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EMBODIED POLITICAL ECOLOGIES OF HEALTH: A CASE STUDY OF ALCOHOL AND INFECTIOUS DISEASE IN THE UPPER WEST REGION OF GHANA

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EMBODIED POLITICAL ECOLOGIES OF HEALTH: A CASE STUDY OF ALCOHOL AND INFECTIOUS DISEASE IN THE UPPER WEST REGION OF GHANA

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Abstract and Keywords

This research is a case study informed by qualitative methodologies examining perceptions of the misuse of an unregistered gin (*akpeteshie*), and it's role within the promulgation of hepatitis b in the Upper West Region of Ghana. Four research objectives are addressed: 1) to describe the nature of alcohol use among adults; 2) to explore local perceptions about hepatitis b held by adults in the region; 3) to examine the nature of health accessibility in the region; and, 4) to examine the links between alcohol use and the spread of hepatitis b, including the social-environmental processes that underwrite these links. Thematic analysis of nine focus groups with residents (n=88) and seven key informant interviews indicate that the relationship between alcohol misuse and hepatitis is underwritten by several factors emerging from the physical environment (i.e. drought, isolation) and the social environment (i.e. changing norms surrounding consumption, desires for coping, poverty).

Key Words: Ghana, Alcohol, Infectious Disease, Hepatitis B, Health Geography.

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CHAPTER ONE
INTRODUCTION AND CHAPTER OUTLINE

1.1 Research Context

This thesis represents a continuation of research examining the harmful effects of alcohol misuse in the Upper West Region of Ghana, where consumption of an unregistered alcohol known as *akpeteshie* has been linked to increasing public health problems in the region (Luginaah and Dakubo, 2003; Luginaah, 2008). The Upper West Region is one of the most impoverished and neglected areas of Ghana, with increasing environmental problems and underdevelopment further complicating the every day health and social realities of residents. Limited economic resources, coupled with persistent environmental and social hardships, overwhelmingly steers individuals toward alcohol consumption as a means of coping, providing a temporary escape from the realities of life in the region. However, the region is also facing a silent epidemic of hepatitis b. Increasing and unchecked consumption of *akpeteshie* is blended with an underdeveloped regional healthcare system and relatively low levels of disease awareness amongst residents, creating potent and potentially devastating health and social realities.

The relationship between alcohol use and infectious disease has garnered increasing attention globally both within and outside of academia (Lancet, 2009). Yet little emphasis has been placed on the combination of social and environmental characteristics underpinning this relationship. According to Farmer (2001), we know a fair deal about where the corks lie on the ocean surface but little about the currents that brought them there.

Past empirical research on this topic has been highly descriptive in nature, employing quantitative approaches to examine alcohol usage statistically. These studies have disproportionately focused upon the descriptions of a causal relationship between alcohol consumption and infectious diseases, with little attention paid to understanding the role of alcohol as an indirect risk factor emerging from environmental causes. For example, the majority of studies describe the amount of alcohol consumed in a region (typically in litres per capita or number of drinks per week), attributing consumption to the burden of selected diseases (see: Rehm et al., 2006; Corrao et al., 2004). As such, alcohol consumption in relation to infectious disease is relegated to a quantifiable variable, a series of check boxes. What is needed now in order to move beyond description and into the formulation of appropriately framed policy alternatives addressing the problem are qualitative studies seeking to reveal localised meanings of the links between alcohol and disease.

Furthermore, studies examining the relationship between alcohol use and infectious diseases tend to examine the problem within a developed country context. Arguably, this is done because the populations of these countries are easily accessible, production and sale of alcohol tends to be traceable and regulated, and because diseases of affluence are typically associated with alcohol consumption. A final reason is that recorded net consumption of alcohol is higher in developed countries than in developing countries (WHO, 2004). In the context of developing countries, alcohol use receives little attention beyond description of its role as a pre-cursor for an individual's engagement in risky behaviours (i.e. unsafe sex, drug use,

and violence). This may be due to a perception that alcohol consumption is low in these countries. The relatively low aggregate levels of consumption in comparison with developed countries are attributable to widespread poverty in many developing countries. However, statistics for developing countries also tend to underestimate consumption by overlooking informally produced and traded types of alcohol, such as *akpeteshie*. Furthermore, aggregated per capita consumption estimates underestimates the actual consumption of drinkers since large proportions of individuals in the country may not consume alcohol, concealing heavy drinking amongst some groups (Parry, 2000).

Still, the existing base of research that describes alcohol consumption as a health behaviour has informed and enlightened areas for further qualitative exploration. For instance, studies have revealed key components of consumption, such as: risky behaviours associated with alcohol consumption (Matos *et al.*, 2004), common motivations behind consumption (Grunberg, 1999), and common health problems resulting from excessive consumption (Schuckit, 2009). The results of these studies and others help to formulate key characteristics of the relationship between alcohol and infectious disease. In short, while quantitative studies have been limited to descriptions of alcohol consumption and its links to infectious disease, this body of knowledge facilitates focused in-depth qualitative research examining the processes underwriting these links.

In deepening our understanding of alcohol consumption as a health behaviour, this thesis holds to the premise that alcohol consumption is both a reflective as well as a reflexive substance within a society (Bryceson, 2002). In as much as the study of

meanings and uses of alcohol within a given society allows researchers to develop a broader understanding of the culture of interest, it must also be understood that alcohol consumption itself also acts to shape the very nature of a society. Thus, alcohol must be understood as both a mirror and a mediator of environments within which people live their lives.

1.2 Research Problem and Objectives

Understanding why individuals engage in harmful health behaviours requires a fundamental understanding of the situated context within which these behaviours unfold. An individual's misuse of alcohol is the result of combined environmental, social, and personal stressors that must all be understood in context in order for effective interventions to be conceptualized and enacted. Theoretically, political ecology of health allows for an understanding of how social, political, economic, and environmental systems intersect shaping health (Mayer, 1996; Kalipeni and Oppong, 1998; Richmond *et al*, 2005; Baer and Singer, 2008; Hanchette, 2008). This approach is beneficial to the current study in that it provides links between characteristics of the social and physical environments and health. As such, the characteristics of health in an area should be seen as the result of factors emanating from the context of our social and physical environments. Yet, these factors still require a medium through which they manifest themselves upon the body. Krieger (2005) discusses the theory of embodiment. This theory emerges from social epidemiology, advancing the notion that the social contexts of our existence (i.e. deprivation versus abundance, inadequate health care versus universal health care) are revealed

through our bodies as biological expressions of health, disease, and wellbeing. In this sense, embodiment is a literal process whereby the environments into which we are born and live our lives manifest themselves in the form of health behaviours and outcomes. In short, political ecologies of health provides a framework for thinking about contextual influences upon health, whereas embodiment examines how these influences get into our skins. In merging the two frameworks, we are now equipped to develop an in-depth understanding of the relationship between environmental contexts and individual health behaviours and outcomes.

In terms of the relationship between alcohol misuse and infectious disease, the quality of our physical and social environments therefore play a significant role in shaping the foundation upon which this relationship is built. This thesis examines and addresses following objectives:

1. to describe the nature of alcohol use among adults within the Upper West Region;
2. to explore local perceptions about hepatitis b among adults in the region;
3. to examine the nature of health accessibility in the region;
4. to examine the links between alcohol use and the spread of hepatitis b, and to investigate the social and environmental processes that underwrite these associations.

These objectives are addressed through a case-study framework conducted within three study sites throughout the Upper West Region (Figure 3.1). The first three objectives are descriptive in nature, attempting to develop an understanding of alcohol use and disease awareness in the region. In addressing these themes, participants speak to who misuses alcohol, why, and what the effects of misuse look

like. They also discuss what they know about hepatitis, including regional factors that influence their knowledge of infectious diseases. The fourth objective is explanatory, linking what is discovered through the first three objectives with what is developed within the theoretical approach of this thesis.

1.3 Contributions of this Research

This research makes contributions to three primary areas: theory, methods, and policy. The first area that the research contributes to is to the development of a conceptual understanding of the relationship between alcohol and infectious disease which goes beyond quantitative explanations of potential causality. Specifically, the research reveals that social and environmental processes contribute significantly to the promulgation of this relationship within the examined context. Changing patterns of alcohol consumption and highly limited degrees of health knowledge within the general population exist simultaneously within the Upper West Region, setting the stage for a potentially devastating public health problem.

Secondly, this thesis contributes to advocating the use of multiple qualitative methods within the study of alcohol and infectious disease. The research demonstrates that health behaviours can and should be studied qualitatively. Doing so allows for a deeper understanding of the issues at hand and establishes areas of further research previously overlooked. Specifically, the use of multiple qualitative methods provides a strong means of clarifying the unknown in a developing country setting. By developing an in-depth understanding of the situated context of the behaviour in question, researchers can suggest interventions that go beyond

addressing specific issues and seek to initiate fundamental changes in health and healthcare.

Flowing from the previous goal, the third area that the research aims to contribute towards is the development of policy interventions addressing the issues of alcohol misuse and hepatitis b in the Upper West Region of Ghana. To do so, the research demonstrates how alcohol misuse in the region is not only a problem of individual behaviours but also the result of structural mechanisms and environmental processes. These same processes are shown to underwrite the current hepatitis problem in the region. When combined with other studies showing the harmful impacts of *akpeteshie* misuse, this thesis hopes to assist policymakers in developing interventions aimed at curtailing *akpeteshie* misuse as well as promoting alternatives to alcohol consumption. Given the limited resources available to health professionals in the Upper West Region, it is hoped that this thesis will provide a stepping-stone towards further research in the region.

1.4 Chapter Outline

This thesis continues with six additional chapters. **Chapter 2** presents the theoretical approach taken in the research. The chapter begins by providing a review of literature examining the relationship between alcohol and infectious disease. A basic overview of hepaititis b follows. The next section situates the research within the field of health geography, reviewing contemporary research emerging from the field and discussing the contribution of health geography to the study of infectious diseases within developing countries. The chapter then

progresses to an examination of literature forming the theoretical approach utilized within this thesis.

Chapter 3 provides a contextual synopsis of Ghana, with a focus upon the Upper West Region. The chapter begins with a brief history of the country, focusing upon the post-colonial era. The chapter then details the social, economic, and demographic characteristics of the Upper West Region. Following this, the chapter progresses to a discussion of *akpeteshie*, outlining its production methods as well as current literature examining the significance and health impacts of the drink.

Chapter 4 reviews the study design and methods through which data collection and analysis for this thesis is conducted. Emphasizing the usefulness of qualitative methods within health research, the strengths of case-study design, site observation, focus group discussions, key informant interviews, and mixed-methods approaches are discussed. The chapter concludes with an outline of the data analysis techniques used, as well as a brief discussion surrounding the use of qualitative data analysis software.

Chapter 5 contains the results of data analysis. The results are formed by the objectives of the research, which are aimed at describing the perceptions of research participants on the relationship between alcohol use and infectious disease. As such, the results seek to address the first three research objectives and aim to develop an understanding of the following: alcohol use and misuse in the Upper West Region, degree of hepatitis b knowledge held by residents and influences upon this knowledge. This chapter combines results from both key informant interviews as well as focus group discussions. Areas of agreement and contention between

residents are also noted. The embodied political ecologies framework is applied to the context of this thesis. This penultimate chapter synthesizes the results of the first three objectives and interprets situates both direct and indirect links between *akpeteshie* and hepatitis b within the physical and social environments. In doing so, the relationship between *akpeteshie* misuse and hepatitis b in the Upper West Region is clarified.

Chapter 6, the final chapter of this thesis situates the empirical findings within current research examining alcohol and infectious disease. Limitations of the research are discussed, as are potential areas for future research. The chapter also outlines significant contributions of the research, as well as listing potential policy alternatives. This research calls for a combination of policies that address both the immediate problem of alcohol misuse in the Upper West Region, as well as the structural-environmental problems that shape harmful health behaviours at the individual level.

CHAPTER 2
LITERATURE REVIEW AND THEORETICAL CONTEXT

2.0 Introduction

This research is situated within the field of health geography, employing an interpretive approach to examining the links between alcohol and infectious disease in the highly impoverished context of Ghana's Upper West Region. Through a case study design employing multiple methods, the study addresses four main objectives: to describe the nature of alcohol use among adults within the Upper West Region; to explore local perceptions about hepatitis b among adults in the region; to examine the nature of health accessibility in the region; lastly to examine the links between alcohol use and the spread of hepatitis b, and to investigate the social and environmental processes that underwrite these associations.

In linking perceptions of alcohol use and hepatitis b spreading, this research combines two theoretical frameworks: political ecologies of health and embodiment. The political ecology of health framework, originally proposed as political ecology of disease by Mayer (1996) and subsequently adapted by King (2009), provides a lens through which health and disease within a localized context can be examined as a result of larger social and environmental characteristics. Embodiment theory, as framed by Krieger (2005) is the notion that our bodies are shaped by our environments. The merger of these approaches contains characteristics of population health, political ecology, and social epidemiology.

This chapter begins by providing an overview of current literature linking alcohol and infectious disease. A description of the etiology of hepatitis b is also

provided. The second section theoretically situates this research within the field of health geography, examining the discourses and epistemologies currently characterizing the discipline. The third section concludes this chapter by providing the theoretical framework guiding this research. An examination of both political ecologies of health and embodiment are given before the presentation of the embodied political ecologies of health framework.

2.1 Alcohol and Infectious Disease

In 2007, the World Health Organisation (WHO) reported that alcohol misuse was responsible for between two and three million premature deaths per year worldwide, as well as 4.4% of the global burden of disease (WHO, 2007). Although regional and national differences exist, current trends suggest that both the global availability and consumption of alcohol will continue to rise. Embedded within this projection is the high potential for augmenting rates of infectious disease diffusion. Research examining the effects of alcohol on behaviour associated with disease spreading suggests there will also be significant increases in levels of drug use, violent encounters, and unprotected sexual intercourse or rape (see Farrell et al, 1992; Lipsey et al, 1997; Leigh and Stall, 1993).

