and sustained consumption (Davoren et al., 2016).

Research from high-income countries (HICs) consistently highlights this pattern. In the United States, binge drinking peaks among young adults aged 18–24, particularly during the transition from adolescence to adulthood (Patrick et al., 2019). In China, older university students consume more alcohol than younger students, a trend attributed to increased social opportunities and reduced parental oversight (Ji et al., 2012). Similarly, Peltzer and Pengpid (2016) in a cross-sectional study across 25 universities in Asia, Africa, and the Americas, found that alcohol consumption generally increases with age. Men aged 20–24 had 91% higher odds of consuming alcohol compared to younger men, while older women exhibited a 76% increase in alcohol consumption odds compared to their younger counterparts.

In Africa, age-related drinking patterns are shaped by factors such as accessibility, cultural norms, and legal drinking ages. In Nigeria, older youth aged 20–24 had 68% higher odds of alcohol consumption compared to younger adolescents, largely influenced by environmental access and peer norms (Ajayi et al., 2019). Similarly, in Rwanda, older youth were more likely to drink, with employment status, peer influence, and exposure to alcohol marketing identified as key drivers (Kanyoni et al., 2015). In Ethiopia, Shibiru et al. (2023) reported that youth aged

20–24 had 2.75 times higher odds of alcohol intake compared to those aged 15–19. A nationwide analysis of Ethiopian DHS data by Kasew et al. (2023) further confirmed this trend, with alcohol prevalence at 39% among those aged 20–24 compared to 34% among those aged 15–19.

Although nationally representative studies on Ghanaian youth remain limited, existing research aligns with the broader trend of increased alcohol consumption with age. Aboagye et al. (2021) found that university students aged 20–24 were 4.4 times more likely to drink alcohol than those aged 15–19. In Tokorni-Hohoe, Osei-Bonsu et al. (2017) reported that youth aged 20–25 had four times the odds of alcohol drinking compared to their younger counterparts. Similarly, Kwapong et al. (2022) noted a significant association between age and alcohol use, with a prevalence of 16.16% among youth aged 20–24 compared to 7.07% among those under 19 in the Bosomtwe District.

This evidence underscores the critical influence of age on alcohol consumption patterns among youth. The transition into early adulthood (ages 20–24) is consistently associated with increased alcohol use across diverse contexts, driven by factors such as reduced parental supervision, social experimentation, and peer influence. However, additional research is needed to explore the nuanced association between age and alcohol consumption on a national level, particularly in Ghana.

2.6.3 Marital Status and Alcohol Consumption

Marital status is a critical social determinant of alcohol consumption, often acting as a protective factor against hazardous drinking and alcohol use disorders. Research across diverse contexts suggests that individuals who are married generally consume less alcohol than their unmarried counterparts, though this effect varies by gender and cultural expectations.

Liang and Chikritzhs (2012), in their study of young and middle-aged Australian adults, found that individuals who were never married, divorced, or separated had a higher risk of hazardous drinking. They suggested that this association may stem from lower levels of mental health support and reduced social stability among unmarried individuals. Similarly, Plant et al. (2008), using survey data from ten European countries, observed that while married and cohabiting individuals consumed alcohol with similar frequency, married individuals drank smaller quantities per occasion and had lower annual consumption levels.

In the United States, Evans-Polce et al. (2020) further supported the protective effect of marriage against excessive alcohol use among young adults. In Ethiopia, findings from the DHS indicated a significant association between marital status and alcohol consumption. Kassew et al. (2023) reported that alcohol consumption prevalence was 37% among married individuals, 32% among unmarried individuals, and highest (54%) among those who were divorced, widowed, or separated. This suggests that while marriage offers some protective effect, the disruption of marital unions (through divorce, separation, or widowhood) may lead to increased alcohol consumption, possibly due to stress or social isolation.

In Ghana, research by Osei-Bonsu et al. (2017), in Tokorni-Hohoe, Volta Region, found that unmarried youth had a significantly higher prevalence of alcohol consumption (73%) compared to their married counterparts (27%). This aligns with broader international patterns, suggesting that marriage may serve as a protective factor against alcohol consumption among Ghanaian youth.

The limited research in Ghana examining the association between marital status and alcohol use among youth poses a gap that limits the development of large-scale, evidence-based interventions. Knowing how marital status influences alcohol consumption among youth can help identify high-risk groups, guide targeted prevention and support strategies.

2.6.4 Education and Alcohol Use

Educational attainment plays a complex role in shaping alcohol consumption patterns among youth. While higher education is often regarded as a protective factor, reducing risky behaviours through increased health awareness and better coping strategies, it can also contribute to greater alcohol consumption in certain contexts due to increased social exposure, peer influence, and disposable income.

Studies in Europe (Batty et al., 2008; Bloomfield et al., 2006) and Japan (Murakami and Hashimoto, 2019) have consistently found that individuals with lower educational levels are more likely to engage in heavy and problematic drinking. This association is frequently attributed to limited health literacy and fewer coping mechanisms to manage stress. Conversely, individuals with higher education tend to be more health-conscious and better equipped to handle life stressors, which may reduce their risk of excessive drinking.

Similar patterns are observed in parts of Africa. In Nigeria, Ekpenyong et al. (2024), in a systematic review, identified low educational attainment as a major factor associated with alcohol use among youth. The authors stressed the critical role of educational institutions in raising awareness about alcohol-related harms and promoting healthy lifestyles.

However, contrasting trends have emerged in East Africa. An analysis of Ethiopian Demographic and Health Survey (DHS) data by Kasew et al. (2023) revealed a positive association between education and alcohol consumption. Prevalence rates were 33% among those with primary education, 35% among individuals with no formal education, 42% among those with secondary education, and 50% among those with higher education. The authors suggested that while education enhances health knowledge, it may simultaneously increase access to alcohol and social drinking, particularly in urban environments.

Studies from Ghana reflect the nuanced and context-dependent nature of this relationship. In a rural setting, Osei-Bonsu et al. (2017) examined youth in Tokorni-Hohoe, in the Volta Region, and found that individuals with primary, JHS/Middle, secondary, and tertiary education were 62%, 67%, 81%, and 62% less likely, respectively, to consume alcohol compared to those without formal education. This pattern suggests that education may act as a protective factor in rural areas, likely due to limited social drinking opportunities and increased awareness of alcohol-related health risks. In contrast, research in a more urban and economically vibrant area—Bosomtwe District in the Ashanti Region—produced different results. Kwapong et al., (2022) reported that alcohol consumption was more common among individuals with secondary (31%), tertiary (28%), and JHS (27%) education, compared to those with primary education (10%) and no formal education (5%). The authors linked this to heightened exposure to alcohol advertisements, peer pressure, and the use of alcohol as a coping mechanism for grief and social stressors.

These findings highlight the context-specific influence of education on alcohol consumption. This complexity underscores the need for a nationally representative study to help better understand how educational attainment intersects with urbanisation, income, and cultural norms to shape alcohol use among Ghanaian youth.

2.6.5 Employment and Alcohol Use

Employment status is a key determinant of alcohol consumption patterns, largely due to its influence on financial independence, purchasing power, and exposure to work-related stressors. Globally, evidence suggests that employment can both facilitate alcohol use and, in some contexts, serve as a protective factor by imposing structure and reducing leisure time.

Masferrer et al. (2017) in Spain highlighted that employment provides individuals with greater purchasing power and social opportunities, increasing access to alcohol. Similarly, Fentaw et al. 2022, in an analysis of DHS data from 11 East African countries, found that employed individuals had higher levels of alcohol and substance use compared to their unemployed counterparts, reinforcing the association between employment and increased alcohol access.

In Ethiopia, data from the DHS revealed that employment status was significantly associated with alcohol consumption. Those employed had a prevalence rate of 43%, compared to 26% among the unemployed (Kassew et al., 2023). This finding suggests that financial capacity gained through employment increases access to alcohol.

Evidence from Ghana highlights the intricate relationship between employment and alcohol consumption. Kyei-Gyamfi et al. (2024) conducted a nationally representative study on children, discovered that those in paid work had an 82% higher likelihood of consuming alcohol compared to their non-working peers. This increase was linked to the financial independence from employment, making alcohol more accessible.

However, Osei-Bonsu et al. (2017), studying youth in Tokorni-Hohoe in the Volta Region, reported that employed individuals, specifically traders (26.0%) and artisans (36.0%), were less likely to consume alcohol than their unemployed peers. Conversely, Kwapong et al. (2022), in their study of youth in the Bosomtwe District of a more commercial/urbanised region, Ashanti Region, found no significant association between occupation and alcohol use. This underlines the influence of contextual factors such as rural versus urban settings and differing economic opportunities.

These divergent findings highlight the need to consider the broader socioeconomic and environmental context when examining the relationship between employment and alcohol use.

2.6.6 Mass Media and Alcohol Use

Exposure to traditional mass media platforms—television, radio, and newspapers— plays a key role in shaping youth alcohol consumption globally. Globally, Lobstein et al. (2017), in a systematic review of 47 studies, found a robust link between alcohol advertising and increased alcohol use among youth. In the United States, Grenard et al. (2013) demonstrated that exposure to alcohol advertisements, coupled with emotional responses to these ads, increased the risk of early initiation into drinking and future alcohol-related problems.

Regional and national-level studies in sub-Saharan Africa further confirm the link between media exposure and alcohol consumption. In Nigeria, a systematic literature review by Ekpenyong et al. (2024) identified advertising as a primary driver of adolescent alcohol consumption. Analysis of Ethiopian DHS data by Kasew et al. (2023) revealed that individuals exposed to mass media had a 42% prevalence of alcohol use, compared to 28% among non-exposed individuals. At the community level, media exposure was similarly associated with higher alcohol consumption rates (41%) compared to non-exposed communities (32%). The authors highlighted that alcohol advertisements often deploy misleading and youth-targeted marketing strategies, increasing the risk of substance use. Carels et al., (2022), using focus group discussions with youth from low-income communities in the Western Cape Province of South Africa, found that media content—particularly from television, radio, and magazines—normalised alcohol consumption and influenced drinking behaviour.

In Ghana, the influence of media exposure on youth drinking patterns is similarly well-documented. Osei-Bonsu et al. (2017) found that one in five Ghanaian youth attributed their alcohol consumption to advertisements. Asiedu et al. (2019) reported that 97% of respondents identified television, radio, and magazines as key sources of alcohol-related content, while 44% admitted that advertisements actively encouraged their alcohol intake. Bondah and Talboys,

(2019) similarly identified media promotions as the second most influential factor in underage drinking, trailing only peer pressure. Nearly half of their respondents cited advertisements as a reason for their drinking behaviour. The increasing reach of alcohol advertisements across multiple platforms was also noted by Kwapong et al. (2022), who observed that nearly 60% of young drinkers admitted that advertisements influenced their decision to consume alcohol. Annor (2016), focusing on SHS students in the Ga Central Municipality, further underscored the vulnerability of adolescents, highlighting alcohol advertising as a key driver of alcohol consumption in this demographic.

Taken together, these findings emphasise the pervasive and multi-channelled influence of mass media on youth alcohol consumption. Advertising strategies often exploit young people's impressionability, embedding alcohol as an aspirational and socially accepted norm.

2.6.7 Internet Use and Alcohol Use

Internet access and associated platforms have become increasingly influential in shaping alcohol consumption patterns among youth. These digital spaces enable interactive and youth-oriented marketing strategies, making alcohol advertising more pervasive and harder to regulate.

In a large-scale systematic literature review, Lobstein et al. (2017) highlighted that digital advertising normalises alcohol consumption among adolescents. Janiuk and Maleki (2023) similarly argued that weak global regulatory frameworks allow alcohol companies to exploit online platforms, calling for universal privacy and content regulations to protect young people. Barry et al. (2015) found that over two-thirds of alcohol advertisements on YouTube remained accessible to individuals under the legal drinking age, reflecting the limited enforcement of advertising restrictions on digital platforms. Longitudinal studies further suggest that exposure

to alcohol-related content on social media contributes to increased alcohol consumption, particularly among adolescents (Grenard et al., 2013).

A multi-country study across Finland, South Korea, Spain, and the United States revealed platform-specific associations: daily Facebook and Instagram use correlated with hazardous alcohol consumption in Finland, South Korea, and Spain; YouTube use was associated with higher alcohol consumption in South Korea but lower consumption in the United States and Finland; and Twitter use was linked to lower alcohol consumption in Finland but increased consumption in Spain (Savolainen et al., 2020). In the United States, Liu et al. (2024) found that middle school students who viewed social media posts about alcohol or drugs had higher odds of alcohol consumption and multi-substance use. Furthermore, students who accessed social media frequently—every hour or more—showed increased odds of alcohol consumption.

Evidence from Africa similarly underscores the growing influence of digital platforms on alcohol consumption. In Ethiopia, home internet access was associated with a 53% increase in alcohol use (Getachew et al., 2019). In Ghana, Asiedu et al. (2019) identified mobile phones and social media platforms as primary channels exposing youth to alcohol-related content. Kwapong et al. (2022) further noted that social media advertisements significantly contributed to youth alcohol consumption. Annor (2016) and Bondah and Talboys (2019) reported that social media influenced approximately one in ten youth to consume alcohol, with some participants citing celebrities and role models as key triggers. Ampofo and Abrefi (2020) found that alcohol advertisements on social media in a Zongo community promoted drinking activities, beach parties, and ‘drink-ups,’ embedding alcohol consumption within youth recreational culture. More broadly, Mohammed et al. (2024) observed that high school adolescents in Ghana’s Northern Region who used social media were twice as likely to engage

in substance use, while smartphone ownership was associated with a threefold increase in substance use.

The proliferation of internet-based alcohol promotions increasingly exposes youth to persuasive, targeted content that often blurs the line between entertainment and advertising. This digital environment normalises alcohol consumption, thereby heightening public health concerns. Existing literature highlights the growing need for research on internet accessibility and alcohol use to guide regulation and protect young people from digital alcohol marketing.

2.6.8 Religion and Alcohol Use

Religious beliefs play a key role in shaping alcohol consumption patterns. In predominantly Muslim communities, religious doctrines generally prohibit alcohol, resulting in significantly lower consumption rates Bourmaud and Znaïen (2022). Similarly, within Christianity, denominations such as Pentecostal and Charismatic groups often discourage alcohol use, whereas traditional religious practices may either restrict or encourage drinking depending on the cultural context. For instance, in Nigeria, Ekeke and John (2023) observed that traditional ceremonies often incorporate alcohol as part of ritual practices, reflecting its cultural significance.

Evidence from other African contexts further illustrates the influence of religion on alcohol consumption. In Ethiopia, analysis of DHS data revealed that Muslims had the lowest prevalence of alcohol consumption (4%) compared to other religious groups (22%) (Kassew et al., 2023). Similarly, in Nigeria, Ajayi et al. (2019) found that Christianity was associated with a 64% higher likelihood of ever using alcohol compared to Islam. Additionally, infrequent attendance at religious services increased the odds of alcohol use by more than twofold.

In Ghana, comparable patterns emerge, though with notable regional variations. Aboagye et al. (2021) reported that Muslim tertiary students in the Volta Region were 90% less likely to consume alcohol compared to their Christian peers, reflecting Islamic teachings against drinking. Likewise, Osei-Bonsu et al. (2017) found that Muslims in the Volta Region were 87% less likely to drink than Christians, while traditionalists were nine times more likely to consume alcohol, highlighting the role of alcohol in cultural practices such as marriage rites, chieftaincy ceremonies, and festivals. Similarly, Asiedu et al. (2019) observed that over half of the youth in New Edubiase, Adansi South District, believed that traditional norms endorsed alcohol use.

However, these patterns are not uniform across Ghana. In the Bosomtwe District, Ashanti Region, Kwapong et al. (2022) found no significant association between youth alcohol consumption and religion. This variation underscores the dual role of traditional practices, which may promote alcohol use in ceremonial settings but also impose restrictions in certain contexts, such as rites that require abstinence before participation.

This review highlights the complex relationship between religion and alcohol consumption in Ghana. It underscores the need for a nationwide study to expand existing knowledge on how religion influences alcohol use among Ghanaian youth, thereby guiding the development of tailored faith-based interventions that address the role of alcohol in religious practices.

2.6.9 Internal Migration and Alcohol Use

Migration, whether internal or international, significantly shapes health behaviours, including alcohol consumption. Migration often enhances access to health services and economic opportunities, but it also introduces stressors such as social alienation, precarious employment, and adaptation difficulties (Evans & Baldwin, 1987). These pressures can increase

vulnerability to risky behaviours, including substance use (Hnuploy et al., 2025; Lin et al., 2005).

Rural-to-urban migration, in particular, has been linked to higher alcohol consumption. This is driven by increased financial capacity, greater alcohol availability, and weakened traditional social controls in urban settings. For instance, Ghimire et al. (2023) found that male migrants in Nepal developed alcohol use disorders due to work-related stress and increased disposable income. Similarly, Nguyen et al. (2012) observed that rural-to-urban migrant adolescents in Vietnam reported higher alcohol consumption than non-migrants, influenced by greater independence and easier alcohol access.

However, evidence from Ghana suggests a more complex relationship as far as internal migration is concerned. Asafu-Adjaye (2015) reported that in urban poor communities in Accra, non-migrants were more likely to engage in regular alcohol consumption than migrants. This was largely attributed to non-migrants securing more stable, higher-paying jobs, enabling greater spending on alcohol.

The relationship between migration and alcohol consumption is thus highly context-dependent, influenced by factors such as income levels, alcohol availability, and community integration (Balagopal et al., 2022; Hnuploy et al., 2025). The limited Ghanaian-specific research highlights the need for more comprehensive studies to explore how internal migration affects alcohol consumption patterns among youth and other demographic groups. Understanding these dynamics is crucial for developing effective interventions that address substance use in both migrant and non-migrant populations.

2.6.10 Place of Residence and Alcohol Use

Evidence on the urban-rural divide in alcohol consumption reveals a complex and context-specific pattern that varies across regions. In Europe, rural adolescents generally report higher alcohol consumption than their urban counterparts. In Spain, alcohol consumption was reported by 58.48% of adolescents in rural areas, compared to 49.52% among their urban counterparts (Marqués-Sánchez et al., 2020). Similarly, in Scotland, non-urban adolescents had increased odds of alcohol use, weekly drinking, and drunkenness relative to their urban peers, suggesting that alcohol may occupy a central role in rural social life, possibly reflecting a lack of alternative recreational options (Martin et al., 2019). In Australia, MacLean and Moore (2014) highlighted that suburban youth were observed to travel to cities in search of a more vibrant drinking culture, illustrating the allure of urban spaces for social drinking.

In SSA, urban settings often exhibit higher alcohol consumption. In South Africa, Letsela et al. (2019) reported that alcohol outlet density was substantially greater in urban areas (10.7 outlets per km²) compared to rural areas (1.5 outlets per km²), facilitating easier access and normalising alcohol consumption in urban environments. In Ethiopia, Shibiru et al. (2023) found that urban students had 60% higher odds of alcohol consumption compared to their rural peers, while Ethiopian DHS data similarly indicated a higher prevalence of alcohol use in urban areas (41%) than rural (35%) (Kassew et al., 2023). In Nigeria, Ajayi et al. (2019) noted that alcohol consumption was more common among urban residents, particularly those with higher socioeconomic status, reflecting alcohol's role in urban social life and lifestyles.

Evidence from Ghana reflects a similarly nuanced relationship between urbanisation and alcohol consumption. Mohammed et al. (2024) observed that substance use, including alcohol, was 52% higher among urban high school students than rural students in crude analysis. However, this association became statistically insignificant after adjusting for confounders, suggesting that factors such as socioeconomic status, peer influences, and school environment

mediated the urban effect. Additionally, Kyei-Gyamfi and Kyei-Arthur (2023) noted that rural children in Ghana often had easier access to traditional beverages such as palm wine and ‘Akpeteshie’ due to weaker regulatory enforcement, while urban settings exhibited stricter controls over alcohol sales.

These studies underscore the diversity in urban–rural alcohol consumption patterns, shaped by a complex interplay of alcohol availability, social acceptability, economic factors, and enforcement practices. However, the limited Ghanaian research, combined with the evolving nature of youth alcohol consumption, is concerning. Therefore, further investigation into this determinant is needed to inform context-specific interventions aimed at curbing alcohol use among both rural and urban youth.

2.6.11 Tobacco and Alcohol Use

Globally, research consistently shows that tobacco and alcohol use co-occur among youth, with tobacco users being more likely to consume alcohol. Both substances are often used as coping mechanisms for stress or to facilitate social interactions. Robert Lourdes et al. (2022) documented a strong association between tobacco use and alcohol consumption. In Turkey, Bakar et al. (2013) reported that tertiary students who use tobacco, whether occasionally or regularly, were significantly more likely to consume alcohol. Likewise, evidence from six universities in Mandalay indicates that alcohol consumption was notably higher among smokers, truant students, those experiencing feelings of hopelessness or sadness, and individuals influenced by peers who drank alcohol (Htet et al., 2020).

In SSA, studies reveal similar patterns. Kugbey (2023), in a systematic literature review involving eight SSA countries, identified a substantial link between smoking tobacco and alcohol consumption among adolescents of school-going age. Likewise, Pengpid and Peltzer (2020), using data obtained from the Global School-Based Student Health Survey in Benin,

found a correlation between current tobacco use and alcohol consumption or misuse among adolescents. In Ethiopia, Boltana et al. (2023) reported that participants with no history of smoking cigarettes were 51% less likely to consume alcohol compared to smokers.

In Ghana, Bondah et al. (2020) demonstrated that having ever smoked significantly increased the odds of alcohol use among senior high school students. Oppong Asante and Kugbey (2019) further reported that current cigarette smoking independently heightened the likelihood of lifetime drunkenness, current alcohol use, and alcohol-related problems. Likewise, among University of Ghana students, Oti Boateng (2016) found that smokers were more likely to consume alcohol.

The consistent relationship between tobacco and alcohol use underscores the need for continual research to inform decision-makers on appropriate integrated interventions to address dual substance use.

2.8. Summary of Gaps in the Ghanaian Context

1. **Scarcity of Nationwide Studies and Insights.** Research on alcohol consumption among Ghanaian youth is limited by small-scale studies, overlooking the country's cultural and socioeconomic diversity. This hinders generalisation and obscures variations based on factors like age, gender, education, and employment.
2. **Insufficient Research on Migration and Place of Residence.** The impact of rural-to-urban migration on youth drinking patterns remains largely unexplored. These two determinants are known to alter access to alcohol, exposure to advertising, and adherence to social norms, yet it has received minimal attention in Ghanaian research.
3. **Underexplored Area of Marriage.** While marriage is globally recognised as a protective factor against alcohol misuse, its influence on Ghanaian youth remains

understudied. This gap limits insights into how these life transitions could mitigate or exacerbate alcohol use in this demographic.



CHAPTER THREE

3.0 METHODOLOGY

3.1 Introduction

This chapter outlines the research methodology, including the data source, study design, study area, target population, and sample size. It further details the study variables, inclusion and exclusion criteria, sampling methods, data processing, and analysis techniques. Additionally, it highlights quality assurance measures, ethical considerations, and study limitations.

3.2 Study Area

The study was conducted in Ghana, a West African country bordered by Burkina Faso to the north, Côte d'Ivoire to the west, Togo to the east, and the Gulf of Guinea to the south. Ghana covers a landmass of 238,535 km² and is divided into 16 administrative regions, each with distinct demographic, socioeconomic, and cultural characteristics (GSS, 2021).

According to the 2021 Population and Housing Census, Ghana's population stands at approximately 30.8 million, comprising diverse ethnic groups, languages, and religions. The country is experiencing rapid urbanisation in cities like Accra and Kumasi, while rural areas remain vital for agriculture and traditional industries. Ghana is classified as a lower-middle-income economy, with key sectors including agriculture, mining, services, and oil production (World Bank, 2024). Its decentralised health sector provides services at national, regional, district, and community levels and is supported by various health and development policies aimed at improving social outcomes.

3.3 Study Design

This study employed a retrospective cross-sectional design using secondary data from the 2022 Ghana Demographic and Health Survey (GDHS). The analysis was conducted on a point-in-time dataset to explore the association between various determinants and alcohol consumption among youth aged 15–24. The use of nationally representative data ensures broad coverage and regional variability across Ghana’s 16 administrative regions.

3.4 Data Source

The study used publicly available data from the 2022 GDHS, implemented by the Ghana Statistical Service (GSS) between October 17, 2022, and January 14, 2023. The data were obtained through formal request and approval from the DHS Program website (<http://dhsprogram.com>), in compliance with usage terms.

The 2022 GDHS received technical assistance from ICF under the DHS Program, funded by USAID and the U.S. President’s Malaria Initiative (PMI). Additional support came from the Government of Ghana, UNFPA, UNICEF, the World Bank, the Global Fund, KOICA, WHO, and the UK Foreign, Commonwealth & Development Office (FCDO).

3.5 Ethical Considerations and Approval

The 2022 GDHS adhered to strict ethical standards to protect participant rights. Participation was voluntary, and informed consent was obtained from all respondents. For those under 18, consent was secured from parents or guardians. Confidentiality and anonymity were ensured throughout data collection and storage (GSS and ICF, 2023).

Ethical approval for the original survey was granted by the Ghana Health Service Ethical Review Committee (GHS/ERC ID: 004/08/22) and the Institutional Review Board of ICF (IRB Number: 2022-137).

As this study involved secondary data analysis of de-identified datasets, no additional ethical approval was required. No efforts were made to identify individual respondents, and all analyses adhered to the DHS Program's data use policies.

3.6 GDHS Sampling Frame and Design

The sampling frame for the 2022 GDHS was based on the 2021 Ghana Population and Housing Census, which identified 51,917 enumeration areas (EAs). The survey used a two-stage stratified cluster sampling approach to ensure national representation:

- Stage 1: 618 EAs were selected using probability proportional to size, stratified by urban/rural designation and region.
- Stage 2: Thirty households were randomly selected from each cluster, resulting in a total of 18,450 households.

Interviews were completed with 15,014 women (aged 15–49) and 7,044 men (aged 15–59). For this study, only respondents aged 15–24 were included (7,957, weighted number 7,834).

3.7 GDHS Data Collection Instrument

The 2022 GDHS employed four standardised face-to-face questionnaires: The Household, Woman's, Man's, and Biomarker Questionnaires, along with a Fieldworker Questionnaire. These tools were adapted from the DHS Program's model to reflect Ghana's population and health priorities.

Before the main survey, the DHS Program conducted a rigorous pretesting and pilot phase to ensure cultural appropriateness, clarity, and reliability (GSS and ICF, 2023). The questionnaires were reviewed for internal coherence, translated into four local languages (Twi, Ga, Dagbani, and Ewe), and back-translated for accuracy.

For this study, only the Women's and Men's Questionnaires were used, as they collected information on background characteristics, health behaviours, marriage, and substance use.

3.8 Study Population, Inclusion, and Exclusion Criteria

The study population comprised Ghanaian youth aged 15–24 years who participated in the 2022 GDHS.

- **Inclusion Criteria:** To align with the study's focus on Ghanaian youth, participants were eligible if they were aged 15–24 and were residents of Ghana at the time of the survey. Additionally, to ensure ethical participation, only respondents who provided informed consent were included in the interviews conducted by the GDHS.
- **Exclusion Criteria:** Respondents with missing or inconsistent responses on alcohol consumption or other key variables were excluded.

3.9 Data Extraction and Processing

The Women's Individual Recode (IR) and Men's Individual Recode (MR) datasets were downloaded in Stata format and merged to create a unified dataset of male and female respondents aged 15–24.

Guided by Appendix 1, variables related to alcohol consumption and relevant explanatory factors were selected using the GDHS data dictionary. The following processing steps were undertaken:

- Dropping all respondents outside the 15–24 age range.
- Recoding variables to suit the study objectives (as shown in Table 1).
- Retaining only variables applicable to the study’s focus on youth.

3.10 Study Variables

The primary outcome and explanatory variables used in this study are summarised in Table 1.

- Dependent Variable:
 - Current alcohol consumption, defined as self-reported alcohol use in the past 30 days. This was coded as a binary variable:
 - 1 = Consumes alcohol
 - 0 = Does not consume alcohol

The focus on current alcohol consumption provides a more accurate reflection of ongoing risk behaviours, evidence for immediate interventions, and aligns with global monitoring priorities.

- Independent Variables:
 - Demographic factors: age, sex, marital status, religion, place of residence, internal migration status
 - Economic factors: education level, employment status
 - Behavioural factors: internet use, mass media exposure, tobacco smoking

3.11 Statistical Analysis

This study analysed alcohol consumption among youth using a three-stage approach, applying the svy command to account for the complex survey design and ensure accurate variance estimation. All statistical analyses were conducted using Stata version 17 (StataCorp, College Station, TX, USA). Statistical significance was set at $p < 0.05$ across all stages of analysis.

In the univariate analysis, percentages with corresponding 95% confidence intervals (CIs) were used to describe the demographic, economic, and behavioural characteristics of the study participants. Simple proportions were used to estimate the prevalence of current alcohol consumption, defined as:

- **Current alcohol use:**

- Number reporting alcohol use in the past 30 days / total youth respondents

In addition, the survey captured information on the trend of alcohol use, namely, lifetime use, current use among lifetime users, drinking four or more in a day, and daily drinking. These variables were only described for contextual purposes and were not included in the regression models.

Secondly, simple logistic regression was deployed in the bivariate analysis to examine the associations between current alcohol consumption and each independent variable. This allowed for estimating crude odds ratios (cOR) and 95% CIs to show the strength and direction of these associations.

Finally, multiple logistic regression was used to examine the contribution of each determinant to alcohol consumption, while controlling for confounding factors. For each determinant, the adjusted odds ratio (aOR) along with 95% CI was reported to show the magnitude of association. Logistic regression was considered appropriate as the dependent variable, current alcohol consumption, was a binary variable, allowing for the estimation of odds ratios to quantify associations with explanatory factors.

3.12 Data Storage and Security

The datasets used in this study were stored on secure, password-protected computers accessible only to authorised members of the research team. Backups were created using Microsoft OneDrive, which offers end-to-end encryption, as well as encrypted external drives to prevent data loss.

The merged and cleaned datasets were saved in encrypted formats, and no personally identifiable information (PII) was retained, preserving respondent anonymity. Data management followed the ethical standards and data use policies of the DHS Program.