To a large extent, it is possible to mediate the burden of disease transmission associated with alcohol misuse. Countries such as Canada and Australia, as well as several Scandinavian states have implemented policies that seek to curb hazardous drinking (Lancet, 2009). Government monopolies on sales, higher taxes on alcoholic beverages, restrictions on promotion and sale, as well as tough drinking and driving

laws have all succeeded in reducing mortality as a direct result of alcohol abuse. The challenge remains in recruiting governments to recognize the important role played by alcohol within disease etiology. The degree of difficulty presented by this challenge is augmented in developing country settings, where attempts to formulate alcohol policies are often relegated to secondary concerns in the face of more salient political issues such as security threats or national debt. Furthermore, policymakers attempting to generate momentum for this cause are often confronted by both strong industry opposition and widespread public sentiment that alcohol-related harm is a problem confined to a few very heavy drinkers (Haworth and Acuda, 1998).

Studies on alcohol misuse differentiate between registered and unregistered alcohol (Kalichman, 2008; Hemstrom, 2002; Karlsson *et al.* 2001) The former refers to alcohol which is mass-produced, highly regulated, and made available for consumption through sale in formal and typically licensed establishments. The latter refers to alcohol which is produced on a much smaller scale, with no standardized or regulated production methods and a very limited quality monitoring. Consumption of high-proof locally distilled spirits is often embedded within cultural traditions in many parts of the world, such as consumption of *arak* in Iran and *pisco* in Peru. While production of unregistered alcohol is highly unregulated, attempts at banning these substances typically result in failure due to the emergence of black markets. Moreover, in two separate reports the WHO (2007, 2005) cites the high potential for dangerous health impacts related to consumption of unregistered alcohol, therefore

highlighting the need for a more contextualized understanding of the social and physical environmental factors that lead individuals to consumption.

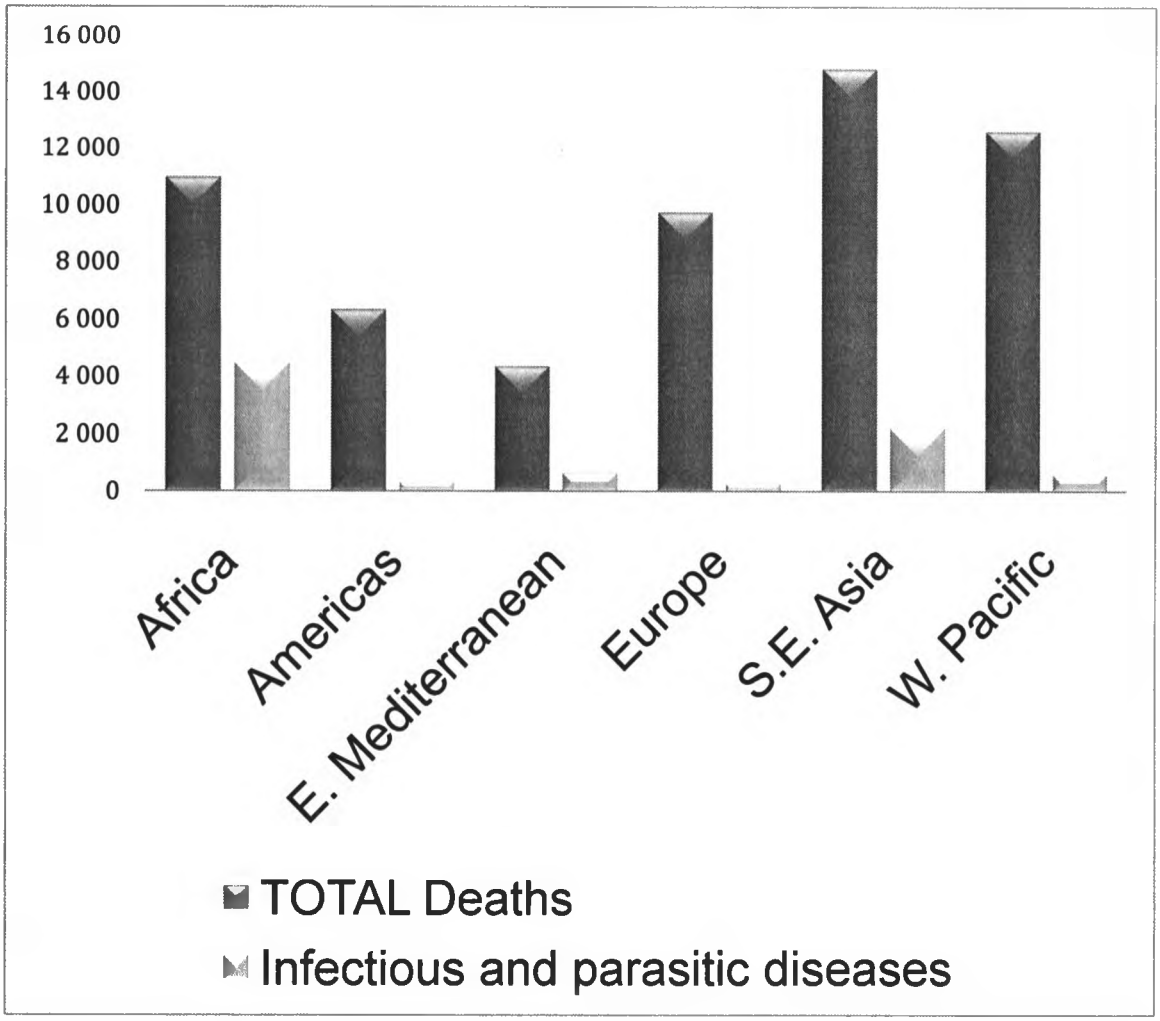
The majority of investigations on the relationship between alcohol misuse and disease spreading emerge from within the field of epidemiology and approach the subject from a largely biomedical perspective, employing a high degree of statistically based quantitative analysis (see Rehm et al., 2006; Corrao et al., 2004; Cohen and Williamson, 1991; Ostapowicz *et al.* 1998). In fact, few studies have used qualitative methodologies to examine the broader environments contributing to the misuse of alcohol and adoption of behaviours associated with the promulgation of infectious disease. Therefore, while we know which segments of the population are most likely to misuse alcohol, and the behaviours commonly associated with intoxication, the environmental characteristics that underwrite the link between alcohol misuse and infectious diseases remain unclear. The issue is complicated further in areas that experience high infectious disease prevalence.

Furthermore, very little research examining the nature of this relationship has been undertaken within the context of developing regions. Yet it is within these very regions where the need to mitigate infectious disease spreading is most urgently needed. Figure 2.1 demonstrates that in 2004, infectious diseases accounted for over 35% of all deaths in Africa (WHO, 2008). Additionally, the capacity to contain the spread, and diminish the effects of, infectious disease within many African nations is considerably hampered due to developmental challenges such as civil unrest, poverty, economic instability, and corruption (Travis et al, 2004). These issues combine to raise the need for empirical studies of diseases, as well as their major

causes, in order to facilitate effective interventions aimed at curtailing the problem of infectious diseases within developing countries.

Figure 2.1

Total Deaths and Deaths Attributed to Disease



Source: World Health Organization, 2008

The approach to data collection used in this thesis is strongly shaped by research conducted by the World Health Organisation (WHO): Alcohol Use and Sexual Risk Behaviour: A Cross-Cultural Study in Eight Countries (WHO, 2005). The

WHO presented the result of a multiple-methods approach to understanding the relationship between alcohol and sexual risk behaviour specifically related to the spread of sexually transmitted infections and HIV/AIDS within eight countries (Belarus, India, Kenya, Mexico, Romania, Russian Federation, South Africa, and Zambia). The study consisted of two phases. The first is a literature review which provided an overview of a large body of knowledge on alcohol and sexually transmitted infections. The second phase consisted of an empirical study conducted in order to gain first-hand material on which to build prevention measures. The WHO study offered strategies and approaches to researchers with similar interests, and has subsequently been mentioned in several studies examining the relationship between alcohol and disease. These strategies are useful within this thesis because they offered a starting point from which we were able to begin our work.

The WHO project was conducted in order to gather evidence to complement a literature review of several topics, including the interaction between alcohol use and sexual risk behaviour. A qualitative approach to data gathering and analysis was adopted, which placed an emphasis on developing theory from multiple observations. Researchers first conducted semi-structured interviews with key informants. These interviews were supplemented by site observations, followed by focus group discussions and then in-depth semi-structured interviews with various members of the study population. Examining the provided sample interview guides within the study reveal a strong emphasis upon developing an understanding of alcohol use as well as behaviours related to intoxication, but little focus regarding

factors within the area that act to either limit or contribute to health/disease awareness.

The WHO study is used as a starting point for the research conducted in this thesis for three reasons. Firstly, the WHO is recognized as a world leading research institution of health related issues within both developed and developing countries. The WHO has published several studies examining the relationship both registered and unregistered alcohol misuse and infectious diseases, the results of which have been subsequently applied to policy formation within several countries. Health officials throughout Ghana are currently taking steps to create policy which addresses the issue of alcohol misuse in the country. Specifically, health policymakers in the Upper West Region have been trying to develop policy around the distribution and consumption of *akpeteshie*. It is hoped that using the WHO approach within this study will facilitate the formation of policy based on the conclusions of this study.

Secondly, using the WHO study as a model for researching this thesis potentially increases the degree to which certain conclusions reached within the current thesis can be transferable beyond the examined context. If findings from the Upper West Region are found to be similar to those reported from South Africa and Zambia, it may be argued that the results point to a somewhat universally applicable theoretical understanding of the relationship between alcohol consumption and infectious disease.

Finally, the objectives declared within the WHO study are in-line with those of the current thesis. The WHO study seeks to link broader theories on alcohol

consumption and infectious disease spreading to a variety of localized contexts. In doing so, they are attempting to verify the validity and applicability of theories. It succeeds though the use of a multiple qualitative methods approach. These methods allow for both description of consumption patterns as well as meanings of alcohol consumption at the local level to be achieved. They are then applied to existing theories relating to both risky behaviour and causes of alcohol consumption. Drawing from a political ecology of disease perspective, this thesis adopts a similar mixed-methods approach to examine the problem in Ghana's Upper West Region.

The key findings of the WHO (2005) study reveal key characteristics of the relationship between alcohol and sexual risk behaviour leading to the contraction of infectious diseases. Results from all countries point to psychological, sociocultural, and situational (environmental) factors motivating both consumption and sexual risk taking. A key finding of the research posits that risk was higher in areas where individuals had very low disease awareness, where excessive alcohol use was a condoned behaviour, and where intoxication was a permissible excuse for sexual risk taking. While the study does go a long way in characterising the relationship between alcohol use and sexual risk taking within developing country settings, it points out that these factors differentiate on a cross-country/regional, country/culture-specific, and individual scale. As such, it is important for preventative programmes to be initiated which focus not only on the broad national scale, but also on cultural-specific and individual-specific characteristics of consumption and disease awareness within a given context.

2.1.1 Hepatitis B

Infection with hepatitis b has two potential outcomes. The first is acute hepatitis, which can lead to significant illness and death. Acute hepatitis b can last several months, with the patient requiring large amounts of attention and hospitalization. The second outcome is that individuals can become persistently infected, causing them to be carriers of the virus (Parry *et al*, 2004). Carriers may or may not be infectious, with the potential for transmission depending upon the length of infection. Carriage is more common amongst younger people and prenatal transmission results in the child being a carrier in 90% of cases. The potential to become a carrier then decreases with age, with only a 5% chance of carrier status amongst infected individuals over the age of 5 years at the time of acquisition. Carriers not only run the risk of infecting other individuals, they are also at increased risk of chronic liver disease, cirrhosis, and primary liver cancer. A carrier is about ten times more likely to develop cirrhosis and 50 times more likely to get primary liver cancer than someone who is not a carrier. Ten percent of adult men in Africa die from complications of hepatitis b carriage (Parry *et al*, 2004).

Hepatitis b has an incubation period of up to six months and an infectivity level 100 times higher than that of HIVAIDS (Okoror *et al*, 2007). Signs and symptoms of the disease include jaundice, tiredness, loss of appetite, joint pain, pain in the stomach area, and feelings of illness. Most transmission occurs when bodily fluids such as blood, semen, or saliva enters the body (Lavanchy, 2005). Hepatitis b transmission occurs through one of four routes: prenatal, child-to-child, sexual, and

iatrogenic (Perry *et al*, 2004). While there is no known cure for the disease, preventative vaccinations have been available in Canada for nearly twenty years.

Studies examining hepatitis b spreading through individual behaviours in developing countries point to transmission occurring primarily through blood transfusion, sharing of bath towels, sharing of chewing gum, sharing of dental cleaning materials, biting of fingernails in conjunction with scratching the backs of carriers, unprotected sexual intercourse with a carrier, and violent confrontation involving bleeding with a carrier (Allain *et al*, 2003; Martinsion *et al*, 1998; Allain and Owusu-Ofori, 2006).

Alcoholism is a significant risk factor in the emergence of hepatitis beyond the behaviours linking the disease with intoxication. The majority (90%) of alcohol is metabolized by the liver, which can develop severe cirrhosis in relation to the quantity and duration of alcohol consumed (Lavanchy, 2005). As such, it is the frequent daily consumer of alcohol who is more at risk than the occasional binge drinker whose liver can usually recover from an acute exposure (Parry et all, 2004). As a result of frequent exposure to high volume alcohol, the liver becomes enlarged and fatty, facilitating the development of hepatitis.

2.2 Health Geography

Health geography emerged as a sub discipline of medical geography with the premise that our health and our geographies are intrinsically linked, meaning that an understanding of place is required in order to fully understand health (Gatrell and Elliott, 2009; Kearns and Moon, 2002; Kearns, 1993;Rosenberg, 1998; Dyck,

1999; Jones and Moon; 1993). While the debates continue surrounding the nature of health geography, the broader question which health geographers ask themselves remains "how can we continue to identify, classify and reduce the risks to health that result from environmental and social inequalities, behavioural determinants (without victim blaming) and often location-specific determinants?" (Luginaah, 2009. p.94) Although the discipline is rooted in spatial science, health geography is distinct from medical geography. Epistemologically, the discipline moved away from traditional positivist and biomedical approaches to examining health and healthcare from increasingly cultural approaches (Andrews and Evans, 2008; Curtis and Taket, 1996; Rosenberg, 1998; Dyck, 1999;). Kearns and Moon (2002) distinguish medical geography from health geography, arguing that the latter is "indicative of a distancing from concerns with disease and the interests of the medical world in favour of an increased interest in well-being and broader social models of health and health care" (p. 606). As health geography progresses and increasingly interacts with the policy field, questions and implications of research are become increasingly complex and require interdisciplinary cooperation with researchers both within and outside of geography (Luginaah, 2009).