The data will be stored securely for 10 years after the study's completion. After this period, it will either be permanently destroyed using secure deletion methods or archived in a manner that continues to protect participant privacy.



Table 1: Definition and Type of Variables with Their Scale of Measurement

Variables	Definition	Type of Variable/Scale of Measurement
Dependent Variable		
Current Alcohol Consumption	Self-reported alcohol consumption in the last 30 days by participants.	Categorical - Binary (1 = Consumed alcohol, 0 = Did not consumed alcohol)
Independent Variables		
Age group	Completed years of respondent.	Categorical - Ordinal (1 = 15–19 years, 2 = 20–24 years)
Sex	Biological sex of the respondent.	Categorical - Nominal (1 = Male, 2 = Female)
Marital Status	Current marital status of the participant.	Categorical - Nominal (1 = Married, 2 = Living Together, 3 = Separated/divorced/widowed, 4 = Never Married)
Religious Affiliation	Religious group to which the respondent associates himself or herself	Categorical - Ordinal (1 = Christianity, 2 = Islam, 3 = Traditional/Spiritualist, 4 = Others, 5 = No Religion)
Residential Place	Place of residence of the respondent at the time of the survey.	Categorical - Nominal (1 = Urban, 2 = Rural)
Internal Migration	Movement to the current residence in the last 12 months.	Categorical - Nominal (1 = Migrated, 2 = Not Migrated)
Educational Level	Highest formal education attained.	Categorical - Nominal (1 = No Education, 2 = Primary, 3 = Secondary, 4 = Higher Education)
Employment Status	Employment status in the past 12 months.	Categorical - Nominal (1 = Not Employed, 2 = Employed)
Internet Usage	Internet use in the past month.	Categorical - Nominal (1 = Not in the past month, 2 = At least once a week)
Exposure to Mass Media	Current accesses mass media (newspapers, radio, or TV) on weekly basis.	Categorical - Nominal (1 = Accesses none of the three media at least once a week, 2 = Accesses all three media at least once a week)
Smokes tobacco	Respondent's current tobacco smoking status	Categorical - Nominal (1 = Do not smoke, 2 = Smokes)

CHAPTER FOUR

4.0 RESULTS

This section presents the results and interpretation of the descriptive, bivariate, and multivariate analyses of the study respondents.

I. Sociodemographic Characteristics of Study Participants

Table 2 presents the weighted sample distribution of socio-demographic characteristics among 7,834 Ghanaian youth aged 15–24. Majority (52.41%) of respondents are aged 15–19 years, and a higher proportion being females (68.63%). In terms of religious affiliation, majority are Christians (76.42%), followed by Muslims (19.49%), and the least being those with "No" religious affiliation (0.14%). Education levels are relatively high, with 75.98% having secondary education and 6.47% attaining higher education, though 5.15% have no formal education. Regarding employment status, 58.93% are employed. Most of the youth (80.78%) have never been married, whereas 8.33% are currently married.

More than half of the respondents (54.83%) live in urban areas, and 13.57% have migrated in the last 12 months. Internet use is evenly distributed, with 50.48% reporting usage, meanwhile, Mass media exposure (television, radio and newspaper) is high (88.79%) among the sampled youth. Lastly, Tobacco use is low, with only 1.43% of respondents reporting tobacco use.



Table 2: Survey-Weighted Descriptive Statistics of Socio-Demographic Characteristics of Study Participants. (Weighted Sample n = 7,834)

Characteristic	Category	Weighted Number	Percent (%)	95% CI
Age Group	15–19	4106	52.41	(50.97 – 53.85)
	20–24	3728	47.59	(46.15 – 49.03)
Sex	Male	2458	31.37	(30.08 – 32.70)
	Female	5376	68.63	(67.30 – 69.92)
Religious Affiliation	Christian	5987	76.42	(73.75 – 78.90)
	Islam	1527	19.49	(16.98 – 22.28)
	Traditionalist	137	1.75	(1.17 – 2.61)
	Other	172	2.2	(1.75 – 2.77)
	No Religion	11	0.14	(0.06 – 0.32)
Educational Level	No Education	403	5.15	(4.39 – 6.04)
	Primary	971	12.4	(11.19 – 13.73)
	Secondary	5952	75.98	(74.29 – 77.59)
	Higher	507	6.47	(5.57 – 7.49)
Employment Status	Unemployed	3217	41.07	(39.13 – 43.04)
	Employed	4617	58.93	(56.96 – 60.87)
Marital Status	Never in Union	6328	80.78	(79.42 – 82.07)
	Currently Married	653	8.33	(7.50 – 9.24)
	Cohabiting	693	8.85	(7.93 – 9.87)
	Separated	160	2.04	(1.69 – 2.46)
Residential Place	Urban	4295	54.83	(52.62 – 57.01)
	Rural	3539	45.17	(42.99 – 47.38)
Internal Migration	Not Migrated	6771	86.43	(85.08 – 87.68)
	Migrated	1063	13.57	(12.32 – 14.92)
Internet Use	Non-User	3879	49.52	(47.56 – 51.48)
	User	3955	50.48	(48.52 – 52.44)
Mass Media Exposure	Non-User	878	11.21	(10.14 – 12.37)
	User	6956	88.79	(87.63 – 89.86)
Smokes Tobacco	Non-Smoker	7722	98.57	(98.15 – 98.89)
	Smoker	112	1.43	(1.11 – 1.85)

Data Source: Secondary Data-GDHS 2022, CI- Confidence Interval

II. Alcohol Consumption Trend of Study Participants

Table 3 presents the patterns of alcohol consumption among the sampled youth (N = 7,834). The results indicate that 12.93% (n = 1,013) reported alcohol use in the past 30 days, representing the current prevalence. Additionally, 32.24% (n = 2,526) had ever consumed alcohol. Among those with lifetime alcohol use, 40.12% (n = 1,013) were still drinking at the time of the survey. Among current drinkers, 9.49% (n = 96) reported consuming alcohol four or more times per day, while 2.75% (n = 28) reported daily alcohol use.

Table 3: Survey-Weighted Alcohol Consumption Trend of Study Participants

Variable	Category	Frequency (n, %)	95% CI
Current Alcohol Use	Yes	1013 (12.93%)	11.68 – 14.30
	No	6821 (87.07%)	85.70 – 88.32
	Total	7834 (100%)	
Ever Consumed Alcohol	Yes	2526 (32.24%)	30.27 – 34.27
	No	5308 (67.76%)	65.73 – 69.73
	Total	7834 (100%)	
Current Alcohol Use Among Ever Users	Yes	1013 (40.12%)	37.09 – 43.23
	No	1512 (59.88%)	56.77 – 62.91
	Total	2526 (100%)	
Currently Drinks Four or More in a Day	Yes	96 (9.49%)	7.24 - 12.34
	No	917 (90.51%)	87.66 - 92.76
	Total	1013 (100%)	
Currently Drinks Every day	Yes	28 (2.75%)	1.57 – 4.79
	No	985 (97.25%)	95.21 – 98.43
	Total	1013 (100%)	

Data Source: Secondary Data-GDHS 2022, CI- Confidence Interval

III. Prevalence of Current Alcohol Consumption by Socio-demographic Characteristics

Table 4 presents the determinants of current alcohol consumption, the weighted numbers and prevalence of current alcohol use in each category. Among older youth (20–24 years), 15.92% were current drinkers, compared to 10.23% among those aged 15–19. In terms of gender, males reported a higher prevalence (17.46%) than females (10.86%). Marital status also showed notable differences, with the highest prevalence observed among separated youth (20.21%), while the lowest was among those currently married (10.00%).

Religious affiliation showed notable differences, with youth without religion (29.64%) and Traditionalists (27.42%) reporting the highest prevalence, while Muslims had the lowest (2.91%). Educational attainment showed slight variations, with primary school graduates (16.42%) drinking more than those with no formal education (12.83%) or higher education (14.29%). Employment status was a key factor, as employed youth (16.35%) were nearly twice as likely to drink as unemployed youth (8.04%).

Alcohol consumption was slightly higher among rural dwellers (14.03%) than urban dwellers (12.03%). Migration status showed minimal differences, with migrants (13.41%) and non-migrants (12.86%) reporting similar drinking rates. Internet users (15.24%) and those exposed to mass media (13.35%) had higher alcohol use than non-users (10.58%) and those with no media exposure (9.66%). Smoking status showed the strongest disparity, as 25.47% of smokers reported alcohol use—nearly double the prevalence observed among non-smokers (12.78%).

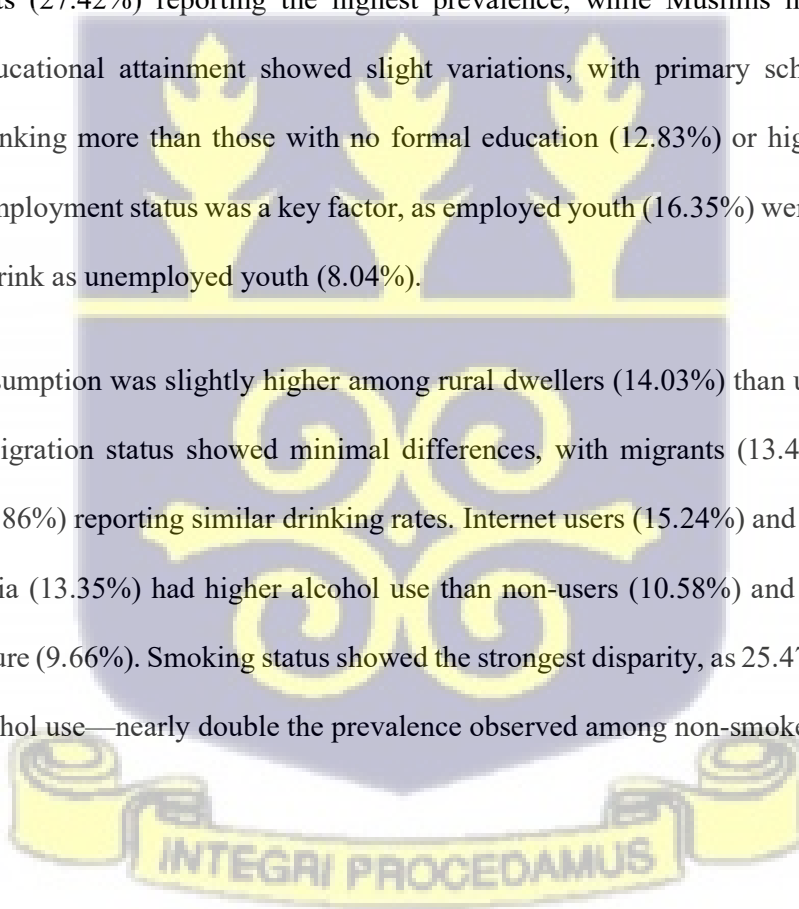


Table 4: Prevalence of Current Alcohol Consumption by Socio-demographic Characteristics of Participants, Survey-Weighted.

Determinant	Category	Weighted Number	Prevalence (%)	95% CI
Age Group	15-19	4106	420 (10.23)	8.85, 11.79
	20-24	3728	593 (15.92)	14.15, 17.86
Sex	Male	2458	429 (17.46)	15.15, 20.05
	Female	5376	584 (10.86)	9.55, 12.33
Religious Affiliation	Christian	5987	889 (14.85)	13.39, 16.43
	Islam	1527	44 (2.91)	2.03, 4.14
	Traditionalist	137	38 (27.42)	19.11, 37.66
	Other	172	39 (22.83)	15.09, 33.00
	No Religion	11	3 (29.64)	6.61, 71.49
Educational Level	No education	403	52 (12.83)	8.72, 18.50
	Primary	971	159 (16.42)	13.43, 19.92
	Secondary	5952	730 (12.26)	10.93, 13.72
	Higher	507	72 (14.29)	10.12, 19.79
Employment Status	Unemployed	3217	259 (8.04)	6.82, 9.45
	Employed	4617	755 (16.35)	14.62, 18.23
Marital Status	Never in Union	6328	810 (12.80)	11.49, 14.24
	Married	653	65 (10.00)	6.97, 14.15
	Cohabiting	693	105 (15.22)	11.89, 19.28
	Separated	160	32 (20.21)	13.56, 29.03
Residential Place	Urban	4295	517 (12.03)	10.55, 13.70
	Rural	3539	497 (14.03)	12.00, 16.34
Internal Migration	Not migrated	6771	871 (12.86)	11.54, 14.30
	Migrated	1063	143 (13.41)	10.37, 17.17
Internet Use	Non-user	3879	410 (10.58)	9.14, 12.22
	User	3955	603 (15.24)	13.49, 17.18
Mass Media Use	Non-user	878	85 (9.66)	6.92, 13.33
	User	6956	929 (13.35)	12.02, 14.79
Tobacco Smoking	Non-smoker	7722	987 (12.78)	11.52, 14.16
	Smoker	112	29 (25.47)	15.55, 38.82

Data Source: Secondary Data-GDHS 2022, CI – Confidence Interval

IV. Bivariate Analysis of Determinants Associated with Current Alcohol Consumption

Table 5 presents the crude odds ratios (cOR) and corresponding significance levels for the association between current alcohol consumption and the examined determinants. The bivariate logistic regression analysis shows that, among demographic factors, age ($p < 0.001$), sex ($p < 0.001$), religious affiliation ($p < 0.001$), and marital status ($p = 0.040$) were significant predictors. Employment status ($p < 0.001$) was the significant economic factor, while internet use ($p < 0.001$) and tobacco smoking ($p = 0.009$) were the significant behavioural predictors.

Youth aged 20–24 years had 66% higher odds of alcohol use compared to those aged 15–19 years (cOR: 1.66, 95% CI: 1.38–2.00), while females were 42% less likely to consume alcohol than males (cOR: 0.58, 95% CI: 0.47–0.71). Compared to Christians, Traditionalists had more than twice the odds of alcohol use (cOR: 2.17, 95% CI: 1.34–3.50), and those with other religious affiliations had 70% higher odds (cOR: 1.70, 95% CI: 1.01–2.84). In contrast, Muslims had 83% lower odds of consuming alcohol (cOR: 0.17, 95% CI: 0.12–0.25). Youth who were widowed, divorced, or separated had 73% higher odds of alcohol use compared to those never married (cOR = 1.73, 95% CI: 1.07 - 2.78).

Employed individuals had more than double the odds of alcohol consumption compared to unemployed counterparts (cOR = 2.24, 95% CI: 1.83 - 2.73).

Internet users had 52% higher odds of alcohol use than non-users (cOR = 1.52, 95% CI: 1.25 - 1.85, $p < 0.001$). Meanwhile, tobacco smokers had over twice the odds of alcohol consumption compared to non-smokers (cOR = 2.33, 95% CI: 1.24 - 4.40).

The non-significant variables are educational attainment, place of residence, migration status, and mass media exposure.

Table 5: Survey-Weighted Bivariate Logistic Regression Results for Determinants Associated with Current Alcohol Consumption Among Study Participants.