Methodologically, health geography can also be categorized by its use of multiple methods, including both qualitative and quantitative techniques (Dyck, 1999; Elliot 1999). Qualitative methods, such as participant observation and focus group discussion, have been increasingly advocated as means through which alternative ways of understanding health contextually is achieved. However, the benefits of qualitative methods within health geography are not limited to providing

conceptions of health. The value of qualitative methods lay within their capability of reaching experience, perceptions, and meanings (Dyck, 1999). For geographers, these narrative accounts uncover subtle differences in meanings associated with places. Through qualitative methods, people emerge as embodied subjects with their experiences and actions rooted within their physical and social environments (Cutchin, 1999).

Critical perspectives on the geographies of health have expanded to include interest in the social-environmental dimensions health (Elliot, 1999; Kearns and Moon, 2002). Causal pathways relating environmental factors to individual health outcomes seek to explain how the characteristics of places influence particular health outcomes and behaviours (Cummins *et al.*, 2007; Kearns and Gesler, 1998). However, this relationship is typically described as unidirectional with health either shaped by or impacting upon an environment.

The concept of place in health geography is understood as being both physical and social, each having a unique role within individual health outcomes and behaviours (Johnston *et al*, 2000). Health geographers have distanced themselves from conceiving of place as simple sites where observations are located, reconceptualising place as a complex result of the interaction between people and their physical and social environments (Luginaah, 2009). Physical environments include both the natural and built environment and can be examined at a variety of scales. Physical environments are typically conceived and measured in relatively straightforward techniques. These environments impact health in a variety of ways including: resource availability, nutrition, disease occurrence, housing, pollution

exposure, mobility and access to health treatment. The social environment includes factors that involve a person's relationships to other people. These factors can be characterized as cultural, political and economic features of an individual's landscape (Gatrell and Elliott, 2009). Characteristics of the social environment impacting health include: opportunities for decision-making, social support, political power, and varying degrees of inequality. Social environments are also linked to individual characteristics including: gender, age, income and ethnicity (Rosenberg and Wilson, 2000). These individual characteristics act as determinants in regards to the degree of access an individual has to factors within both social and physical environments that promote healthy behaviours.

In seeking to unravel complex relationships between environments and health, health geographers rely upon significant input from multiple disciplines (Luginaah, 2009). One of these disciplines with which health geography shares a reciprocal relationship is social epidemiology. In its emphasis on explicitly investigating the social determinants of the etiolgoy of disease, social epidemiology increases our understanding of the links between biological manifestations of health and social environments (Krieger, 2001b).

In terms of health behaviours, Link and Phelan (1995) question the emphasis of epidemiologist upon links between very specific social factors and individually-based risk factors, arguing that more emphasis should be placed upon larger conditions of the social environment in order to provide optimal health reform. Their argument consists of two key notions. The first is that individual based risk factors of disease, such as alcohol consumption, must be contextualized by

examining what places people at risk of risks. In short, studying individual risk factors is insufficient. What is needed is a further understanding of the circumstance motivating individuals to engage in these risk factors. The second notion is that "social environments must be examined as fundamental causes of disease that affect multiple disease outcomes through multiple mechanisms and consequently maintain an association with disease even when intervening mechanisms change" (p. 80). This argument effectively puts place, including social environments, into health studies by highlighting how our environments act as determinants of health behaviours.

2.3 Theoretical Approach

This thesis examines the link between alcohol misuse and infectious disease. It is important here to distinguish between alcohol consumption and alcohol misuse. The latter is distinguished from the former in that while still referring to consumption of alcohol, it denotes consumption that is inappropriate. This can includes overuse and abuse, consumption beyond the accepted uses of the substance, and consumption of amounts of alcohol beyond one's means. What constitutes alcohol misuse is different within diverse societies, with some being tolerant of various consumption patterns and others holding to more moderate views.

The thesis posits that the link underwriting alcohol misuse and hepatitis b spreading is shaped by the social and physical environments within which people live their lives. This research employs a theoretical framework that blends two

separate approaches to understanding how health behaviours are shaped by these social and physical environments.

2.3.1 Political Ecology of Health

Political ecology is the study of the relationships between political, economic and social factors to environmental issues and change (Bryan and Bailey, 1997; Greenberg and Park, 1994; Robins, 2004; Walker, 2005). Historically, political ecology has sought to understand the political dynamics surrounding politicized environmental issues in the developing world (Bryant, 1998)

Mayer (1996) examines national and international political influences on disease. In the political ecology of disease framework, he expands upon May's (1958) notions of disease ecology and puts forward a call to further investigate how social drivers and control over resources and political power influence health. The approach utilized within political ecology of disease is scalar in nature, examining "humanity, including culture, society and behaviour; the physical world; including topography vegetation and climate; and biology, including vector and pathogen ecology, interact together in an evolving and interactive system to produce the foci for disease" (p. 450). Despite the universal applicability of the framework, there exists only a small number of studies which explicitly examine human disease from a political ecologies perspective (Mayer, 2000; Oppong and Kalipeni, 2005; Richmond *et al.* 2005; Cutchin , 2008).

King (2009) builds upon Mayer's work, proposing that political ecology provides a framework for understanding how social and environmental systems intersect to

shape health across space and time. The political ecology of health framework illustrates how health is embedded within both ecological and social networks that increase vulnerability to disease and shape health behaviours (Rocheleau, 2008). These networks are produced and reproduced over time, through the influence of larger social, economic, and political forces. As such, the framework views health and disease as the result of combined physical and social environments. Physical environments influence the presence of disease, as well as resources available to households looking at resisting illness. Households are also embedded within the social environments, which are characterized by conditions that contribute to producing epidemics. These include: socio-economic patterns, access to support networks, and finally gender and power relations.

Studies examining health from a political ecology perspective capitalize upon the versatility of mixed methods approaches to research (Rocheleau, 2008). This represents a strong link between the political ecologies of health framework and the field of health geography. How illness is experienced is highly subjective and varies not only across regions, but also across individuals (Engel, 1977). In developing an understanding of situated meanings associated with a disease researchers can better understand the underlying factors permitting disease distribution and restricting preventative efforts. In short, pathways of disease spreading are revealed through understanding what is known or not know about the nature of the disease in question, as well as examining perceptions associated with the disease (i.e. stigma, ignorance).

Yet the scalar approach of political ecologies of health is limited at the micro-individual as well as highly localized scales. While the framework provides clear connections concerning the links between the physical environment and population health, less emphasis is typically placed on the individual context. Furthermore, the social environmental aspect within the framework does not take into account the degree to which access to social environments change at the individual scale. The degree of access to social environments is determined by a number of individual characteristics, such as gender, sex, income, and age. Political ecologies of health, while examining influences on health at large (international) and small (regional) scales, falls short in its exploration of individual scales of health. While patterns of alcohol consumption may be viewed as reflections of the broader social circumstances of a society (Bryceson, 2002), understanding alcohol consumption as an individual health behaviour requires a more in-depth analysis of the factors that motivate consumption at the scale of the individual (Martinic and Leigh, 2004; Roche, 2001).

A detailed example of a political ecology of disease approach to understanding a health problem is the explanation of the emergence of Lyme disease in New England provided within Mayer (2000). This example reveals how development and rapid population growth within suburban communities resulted in deforestation and further development for tract housing. New homes were located next to second growth forests, understood as ideal habitats for deer. The deer tick is the primary vector of East Coast Lyme disease. Interpreting the epidemic through a political ecology of disease lens, Mayer discusses how land developers, the real estate

industry, and with increased demand for suburban housing combined to yield the unintended result of increasing incidents and prevalence of Lyme disease (Mayer, 2000).

2.3.2 Embodiment

Recognizing the limited capacity for the political ecologies of health framework to examine highly localized scales of health and individual health behaviour, this thesis incorporates the social-epidemiological theory of embodiment (Krieger, 2005) as a means of bringing the individual into the understanding of how social and environmental systems shape individual health. Embodiment originates within the ecosocial theoretical approach of social epidemiology. This approach is guided by the broad question of examining who and what drives current and changing patterns of social inequalities in health (Krieger, 2001).

In her description of embodiment, Krieger (2005) states that "clues to current and changing population patterns of health, including social disparities in health, are to be found chiefly in the dynamic social, material, and ecological contexts into which we are born, develop, interact, and endeavour to live meaningful lives" (p. 350). Embodiment advances three critical claims:

1. bodies tell stories about – and cannot be studied divorced from – the conditions of our existence;
2. bodies tell stories that often – but not always – match people's stated accounts;
3. bodies tell stories that people cannot or will not tell, wither because they are unable, forbidden, or choose not to.

Embodiment is a process through which the characteristics of individual bodies transform as a consequence of their embededness in the environments within which their lives are lived. These transformations may not be conscious or involve specific risk factors, but involve a number of pathways. Pathways to embodiment are structured by societal arrangements of power and property as well as patterns of production, consumption, and reproduction, which work simultaneously with the constraints and possibilities of our biology. As such, embodiment is a literal process whereby our bodies incorporate biologically the social and ecological circumstances of their existence (Krieger, 2001; Krieger, 2004; Krieger, 1994). Embodiment requires researches to move beyond biological explanations of health characteristics across populations, such as disease, and ask what factors might exists within the societal context which explain these characteristics. Therefore, embodiment provides a framework for understanding how broad social and environmental influences manifest themselves in the health of individuals.

Embodiment differs from political ecology of health in that it addresses the physical manifestation of social and environmental influences on health upon individuals at smaller localised scales. Embodiment challenges researchers to think more broadly about how the social and material consequences of people's daily lived experiences can become manifested as health outcomes. An empirical example of embodiment is provided by Williams (1999), a social epidemiologist examining hypertension amongst African Americans. The author discusses how residential and occupational segregation lead to greater economic deprivation and increased likelihood of living in neighbourhoods without access to quality nutrition and

overabundance of cheap, high fat, salty foods (Williams, 1999). Furthermore, economic deprivation also increases the likelihood of expectant mothers giving birth prematurely, reducing kidney development and increasing risk for developing hypertension (Anderson *et al*, 1989; Lopes and Port, 1995). In short, embodiment requires thinking about upstream factors influencing health, not simply blaming individuals for their health behaviour but providing social explanations for these behaviours. By revealing the common physical manifestations on the body at a highly localised scale, embodiment reveals how individual health behaviours are reflective of environmental and social factors within the area.

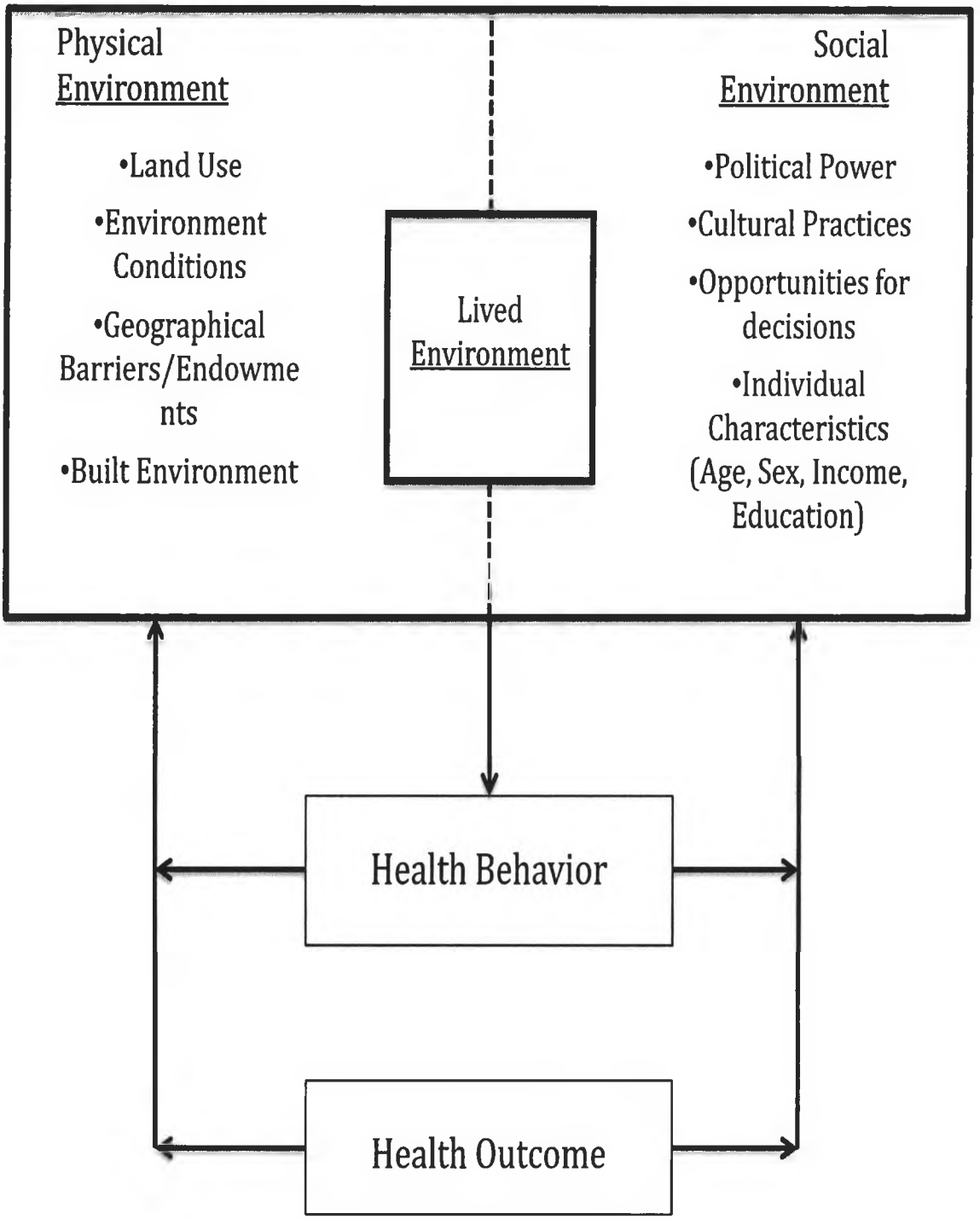
2.3.3 Embodied Political Ecologies of Health

The theoretical framework employed in this thesis combines political ecologies of health with embodiment into a new theoretical framework which we have titled: embodied political ecologies of health. Health behaviours are understood as being motivated by social and physical environmental factors. However, these factors differ from person to person. As such, not every individual who may be situated within a given environment and social context can be said to live within place in the same way. The mergers of physical and social environments constitute a place that is unique to each individual. Within the embodied political ecologies of health framework, this is known and the lived environment. Figure 2.2 illustrates the embodied physical ecologies framework. Examples of characteristics within both physical and social environments are presented, and the lived environment is situated within these environments.

The relationship between health behaviours and health outcomes is not unidirectional. While the lived environment influences health behaviours and health outcomes, these can also influence the lived environment. An individual's health behaviour, such as excessive alcohol consumption, has the power to significantly impact upon their social environment by causing them to become socially isolated. Health behaviour can also impact on the physical environment, motivating excessive resource use or altering built environments. Health outcomes alter the physical environment in a variety of ways. Physically limiting health outcomes, such as disability, can reduce the degree of access one has to their physical environment. Socially, health outcomes limit opportunities for decisions as well as the degree to which an individual can participant within the social environment.

Figure 2.2

Embodied Political Ecologies of Health



The applicability of the embodied political ecologies of health framework lies in its versatility. Most importantly, this framework is not deterministic in nature. It should not be viewed as a model for only examining negative health behaviours and their links to diseases. The framework can be applied to a variety of studies linking broad concepts of health with environmental determinants. It can be used to contextualize positive health behaviours leading to either positive health outcomes or negative health outcome avoidance.

2.4 Chapter Summary

This chapter began by providing an overview of literature addressing the relationship between alcohol consumption and infectious disease. Limits to the current body of literature are cited, including the largely biomedical approach to the study as well as the paucity of research examining physical and social environmental factors linking alcohol use with infectious disease. This section also provided a review of a World Health Organization (2005) study which examines alcohol and risky behaviour within the context of eight countries. The approach to research and methods employed by the WHO set the foundation upon which data collection within this thesis is built. The first section of this chapter also presented a brief review of hepatitis b, including the means through which the disease is spread.

The chapter then progressed to an overview of health geography. The discipline distinguishes itself from medical geography in its epistemological approach as well as in its emphasis upon understanding health within context. Methodologically, health geography increasingly employs mixed methods approaches, with an

emphasis upon qualitative methods. These allow researchers to gain understanding of not only the geographical pattern of health and disease, but also the deeper meanings behind these patterns. Characteristics of place and its relationship to health are also examined before linking place to health behaviours.

The third section of this chapter presents the theoretical framework through which this research is conducted. The chapter presents both theories of embodiment and political ecologies of health, which merge to form the embodied political ecologies of health framework. Political ecologies of health is presented as a lens through which the impacts of broad social and environmental characteristics upon health can be examined. However, this approach falls short in understanding the relationship between environment and health at a very individualized scale. To fill this void, the social epidemiological theory of embodiment is introduced. Embodiment puts forward the notion that characteristics of where we live manifests themselves upon our bodies. When examined socially, these manifestations allow for understandings of the broader conditions within which people live their lives.

CHAPTER THREE
STUDY SITE PROFILE: THE UPPER WEST REGION

3.0 Introduction

This chapter provides a contextual background for this thesis. The chapter begins with an overview of the Upper West Region, including its location and history. The chapter then examines the current socio-demographic characteristics of the region, including a review of current healthcare. Throughout the chapter, the Upper West Region is compared to the rest of Ghana, providing a contrast between development in this area and the rest of the country. The chapter concludes by examining the history behind *akpeteshie*. As a traditional drink, meanings tied to this substance changed frequently.

3.1 The Upper West Region

The aim of this section is to provide a description of the Upper West Region. By providing characteristics of the physical and social environments of the region, this section sets out to address the basic elements required for analysis of the relationship between alcohol misuse and infectious disease in the area using the embodied political ecologies of health framework. The section begins by locating the study site (Figure 3.1) and describing the physical characteristics of the region. It then progresses to a description of regional demographics and access to health, highlighting significant discrepancies between the Upper West Region and the rest of Ghana (Table 3.1).

3.1.1 Study Location

The Upper West Region of Ghana was previously part of the Upper Region, which was itself part of the Northern Region until July of 1960. In pursuing a policy of decentralization, the government of Ghana divided the Upper Region into the Upper West and Upper East in 1983. The region is contained within an area of 18,478 square kilometres, which is 12.7% of the total Ghanaian land area (Songsore and Denkabe, 1996). Figure 3.1 illustrates the geographic location of the Upper West Region. It is bordered on the North by the Republic of Burkina Faso, on the East by the Upper East Region, on the South by the Northern Region and on the West by Cote D'Iovoire.

The region is located in the guinea savannah vegetation belt, with low rainfall and dry soils limiting what can be grown. Food crops consist primarily of yam, groundnuts, guinea corn, maize and beans. Cash crop production is generally poor, resulting in seasonal food insecurity. Major economic trees are Mango, Dawadawa, and sheanut. Bushfires are an annual feature of the region, despite efforts to stop them. These are typically caused by poor hunting practices and land preparation. The single rainy season in the region restricts farmers to a single harvest, in contrast with the southern regions where two harvests typically occur.

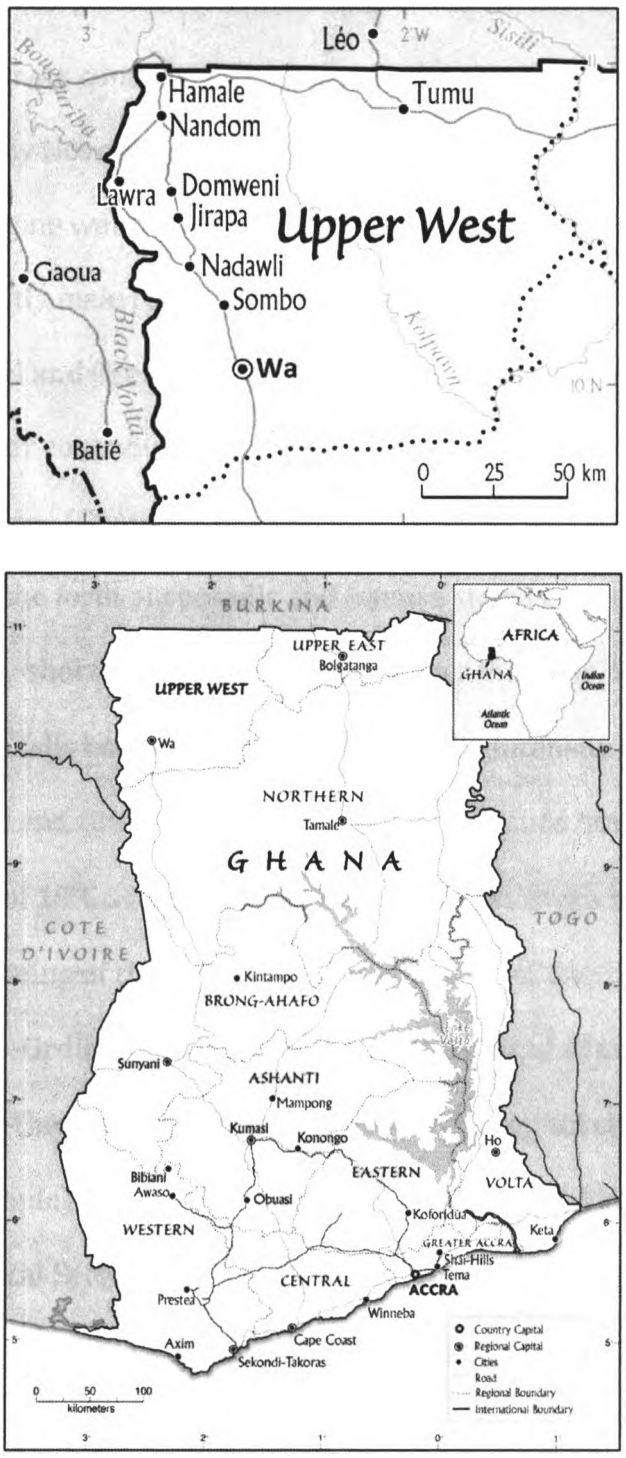


Figure 3.1: Ghana's Upper West Region

Modified from original source: United Nations, Department of Peacekeeping Operations, Cartographic Section, Map No. 4186 Rev. 3, 2000

The regional climate consists of two seasons, the wet and dry season. The dry season begins in early November and lasts until the end of March. The wet season begins in April, bringing warmer weather and rainfall. The long dry season is a cause for migration of mostly male residents to the South in search of economic opportunities (Adjasi and Osei, 2007). The high mobility of the population is believed to be a factor contributing to the spread and difficulty in controlling communicable diseases (Ghana Health Service, 2009). Precipitation during the rainy season is usually in the form of sporadic and intense storms, with large amounts of rain falling over very short periods typically no longer than one or two hours. Total annual precipitation falls between 100 and 115cm. The intensity of the storms leads to increased erosion and runoff in the area. The temperature range of the region falls between a low of 15°C at night during the dry season, and a high of 40°C in daytime at the beginning of the rainy season (Songsore and Denkabe, 1995).

The Regional Co-Ordination Council is the main political administrative authority, located in the regional capital city of Wa. The capital city itself contains 38.9% (224, 066 people) of the total population in the Upper West Region (576, 583) (Ghana Statistical Service, 2005). The region currently has eight political administrative regions. These are: Wa Central, Wa East, Nadowli North, Nadowli South, Jirapa, Lambussie, Sissala, and Lawra-Nandom. The nine districts are also further divided into 65 health sub-districts (Ghana Health Service, 2009). The major ethnic groups in the region are the Mole Dagbon and the Grusi, which combine to characterize 94% of the population. The major languages of the region are Dagaare,

Sissali, Wale and Lobi. The region has three major religious groups: Christian (35.5%), Islam (32.2%) and Traditional (29.3%) (Ghana Resource Centre, 2007).

The region contains the least amount of tarred roads, with only two of the district capitals linked to each other and to the regional capital by tarred road. The roads linking the region to other regions are untarred, which causes travel out of the region by road during the rainy season to become extremely difficult. There is a small airstrip in the regional capital but this is rarely used, as there are no commercial flights servicing the area. The predominant means of transport used by residents is travelling by road and using *tro-tros*[1], motorcycles or bicycles. The region currently has five FM radio stations and two television networks that broadcast in English and in local languages (Dagaare, Waale and Sissali). Telephone and fax facilities exist in eight out of the nine districts, with all the district capitals and most of the surrounding villages having limited cellular network coverage provided by the three companies operating in the area.

3.1.2 Demographic and Economic Characteristics of the Upper West Region

The region has a total population of 576, 583 people (Ghana Statistical Service, 2005). This equates to roughly three percent of the total Ghanaian population. The relatively slow growth rate of 1.7% between the years 1984 and 2000 is probably due to a variety of factors such as migration and poor health (Ghana Health Service, 2009). Females are the majority in the region, with 47.9 of residents being males

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[1] A *tro-tro* is a commonly used form of public transportation throughout Ghana. It typically consists of a passenger van operated by a driver and an assistant. Fares are non-negotiable, based upon distance travelled, and are paid in cash. While departures are loosely scheduled, most *tro-tros* do not leave for their destination until the majority of seats have been sold.

and 52.1 being females. The larger percentage of female residents may be due to the out migration of males to the southern regions in order to find work. This affects agriculture and food production, given that men hold ownership over the majority of land. The region also has a high number of youth with 43.4% of the total population of the Upper West being under 15 years (Ghana Statistical Service, 2005).

This high proportion of residents under 15 years, combined with a smaller proportion of those over 65 years (6.1%), indicates a large dependant population. In total, it is estimated that about two out of five people are children under the age of 15 years and are considered dependant on others for the majority of their needs. The average household size in the region is 7.2 persons, with dependants comprising the majority of those living within a household (Ghana Statistical Service, 2005). This large dependant population impacts upon social services, health services, and unemployment. Furthermore, this high dependency ratio acts to increase expenditures and reduce savings at the household level, resulting in added stress (Luginaah, 2008).

The Upper West region is the second least urbanized in Ghana, with only 17.5% of the total population in the Upper West Region live in one of six urban areas.[2] Wa is the most urbanized area in the Upper West Region, with 65.8% of the region's total urban population. Slightly more than half of the households in the region live in rooms within compound houses and less than one quarter of households are contained within separate houses. Nearly 80% of households live in a family owned

[2] The Ghana Statistical Service defines an urban area as a locality with a population size of 5,000 people or more. Localities with less than 5,000 people are defined as rural.

home, with 13% paying rent to live in a non-family home. The average household is composed of seven or eight individuals. Typically, most households (60%) in the region occupy at least four rooms (Ghana Statistical Service, 2005).

In terms of education, 69.8% of residents aged six years or older have never attended school. This number falls significantly higher than the national average of 38.8 percent. The low level of education in the region is due to a combination of general poverty, which renders residents unable to afford school fees, combined with cultural practices and the late introduction of higher education in the north (Adjasi and Osei, 2007). Amongst residents who have attended school, 68.9% have attained primary or middle school as their highest level of education. Only five percent of residents have attained any form of post secondary education. Regarding literacy, 73.4% of those living in the Upper West Region are illiterate in any language. This stands in stark contrast when compared to the rest of Ghana, with a national average including that of the Upper West Region of 42.1%. Most publications and communications, including health advisories or informational posters, are produced in English. However, only 24.3% of the population is able to read them (Ghana Statistical Service, 2005).

There is an unemployment rate of 15% in the region, which is higher than the national average of 12.5%. Unemployment is slightly higher amongst males than females, and is also somewhat higher in urban areas than in rural area. Agriculture represents the major occupation in the region, with 72% of those economically active engaged in some form of agricultural related work. Production and transport equipment work, as the second highest form of income generation, employs 12.1%

of economically active individuals. As such, the economic basis of the region hinges upon agriculture with almost two thirds of the population engaged in farming.

The short and sporadic nature of the wet season is combined with continued drought in the region to reinforce a pattern of poverty that many residents cannot escape (Songsore and Denkabe, 1995). This becomes apparent when poverty rates for the region are compared to those in the rest of the country. When the upper poverty line of 90 Ghana *Cedis*[3] is used as a benchmark, 39.5% of Ghanaians live below this line. In comparison, 87.5% of residents in the Upper West Region fall below the benchmark. This rate increases to between 96% and 99% in rural areas of the region, where the majority of residents live. Rural poverty in the Upper West Region is immensely disproportionate to the national capital, where the percentage of residents living below the poverty line is just 8% (Luginaah, 2008).