Determinant	Category	cOR (95% CI)	p-value	Overall p-value
Age Group	15–19 (Ref)	1.00		<0.001
	20–24	1.66 (1.38 - 2.00)	<0.001	
Sex	Male (Ref)	1.00		<0.001
	Female	0.58 (0.47 - 0.71)	<0.001	
Religious Affiliation	Christian (Ref)	1.00		<0.001
	Islam	0.17 (0.12 - 0.25)	<0.001	
	Traditionalist	2.17 (1.34 - 3.50)	0.002	
	Other	1.70 (1.01 - 2.84)	0.044	
	No Religion	2.42 (0.40 - 14.52)	0.334	
Educational Level	No Education (Ref)	1.00		0.058
	Primary	1.33 (0.85 - 2.09)	0.206	
	Secondary	0.95 (0.61 - 1.47)	0.814	
	Higher	1.13 (0.63 - 2.03)	0.676	
Employment Status	Unemployed (Ref)	1.00		<0.001
	Employed	2.24 (1.83 - 2.73)	<0.001	
Marital Status	Never in Union (Ref)	1.00		0.040
	Currently Married	0.76 (0.51 - 1.13)	0.175	
	Cohabiting	1.22 (0.91 - 1.64)	0.182	
	Separated	1.73 (1.07 - 2.78)	0.024	
Place of Residence	Urban (Ref)	1.00		0.138
	Rural	1.19 (0.94 - 1.51)	0.138	
Migration (Last 12 Months)	Not Migrated (Ref)	1.00		0.756
	Migrated	1.05 (0.77 - 1.43)	0.756	
Internet Use	Not at All (Ref)	1.00		<0.001
	Yes	1.52 (1.25 - 1.85)	<0.001	
Mass Media Exposure	None (Ref)	1.00		0.056
	Uses	1.44 (0.99 - 2.10)	0.056	
Smoking Status	Does Not Smoke (Ref)	1.00		0.009
	Smokes	2.33 (1.24 - 4.40)	0.009	

Data Source: Secondary Data-GDHS 2022, cOR; Crude Odds Ratio, Ref; Reference

V. Multivariate Analysis of Determinants Associated with Current Alcohol Intake

Table 6 presents the adjusted odds ratios (aOR) with 95% confidence intervals (CI) for factors associated with current alcohol consumption among youth aged 15–24 years.

Among demographic factors, age, sex, and religious affiliation remained significant in the adjusted model. Youth aged 20–24 had 44% higher odds of alcohol use compared to those aged 15–19 (aOR: 1.44, 95% CI: 1.16–1.80), while females were 46% less likely to consume alcohol than males (aOR: 0.64, 95% CI: 0.52–0.80). Religious affiliation also played a significant role—Muslims had 83% lower odds of drinking compared to Christians (aOR: 0.17, 95% CI: 0.11–0.24), whereas Traditionalists had 78% higher odds (aOR: 1.78, 95% CI: 1.10–2.88).

Regarding socioeconomic factors, employment status was significant; employed youth were 83% more likely to drink than those unemployed (aOR: 1.83, 95% CI: 1.48–2.26).

Behavioural factors such as internet use and tobacco smoking were also associated with alcohol consumption. Internet users had 35% higher odds of drinking than non-users (aOR: 1.35, 95% CI: 1.09–1.68), while smokers had more than twice the odds of alcohol use compared to non-smokers (aOR: 2.24, 95% CI: 1.07–4.68).

Conversely, marital status, education level, place of residence, internal migration status, and mass media exposure were not statistically significant in the adjusted model.

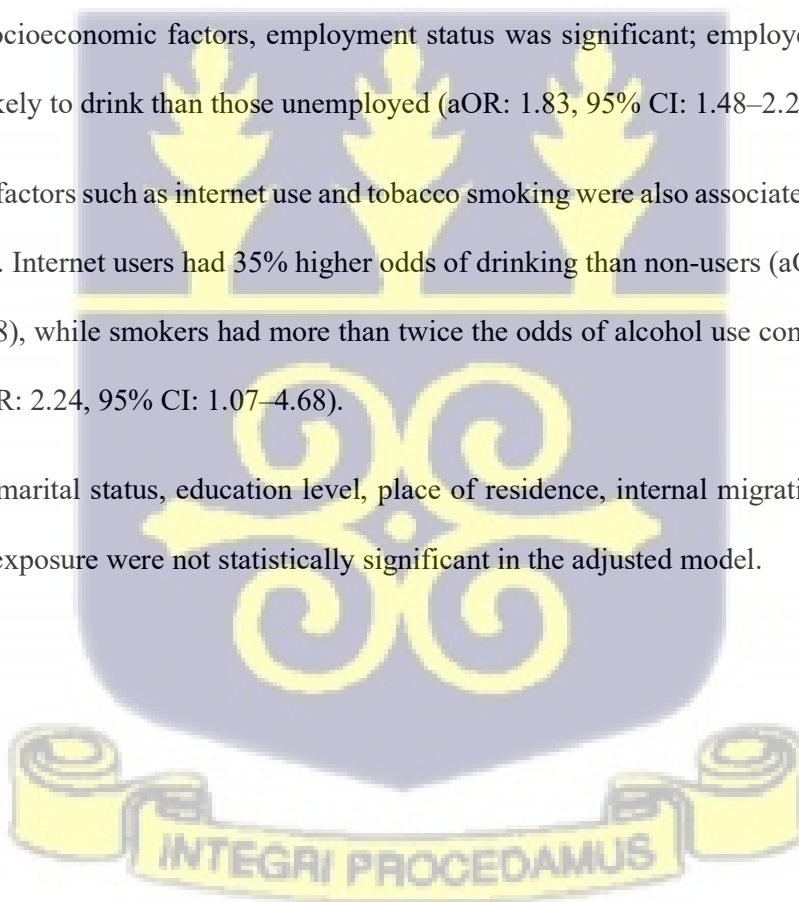


Table 6: Survey-Weighted Multivariate Logistic Regression Results for Determinants Associated with Current Alcohol Consumption Among Study Participants.

Determinant	Category	aOR (95% CI)	p-value
Age Group	15–19 (Ref)	1.00	-
	20–24	1.44 (1.16–1.80)	0.001
Sex	Male (Ref)	1.00	-
	Female	0.64 (0.52–0.80)	<0.001
Marital Status	Never in Union (Ref)	1.00	-
	Married	0.87 (0.59–1.28)	0.479
	Cohabiting	0.94 (0.68–1.31)	0.731
	Widowed/Divorced/Separated	1.30 (0.82–2.06)	0.267
Religious Affiliation	Christian (Ref)	1.00	-
	Islam	0.17 (0.11–0.24)	<0.001
	Traditionalist	1.78 (1.10–2.88)	0.018
	Other	1.33 (0.79–2.24)	0.276
	No Religion	2.61 (0.20–34.50)	0.466
Educational Level	No Education (Ref)	1.00	-
	Primary	1.21 (0.79–1.86)	0.378
	Secondary	0.77 (0.50–1.18)	0.225
	Higher	0.68 (0.37–1.28)	0.231
Employment Status	Unemployed (Ref)	1.00	-
	Employed	1.83 (1.48–2.26)	<0.001
Residential Place	Urban (Ref)	1.00	-
	Rural	1.16 (0.91–1.46)	0.227
Internal Migration	Not Migrated (Ref)	1.00	-
	Migrated	1.02 (0.73–1.42)	0.905
Internet Use	Non-user (Ref)	1.00	-
	User	1.35 (1.09–1.68)	0.007
Mass Media Exposure	Non-user (Ref)	1.00	-
	User	1.39 (0.98–1.97)	0.068
Smokes tobacco	Non-smoker (Ref)	1.00	-
	Smoker	2.24 (1.07–4.68)	0.032

Data Source; Secondary Data-GDHS 2022, aOR; Adjusted Odds Ratio, CI; Confidence Interval, Ref; Reference

CHAPTER FIVE

5.0 DISCUSSION

5.1 Prevalence of Current Alcohol Consumption

The prevalence of current alcohol consumption among Ghanaian youth was 12.93% (95% CI: 11.68–14.30), which closely aligns with estimates from New Edubiase (13.4%) (Asiedu et al., 2019), India (12.4%) (Joseph et al., 2024), and Thailand (14.8%) (Peltzer and Pengpid, 2012).

This estimate is, however, lower than those reported in Hohoe Municipality (19.4%) (Aboagye et al., 2021), Tokorni-Hohoe (43%) (Osei-Bonsu et al., 2017), Bosomtwe District (71.86%) (Kwapong et al., 2022), Wa Zongo (64%) (Ampofo and Antwi Abrefi, 2020), Bono East (22.2%) (Amoah et al., 2023) and New Edubiase (13.4%) (Asiedu et al., 2019). Conversely, it was higher than the 5.8% reported among high school students in the Ga Municipality (Annor, 2016).

In the African context, the prevalence of current alcohol use in Ghana was lower than the 23.6% reported in a systematic review of sub-Saharan Africa (Ebrahim et al., 2024) and country-specific estimates from Nigeria (31.1%) (Ajayi et al., 2019), Ethiopia (27.84%, 36.34) (Kassew et al., 2023; Shibiru et al., 2023), and South Africa (22%, 25.2%) (Onya et al., 2012; Vellios & van Walbeek, 2018). It was also notably lower than the prevalence reported in other regions, including the United States (47.5%) (NIAAA, 2025), Europe (50%) (Colomer-Pérez et al., 2019), and Brazil (46.9%) (Martins-Oliveira et al., 2016).

Several factors may explain these variations across local and international studies, including differences in study design, population characteristics, and measurement tools. For instance, Annor (2016) conducted an institution-based study, where lower rates of alcohol consumption are expected compared to this nationally representative, population-based study. Similarly, while Ebrahim et al. (2024) conducted a systematic review, this study was based on cross-

sectional data from the 2022 GDHS, specifically focusing on individuals aged 15–24. Furthermore, some studies (Ajayi et al., 2019; Amoah et al., 2023; Ampofo & Antwi Abrefi, 2020; Colomer-Pérez et al., 2019; Osei-Bonsu et al., 2017) employed standardised substance consumption identification questionnaires, whereas this study relied on DHS alcohol use behaviour assessment questions. These methodological differences could contribute to the discrepancies in reported prevalence rates. It is also important to note that while the present study covered the entire country, the above-referenced Ghanaian studies focused on specific communities, which could account for the differences observed.

Moreover, differences in alcohol consumption across world regions—such as the US, Europe, and South America—may be influenced by sociodemographic and cultural factors. Alcohol use patterns vary significantly across countries and subpopulations due to differences in legal frameworks, social norms, and levels of availability and accessibility.

The data analysis further reveals that nearly one-third of the study population (32.24%) reported lifetime alcohol consumption. Among these ever-users, a substantial proportion (40.12%) were current drinkers, suggesting that initial alcohol use often transitions into continued consumption (Dimova et al., 2023). Descriptive findings also show that about one in ten (9.49%) of current users reported consuming four or more alcoholic drinks in a single day, a pattern indicative of binge drinking and its associated health risks (Hurley, 2023). Lastly, 2.75% reported daily alcohol use, reflecting youth with potentially higher risk of dependency, and hence increased risk of health complications associated with sustained alcohol use.

5.2 Age and Current Alcohol Consumption

The study reveals a notable increase in alcohol consumption with age, as youth aged 20–24 report a higher prevalence than those aged 15–19 (15.92% vs 10.23%). The binary and

multivariate logistic regression analyses confirm this pattern, showing significantly higher odds of alcohol use among older youth.

Similar trends have been reported in Ghana, where studies by Osei-Bonsu et al. (2017), Aboagye et al. (2021) and Kwapong et al. (2022) found that older youth are more likely to drink than those under 20. These patterns suggest that transitions such as leaving home, entering higher education, or joining the workforce play a crucial role in shaping drinking behaviours among the youth.

This trend extends beyond Ghana, with studies from Nigeria (Ajayi et al., 2019), Rwanda (Kanyoni et al., 2015), and Ethiopia (Kassew et al., 2023; Shibiru et al., 2023) reporting significantly higher alcohol use among those aged 20–24. An extensive study by Peltzer and Pengpid (2016) spanning multiple continents, including Africa, Asia, and the Americas, further highlighted the influence of life transitions such as university enrolment and workforce entry on drinking behaviours.

Likewise, comparisons with high-income specific countries reinforce these findings. Research in the U.S. (Patrick et al., 2019) and China (Ji et al., 2012) shows alcohol use peaks in early adulthood. Thus, ages 20-24 are often characterised by increased social pressures, reduced parental supervision, and the exploration of new behaviours, all of which contribute to alcohol initiation and sustained use (Shibiru et al., 2023).

5.3 Gender and Current Alcohol Consumption

This study highlights a higher prevalence of alcohol use among males (17.46%) compared to females (10.86%), with both bivariate (cOR: 0.58, <0.001) and multivariate (aOR: 0.64, p-value <0.001) logistic regression analyses confirming that females have significantly lower odds of alcohol consumption than males.

This gender disparity is consistent with studies from Ghana, including Osei-Bonsu et al. (2017) and Kyei-Gyamfi et al. (2023), as well as research from Ethiopia (Kassew et al., 2023; Shibiru et al., 2023), Nigeria (Adekeye et al., 2015; Ajayi et al., 2019), and Rwanda (Kanyoni et al., 2015). Broadly, socio-cultural and behavioural factors, such as the association of masculinity with alcohol use and societal discouragement of female drinking (Kugbey, 2023; Lasebikan et al., 2018; Ngesu & Kaluku, 2017), explain this pattern.

However, some studies, such as those from high-income countries like Norway (Bratberg et al., 2016) and upper-middle-income countries like South Africa (Morojele & Ramsoomar, 2016), present contrasting findings, indicating that increased female economic independence has been associated with higher alcohol consumption among women. Additionally, Bondah and Talboys (2019) found a higher prevalence of alcohol use among female secondary school students in Ghana, potentially due to shifting gender norms influenced by urbanisation. (Kwapong et al., 2022) found no significant gender-related association with alcohol use, though male drinkers still outnumbered females. These variations suggest that alcohol consumption is shaped by a complex interplay of socio-economic and cultural factors, with context playing a crucial role in determining drinking behaviours.

5.4 Religious Affiliation and Current Alcohol Consumption

This study highlights notable differences in alcohol consumption across religious groups. In the adjusted model, Muslims had lower odds of alcohol use compared to Christians, while Traditionalists exhibited higher odds. “Other” religious affiliations showed higher prevalence, but these differences were not statistically significant in the adjusted model.

The lower alcohol consumption among Muslims aligns with Islamic teachings that prohibit alcohol, a trend observed in Ghana by Aboagye et al. (2021) and Osei-Bonsu et al. (2017), and

in Ethiopia (Kassew et al., 2023) and Nigeria (Ajayi et al., 2019). The higher consumption among Traditionalists reflects the role of alcohol in African cultural practices, such as marriage rites and festivals, as it corroborates findings by Osei-Bonsu et al. (2017) and Asiedu et al. (2019) in Ghana, and Ekeke and John (2023) in Nigeria.

Contrastingly, Kwapong et al. (2022) found no significant link between religion and alcohol use in the Bosomtwe District. This discrepancy may stem from the complex relationship between religion, culture, and socio-economic factors. The small sample sizes for the “Non-religious individuals” may have limited statistical power; likewise, diverse beliefs within the “Other religion” category may weaken the observed effects.