3.1.3 Accessing Health in the Upper West Region

Accessing health is understood as the degree to which residents can obtain the means of improving health, treating illness, or preventing health problems. Accessing health is characterized by a number of factors. Health service utilization and health outcomes are measures of the degree to which individuals access health in an area. Within these measures, a number of variables exist including: availability of healthcare services, availability of healthcare structures, accessibility and quality of both services and structures, as well as the degree of availability of available personnel. Total distance to and travel time required for reaching a health facility

[3] 1 Ghana *Cedis* equates to roughly 73 Canadian cents. The upper poverty line of 90 *Cedis* is equal to 66.28 Canadian dollars per year.

are also important considerations when evaluating access to health. In Ghana, the Ministry of Health's accessibility policy goal is to provide a health facility within a travel distance not exceeding eight kilometres.

In the Upper West Region, there are two health care systems which residents frequent. The first is the Western style of biomedical treatment and prevention. The second system is the traditional type and includes herbalists, faith healers, fetish priests, and traditional birth attendants. Most Ghanaians regard the two types of services as complimentary and attend both of them. Each of the 60 health facilities in the Upper West Region is run by one of three sectors: the Government, religious missions, or the private sector. The region has four main hospitals, located in Lawra, Wa, Nadawli, and Sissala.

There is a significant doctor shortage in the Upper West Region. Currently there are only 13 doctors for the population of 576,533, which equates to one doctor for every 44,353 people (World Health Organization, 2005). Although this ratio is significantly lower for nurses the disparity remains with one nurse for every 1,162 residents. This disparity represents a significant impediment with regards to the degree to which health can be accessed in the Upper West Region.

In terms of distance to health facilities, the Upper West Region falls below the Ministry of Health's ideal of one facility for every eight kilometres. Less than one fourth of households in the region have access to Western health services (Ghana Statistical Service, 2005). These factors combine culminate in a large underuse of health services in the region as well as low overall satisfaction with health services.

Health education in schools represents a significant access to health in the Upper West Region. Students at all levels of schooling are exposed to lessons regarding sanitation, reproductive health, and infectious diseases. Schools are used in the region to prevent, reduce, treat, and monitor the health problems and conditions of youth. It is also hoped that the health messages provided to children are brought home to the family. During the 2008 review, the number of schools in the region that had more than three health education talks was 26%. This represents an increase from the 2006 number of 8% (Ghana Health Service, 2008).

Access to primary educational facilities is a problem in the Upper West Region with less than 40% of communities in all but one district having access to primary schools within five kilometres. Long distance to school no doubt affects attendance as well as acting as a motivation behind attrition of enrolment, especially at the primary school level. In terms of class size, the average teacher to pupil ratio in the region is 1:46 (Ghana Statistical Service, 2005).

Table 3.1 highlights some key discrepancies between the Upper West Region and the rest of the country. While the country as a whole is perceived to be on a rapid path of development, the Upper West Region lags behind most other regions. When the geographical and economic isolation of the region is considered, major interventions at the regional and national level are required before the region can be considered as being under the umbrella of modern Ghana.

Table 3.1

Comparing Characteristics: The Upper West Region and Ghana

Characteristic	Ghana	Upper West Region
Growth Rate (%)	2.7	1.7
Total pop. < 15 years (%)	38.2	43.4
Population Density	79.3	31.2
Females as % of total pop.	50.5	52.1
Dependency Ratio	87.2	98.2
% of pop. Employed in Agriculture	49.1	72.2
% of pop. >6 years having never attended school	38.8	69.8
Illiteracy (% of pop. > 15years)	42.1	73.4
Average household size	5.1	7.2
Access to potable water (% of households)	58.5	63.9
Access to a toilet facility (% of households)	79.8	30.9
Doctor/Patient Ratio	1:10,000	1: 44, 353
Under 5 Mortality Ratio (/1000 live births)	111	191

Sources: Ghana Statistical Service, 2005; WHO, 2005; Ghana Health Service, 2009

The healthcare system in the Upper West Region is underdeveloped. Given that there exists both a large barrier with regards to the degree of access to health services as well as a high doctor to population ratio, seeking out a doctor is a difficult task for many residents in the region. Annual checkups are rare amongst residents, with many avoiding trips to a health facility until they become very ill. This may be a factor contributing to the underreporting of diseases that are of a more chronic nature, such as hepatitis b. Furthermore, there is a strong presence of acute and deadly health problems in the region, such as malaria and Guinea Worm (Table 3.2). This limits what those engaged in the health profession are able to accomplish. The majority of doctor and nurses time is spent engaged in curative medicine, with little time available to develop any sort of initiatives that could be regarded as preventative medicine.

Table 3.2

Top 10 Causes of Hospital Admission in the Upper West Region, 2006-2008

2006		2007		2008	
Disease Condition	**No.**	**Disease Condition**	**No.**	**Disease Condition**	**No.**
Malaria	6,882	Malaria	11,779	Malaria	16,927
Gynaec. Disorders	1,175	Anaemia	1,278	Anaemia	1,567
Anaemia	1,065	Hypertension	1,234	Hypertension	1358
Accidents	904	Pneumonia	985	Pneumonia	888
Hernia	709	Hernia	984	Diarrhea	380
Pneumonia	663	Accidents	967	Hernia	353
Snake Bite	464	Preg. Rel. Comp	918	Hydrocele	323
Pregnancy Rel. Complication	403	Caesarean Section	902	Snake bite	320
Hypertension	377	Snake Bite	758	Typhoid Fever	315
Asthma/Bronchitis	349	Gynaec. Disorders	629	Traffic Accident	281

Source: Ghana Health Service, 2009.

Chronic infectious diseases have typically received less attention in Ghana (see Aikins, 2007). The looming problem of increasing hepatitis prevalence in the Upper West Region is one that holds the potential to undermine any efforts towards future development in the region. However, due to a number of reasons that includes both domestic and international influences, hepatitis in the Upper West receives significantly less attention than most other diseases including HIV/AIDS. This ignorance continues despite the fact that all indicators point towards a significantly higher prevalence of hepatitis compared to that of HIV/AIDS in the Upper West Region. While there have been no attempts at developing a full picture of hepatitis prevalence in the region, Table 3.3 provides a comparison of prevalence rates amongst individual blood donors screened within the district. This table shows that prevalence rates for both hepatitis b and c are consistently higher than those of HIV/AIDS.

3.2 *Akpeteshie*: Fuelling the problem.

The use of psychoactive substances plays a historically and culturally significant role within populations across the globe. However, problems arise when use of the substance moves beyond traditional uses and into the realm of abuse and misuse. For instance, while the traditional use of tobacco by First Nations in Canada continues to this day; misuse of the substance is a leading factor within several of the mounting health issues facing the original peoples of the country (Williams, 2006; Marrett and Chaudhry, 2003; Retnakaran *et al.* 2005).

Table 3.3

Prevalence (%) of HIV, Hep. B and Hep. C Amongst Blood Donors in Upper West Regional Hospitals, 2007-2008.

Hospital	2007			2008		
	HIV	Hep.B	Hep.C	HIV	Hep.B	Hep.C
Jirapa	2.9 (n=25/868)	13.2 (n=65/494)	14.5 (n=72/495)	8.7 (n=65/751)	16.2 (n=115/709)	13.5 (n=97/709)
Lawra	5.8 (n=23/394)	5.4 (n=12/221)	15.2 (n=33/217)	———	———	———
Nadowli	4.2 (n=6/142)	20.8 (n=51/245)	16.3 (n=23/141)	12 (n=25/203)	18 (n=47/260)	12.3 (n=30/243)
Nandom	13.6 (n=135/994)	20.7 (n=431/2079)	28.8 (n=315/1092)	13.1 (n=142/1045)	22.5 (n=405/1804)	20.1 (n=220/1092)

Source: Ghana Health Service, 2008, 2009.

In the Upper West Region of Ghana, consumption of a locally distilled gin known as *akpeteshie* is a prime example of a historically used substance that has become widely misused. *Akpeteshie*, which is sometimes also called *apio*, is a traditional spirit typically brewed in the south of Ghana. It is distilled from fermented palm wine or sugar cane juice, and typically has an alcohol strength of between 40% and 50% alcohol per volume (Zakpaa *et al.*, 2010). Distillation is simple, requiring typically no more than two four-gallon kerosene tins and some copper tubing. Fermented palm wine or sugar cane juice, with an alcohol content of roughly 5% per volume, is boiled and run through a copper tube sitting in a container filled with cold

water. The steam resulting from boiling passes through the tube and condenses as it cools. The condensation drips into the empty container, and the result is *akpeteshie* (Akyeampong, 1996). This crude and unregulated distillation method does not meet the standards set by the Ghana Standards Board, but control and standardization is a highly challenging task given that production is both informal and hidden. The unregulated, hastened, and profit driven nature of *akpeteshie* production has led to contamination of the drink with varying concentrations of components which are understood as being toxic to human health (Zakpaa *et al.*, 2010). Current estimates suggest that Ghanaians consume 40 million gallons of *akpeteshie* per year, a high number when compared to the 11 million cartons of beer consumed (Dei, 2006).

Yet the sheer volume of consumption does not simply reflect pure enjoyment of Ghanaian consumers. Most individuals in the region are unable to afford other drinks. As such, consumption of the potent brew is vastly the result of a lack of other alternatives. *Akpeteshie* currently has a negative connotation attached to it. This is reflected in names associated with the substance, including 'hot', 'kill me quick', 'take me and fly' and 'let me kill the bastard' (Luginaah and Dakubo, 2003). However, this has not always been the case.

Akyeampong has provided a small body of literature discussing the changing significance of *akpeteshie* in Ghana. In pre-colonial Ghana, the drink was typically employed ritualistically. Alcohol, along with water and blood, represented a fluid means through which residents communicated with gods and ancestors (Akyeampong, 1996). As such, initially one of the primary purposes of alcohol in Ghana was within religious custom. However, it was also a highly valued social

commodity. Those in control of the drink, typically male elders and chiefs, held a certain degree of power over the have-nots. This attributes another meaning to alcohol, namely that of a substance which acted as a tool for reinforcing social hierarchies. Alcohol was also largely consumed at funerals, where social and economic status was portrayed by how much was provided for attendees.

The colonial era saw the importation of foreign spirits, whose distribution was beyond the traditional control of chiefs and elders. As such, alcohol became more accessible especially amongst young men. This loosened the degree of social control held by both the colonial government and local chiefs, who subsequently formed an alliance and attempted to once again restrict alcohol distribution through legislative means. As a reaction to tightened control over alcohol, a number of local distilleries emerged and began illegally selling *akpeteshie* for broader consumption amongst the general public. (Akyeampong, 1996b) This era of strict controls over alcohol in the 1930s coincides with the rising nationalist movement throughout the country. *Akpeteshie* became a symbol of resistance employed by the working class against oppression from the colonial powers, traditional leaders, and upper classes. Nationalists seeking to gain power in the newly independent state put forward a platform that included the legalization of *akpeteshie* in order to gain the vote of the large young male and female cohort. Yet this promise would go unfulfilled as the emergent ruling power in independent Ghana, the CPP, had succeeded in neutralizing the power of elites and chiefs and no longer required an allegiance with common people. The new government saw the political rebelliousness that had become associated with *akpeteshie* and put in place a policy of actively pursuing

those who sold the drink. This policy would continue until 1962, when pressure exerted by distillers amongst the ruling party led to the formation of the Ghana Distillers Cooperative Association. Distillers were required to enrol with the Cooperative, in an attempt by the government to control and standardize production (Akyeampong, 1995). The Cooperative Association is still in existence today. However, the large majority *akpeteshie* currently sold in the Upper West Region is still largely distributed by informal producers, qualifying it as an unregistered substance (Akoma, 2009).

Structural adjustment programs enacted by the IMF and World Bank had positive impacts at the macro-national scale, while effectively acting to entrench poverty and inequality at the micro scale. Significant reductions in government spending upon education and health care combined with increasing leniency towards the private sector has caused uneven geographical development within the country, with the Upper West Region still reeling from the brunt of these actions (Kondady-Agyemang, 2000). This has contributed to increasing consumption of *akpeteshie* amongst less enfranchised young men, who turn to alcohol as a means of asserting masculinity and simultaneously coping with poverty (Akyeampong, 2002).

Recently there have been increasing local attempts in the Upper West Region at controlling *akpeteshie* consumption. The chief and the people of Guo in the Lawra District banned the sale and consumption of the drink during funerals as a result of increased fighting (Ghana News Agency, 1999). Increasingly, discussion has moved between calls to ban the drink and demand for increased control and regulation. Those seeking to ban consumption and sale of the drink in the Upper West Region

have turned towards creating a discourse surrounding the economic and health impacts of *akpeteshie* (Clayton, 2006; Ghana News Agency, 2010).

Contemporary health studies examining the impacts of *akpeteshie* upon health follow the general trend of studies examining alcohol and disease. Namely, studies typically tend to tie consumption with the health outcome in question (i.e. Burket, 2006; Asiamah and Blantari, 2002). There is a paucity of literature providing deeper analysis of the links between *akpeteshie* consumption and promulgation of infectious diseases. Luginaah (2008) links increasing consumption of the drink to rising HIV/AIDS rates. The study finds that increasing consumption exists within a mutually reinforcing relationship with continued poverty in the region and concludes that there is a vast denial or lack of knowledge surrounding the potential link between *akpeteshie* misuse, risky behaviour, and the spread of HIV/AIDS. It is from these findings that the current thesis emerges.

CHAPTER FOUR
STUDY DESIGN, METHODS, AND RATIONALE

4.1 Introduction

This chapter is a review of the study design, methods, and data analysis techniques employed throughout this thesis. The chapter begins with a discussion of the research design and methodology, with a focus on qualitative methods, multiple methods, and their use within the field of health geography. The subsequent sections describe each of the methods utilized in data collection: participant observation, short answer surveying, focus group discussions, and in-depth interviews. Finally, the chapter presents the techniques that are utilized in data analysis.

4.2 Research Design and Methodology

This thesis adopts a mixture of qualitative methods to address the study objectives. The thesis generally examines the broader phenomenon of alcohol use and infectious disease spreading in the Upper West Region of Ghana, and more specifically the relationship between the consumption of *akpeteshie* and local perceptions of hepatitis b. As this thesis seeks to create knowledge within a context wherein relatively little research has been undertaken, an in-depth approach to data collection was believed to be best suited for this study. As such, the research objectives stated above tend to be somewhat investigative in nature. It has been argued that adopting a case study approach significantly decreases the external validity of the research, limiting the application of results beyond the examined context (David and Sutton, 2004). However, the principal intent of a case study is not

to develop generalizable laws of human behaviour; rather, the aim is to develop an intensive understanding of the specific issues under study, drawing upon the voices and experiences of those impacted (Eyles and Donovan, 1986).

Generalisability, as defined by Hay (2005), refers to the degree to which research results can be extrapolated to a wider population than that studied. Rather than attempting to impose laws and theories in a 'cookie cutter' approach, this thesis seeks to develop an understanding of human beliefs, values, and actions and interpret these results through the selected theoretical lens. As such, generalisability becomes possible by comparing the findings in the Upper West Region to results from other studies, such as those revealed by the WHO (2005). Furthermore, it has been argued that case studies may permit theoretical transferability rather than statistical generalization, so the issue is not whether the events observed in this case study precisely represent events elsewhere, but whether the analysis of alcohol and infectious disease produced by the research has more general theoretical applicability within other contexts (Eisenhardt, 1989; Yin, 2003).

4.3.1 Qualitative Research in Health Geography

Dyck (1999) argues that the shift from medical to health geography resulted from calls to increase analytical emphasis on the role of space and place within the relationship between people and their health. She provides an overview of the ways in which qualitative methods allow for alternative ways of knowing from the dominant paradigm of Western medical knowledge and positivistic science, arguing that these methods facilitate the emergence of previously unheard voices within

both health and geographic research. Kearns and Moon (2002) examine the emergence of 'geographies of health' throughout the 1980-90's. They argue that this emergence is characterized by a distancing from concerns with the interests of the medical world in favour of increased concentration upon well-being and broader social interpretations of health and health-care. Instead of the traditional medical-centric view of space and place as a container within which diseases are manifested within a population, space and place became seen as significant contributors to disease distribution. This shift in perspective opened the door to qualitative methods; due to the strong link between the philosophical concerns of a discipline and methods which it employs (Scarpaci, 1993). The use of qualitative methods, although not new to the discipline, have increased in frequency over the past two decades as they became an accepted strategy for producing place-sensitive and subject-centred analyses of the geographical dimensions of health (Dyck, 1999). Increasing the voice of participants in qualitative analysis allows for examination of the socially constructed nature of the concepts of health and illness. Increasing voice also provides significant insight into the links between conceptions of health and what is healthy behaviour within the everyday lives of the subject. Being able to develop highly contextualized understandings of how health and illness are conceptualized in a specific local area has changed the ways in which health education is undertaken (Poland *et al*, 1998). Glaser and Strauss (1967) also support the use of qualitative methods by stressing that they are important if research seeks to identify consequences of a particular behaviour or deviations from the norm. Both the development of an understanding of how health and disease are understood in a

specific region and the understanding consequences of a behaviour are underlying factors being examined within this thesis.

The WHO (2005) recommends the use of qualitative methods within the study of alcohol consumption and infectious diseases for several reasons. Firstly, they argue that qualitative methods are an appropriate means of examining subjective meanings of issues relevant to the research problem. For instance, how participants distinguish between alcohol use and alcohol misuse, and what factors may lead to misuse. Secondly, qualitative methods provide the researcher with a means through which they can gain insight into how meanings associated with a given subject are created through everyday experiences within an individual's culture and social life. Finally, the researcher can examine how cultural and social contexts or norms are reflected in the expressed or observed perceptions, expectations, and behaviours of an individual.

In short, the increased use of qualitative methods within the geographies of health is a result of the shift away from positivist and medical-central approach in the discipline of medical geography. Qualitative research approaches permit the examination of culturally specific variations in the construction of ideas about health and illness over time and place, providing a framework for interpreting health as an issue which is interdependent with a wide range of social, physical, and political environmental influences (Dyck, 1999).

4.3.2 Multiple Methods in Health Geography

A multiple methods approach was adopted for this thesis. Traditional definitions of mixed methods typically indicate the use of both qualitative and quantitative approaches as a means of increasing the quality of a study (Rank, 2004). Multiple methods are very similar to mixed methods. They are different in that their usage does not necessarily include a mixture of both qualitative and quantitative approaches, but can include a mixture of different methods from within one approach. Within this thesis, a qualitative mixed methods approach is used which employs site observation, focus group discussions, and in-depth interviews with key informants.

The adoption of multiple methods has increased recently within the field of health geography as health research in general becomes increasingly interdisciplinary. Geographers working with researchers from other fields, such as epidemiologists, sociologists, or public health officials, have enriched their own field by borrowing from these disciplines. Most multi-disciplinary studies within which health geographers play a role employ a mixed method approach, as highly quantitative, statistical analysis of a phenomenon are rounded off with a more qualitative, interpretive approach. Qualitative multi or mixed methods studies within health geography have traditionally tended to employ in-depth interviews in tandem with focus group discussions. However, recent studies have begun to introduce non-traditional qualitative methods such as Photovoice (Darbyshire et al, 2005).

While multiple methods employed in this thesis are based on those used within the WHO study, they were not simply adopted without question. Baxter and Eyles (1997) argue that the use of multiple methods increases the rigour of a study through method triangulation. However, they caution that the methods chosen should make sense within one's theoretical perspective. Literature reviewing strengths and weaknesses of each method was consulted prior to committing to conducting the research. The decision to use a specific method was based on both its relevance to the research objectives, as well as the degree to which it could contribute to the validity of the study. A research method achieves a level of validity when the knowledge it constructs is considered to be an adequate articulation of the social phenomena under examination (Evans, 1988).

The challenge of conducting a multiple methods study is the formation of method specific research questions that complement the other methods adopted, while at the same time, improving rigor (Stewart et al., 2008). Other challenges include: large amounts of data collected; significant time requirements for data collection and analysis; deciding which methods are appropriate and, interpretation of combined data (Khunti, 1999; Creswell, 2003). Qualitative research has been frequently criticised for what is perceived as a lack of established rigour and a low level of reliability due to subjective interpretations of subjective interpretations. Through a comparison of various sources of information, it is hoped that these commonly cited criticisms might be countered within this thesis.

4.4 Researcher Positionality

A further reason for adopting an interpretive approach to the study relates to the significant cultural differences between me and the people of the Upper West Region. Having spent my whole life studying in Canada, I have had no experience in conducting research within the setting of a developing country. My entire experience with research in developing countries has been gained throughout various courses which I have taken in my undergraduate degree.

Prior to the commencement of field work in May of 2009, it was feared that the individuals living within the villages of the Upper West Region would not be willing to associate with a foreigner who they did not know. However, this speculation was quickly put to rest upon arrival. In actuality, it was discovered that residents of the region were extremely welcoming and eager to discuss their experiences with someone from outside their region. Many participants expressed that they felt significantly higher degrees of comfort speaking to an objective foreigner as opposed to a member of their own government. Many individuals stated that they found it easier to talk to me since I was not there to cast judgement or lecture them on the immoralities of alcohol consumption, but to simply listen to what they had to say.

A significant aspect of the research which helped to bridge the gap between myself and the people of the Upper West Region is the fact that one of the thesis supervisors is originally from the region. Prior to the commencement of fieldwork, Dr. Isaac Luginaah established contact between the researcher and pre-existing relationships in the area. Through being introduced as a student of Dr. Luginaah's to

a variety of academics, health officials, and local residents, I was able to quickly become associated with these individuals. These contacts not only helped me to become accustomed to the local culture, they also assisted with more applied aspects of the thesis as well.

With the assistance of Dr. Sylvester Galaa, an associate of Dr. Luginaah's at the Wa campus of the University of Development Studies, I was able to both hire qualified research assistants and to determine appropriate study sites. A number of factors contributed to the final decision of conducting the research in the regional capital of Wa, as well as the villages of Sombo and Nandom. Accessibility was a major deciding factor. Firstly, since our transportation was limited, we determined that we had to be able to reach these areas via *tro-tros*. We also had to consider the fact that the research was being conducted during the rainy season, and that access to some areas would be sporadically impossible due to random flooding of the roads. Secondly, the areas had to be ones in which the research assistant was able to speak the local dialect. This was decided in order to facilitate focus group discussions, as well as interview translation and transcription. Finally, due to the limited amount of time I was able to spend in Ghana it was determined that selection should also be based on pre-existing relationships between either Dr. Galaa or the research assistant and key informants within the areas. Specifically, I was instructed by other researchers in the area that a pre-existing relationship between a member of the research team and the local chief would significantly facilitate conducting research in that village.

I was able to work with three research assistants during my time in the Upper West Region. Two of the three were used primarily for transcription purposes, while the primary assistant used during focus groups and as a guide during initial visits to research sites. The two individuals responsible for interview transcription were senior students at the Wa campus of the University of Development Studies, while the primary assistant was a resident of Wa and a senior geography student at the University of Ghana in Accra.

Fowler (1993) states that training research assistants should take more than one day in order to create good interviewers. Training of the primary assistant took approximately six days. We began by spending a full day discussing the goals and theoretical approach of the research. This occurred in an informal manner, where the primary assistant was free to express his own thoughts with regard to both the research design and the feasibility of the research. The second and third day were devoted to leading focus group discussions. This involved ensuring that the assistant not only understood the questions which were to be asked, but was also able to properly translate these questions. Probing techniques and potential follow up questions were also examined during this time. The subsequent two days consisted of two practice focus group sessions, one each for both males and females. Friends of the research assistant were recruited as participants. These individuals were explained that the goal of the focus group was not to gain information, but to evaluate the method. They were encouraged to provide feedback with regards to questions and interview style, which many of them did on several occasions. Usually, they would ask to have a question or a term clarified. However, many of them did

express opinions regarding the research topic and stated that they were interested in participating in an actual focus group session. The assistant led the focus group, while I observed and took notes. The two students recruited as transcribers were also present as note takers during the trial focus groups. I was very pleased with the result of these trial sessions. The final day was devoted to adjusting the focus group guide based on what we had observed during the trial sessions.

Given that one of the main objectives of this thesis is to examine the nature of alcohol use and misuse, many of the individuals which we met consumed high amounts of alcohol. We decided that no individual would be allowed to participate in the study if they had consumed alcohol and were judged to be intoxicated at the time. My seven years of experience working for the Liquor Control Board of Ontario has provided me with extensive training in the area of dealing with intoxicated individuals and I was able to share this with my research assistants. While several intoxicated individuals approached us during the research, there was never any situation in which a member of the research team felt threatened or was unable to politely remove themselves from the situation. Intoxicated individuals were often simply curious as to why I was in this area, and were often eager to give their opinions on the issue. We listened to what they had to say and thanked them for expressing their opinions. We also told them that if they were willing, they could participate in a focus group but could only do so under the condition of them being sober. Upon many occasions, individuals wanted us to buy them drinks in exchange for information. These persons were told that we would not purchase any alcohol

for them, but they were more than welcome to share in the food which would be made available during the focus group sessions.

4.5 Participant Observation

DeWalt (2002) argues that participant observation research should be about documenting practices rather than ascribing meanings to the participants' observed actions. In the context of this thesis, that participant observation was used to describe patterns of alcohol use amongst residents in the Upper West Region. [4] Participant observation was also used to formulate context-specific questions which were later used during focus groups and interviews with key informants.[5]

Researchers set out to observe key characteristics of alcohol consumption during participant observation. These characteristics are categorized under four main headings: description of site, description of patrons, alcohol consumption, and nature of socialization. The research tool employed was an observation checklist (Appendix A). This checklist served to facilitate observation and analysis, allowing both quantification of certain characteristics, and also facilitating the tracking of site-specific events. For example, the average cost of a bottle of *akpeteshie* was established and in one specific site, researchers noted a potential customer trying to barter the labour of his young son in exchange for a drink. Observations were tabulated in a spreadsheet, which was subsequently used to derive descriptive statistics. As such, the goal of participant observation within the context of this

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[4] See objective 1 in section 4.2

[5] For instance, the researchers noticed that the majority of individuals tended to leave the drinking spot after consuming *akpeteshie*. This lead to the FGD question: What do people do after they drink *akpeteshie*? Where do they go?

thesis is a credible account of the social processes surrounding alcohol consumption, which is a description rather than reproduction of social reality.

A commonly cited limitation to the accuracy of the participant observation method is the problem of reactivity, whereby the researcher's presence influences the behaviour observed. This problem was expected to occur during this phase of the research, especially given the highly visible differences between the principal researcher and the residents of the area. In order to minimize reactivity, the researcher positioned himself in a rear corner of the establishment. This was done the intention of being able to observe the full area as well as drawing minimal attention. The presence of reactivity was tested by the researchers through a comparison of results, whereby results of charts filled by the primary assistant were compared to those which I personally filled. It was discovered that our results were not significantly different. In fact, it was discovered that reactivity was further decreased if both the principle researcher and the research assistant sat together in an establishment. A few individuals did approach the researchers and enquire as to the reason for their presence. The majority of these individuals were deemed to be intoxicated. They were politely greeted, told that research was being conducted, and kindly asked to be on their way. Those individuals who approached the researchers and were not intoxicated were further explained the goals of the study. If they expressed further interest, they were asked if they would like to participate in a focus group to be held at a latter time. If they were willing, they were given a paper with the date, time, and location of the session.

The WHO recommends conducting observations at venues where alcohol use and related risky behaviours tend to occur. They recommend scheduling observations before the focus group discussions and interviews. Besides allowing for description of alcohol consumption in the examined context, the WHO suggests that observations also facilitate the identification of the target population for focus groups and types of research questions that should be asked during discussion. They recommend that the observer should be alert to concepts or categories that appear meaningful to the subjects, as well as broader trends, patterns and styles of behaviour.