5.5 Educational Status and Current Alcohol Consumption

This study found a non-significant relationship between educational attainment and alcohol consumption, which contrasts with existing research that suggests lower education levels are linked to higher rates of problematic drinking due to limited health literacy and fewer coping mechanisms. Studies in Tokorni-Hohoe (Osei-Bonsu et al., 2017), a Nigerian systematic review (Ekpenyong et al., 2024), and in Europe (Batty et al., 2008; Bloomfield et al., 2006) and Japan (Murakami & Hashimoto, 2019) support this view. However, findings from Kwapong et al. (2022) in the Bosomtwe District and Kassew et al. (2023) using Ethiopian DHS data indicate that higher education could be a risk factor for alcohol use, likely due to increased exposure to alcohol-related marketing and social pressures.

The non-significant finding in this study may be attributed to the mixed influences of education, making it harder to detect a clear relationship. Self-reporting bias, particularly among highly educated individuals who are more aware of social desirability biases, may also contribute to underreporting alcohol consumption.

Despite the overall non-significant findings, the study revealed that youth with secondary and tertiary education had lower odds of alcohol use, while those with only primary education had higher odds. This pattern suggests that school-based alcohol prevention programmes may have been more effectively implemented at higher educational levels, making students at those levels more aware of the risks associated with alcohol use.

5.6 Employment and Current Alcohol Consumption

The study findings indicate that employed youth have a higher prevalence of alcohol use (16.35%) than their unemployed counterparts (8.04%), with both crude and adjusted analyses confirming that employment significantly increases the odds of alcohol consumption. These results align with existing literature, which attributes this association to financial independence, increased social opportunities, and work-related stress. In Ghana, Kyei-Gyamfi et al. (2024) found a positive link between employment and substance use among adolescents. Similarly, Kasew et al. (2023), using Ethiopian DHS data, reported a higher likelihood of alcohol use among employed individuals. Fentaw et al. (2022), who analysed DHS data from 11 East African countries, further highlighted financial autonomy and workplace socialisation as key contributors to alcohol consumption.

Contrasting evidence suggests the relationship between employment and alcohol use is context-dependent. Osei-Bonsu et al. (2017) found that in Tokorni-Hohoe, employed youth, particularly traders and artisans, were less likely to consume alcohol than their unemployed peers, suggesting that physically demanding jobs may limit drinking opportunities. Similarly, Kwapong et al. (2022) found no significant association between employment and alcohol use in the Bosomtwe District. This implies that factors such as economic structure, urbanisation, and cultural norms mediate this relationship.

Overall, while employment may increase alcohol accessibility through financial means, job demands and workplace regulations can moderate consumption patterns. The nature of employment—whether formal or informal—along with broader socio-economic and cultural factors, likely shapes drinking behaviours among youth.

5.7 Marital Status and Current Alcohol Consumption

This study highlights notable variations in current alcohol use across different marital status categories, with the highest prevalence observed among separated individuals (20.21%), followed by those cohabiting (15.22%), single (12.80%), and married (10.00%). The relationship between marital status and alcohol use was statistically significant in the bivariate model, where separated/divorced and widowed youth had higher odds of consumption. However, this association was not significant in the multivariate model.

Despite the lack of statistical significance after adjustment, the observed differences across marital groups are consistent with findings from prior studies. For example, Osei-Bonsu et al. (2017) reported higher alcohol use among unmarried youth in Ghana compared to the married. Similarly, in Ethiopia, in reference to married youth, the highest alcohol consumption rates were recorded among divorced, widowed, or separated individuals (Kassew et al., 2023). Evidence from high-income countries, including Australia (Liang & Chikritzhs, 2012) and the United States (Evans-Polce et al., 2020), also shows that marriage tends to be protective against alcohol use, while divorce or separation is associated with increased risk of hazardous drinking.

A plausible explanation is that, in addition to societal expectations that discourage alcohol use among young people, marriage may provide emotional support from spouses and extended families (Evans-Polce et al., 2020). Furthermore, young parents may choose to abstain from alcohol to set a positive example for their children. On the other hand, the higher odds of

alcohol use observed among the separated group (aOR: 1.30, 95% CI: 0.82–2.06, $p = 0.267$), though not statistically significant, should not be overlooked. This may be indicative of psycho-emotional stressors, which could lead to alcohol consumption as a coping mechanism (Wolkowicz et al., 2022).

The non-significant result in the adjusted model may be due to confounding factors such as age, gender, and religion, which influence both marital status and drinking behaviour. Additionally, the small sample size within certain marital categories, particularly the "separated" group, may have reduced the statistical power to detect meaningful associations.

5.8 Residential Place and Current Alcohol Consumption

This study found no statistically significant relationship between place of residence (urban vs. rural) and alcohol consumption, a result that diverges from some existing research. Studies conducted in African countries, including Ethiopia (Kassew et al., 2023; Shibiru et al., 2023), Nigeria (Ajayi et al., 2019), and South Africa (Letsela et al., 2019), have linked urban residence with higher alcohol consumption, attributing this to factors such as increased purchasing power, greater exposure to Westernised drinking cultures, and a higher concentration of alcohol outlets. These studies suggest that the urban environment facilitates and encourages alcohol use.

Conversely, this study's findings also contradict research indicating higher alcohol use among rural youth. Research from Ghana (Kyei-Gyamfi & Kyei-Arthur, 2023), based on focus group discussions, revealed that rural youth often have easier access to locally produced alcoholic beverages like palm wine and *akpeteshie*. Furthermore, the writers highlighted the weaker enforcement of alcohol regulations in rural areas compared to urban centers. Similar trends linking rural residence with increased alcohol use due to factors like limited recreational

opportunities have been observed in other contexts, such as Spain (Marqués-Sánchez et al., 2020), Scotland (Martin et al., 2019), and Australia (MacLean & Moore, 2014).

The lack of a significant association suggests that urbanisation may not be the dominant factor influencing alcohol consumption in this specific population. Instead, other variables, such as socioeconomic status, peer influence, cultural norms, and the overall availability of alcohol, may be more influential. It is also plausible that opposing situations related to urban and rural living are at play. Thus, while urban youth may face greater social pressure to drink, potentially increasing consumption, countervailing cultural and religious norms in rural areas, especially among educated youth, may discourage alcohol use. These competing influences could neutralise each other, leading to the observed non-significant relationship.

5.9 Internal Migration and Current Alcohol Consumption

This study found no statistically significant association between internal migration and alcohol consumption in both bivariate and multivariate analyses. This contradicts findings from Asafu-Adjaye (2015) in Accra, who found that non-migrants in urban poor communities consume alcohol more frequently than migrants, possibly due to their greater financial stability and stronger social networks. Thus, migrants may face economic constraints and social isolation, limiting their alcohol consumption. It also contradicts studies from Nepal (Ghimire et al., 2023) and Vietnam (Nguyen et al., 2012), which reported higher alcohol use among migrants, often driven by work-related stress, increased disposable income, and greater access to alcohol in urban areas.

The lack of statistical significance in this study may be attributed to varying migration motives (such as for work, education or marriage), destination characteristics (urban vs rural), and levels of social integration (Hnuploy et al., 2025). Factors such as cultural influences,

employment, and coping mechanisms may also shape alcohol use among migrants (Ghimire et al., 2023; Lin et al., 2005).

5.10 Internet Use and Current Alcohol Consumption

This study found that internet users had significantly higher odds of alcohol consumption, both in crude and adjusted regression analyses. This finding aligns with global research linking internet exposure to increased alcohol use. Studies suggest that social media platforms contribute to this increased consumption by promoting a drinking culture through advertisements, influencer endorsements, and peer engagement. In Ethiopia, Getachew et al. (2019) reported 53% higher odds of alcohol consumption among internet users compared to non-users. Research in Ghana by Asiedu et al. (2019), Kwapong et al. (2022), and Mohammed et al. (2024) identified mobile phones and social media as key channels for alcohol-related exposure.

Consistent with these findings, Annor (2016) and Bondah & Talboys (2019) found that approximately one in ten Ghanaian youth were influenced by celebrities and online advertisements to consume alcohol. Similarly, Ampofo and Antwi Abrefi (2020) reported that social media in Wa Zongo promoted a drinking culture through event advertisements for parties and "drink-ups." Outside of Africa, Savolainen et al. (2020) found platform-specific links between alcohol use and social media advertising in Finland, South Korea, Spain, and the US, with YouTube, Instagram, Facebook, and X normalising drinking behaviours. Likewise, Liu et al. (2024) also highlighted the impact of alcohol-related social media exposure on middle school students in the US.

This study's findings echo the growing influence of digital alcohol marketing, particularly in LMICs where regulatory frameworks are often weak (Barry et al., 2015; Grenard et al., 2013; Lobstein et al., 2017). Without strict regulations, alcohol brands will continue to target young

audiences with engaging, often subtle, promotional strategies (Janiuk & Maleki, 2023). Therefore, strengthening policies to regulate digital alcohol advertising is crucial for mitigating its impact on youth consumption in Ghana.

5.11 Media Exposure and Current Alcohol Consumption

This study found that youth exposed to mass media had a higher prevalence of current alcohol consumption (13.35%) compared to those with no exposure (9.66%), but narrowly misses the conventional significance threshold of 0.05, both crude and adjusted analyses. This contrasts with some studies in Ghana, including those by Osei-Bonsu et al. (2017) in Tokorni-Hohoe, Asiedu et al. (2019) in New Edubiase, Kwapong et al. (2022) in Bosomtwi District, Annor (2016) in Ga Central, and Bondah and Talboys (2019) among SHS students.

Beyond Ghana, a Nigerian systematic review by Ekpenyong et al. (2024), an Ethiopian study using DHS data by Kasew et al. (2023), and research in South Africa (Carels et al., 2022) found significant relationships between media exposure and youth alcohol consumption. Global studies, such as Lobstein et al. (2017) and Grenard et al. (2013) in the US, also confirm that alcohol advertisements normalise drinking and contribute to early initiation.

The non-significant association between media exposure and alcohol consumption observed in this study may be explained by regulatory measures implemented by the Government of Ghana and the Food and Drugs Authority (FDA). These include restrictions on alcohol promotion, such as the ban on celebrity endorsements and the prohibition of alcohol advertising on local radio and television between 6 a.m. and 10 p.m. (Twumasi-Ankrah, 2020). Such policies may have reduced the influence of media exposure on alcohol use behaviours among Ghanaian youth.

Despite the lack of statistical significance, this study's findings reinforce concerns about the negative influence of media on alcohol use, as shown by an adjusted odds ratio (aOR) of 1.39 (95% CI: 0.98–1.97, $p = 0.068$). This indicates that media users are 39% more likely to consume alcohol compared to non-users. The differences may be because of other forms of media exposure, such as music videos and internationally owned platforms like DSTV, which continue to promote and entice youth to consume alcohol. This therefore warrants the need for closer scrutiny and strengthening of regulatory measures by the FDA and other relevant policy bodies.

5.12 Tobacco Smoking and Current Alcohol Consumption

This study found a significant association between tobacco smoking and alcohol consumption, with alcohol use prevalence being significantly higher among tobacco users (27.59%) compared to non-users (12.72%). Tobacco smokers had over two times the odds of consuming alcohol in both crude and adjusted analyses. It reinforces the well-documented link between these substances due to shared social, psychological, and environmental influences (Bakar et al., 2013; Lourdes et al., 2022).

Findings from Ghana and other countries support this relationship. Oti Boateng (2016) reported a strong association between tobacco smoking and alcohol consumption among University of Ghana students, while Oppong Asante and Kugbey (2019) and Bondah et al. (2020) found similar patterns among school-going adolescents and SHS students, respectively. Research from Benin Pengpid and Peltzer (2020), Ethiopia (Boltana et al., 2023), and a Sub-Saharan systematic review (Kugbey, 2023) further confirms that smoking increases the odds of alcohol consumption. Similar trends have been observed among university students in Turkey (Bakar et al., 2013) and Myanmar (Htet et al., 2020), where peer influence, stress, and accessibility

play significant roles in co-use. These highlight the urgent need for integrated interventions that address both tobacco and alcohol use, particularly among young people.



CHAPTER FIVE

5.0 CONCLUSION, SUMMARIES AND RECOMMENDATIONS

5.1 Conclusion

This study found that 12.93% of Ghanaian youth, aged 15-24, are current alcohol consumers, with significant variations across demographic, socioeconomic, and behavioural factors. Alcohol use was significantly higher among males, older youth (20-24), employed individuals, internet users, and tobacco users. Compared to Christians, Muslims exhibited significantly lower odds of alcohol consumption, whereas Traditionalists were more likely to consume alcohol. While descriptive analyses showed variations based on mass media use, education, marital status, residence, and migration, these associations were not statistically significant in the adjusted model. In light of the physical, psychological, and societal harms related to alcohol consumption, these findings underscore the necessity of targeted interventions to address these factors influencing alcohol consumption among Ghanaian youth.

5.2 Strengths of the Study

- I. This study provides the first nationally representative analysis of alcohol consumption patterns among Ghanaian youth aged 15-24. Its comprehensive examination of demographic, socioeconomic, and behavioural factors offers a unique and holistic understanding of the determinants of alcohol use in this population.
- II. By utilising data from the 2022 GDHS, it ensures a large, nationally representative sample that enhances statistical power, generalisability, and meaningful subgroup comparisons.
- III. The DHS is conducted across multiple countries using standardised data collection procedures and validated survey instruments to assess key health indicators. This

ensures high data quality, reliability, and consistency, allowing for comparability across studies and countries.

5.3 Study Limitations

- I. A key limitation of this research was that the GDHS did not capture detailed drinking patterns, duration, or quantity of alcohol consumed per session, limiting the ability to assess binge drinking. Secondly, the study relied on data from the 2022 GDHS, which is cross-sectional; as a result, causal relationships between alcohol consumption and its determinants cannot be established.
- II. Additionally, alcohol consumption data were self-reported, which is likely to introduce recall bias or social desirability bias, especially in a context where alcohol use is culturally or religiously sensitive. Some respondents, particularly those with higher education levels, parental responsibilities or Islamic religion, may have underreported their alcohol use to align with social norms. These could lead to a possible underestimation of the true prevalence of alcohol consumption among Ghanaian youth.
- III. Lastly, some explanatory variables were measured or categorised in ways that limited the ability to detect meaningful associations. For instance, marital status had small sample sizes in certain groups (e.g., separated and widowed youth), which reduced statistical power. Similarly, media exposure was broadly defined as “None” versus “Users,” without accounting for frequency, intensity, or content type, potentially leading to misclassification and attenuated associations.

5.4 Recommendation for Policymakers

- I. **Enforce Minimum Legal Drinking Age Laws.** Given that 10.23% of youth aged 15–19 are drinkers, the government should strengthen the enforcement of minimum legal drinking age laws to prevent alcohol drinking in this age group. This policy

action could help reduce early initiation into alcohol use and its associated health and social risks

- II. **Regulate Alcohol Advertising and Promotions.** Given the relationship between internet use and alcohol intake, the Food and Drugs Authority (FDA) should implement stricter regulations on alcohol advertising, sponsorships, and promotions, particularly on digital media platforms that are popular among youth, to reduce exposure and influence.
- III. **Strengthen Mental Health and Counselling Services.** With 40.12% of ever-drinkers still consuming alcohol and 2.75% of current drinkers drinking always, health, educational, and religious institutions should enhance mental health and counselling services to support young people struggling with alcohol use disorders.
- IV. **Implement Integrated Tobacco and Alcohol Interventions.** Since tobacco users have more than two times the odds of drinking alcohol, policymakers should prioritise integrated intervention programmes that address both tobacco and alcohol use simultaneously, reducing their individual and combined health risks.
- V. **Leverage Religious Institutions for Community Outreach.** Given the strong influence of religion on alcohol consumption, district health directorates should collaborate with faith-based organisations to provide mentorship, support services, and community outreach programmes that educate youth on the risks associated with alcohol consumption.