Participant observation was conducted in two different 'drinking spots' within the three research areas between May 19th and June 7th. The goal of these observations, which speaks directly to the first objective of this thesis, was to develop a thorough description of the nature of alcohol use amongst individuals in the region. It is important to note that certain informal establishments, known commonly as 'drinking spots' amongst residents of the region, are recognised as areas where *akpeteshie* or *pito* are typically found. These locations are relatively easy to distinguish as they are often identified by specific markings, such as blue and white painted striping. Given that alcohol misuse and infectious disease transmission in the region has been previously linked to *akpeteshie* consumption within these locations (Luginaah, 2008), participant observation was confined to establishments which were commonly identified as places where the drink is both sold and consumed. Seven drinking spots were studied at several periods, with a total average of eight hours spent in each establishment (See Table 4.1). The rational

for the number of observations was based within the achievement of theoretical saturation, whereby no new information emerged after conducting the eight site observation. Access to these sites was negotiated with the owners of the drinking spot prior to beginning the research. These individuals were explained the research objectives as well as what was going to occur within their business. Most owners did not object to the research, asking only that food or drink be purchased during the time spent on site. Observations took place on either a Friday or a market day. The researchers were immersed within the study environments and were free to interact with patrons of the drinking spots. While researchers did consume food and non-alcoholic beverages during the study, they did not consume *akpeteshie* or other alcoholic beverages.

Table 4.1: Participant Observation Research Schedule

Location	Date/Time	Researcher
Sombo (site 1)	May 19th, 7pm-11pm May 22nd, 3pm-7pm	Primary Assistant
Sombo (site 2)	May 19th, 3pm-7pm May 22nd, 7pm-11pm	Assistant Primary
Wa (site 1)	June 5th , 7pm-11pm June 6th, 3pm-7pm	Primary Assistant
Wa (site 2)	June 5th , 1pm-5pm June 6th, 6pm-10pm	Primary Assistant
Nandom (site 1)	May 29th, 1pm-5pm June 2nd, 6pm-10pm	Primary Assistant
Nandom (site 2)	June 2nd, 3pm-7pm May 29th, 7pm-11pm	Primary Assistant

4.6 Focus Group Discussions

There are several reasons why focus group discussions were employed as a research tool within this thesis. The primary reason relates to their ability to

facilitate considerable interaction on a topic within a limited space of time (Kidd and Parshall, 2000). Given that the time available to spend in the field was limited to three months, as well as the limitations on access to the villages and populations within these villages, focus groups were seen as an excellent means of gathering large amounts of data for an area where relatively little information previously exists. Kitzinger (1995) argues that focus groups not only serve to examine individual views and experiences with regards to a specific topic, but that they also allow both the researcher and the participants to develop a deeper understanding of these views through exploring them within the context of group discussion. This is important because it often allows for the opinions of individuals to expand and grow once they are explored or challenged by other participants. Adding to this concept, Lunt and Livingstone (1996) characterize the focus group as a microcosm of 'the thinking society', capable of revealing the processes whereby social norms are shaped within a society through debate and argument amongst participants. As such, focus groups provided specific individual level information with regards to the thesis topic, but they were also a means of establishing a high-level of insight into the social dynamics through which individuals within the examined context interact with one-another as well as how such dynamics influents thoughts and perceptions of the given issue.

Branching from these ideas is the ability of the focus group to quickly bridge any pre-existing differences between the researcher and the study participants. Social epidemiologists have traditionally used focus groups as a useful means of acquiring improved understanding of risky behaviours amongst at-risk groups with which

they have conducted little or no prior research experience, such as within an early study of HIV/AIDS amongst homosexual and bisexual populations by Joseph et al. (1984). As such, focus groups can be used in many applied settings where there exists a difference in perspective between the researcher and those with whom they are working. Within the context of this thesis, focus groups served to not only provide information pertinent to the study, but also acted as a means through which the researcher was able to better understand how social relations played out within the research setting. These experiences allowed for further notes during site observations as well as the appropriation of local customs and manors of speech which assisted during subsequent focus groups as well as in-depth interviews.

Finally, Kitzinger (1995) makes a valid and highly relevant argument that focus groups are especially suitable for the discussion of culturally sensitive topics since the less reserved members of the group often break the ice for other participants. This was certainly applicable to in the context of this thesis, given its relation to *akpeteshie* use and misuse and its potential link to infectious disease spreading. The participants in the study often responded to potentially sensitive questions after one or two keener members of the group took the initiative. In fact, such members often asked other participants to support their opinions or express their own thoughts, which led to various debates, including the exploration of topics which the research team had not anticipated (i.e. displeasure with non-government organizations). A common criticism of focus groups is that individual voices of descent tend to become silenced when a majority exists on a given opinion or if such individuals feel embarrassed by having an opinion which runs contrary to the majority. While few

participants did express a small degree of embarrassment after being asked certain questions, the overall serious nature of the discussion helped them to overcome these feelings.

Between June 6th and July 8th, a series of nine focus groups were conducted throughout the Upper West Region with various residents from the villages of Sombo and Nandom, as well as the regional capital of Wa. Table 4.2 provides a description of both the number of participants as well as the number of sessions in each location. The objectives of the focus groups were to develop insight into the characteristics of alcohol misuse in the region, and to capture local knowledge and perception with regards to understanding of hepatitis b. A sample of a focus group discussion guide is presented in Appendix B. The discussions lasted between 45 minutes and 1.5 hours and took place in a mutually agreed upon semi-private location, typically under the shade of a tree within a common area of the village. Groups were composed of a minimum of eight and maximum of twelve individuals. This has been argued to be an appropriate range for group size as it typically provides enough individuals to stimulate an interesting discussion without being unmanageable (Strauss and Corbin, 1990; Morgan, 2004). A total of 88 residents were recruited as participants, based upon a combination of snowball and purposeful sampling strategies. Participants were required to fulfil a set of pre-determined criteria, which involved being a minimum of 18 years old and having lived in the region for at least two consecutive years. While participants did not receive monetary compensation for their time (based upon UWO ethics guidelines),

food was provided either during a break in discussion or after the discussion took place.

Table 4.2: Focus Group Discussion Schedule

Location	Date	# of Participants
Wa	July 2nd, 2009	Males: 18- 29 (n=12)
Wa	June 10th, 2009	Females: 18- 29 (n=8)
Sombo	July 12th, 2009	Males: 18-29 (n=11)
Sombo	July 12th, 2009	Males: 30 + (n=10)
Sombo	June 20th, 2009	Females 18-29 (n=9)
Sombo	June 20th, 2009	Females 30 + (n=10)
Nandom	June 2nd, 2009	Females 30 + (n=9)
Nandom	July 17th, 2009	Males 30 + (n=10)
Nandom	July 18th, 2009	Males 18-29 (n=9)

Participants in focus group sessions included both males and females who identified themselves as permanent residents of the study sites (>2year occupancy) and were between the ages of 18 and 60 at the time of the interview. These individuals were recruited through a snowball sampling strategy and included both consumers and non-consumers of *akpeteshie*. Initial participants were suggested by the local chief or assembly man[6], who then asked others from their peer group to join the discussion. Overall, recruitment of participants was not a difficult task as many in the study sites were eager to discuss the topic. However, the potential sample size was found to be significantly lower than expected as many males were not in the villages at the time due to the harvesting season. The initial focus groups

[6] An individual who is responsible for local-level meetings within the village.

were composed of both males and females, as recommended within the WHO (2005) study. However, it became quickly apparent that this structure would not be effective as males were very dominant within the discussion. After this initial attempt, female participants expressed their desire to further discuss the topic, but did not feel comfortable doing so in the company of their male counterparts. As such, the data from this discussion was discarded and gendered focus groups were introduced. Further subdivision of the participants according to age was also incorporated into the focus group design. Within a context where elders are highly respected, it was believed that mixing elders with youth would restrict the degree of participation from younger residents.

4.7 Key Informant Interviews

In this thesis, a key informant is defined as an individual who is both in direct contact with the population of the region, and occupied either a social or employment position through which they would be able to speak in detail about the problem. Key informants are not only residents embedded within the social context of this study. They are individuals who we believed, either through holding a position of esteem within the area or through their employment, are able to provide a high degree of insight with regards to the structural processes underlying the problem being investigated. The area of expertise with which the key informant was associated determined the structure of the interview. According to the WHO (2005), there are many benefits to including key informants in a study of this nature. A key informant can provide a significant portion of insight and information on the

behaviour of the target population, on the rules and regulations within the target population, and can make recommendations on who, how, where and when to recruit participants for both interviews and focus groups. The study also states that there is no criterion as to the number of key informants to involve. This number is determined by the number of different positions that can be identified in the relevant social environment (WHO, 2005). They argue that there is no need to have more than one interview with an individual from the same category, but to enrol as many different key informants as possible.

The interviews undertaken for this thesis addressed all three of the research objectives stated earlier. The strength of interviews lie in their ability to give the participant increased freedom to describe and explain their own experiences, in their own words. Given that the research for this thesis was undertaken in a setting with which the researcher was unfamiliar, a further strength of the interview is that it allows for issues to be raised which were not initially recognized by the researcher. The subjective nature of the interview process demands the treatment of those being interviewed as people whose experiences, beliefs, and feelings are to be respected and valued as legitimate sources of data. As such, the goal of interviewing within this study was to understand how individual people experience and make sense of the meanings and processes which operate within the particular social context (Valentine, 1997).

Beginning June 19th and lasting through to July 22nd, a series of recorded semi-structured in-depth interviews were conducted throughout the various research sites (See Table 4.3). The interviews were conducted with the following goals: to

understand the process of health policymaking in the Upper West; to acquire deeper insight into the underpinnings of alcohol misuse within the region; and to further contextualise the nature of hepatitis b promulgation. Interview guides were altered depending on who was being interviewed (Appendix C). A total of seven interviews were conducted with various key informants within the research locations.[7] This sample was composed of five males and two females. While all efforts were taken throughout this study to ensure equal gender representation, the positions of the key informants recruited for interviews were found to be typically held by males. The rational behind the number of interviews conducted is based upon the achievement of theoretical saturation, whereby no new information regarding a given topic emerged after a certain number of interviews had been conducted.

Table 4.3: Key Informant Interview Schedule.

Location	Dates	Key Informant	Duration
Sombo	June 19th-23rd	• Local Chief (m) and Elder (m) • Community Health worker (f)	45mins-1.5 hours
Nandom	July 5th- 8th	• Local Chief (m) • Infectious disease officer (m)	1hour-2 hours
Wa	July 19th-22nd	• Alcohol Prod. (f) • Government Policymaker (m)	45mins-2.5 hours

Information gained during focus groups was used to structure interviews, where key informants were asked to respond to findings and points raised by members of

[7] Key informants include: village chiefs, local elders, community health workers, health policymakers, alcohol producers, and local residents.

the village. While key informants were aware of the research topic, they were not provided with a list of questions prior to the interview nor were they made aware of which individuals participated in focus groups. This was done as an attempt to extract genuine responses and reactions from the individual interviewed. A potential limitation to this technique arose due to certain cultural formalities of the region. Upon entering a desired research site, researchers are expected to request an audience with the local chief and ask permission to undertake a study of their population. As such, local chiefs interviewed within this study were aware of the broad research topic but did not know which specific aspects of the topic were to be discussed throughout their interviews.

4.8 Data Analysis Techniques

Upon arrival in the Upper West Region, pre-existing contacts facilitated the hiring of a research assistant. This individual is a resident of the area currently completing studies at the University of Ghana and was chosen based upon his availability, knowledge of the region, personal contacts which were believed to help initiate focus group discussions, and well as his ability to speak several of the local dialects (*Dagaare, Dagara, Nandome*). The individual was given the thesis proposal and several key articles to read in order to develop an understanding of the topic. Upon completion of this introduction, four days were spent conducting interview training in order to develop a mutual understanding of the purpose of both key informant interviews and focus groups. The opinions of the assistant were incorporated throughout this process, which provided significant assistance in

formulating a culturally sensitive research tool. Mock focus group and key informant interviews were held subsequently, during which the interview assistant successfully led the focus group with limited guidance. During actual focus group discussions, the interview assistant translated broad themes which were being discussed, allowing for emergent themes to be pursued. The assistant was free to pursue themes which he believed were relevant to the research.

Key informant interviews and focus group discussions were recorded digitally. Two further assistants were employed with the purpose of translating key informant or focus group discussions which were not conducted in English. Since it was not possible for me to learn the local dialects in the limited time spent in the region, it was believed that doing so would increase the rigour of analysis resulting from translated texts. These individuals were recruited from the University of Development Studies (Wa campus). They were required to be fluent in *Dagaare, Dagara, Nandome*, as well as English. Each transcription was conducted immediately following the interview or focus group discussion, as results were used to inform subsequent interviews. Transcription by each individual was conducted separately. Subsequently, individual transcriptions were reviewed and discrepancies between the two texts were discussed amongst transcribers as well as myself and the research assistant. Very few discrepancies were found throughout this process. When they were discovered, they were commonly slight phrasing issues mostly within focus group discussions.

Data analysis was approached iteratively, whereby the researcher collects data via interviews or observations, transcribes this information and reflects on what it

has to say about the topic under investigation (Glasser and Strauss, 1967). Furthermore, this requires continual interaction between the analyst and the data in order to ensure that nothing was missed and that codes and themes fit the data. Data analysis began on-site in the form of memo writing. Reflections on emerging themes or key topics discussed were noted, as well as any major problems with the research and the overall sentiment gained through the experience. Analysis of these memos was also used throughout data collection in order to refine, discard, and reformulate *ideas.*

Upon returning to Canada, the interview transcripts were uploaded to N. VIVO, which is a software program used in qualitative data analysis. This program is designed to facilitate the formulation of a set of thematic codes which assists the user in visualising the phenomena under investigation, as contained within the interviews. While computer assisted qualitative data analysis is a highly contested topic, in my opinion that N.VIVO significantly enriched and facilitated analysis. Proponents of the software argue that it allows a researcher to benefit in five key areas: data management, idea management, data querying, concept modelling, and data reporting (Bazeley, 2007). Pope et al (2006) support the growing use of computer software in qualitative data analysis, arguing that the research maintains purity through the substantial amount of time the researcher spends reading and coding interview transcripts or documents. They continue to argue that N.VIVO allows for more elegant and efficient management of large data sets.

Coding the data collected for this thesis involved the building of key themes which addressed the first two study objectives. Tree nodes were used, with parent

nodes listed as either 'alcohol' or 'hepatitis'. Branches from each parent node consisted of themes which emerged from interviews or memos. This was done by initially free coding the data under multiple highly specific branches, then re-coding these under broader common headings. Key themes emerged through coding counts. Upon completion of coding for all transcripts, a branch was identified as a key theme if it contained a high number of mentions by participants.