5.5 Recommendation for Future Research

- I. Longitudinal studies are needed to examine the underlying mechanisms of the co-occurrence of tobacco and alcohol use by looking at social, cultural, and psychological influences.

- II. Future research should investigate the role of how specific digital platforms, content, and frequency of use influence alcohol consumption among young people, and whether such tools can help reduce it.
- III. Qualitative studies are needed to understand how societal pressures related to life milestones (education, employment, marriage, and parenthood) affect young people's experiences with alcohol.
- IV. More research is necessary to explore how internal migration impacts alcohol use among Ghanaian youth, considering social and cultural contexts of both origin and destination communities, the direction (e.g., rural-urban, urban-urban), reasons for migrating, duration of stay, and the socioeconomic conditions they face.



REFERENCES

- Aboagye, R. G., Kugbey, N., Ahinkorah, B. O., Seidu, A.-A., Cadri, A., & Akonor, P. Y. (2021). Alcohol consumption among tertiary students in the Hohoe municipality, Ghana: analysis of prevalence, effects, and associated factors from a cross-sectional study. *BMC Psychiatry*, 21(1), 431. <https://doi.org/10.1186/s12888-021-03447-0>
- Adekeye, O. A., Adeusi, S. O., Chenube, O. O., Ahmadu, F. O., & Sholarin, M. A. (2015). Assessment of Alcohol and Substance Use among Undergraduates in Selected Private Universities in Southwest Nigeria. *IOSR Journal Of Humanities And Social Science Ver. II*, 20(3), 1–7. <https://doi.org/10.9790/0837-20320107>
- Adriana Nasui, B., Popa, M., & Alina Popescu, C. (2016). Drinking Patterns and Behavioral Consequences: A Cross-Sectional Study Among Romanian University Students. *Slovenian Journal of Public Health*, 55(1), 59–66. <https://doi.org/10.1515/sjph-2016-0009>
- Ajayi, A. I., Owolabi, E. O., & Olajire, O. O. (2019). Alcohol use among Nigerian university students: prevalence, correlates and frequency of use. *BMC Public Health*, 19(1), 752. <https://doi.org/10.1186/s12889-019-7104-7>
- Amoah, J., Said, S. M., & Rampal, L. (2023). Prevalence and factors of alcohol use among secondary school students in Ghana: A cross-sectional study. *African Journal of Health Sciences*, 35(6), 734–742. <https://doi.org/10.4314/ajhs.v35i6.8>
- Ampofo, J. A., & Antwi Abrefi, A. (2020). THE EFFECT OF ALCOHOLISM AMONG THE YOUTH OF ZONGO COMMUNITY OF WA IN THE UPPER WEST REGION OF GHANA. *International Journal of Management & Entrepreneurship Research*, 2(5), 314–331. <https://doi.org/10.51594/ijmer.v2i5.165>
- ANNOR, J. (2016). *Alcohol use among senior high school students in the Ga Central*

Municipality [University of Ghana].

https://www.academia.edu/35295804/ALCOHOL_USE_AMONG_SENIOR_HIGH_SCHOOL_STUDENTS_IN_THE_GA_CENTRAL_MUNICIPALITY?source=swp_share

ASAFU-ADJAYE, D. (2015). *Migration Status and Alcohol Use in Urban Poor Communities, Accra, Ghana* [University of Ghana].

<http://197.255.68.203/handle/123456789/21561>

Asiedu, C., Opoku, A. D., Abankro, J., & Bint Entsie, J. (2019). Factors Contributing to Alcoholism Among the Youth in New Edubiase of Adansi South District in Ashanti Region-Ghana. *International Research in Medical and Health Science, August*, 28–43. <https://doi.org/10.36437/irmhs.2019.2.5.W>

Bagnardi, V., Rota, M., Botteri, E., Tramacere, I., Islami, F., Fedirko, V., Scotti, L., Jenab, M., Turati, F., Pasquali, E., Pelucchi, C., Galeone, C., Bellocco, R., Negri, E., Corrao, G., Boffetta, P., & La Vecchia, C. (2015). Alcohol consumption and site-specific cancer risk: a comprehensive dose–response meta-analysis. *British Journal of Cancer, 112*(3), 580–593. <https://doi.org/10.1038/bjc.2014.579>

Bai, F. W., Anderson, W. A., & Moo-Young, M. (2008). Ethanol fermentation technologies from sugar and starch feedstocks. *Biotechnology Advances, 26*(1), 89–105. <https://doi.org/10.1016/j.biotechadv.2007.09.002>

Bakar, C., Gündogar, D., Ozisik Karaman, H. I., & Maral, I. (2013). Prevalence and related risk factors of tobacco, alcohol and illicit substance use among university students. *European Journal of Psychiatry, 27*(2), 97–110. <https://doi.org/https://dx.doi.org/10.4321/S0213-61632013000200003>

Balagopal, G., Davidson, S., Gill, S., Barengo, N., De La Rosa, M., & Sanchez, M. (2022). The impact of cultural stress and gender norms on alcohol use severity among Latino

immigrant men. *Ethnicity & Health*, 27(6), 1271–1289.

<https://doi.org/10.1080/13557858.2021.1880550>

Barry, A. E., Johnson, E., Rabre, A., Darville, G., Donovan, K. M., & Efunbumi, O. (2015).

Underage Access to Online Alcohol Marketing Content: A YouTube Case Study.

Alcohol and Alcoholism, 50(1), 89–94. <https://doi.org/10.1093/alcalc/agu078>

Batty, G. D., Lewars, H., Emslie, C., Benzeval, M., & Hunt, K. (2008). Problem drinking and

exceeding guidelines for “sensible” alcohol consumption in Scottish men: associations

with life course socioeconomic disadvantage in a population-based cohort study. *BMC*

Public Health, 8(1), 302. <https://doi.org/10.1186/1471-2458-8-302>

BLOOMFIELD, K., GRITTNER, U., KRAMER, S., & GMEL, G. (2006). SOCIAL

INEQUALITIES IN ALCOHOL CONSUMPTION AND ALCOHOL-RELATED

PROBLEMS IN THE STUDY COUNTRIES OF THE EU CONCERTED ACTION

‘GENDER, CULTURE AND ALCOHOL PROBLEMS: A MULTI-NATIONAL

STUDY.’ *Alcohol and Alcoholism*, 41(suppl_1), i26–i36.

<https://doi.org/10.1093/alcalc/agl073>

Boltana, G., Kacharo, M. M., Abebe, A., & Baza, D. (2023). Alcohol consumption and

associated factors among undergraduate regular students in Wolaita Sodo University,

Southern Ethiopia, 2021: a cross-sectional study. *The Pan African Medical Journal*, 45.

<https://doi.org/10.11604/pamj.2023.45.179.35980>

Bondah, E., Gren, L., & Talboys, S. (2020). Prevalence, Drinking Patterns, and Risk Factors

of alcohol use and early onset among Ghanaian Senior High School students. *American*

Journal of Preventive Medicine and Public Health, 6(1), 16.

<https://doi.org/10.5455/ajpmph.20191004022611>

Bondah, E. K., & Talboys, S. L. (2019). High school alcohol use assessment: A descriptive

- report of underage drinking in Ghana. *International Journal of Recent Research in Social Sciences and Humanities (IJRSSH)*, 6(3), 16–25. www.paperpublications.org
- Bourmaud, P., & Znaïen, N. (2022). Alcohol in The Muslim Worlds :History, places, practices and policies (15th-21st century). *Revue Des Mondes Musulmans et de La Méditerranée*, 151, 25–40. <https://doi.org/10.4000/remmm.17629>
- Bratberg, G. H., C Wilsnack, S., Wilsnack, R., Håvås Haugland, S., Krokstad, S., Sund, E. R., & Bjørngaard, J. H. (2016). Gender differences and gender convergence in alcohol use over the past three decades (1984–2008), The HUNT Study, Norway. *BMC Public Health*, 16(1), 723. <https://doi.org/10.1186/s12889-016-3384-3>
- Carels, C., Florence, M., Adams, S., Sinclair, D. L., & Savahl, S. (2022). Youths' Perceptions Of The Relation Between Alcohol Consumption And Risky Sexual Behaviour in the Western Cape, South Africa: A Qualitative Study. *Child Indicators Research*, 15(4), 1269–1293. <https://doi.org/10.1007/s12187-022-09913-9>
- Cho, H.-S., & Yang, Y. (2023). Relationship Between Alcohol Consumption and Risky Sexual Behaviors Among Adolescents and Young Adults: A Meta-Analysis. *International Journal of Public Health*, 68. <https://doi.org/10.3389/ijph.2023.1605669>
- Colomer-Pérez, N., Chover-Sierra, E., Navarro-Martínez, R., Andriusevičienė, V., Vlachou, E., & Cauli, O. (2019). Alcohol and Drug Use in European University Health Science Students: Relationship with Self-Care Ability. *International Journal of Environmental Research and Public Health*, 16(24), 5042. <https://doi.org/10.3390/ijerph16245042>
- Connor, J. P., Haber, P. S., & Hall, W. D. (2016). Alcohol use disorders. *The Lancet*, 387(10022), 988–998. [https://doi.org/10.1016/S0140-6736\(15\)00122-1](https://doi.org/10.1016/S0140-6736(15)00122-1)
- Davoren, M. P., Demant, J., Shiely, F., & Perry, I. J. (2016). Alcohol consumption among

university students in Ireland and the United Kingdom from 2002 to 2014: a systematic review. *BMC Public Health*, 16(1), 173. <https://doi.org/10.1186/s12889-016-2843-1>

Degenhardt, L., Charlson, F., Ferrari, A., Santomauro, D., Erskine, H., Mantilla-Herrara, A., Whiteford, H., Leung, J., Naghavi, M., Griswold, M., Rehm, J., Hall, W., Sartorius, B., Scott, J., Vollset, S. E., Knudsen, A. K., Haro, J. M., Patton, G., Kopec, J., ... Vos, T. (2018). 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. *The Lancet Psychiatry*, 5(12), 987–1012. [https://doi.org/10.1016/S2215-0366\(18\)30337-7](https://doi.org/10.1016/S2215-0366(18)30337-7)

Dimova, E. D., Lekkas, P., Maxwell, K., Clemens, T. L., Pearce, J. R., Mitchell, R., Emslie, C., & Shortt, N. K. (2023). Exploring the influence of local alcohol availability on drinking norms and practices: A qualitative scoping review. *Drug and Alcohol Review*, 42(3), 691–703. <https://doi.org/10.1111/dar.13596>

Ebrahim, J., Adams, J., & Demant, D. (2024). Substance use among young people in sub-Saharan Africa: a systematic review and meta-analysis. *Frontiers in Psychiatry*, 15(September), 1–21. <https://doi.org/10.3389/fpsy.2024.1328318>

Ekeke, E. C., & John, E. O. (2023). Alcohol abuse in African traditional religion: Education and enlightenment as panacea for integration and development. *HTS Teologiese Studies / Theological Studies*, 79(2). <https://doi.org/10.4102/hts.v79i1.8304>

Ekpenyong, M. S., Jagun, H., Stephen, H. A., Bakre, A. T., Odejimi, O., Miller, E., Nyashanu, M., & Bosun-Arije, S. F. (2024). Investigation of the prevalence and factors influencing tobacco and alcohol use among adolescents in Nigeria: A systematic literature review. *Drug and Alcohol Dependence*, 256, 111091. <https://doi.org/10.1016/j.drugalcdep.2024.111091>

- Evans-Polce, R. J., Jang, B. J., Maggs, J. L., & Patrick, M. E. (2020). Gender and age differences in the associations between family social roles and excessive alcohol use. *Social Science and Medicine*, 244(November 2019), 112664. <https://doi.org/10.1016/j.socscimed.2019.112664>
- Evans, J., & Baldwin, W. (1987). Migration and health. *The International Migration Review*, 21(3), v-491–86.
- Fentaw, K. D., Fenta, S. M., & Biresaw, H. B. (2022). Prevalence and Associated Factors of Substance Use Male Population in East African Countries: A Multilevel Analysis of Recent Demographic and Health Surveys From 2015 to 2019. *Substance Abuse: Research and Treatment*, 16. <https://doi.org/10.1177/11782218221101011>
- Ferreira-Borges, C., Rehm, J., Dias, S., Babor, T., & Parry, C. D. H. (2016). The impact of alcohol consumption on African people in 2012: an analysis of burden of disease. *Tropical Medicine & International Health*, 21(1), 52–60. <https://doi.org/10.1111/tmi.12618>
- Font-Mayolas, S., Hernández-Serrano, O., Gras, M. E., & Sullman, M. J. M. (2019). Types of Polydrug Use Among Spanish Students in Health Sciences. *Journal of Addictions Nursing*, 30(2), 108–113. <https://doi.org/10.1097/JAN.0000000000000274>
- Gebremariam, T. B., Mruts, K. B., & Neway, T. K. (2018). Substance use and associated factors among Debre Berhan University students, Central Ethiopia. *Substance Abuse Treatment, Prevention, and Policy*, 13(1), 13. <https://doi.org/10.1186/s13011-018-0150-9>
- Getachew, S., Lewis, S., Britton, J., Deressa, W., & Fogarty, A. W. (2019). Prevalence and risk factors for initiating tobacco and alcohol consumption in adolescents living in urban and rural Ethiopia. *Public Health*, 174, 118–126.

<https://doi.org/10.1016/j.puhe.2019.05.029>

Ghana Statistical Service. (2021). *Ghana FactSheet*.

<https://statsghana.gov.gh/ghfactsheet.php>

Ghana Statistical Service (GSS) and ICF. (2023). Demographic and Health Survey 2022. In *Demographic and Health Survey 2022*.

Ghimire, D. J., Cole, F., Hermosilla, S., Axinn, W. G., & Benjet, C. (2023). Alcohol use and internal migration in Nepal: a cross-sectional study. *Journal of Epidemiology and Community Health*, 77(9), 587–593. <https://doi.org/10.1136/jech-2022-220030>

Giustino, A., Stefanizzi, P., Ballini, A., Renzetti, D., De Salvia, M. A., Finelli, C., Coscia, M. F., Tafuri, S., & De Vito, D. (2018). Alcohol use and abuse: A cross-sectional study among Italian adolescents. *Journal of Preventive Medicine and Hygiene*, 59(2), E167–E171.

Goh, C. M. J., Asharani, P. V., Abidin, E., Shahwan, S., Zhang, Y., Sambasivam, R., Vaingankar, J. A., Ma, S., Chong, S. A., & Subramaniam, M. (2024). Gender Differences in Alcohol Use: a Nationwide Study in a Multiethnic Population. *International Journal of Mental Health and Addiction*, 22(3), 1161–1175. <https://doi.org/10.1007/s11469-022-00921-y>

Grenard, J. L., Dent, C. W., & Stacy, A. W. (2013). Exposure to Alcohol Advertisements and Teenage Alcohol-Related Problems. *Pediatrics*, 131(2), e369–e379. <https://doi.org/10.1542/peds.2012-1480>

Hnuploy, K., Sornlorm, K., Eltaybani, S., & Chutipattana, N. (2025). *Alcohol Use and Environmental Factors: A Cross-Sectional Study Exploring Health Risks and Social Implications Among Migrant Workers*.

<https://doi.org/10.20944/preprints202508.0800.v1>

Hormenu, T., Hagan Jnr, J. E., & Schack, T. (2018). Predictors of alcohol consumption among in-school adolescents in the Central Region of Ghana: A baseline information for developing cognitive-behavioural interventions. *PLOS ONE*, *13*(11), e0207093.
<https://doi.org/10.1371/journal.pone.0207093>

Htet, H., Saw, Y. M., Saw, T. N., Htun, N. M. M., Lay Mon, K., Cho, S. M., Thike, T., Khine, A. T., Kariya, T., Yamamoto, E., & Hamajima, N. (2020). Prevalence of alcohol consumption and its risk factors among university students: A cross-sectional study across six universities in Myanmar. *PLOS ONE*, *15*(2), e0229329.
<https://doi.org/10.1371/journal.pone.0229329>

Hurley, T. (2023). *The Dangers of Binge Drinking*. Canyon Vista Recovery Center.
<https://canyonvista.com/blog/the-dangers-of-binge-drinking/#:~:text=Alcohol Poisoning or Alcohol Overdose Symptoms of,lead to irreversible brain damage and death.>

IHME. (2024). *Alcohol use*. Institute for Health Metrics and Evaluation.
<https://www.healthdata.org/research-analysis/health-risks-issues/alcohol-use>

Janiuk, K., & Maleki, N. (2023). Exposure to Alcohol-Related Content on Social-Media. *Psychiatric Research and Clinical Practice*, *5*(3), 93–104.
<https://doi.org/10.1176/appi.prcp.20230009>

Ji, C.-Y., Hu, P.-J., & Song, Y. (2012). The Epidemiology of Alcohol Consumption and Misuse among Chinese College Students. *Alcohol and Alcoholism*, *47*(4), 464–472.
<https://doi.org/10.1093/alcalc/ags037>

Joseph, J., Varghese, A., Vijay, V. R., Grover, S., Sharma, S., Dhandapani, M., Khakha, D. C., Arya, S., Mahendia, N., Varkey, B. P., & Kishore, K. (2024). The prevalence of

alcohol use disorders using alcohol use disorders identification test (AUDIT) in the Indian setting: - a systematic review and meta-analysis. *Journal of Ethnicity in Substance Abuse*, 23(1), 2–20. <https://doi.org/10.1080/15332640.2022.2056105>

Kanyoni, M., Gishoma, D., & Ndahindwa, V. (2015). Prevalence of psychoactive substance use among youth in Rwanda. *BMC Research Notes*, 8(1), 190. <https://doi.org/10.1186/s13104-015-1148-2>

Kassew, T., Tarekegn, G. E., Alamneh, T. S., Kassa, S. F., Liyew, B., & Terefe, B. (2023). The prevalence and determinant factors of substance use among the youth in Ethiopia: A multilevel analysis of Ethiopian Demographic and Health Survey. *Frontiers in Psychiatry*, 14. <https://doi.org/10.3389/fpsyt.2023.1096863>

Kugbey, N. (2023). Prevalence and correlates of substance use among school-going adolescents (11-18years) in eight Sub-Saharan Africa countries. *Substance Abuse Treatment, Prevention, and Policy*, 18(1), 44. <https://doi.org/10.1186/s13011-023-00542-1>

Kwapong, F. L., Eghan, C., Norman, B., & Enimil, A. (2022). Determinants of alcohol use among the youth in the Bosomtwe District, Ashanti Region- Ghana. *World Journal of Advanced Research and Reviews*, 14(1), 243–257. <https://doi.org/10.30574/wjarr.2022.14.1.0316>

Kyei-Gyamfi, S., & Kyei-Arthur, F. (2023). Assessment of prevalence, predictors, reasons and regulations of substance smoking among children in Ghana. *BMC Public Health*, 23(1), 1–11. <https://doi.org/10.1186/s12889-023-17187-1>

Kyei-Gyamfi, S., Kyei-Arthur, F., Alhassan, N., Agyekum, M. W., Abrah, P. B., & Kugbey, N. (2024). Prevalence, correlates, and reasons for substance use among adolescents aged 10–17 in Ghana: a cross-sectional convergent parallel mixed-method study. *Substance*

Abuse Treatment, Prevention, and Policy, 19(1), 17. <https://doi.org/10.1186/s13011-024-00600-2>

Kyei-Gyamfi, S., Wellington, N., & Kyei-Arthur, F. (2023). Prevalence, Reasons, Predictors, Perceived Effects, and Regulation of Alcohol Use among Children in Ghana. *Journal of Addiction*, 2023, 1–10. <https://doi.org/10.1155/2023/9032348>

Lasebikan, V. O., Ayinde, O., Odunleye, M., Adeyefa, B., Adepoju, S., & Fakunle, S. (2018). Prevalence of alcohol consumption and alcohol use disorders among outdoor drinkers in public open places in Nigeria. *BMC Public Health*, 18(1), 400. <https://doi.org/10.1186/s12889-018-5344-6>

Letsela, L., Weiner, R., Gafos, M., & Fritz, K. (2019). Alcohol Availability, Marketing, and Sexual Health Risk Amongst Urban and Rural Youth in South Africa. *AIDS and Behavior*, 23(1), 175–189. <https://doi.org/10.1007/s10461-018-2250-y>

Liang, W., & Chikritzhs, T. (2012). Brief report: marital status and alcohol consumption behaviours. *Journal of Substance Use*, 17(1), 84–90. <https://doi.org/10.3109/14659891.2010.538463>

Lin, D., Li, X., Yang, H., Fang, X., Stanton, B., Chen, X., Abbey, A., & Liu, H. (2005). Alcohol intoxication and sexual risk behaviors among rural-to-urban migrants in China. *Drug and Alcohol Dependence*, 79(1), 103–112. <https://doi.org/10.1016/j.drugalcdep.2005.01.003>

Liu, J., Charmaraman, L., & Bickham, D. (2024). Association Between Social Media Use and Substance Use Among Middle and High School-Aged Youth. *Substance Use & Misuse*, 59(7), 1039–1046. <https://doi.org/10.1080/10826084.2024.2320372>

Lobstein, T., Landon, J., Thornton, N., & Jernigan, D. (2017). The commercial use of digital

media to market alcohol products: a narrative review. *Addiction*, 112(S1), 21–27.

<https://doi.org/10.1111/add.13493>

MacLean, S., & Moore, D. (2014). ‘Hyped up’: Assemblages of alcohol, excitement and violence for outer-suburban young adults in the inner-city at night. *International Journal of Drug Policy*, 25(3), 378–385. <https://doi.org/10.1016/j.drugpo.2014.02.006>

Marmorstein, N. R., Iacono, W. G., & Malone, S. M. (2010). Longitudinal associations between depression and substance dependence from adolescence through early adulthood. *Drug and Alcohol Dependence*, 107(2–3), 154–160. <https://doi.org/10.1016/j.drugalcdep.2009.10.002>

Marqués-Sánchez, P., Quiroga Sánchez, E., Liébana-Presa, C., Fernández-Martínez, E., García-Rodríguez, I., & Benítez-Andrades, J. A. (2020). The consumption of alcohol by adolescent schoolchildren: Differences in the triadic relationship pattern between rural and urban environments. *PLOS ONE*, 15(11), e0241135. <https://doi.org/10.1371/journal.pone.0241135>

Martin, G., Inchley, J., Marshall, A., Shortt, N., & Currie, C. (2019). The neighbourhood social environment and alcohol use among urban and rural Scottish adolescents. *International Journal of Public Health*, 64(1), 95–105. <https://doi.org/10.1007/s00038-018-1181-8>

Martins-Oliveira, J. G., Jorge, K. O., Ferreira, R. C., Ferreira, E. F. e, Vale, M. P., & Zarzar, P. M. (2016). Risk of alcohol dependence: prevalence, related problems and socioeconomic factors. *Ciência & Saúde Coletiva*, 21(1), 17–26. <https://doi.org/10.1590/1413-81232015211.00652015>

Masferrer, L., Garre-Olmo, J., & Caparrós, B. (2017). Is complicated grief a risk factor for substance use? A comparison of substance-users and normative grieverers. *Addiction*

Research & Theory, 25(5), 361–367. <https://doi.org/10.1080/16066359.2017.1285912>

Mekonen, T., Fekadu, W., Mekonnen, T. C., & Workie, S. B. (2017). Substance Use as a Strong Predictor of Poor Academic Achievement among University Students. *Psychiatry Journal*, 2017, 1–9. <https://doi.org/10.1155/2017/7517450>

Messing, R. O. (2014). Alcohol and the Nervous System. In *Aminoff's Neurology and General Medicine* (pp. 713–724). Elsevier. <https://doi.org/10.1016/B978-0-12-407710-2.00033-3>

Mohammed, A., Yussif, I., Asamoah, Y., Nukpezah, R., Abiwu, H., Mugis, A., Odikro, M., & Kenu, E. (2024). *Substance use among high school-going adolescents, Northern Region, Ghana*. 769–775.

Morojele, N. K., & Ramsoomar, L. (2016). Addressing adolescent alcohol use in South Africa. *South African Medical Journal*, 106(6), 551. <https://doi.org/10.7196/SAMJ.2016.v106i6.10944>

Murakami, K., & Hashimoto, H. (2019). Associations of education and income with heavy drinking and problem drinking among men: evidence from a population-based study in Japan. *BMC Public Health*, 19(1), 420. <https://doi.org/10.1186/s12889-019-6790-5>

Murray, C. J. L., Aravkin, A. Y., Zheng, P., Abbafati, C., Abbas, K. M., Abbasi-Kangevari, M., Abd-Allah, F., Abdelalim, A., Abdollahi, M., Abdollahpour, I., Abegaz, K. H., Abolhassani, H., Aboyans, V., Abreu, L. G., Abrigo, M. R. M., Abualhasan, A., Abu-Raddad, L. J., Abushouk, A. I., Adabi, M., ... Lim, S. S. (2020). Global burden of 87 risk factors in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. *The Lancet*, 396(10258), 1223–1249. [https://doi.org/10.1016/S0140-6736\(20\)30752-2](https://doi.org/10.1016/S0140-6736(20)30752-2)

- National Collaborating Centre for Mental Health (UK). (2011). *Alcohol-use disorders: Diagnosis, assessment and management of harmful drinking and alcohol dependence*. British Psychological Society. <https://www.ncbi.nlm.nih.gov/books/NBK65500/>
- Ngesu, L. M., & Kaluku, E. N. (2017). Drugs and Substance Abuse in Kenyan Secondary Schools: Is It a Reality? *Journal of Educational Research*, 2(3), 182–190.
- Nguyen, L. T., Rahman, Z., Emerson, M. R., Nguyen, M. H., & Zabin, L. S. (2012). Cigarette Smoking and Drinking Behavior of Migrant Adolescents and Young Adults in Hanoi, Vietnam. *Journal of Adolescent Health*, 50(3), S61–S67.
<https://doi.org/10.1016/j.jadohealth.2011.12.004>
- NIAAA. (2025). *Alcohol and Young Adults Ages 18 to 25*. Alcohol's Effects on Health. <https://www.niaaa.nih.gov/alcohols-effects-health/alcohol-topics/alcohol-facts-and-statistics/underage-drinking-united-states-ages-12-20>
- Olawole-Isaac, A., Ogundipe, O., Amoo, E. O., & Adelaye, D. (2018). Substance use among adolescents in sub-Saharan Africa: A systematic review and meta-analysis. *SAJCH South African Journal of Child Health*, 12(Special Issue), S79–S84.
<https://doi.org/10.7196/SAJCH.2018.v12i2.1524>
- Onya, H., Tessler, A., Myers, B., & Flisher, A. (2012). Adolescent alcohol use in rural South African high schools. *African Journal of Psychiatry (South Africa)*, 15(5), 352–357.
<https://doi.org/10.4314/ajpsy.v15i5.44>
- Oppong Asante, K., & Kugbey, N. (2019). Alcohol use by school-going adolescents in Ghana: Prevalence and correlates. *Mental Health and Prevention*, 13(November 2017), 75–81. <https://doi.org/10.1016/j.mhp.2019.01.009>
- Oppong Asante, K., Meyer-Weitz, A., & Petersen, I. (2014). Substance use and risky sexual

behaviours among street connected children and youth in Accra, Ghana. *Substance Abuse Treatment, Prevention, and Policy*, 9(1), 45. <https://doi.org/10.1186/1747-597X-9-45>

Osei-Bonsu, E., Appiah, P. K., Norman, I. D., Asalu, G. A., Kweku, M., Ahiabor, S. Y., Takramah, W. K., Duut, A. B., Ntow, G. E., & Boadu, S. (2017). Prevalence of Alcohol Consumption and Factors Influencing Alcohol Use Among the Youth in Tokornihohoe, Volta Region of Ghana. *Science Journal of Public Health*, 5(3), 205. <https://doi.org/10.11648/j.sjph.20170503.18>

Oti Boateng, N. Y. (2016). *Alcohol Consumption among University of Ghana Students on Legon Campus* [University of Ghana]. <https://catalog.ihsn.org/citations/76752>

Patrick, M. E., Terry-McElrath, Y. M., Lanza, S. T., Jager, J., Schulenberg, J. E., & O'Malley, P. M. (2019). Shifting Age of Peak Binge Drinking Prevalence: Historical Changes in Normative Trajectories Among Young Adults Aged 18 to 30. *Alcoholism: Clinical and Experimental Research*, 43(2), 287–298. <https://doi.org/10.1111/acer.13933>

Peltzer, K., & Pengpid, S. (2012). Alcohol Use and Associated Factors among Adolescent Students in Thailand. *West Indian Medical Journal*, 61(9), 890–896. <https://doi.org/10.7727/wimj.2012.059>

Peltzer, K., & Pengpid, S. (2016). Heavy Drinking and Social and Health Factors in University Students from 24 Low, Middle Income and Emerging Economy Countries. *Community Mental Health Journal*, 52(2), 239–244. <https://doi.org/10.1007/s10597-015-9925-x>

Pengpid, S., & Peltzer, K. (2020). High alcohol use and misuse among a national sample of school adolescents in Benin in 2016. *Drugs: Education, Prevention and Policy*, 27(4), 328–333. <https://doi.org/10.1080/09687637.2019.1689923>

Ritchie, H., & Roser, M. (2022). *Alcohol Consumption*. Our World in Data.

<https://ourworldindata.org/alcohol-consumption>

Robert Lourdes, T. G., Abd Hamid, H. A., Riyadzi, M. R., Rodzlan Hasani, W. S., Abdul Mutalip, M. H., Abdul Jabbar, N., Mat Rifin, H., Saminathan, T. A., Ismail, H., & Mohd Yusoff, M. F. (2022). Findings from a Nationwide Study on Alcohol Consumption Patterns in an Upper Middle-Income Country. *International Journal of Environmental Research and Public Health*, 19(14), 8851. <https://doi.org/10.3390/ijerph19148851>

Rocca, C., & Schultes, I. (2020). *AFRICA'S YOUTH: ACTION NEEDED NOW TO SUPPORT THE CONTINENT'S GREATEST ASSET*.

<https://mo.ibrahim.foundation/sites/default/files/2020-08/international-youth-day-research-brief.pdf>

Savolainen, I., Oksanen, A., Kaakinen, M., Sirola, A., Miller, B. L., Paek, H.-J., & Zych, I. (2020). The Association Between Social Media Use and Hazardous Alcohol Use Among Youths: A Four-Country Study. *Alcohol and Alcoholism*, 55(1), 86–95. <https://doi.org/10.1093/alcalc/agz088>

Shibiru, T., Arulandhu, A., Belete, A., Etana, J., & Amanu, W. (2023). Prevalence and Factors Associated with Alcohol Consumption Among Secondary School Students in Nekemte, Ethiopia: A Cross-Sectional Study. *Substance Abuse and Rehabilitation*, Volume 14(May), 35–47. <https://doi.org/10.2147/SAR.S408736>

Sørensen, J. B., Tayebi, S., Brokhattingen, A., & Gyawali, B. (2022). Alcohol Consumption in Low- and Middle-Income Settings. In *Handbook of Substance Misuse and Addictions* (pp. 1111–1129). Springer International Publishing. https://doi.org/10.1007/978-3-030-92392-1_59

Sudhinaraset, M., Wigglesworth, C., & Takeuchi, D. T. (2016). Social and cultural contexts

of alcohol use: Influences in a social–ecological framework. *Alcohol Research: Current Reviews*, 38(1), 35–45.

Twumasi-Ankrah, R. (2020). *Legal Issues Involved in FDA Ban On Celebrities Featuring in Alcohol Adverts*. <https://ghanalawhub.com/legal-issues-involved-in-fda-ban-on-celebrities-featuring-in-alcohol-adverts/>

United Nations. (2021). *Youth*. <https://www.un.org/en/global-issues/youth>

Vellios, N. G., & van Walbeek, C. P. (2018). Self-reported alcohol use and binge drinking in South Africa: Evidence from the national income dynamics study, 2014 - 2015. *South African Medical Journal*, 108(1), 33–39.
<https://doi.org/10.7196/SAMJ.2018.v108i1.12615>

WHO. (2018). Global status report on alcohol and health 2018. In V. Poznyak & D. Rekve (Eds.), *Global status report on alcohol and health 2018*. WHO Press.
<https://www.who.int/publications/i/item/9789241565639>

WHO. (2024a). *Alcohol*. World Health Organization. <https://www.who.int/news-room/fact-sheets/detail/alcohol>

WHO. (2024b). *Over 3 million annual deaths due to alcohol and drug use, majority among men*. World Health Organization. <https://www.who.int/news/item/25-06-2024-over-3-million-annual-deaths-due-to-alcohol-and-drug-use-majority-among-men>

World Bank. (2024). *The World Bank in Ghana*.
<https://www.worldbank.org/en/country/ghana/overview>

APPENDAGES

1.0 Data Extraction Sheet

1. Gender

- Male
- Female

2. Age

a. In what month and year were you born?

- Month: _____
 - Don't know month: 98
- Year: _____
 - Don't know year: 9998

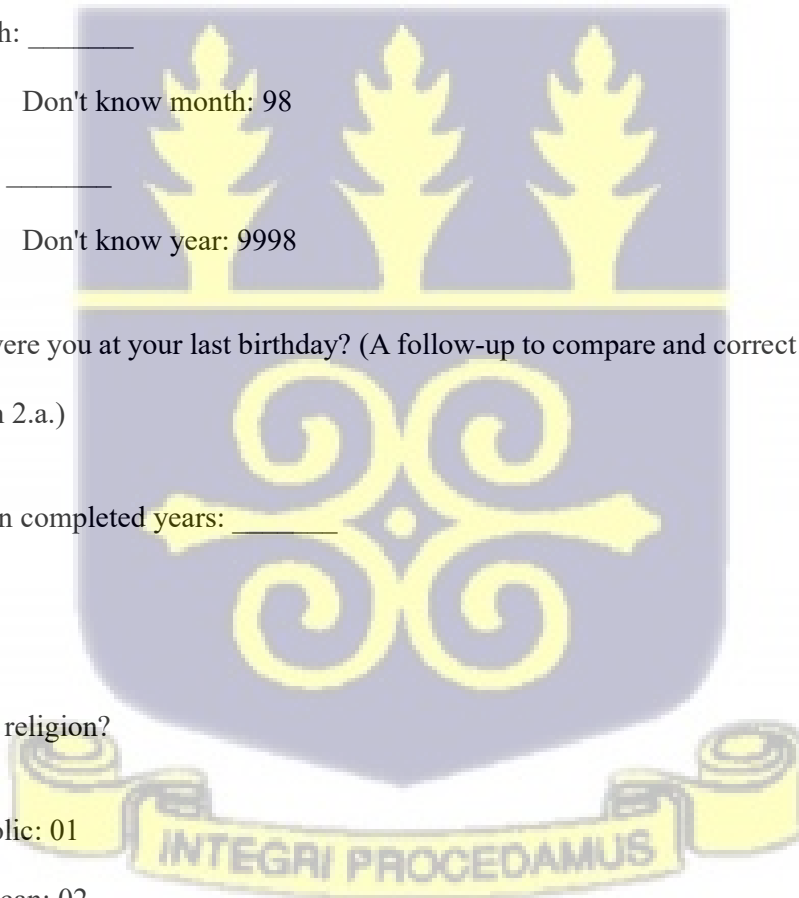
b. How old were you at your last birthday? (A follow-up to compare and correct if inconsistent with question 2.a.)

- Age in completed years: _____

3. Religion

What is your religion?

- Catholic: 01
- Anglican: 02
- Methodist: 03
- Presbyterian: 04



- Pentecostal/Charismatic: 05
- Other Christian: 06
- Islam: 07
- Traditional/Spiritual: 08
- No religion: 95
- Other (specify): 96

4. Marital Status

a. Are you currently married or living with someone as if married?

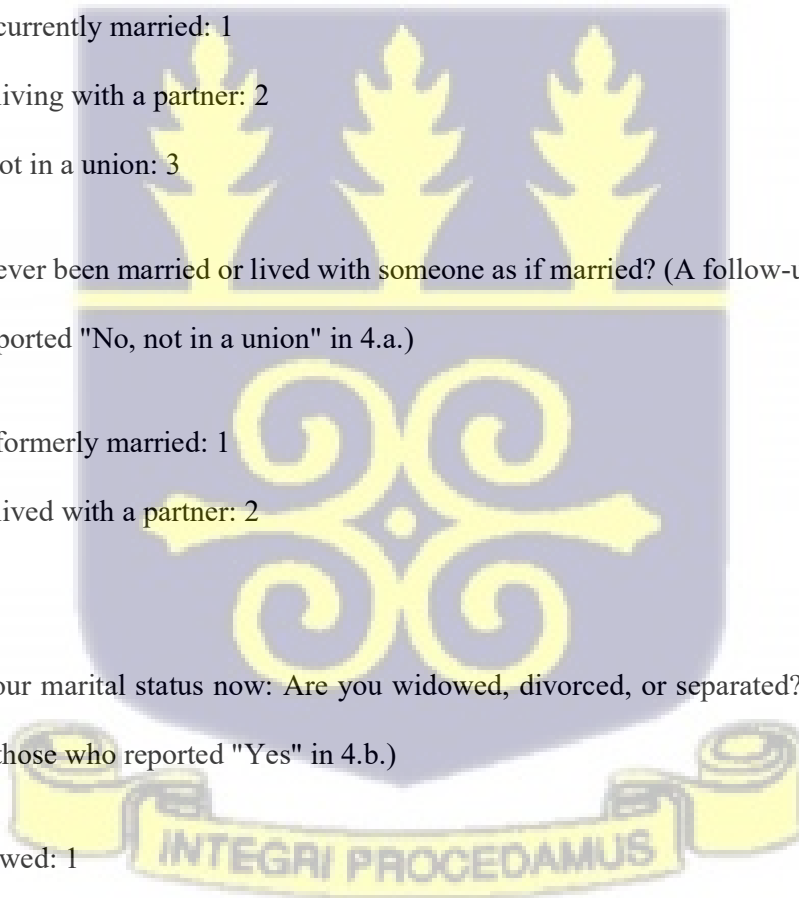
- Yes, currently married: 1
- Yes, living with a partner: 2
- No, not in a union: 3

b. Have you ever been married or lived with someone as if married? (A follow-up question for those who reported "No, not in a union" in 4.a.)

- Yes, formerly married: 1
- Yes, lived with a partner: 2
- No: 3

c. What is your marital status now: Are you widowed, divorced, or separated? (A follow-up question for those who reported "Yes" in 4.b.)

- Widowed: 1
- Divorced: 2
- Separated: 3



5. Education

a. Have you ever attended school?

- Yes: 1
- No: 2

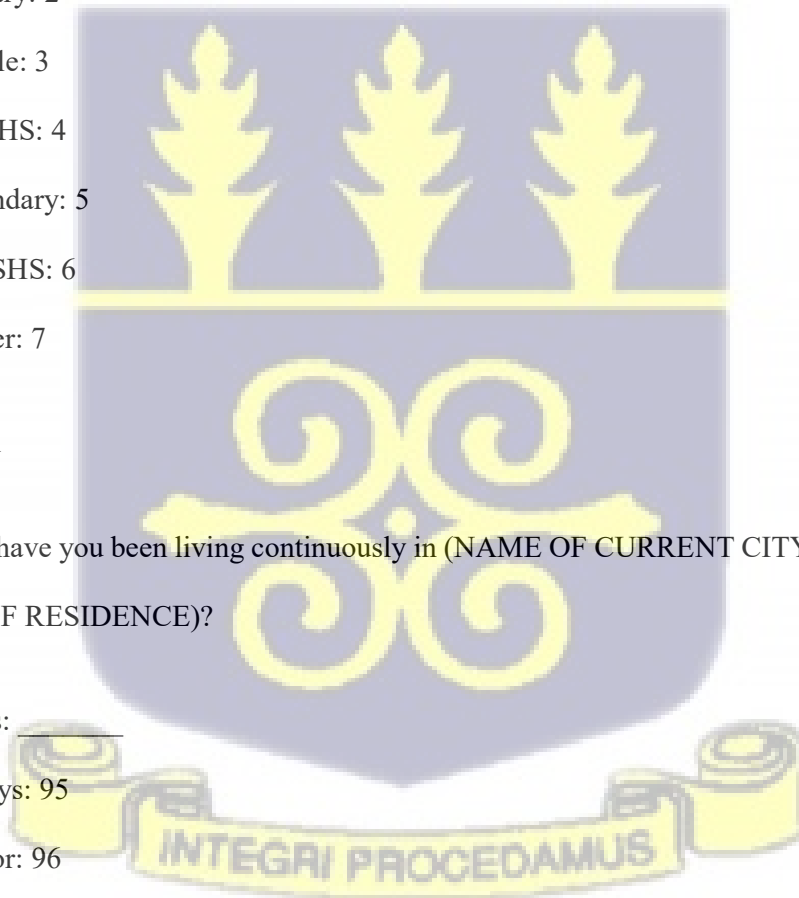
b. What is the highest level of school you attended? (A follow-up question for those who reported "Yes" in 5.a.)

- Pre-primary: 1
- Primary: 2
- Middle: 3
- JSS/JHS: 4
- Secondary: 5
- SSS/SHS: 6
- Higher: 7

6. Migration

a. How long have you been living continuously in (NAME OF CURRENT CITY, TOWN, OR VILLAGE OF RESIDENCE)?

- Years: _____
- Always: 95
- Visitor: 96
- Less than one year, record "00" years



b. In what month and year did you move here? (A follow-up to compare and correct if inconsistent with question 6.a.)

- Month: _____
 - Don't know month: 98
- Year: _____
 - Don't know year: 9998

7. Employment

Have you done any work in the last 12 months?

- Yes: 1
- No: 2

8. Internet Use

In the last month, how often did you use the Internet?

- Almost every day: 1
- At least once a week: 2
- Less than once a week: 3
- Not at all: 4

9. Mass Media Use

a. Do you read a newspaper or magazine?

- At least once a week: 1
- Less than once a week: 2

- Not at all: 3

b. Do you listen to the radio?

- At least once a week: 1
- Less than once a week: 2
- Not at all: 3

c. Do you watch television?

- At least once a week: 1
- Less than once a week: 2
- Not at all: 3

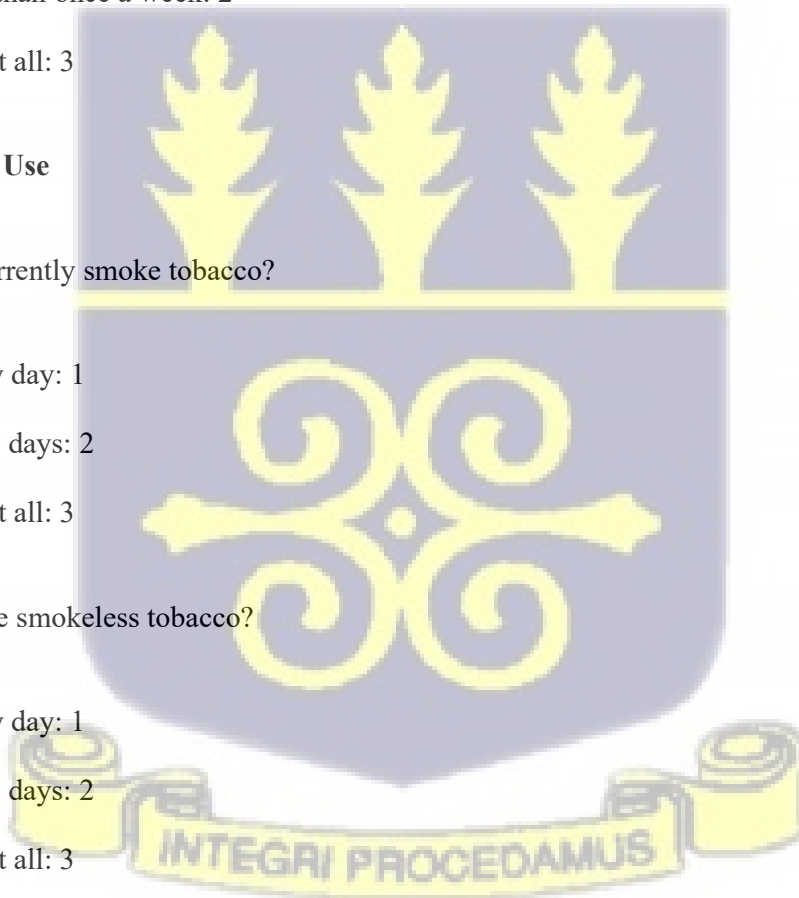
10. Tobacco Use

a. Do you currently smoke tobacco?

- Every day: 1
- Some days: 2
- Not at all: 3

b. Do you use smokeless tobacco?

- Every day: 1
- Some days: 2
- Not at all: 3



11. Alcohol Use

a. Have you ever consumed alcohol (e.g., beer, wine, spirits, palm wine, pito)?

- Yes: 1
- No: 2

b. In the last month, on how many days did you drink alcohol? (A follow-up for participants who responded "Yes" for question 11.a.)

- Number of days: _____
- Every day/almost every day: 95
- Did not drink: 00

c. On the days you drank, how many standard drinks did you usually have per day? (Show pictures of standard drink sizes.)

- Number of drinks: _____
- Less than one drink: 00