Key themes were given strict definitions and content coded under each theme was re-evaluated using data queries. Text which did not fit the established definition was removed from the theme. Matrix queries were then conducted within each theme, resulting in a number of summary tables illustrating the number of total mentions as well as the number of respondents mentioning each variable (See Chapter 5). Matrix querying was also used to draw out direct quotations within which respondents speak to each of the examined variables. Data tables produced through matrix queries are directly linked with coded text for the theme in question. Quotations for use within this thesis were selected by examining coded texts revealed by matrix coding, and selected text which best described the theme in question.

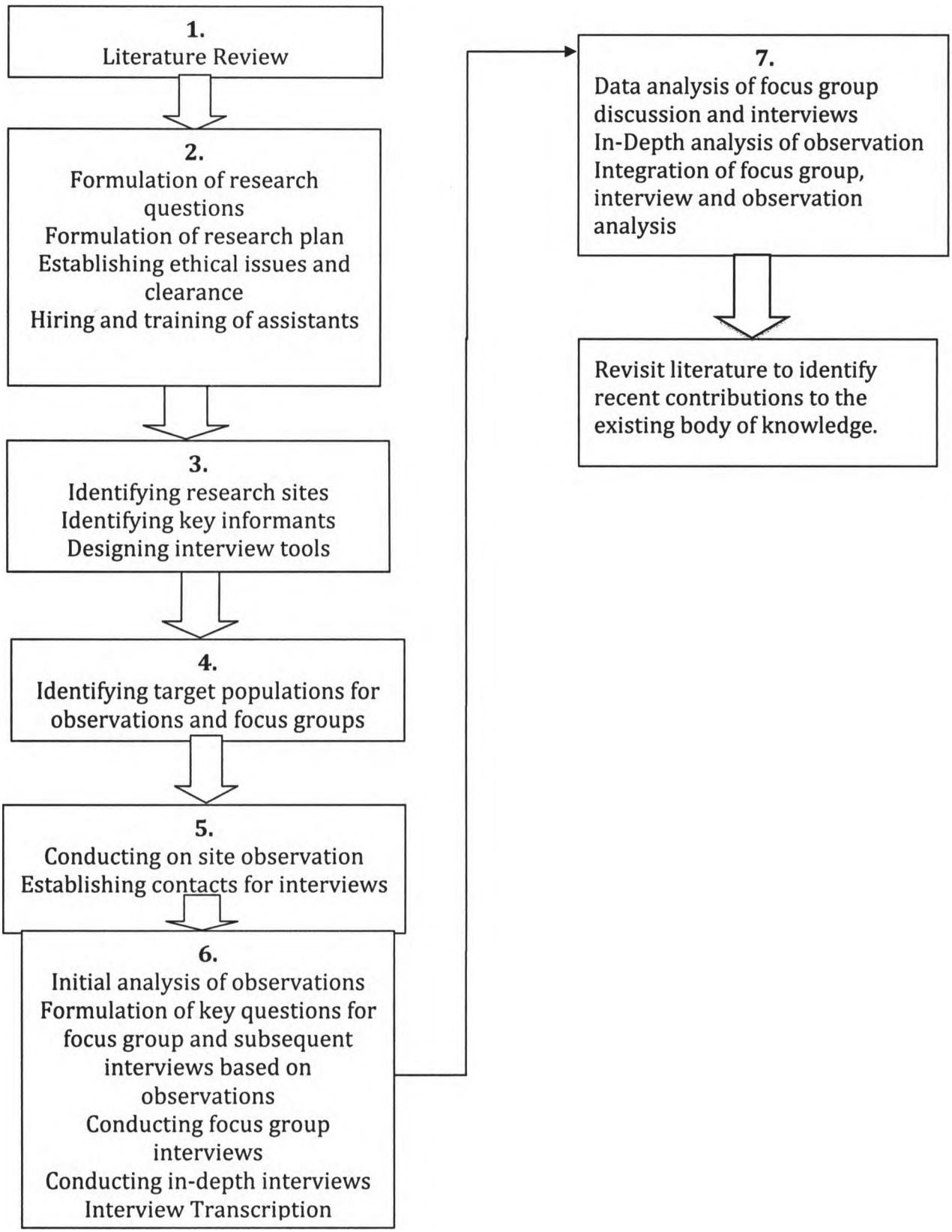
4.9 Chapter Summary

Figure 4.1 both summarises and situates the topics discussed in this chapter within the broader research design. It is a chronological representation of the order which the data collection and analysis for this thesis occurred. This chapter has described the qualitative methods which were employed in the collection and

analysis of data in this thesis. Began by presenting a discussion of the research design and methodology of this thesis, briefly outlining the benefits of qualitative and multiple methods research in health geography. Following this, a reflection upon researcher positionality was presented. The chapter then detailed the methods used in this project (participant observation, focus group discussions, and key informant interviews) providing a description of participants selected and sampling strategies used for each method. The concluding section of the chapter reviewed data analysis techniques: the rational and details surrounding the use of a research assistant and transcribers, the benefits of qualitative data analysis software, and data coding and querying styles used. Key findings of the data analysis are presented in Chapter 5.

Figure 4.1

The Main Steps/Research Activities



CHAPTER FIVE
RESULTS OF THE FOCUS GROUP DISCUSSIONS AND KEY INFORMANT INTERVIEWS

5.1 Introduction

This chapter presents the results of the focus group discussions with area residents (n=88), as well as the seven key informant interviews (local elder, chiefs, community health worker, alcohol producer, infectious disease officer, and health policymaker). The chapter seeks to address the objectives of the thesis, with results presented thematically as they speak to each of the individual objectives:

1. to describe the nature of alcohol use amongst adults within the Upper West Region;
2. to explore local perceptions about hepatitis b among adults in the region.
3. To examine the nature of health accessibility in the region.
4. To examine the links between alcohol use and the spread of hepatitis b, and to investigate the structural processes that underwrite these associations.

Multiple sources were used to inform the structure of the interview guides used during both focus group and key informant interviews. Basic alcohol use and place-specific questions were derived from studies of alcohol and infectious disease (eg: WHO, 2005 and Luginaah, 2009). These questions tended to be more descriptive in nature, asking participants about the locations in which alcohol is consumed, or their degree of health knowledge as it pertained to the disease in question. Further discussion topics were derived from the theoretical framework of this thesis, which incorporates theory relating to embodiment and political ecology of health theory.

The results are presented around key themes examining the nature of alcohol use as well as local perceptions and awareness of hepatitis. Significant differences in responses between participants, in terms individual characteristics, are also examined within each of the themes. The results are presented with both data tables as well as direct quotes from the interview transcripts.

5.2 The Nature of Alcohol Use

This section speaks to the first objective of the study and is organized into three main themes. The first describes consumers of alcohol; it lists the most commonly cited individuals respondents discus as those who typically drink. The second section provides the most common reasons given for alcohol consumption in the region. The final section seeks to illuminate the most often cited behaviours of consumers. In their description of the nature of alcohol use amongst adults within the Upper West Region, respondents spoke primarily to consumption of both the regionally brewed *pito*[8] and *akpeteshie*. Since neither *pito* nor *akpeteshie* production or distribution are formally regulated, both types of alcohol can be understood as unregistered. However, *pito* has never formally been declared as an illegal substance. While *akpeteshie* is the primary interest within this thesis, consumption of *pito* is also presented in order to provide both a clear contrast between the two liquors and to clearly highlight the effects of *akpeteshie* consumption.

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[8] A type of beer made from local ingredients such as millet or sorghum. Alcohol content varies from between 0 and 5% per volume.

5.2.1 *Akpeteshie* Users

In their descriptions of alcohol users, participants unanimously state that men are the primary consumers of both *akpeteshie and pito.* It is important to note that all individuals described as consumers of *akpeteshie* are of the same socio-economic status. Table 5.1 shows that the number of mentions for men as consumers of *akpeteshie* ranks highest amongst all participants. This finding is coherent with the results of participant observations, which reveal an overwhelmingly male clientele in drinking spots. Young men are also mentioned as high consumers, although this category may be somewhat underrepresented as coding only occurred when the term 'young man' was explicitly used.[9]

Table 5.1

***Akpeteshie* Consumers**

Identified Consumer	All Respondents (n=95)		Focus Group Participants (n=88)		Key Informants (n=7)	
	Participants	Mentions	Participants	Mentions	Participants	Mentions
Men	47 (49%)*	53**	43 (49%)	26	4 (57%)	27
Farmers	35 (37%)	37	28 (32%)	21	7 (100%)	16
Women	31 (33%)	37	31(35%)	23	5 (71%)	14
Young Man	17 (18%)	30	11 (13%)	18	6 (86%)	12
Children	10 (11%)	14	8 (9%)	11	2 (29%)	3
Young Woman	9 (9%)	17	3 (3%)	7	6 (86%)	10

* Presents the number of participants within each category who mention the theme as well as the percentage of total participants mentioning the theme.
** Presents the total number of mentions by participants for a theme.

[9] Within the context of this thesis, when participants spoke about 'young men' or 'young women' it is in reference to an individual less than 25 years of age who is not yet married (Akyeampong, 1996).

Men are often the default gender when participants provide descriptions of alcohol user behaviours. When asked about the effects of drinking on individuals, participants usually provide examples that describe consumers as male. While a description of behaviour is presented later in this chapter, the following quote demonstrates the typical use of the male gender in describing consumers:

> Someone who takes it (*akpeteshie*), ***he*** is different from someone who takes *pito*. You can see it in ***his*** face or in the way **he** behaves. ***He*** may not look at you or he may even say things that are strange or that ***he*** should not say...like about family. ***He*** will also drink alone, like, seldom with others you know? (**Male Resident, 18-29**)

In terms of female alcohol consumption, drinking amongst women is often generates a great deal of concern and excitement. Women receive the second highest amount of mentions with regards to *akpeteshie* consumption. The way women are talked about as consumers of *akpeteshie* differs significantly from descriptions of men as consumers. Whereas men are commonly cited as typical consumers, consumption amongst women is often talked about as an emerging phenomenon:

> Women drink it too. Even more than the men now. Some women can even take more than a man. I have seen some of the women here in the village who used to not drink it...now they take it several times in one week. **(Local Chief)**

Individuals in positions of authority are not the only participants citing an increase in consumption amongst women. This theme emerges within focus group discussions with local residents as well. Furthermore, discussion surrounding increasing consumption amongst women is not restricted to specific age groups or genders. Women often speak of drinking *akpeteshie*, although they speak of doing so in more secluded areas and seldom discuss how much they drink:

> It is not only the men. We women, we also drink it. If we get it, we will not spare it. But the men still drink it more often. **(Female Resident, 30+)**

Descriptions of *akpeteshie* consumption amongst women given by male focus group participants often includes several mentions of women being able to consume more than their male counterparts:

> Aye! Now these days, the women are even overtaking the men. It is still as it always was with grownups taking it, there might be a few young people taking part. But these days, it is the women who are toping the charts. **(Male Resident, 30+)**

Farmers represent a third group distinguished by participants as consumers. This is not surprising given that the farming represents the major source of employment for the majority of men in the region. While the majority of farmers are men, farmers are coded as a distinct group of consumers due to the high number of mentions. It is also an established cultural tradition in the region for day labourers to be given *pito* as a reward in exchange for agricultural services and as a means of ensuring future service. However, key informants expressed concern over how day labourers are increasingly demanding *akpeteshie*:

> But here, when we have farmers...you know, we are all farmers. When we have farmers in the farm, we provide them with some *pito*. When they come, you would give them some *pito* so they can get up. And they are also fed. So they would get their energy from the drink and from food. But now you see them drinking alcohol on an empty stomach...with no food. Particularly the *akpeteshie*. They just wake up and drink it before farming without taking any food. (**Community Health Worker**)

5.2.2 *Pito* Users

Table 5.2 presents participants' description of *pito* consumers. While men, women, and farmers represent the most commonly identified consumers of the drink, participants described reasons for and the nature of consumption amongst each group as being relatively similar in nature.

Table 5.2

***Pito* Consumers**

Identified Consumer	All Respondents (n=95)		Focus Group Participants (n=88)		Key Informants (n=7)	
	Participants	Mentions	Participants	Mentions	Participants	Mentions
Men	14 (15%)	22	9 (10%)	12	5 (71%)	10
Farmers	10 (11%)	13	7 (8%)	10	3 (43%)	3
Women	8 (8%)	9	5 (6%)	6	3 (43%)	3
Young Man	5 (5%)	11	3 (3%)	4	2 (29%)	7
Children	3 (3%)	3	2 (2%)	2	1 (14%)	1
Young Woman	2 (2%)	6	0 (0%)	0	2 (29%)	6

As noted in the above description of *akpeteshie* consumers, men are common consumers and women are discussed as a strong emerging group of consumers. However, both men and women are discussed as equal consumers with regards to *pito* consumption:

> They all come here. Men and women. Even children. You know it is different. We all drink *pito* here. It is very low in alcohol; some of it even has zero alcohol. So that you don't get drunk. It is made for everyone, so that is why all of us, we take it. **(Alcohol Producer)**

Discussion of *pito* consumption amongst farmers upheld the traditional use of the drink as a reward given in exchange for labour. Farmers discussed being given

pito after working on farms that belonged to other village residents, including both kin and local elite.

> When you go and do work for someone. He will give you *pito* as a way of thanking you. It is also a way to tell you that they would like you to return when there is more work. So we take it not just to replenish our appetite and blood. (**Male Resident, 18-29**)

5.2.3 Reasons for Alcohol Use

Discussion surrounding reasons for consumption related to personal reasons or social reasons. Data was coded as a personal reason if individuals spoke of their own motivation for drinking or if they spoke of reasons for consumption on an individual scale. Social reasons for consumption are referred to as influences upon consumption that were discussed as emerging from the social environment of participants.

5.2.3.1 Personal Reasons for *Pito* Consumption

Table 5.3 illustrates the top three personal reasons for *pito* consumption. The nutritional/medical benefits of *pito* consumption receives the most mentions by all participants.

Table 5.3

Personal and Social Reasons for *Pito* Consumption

Reason	All Respondents (n=95)		Focus Group Participants (n=88)		Key Informants (n=7)	
	Participants	Mentions	Participants	Mentions	Participants	Mentions
Personal Reason	43(45%)	131	36(41%)	102	7(100%)	29
Nutrition/Medical	33(34%)	50(35%)	29(33%)	44(39%)	4(57%)	6 (21%)
More Control	19(20%)	27(19%)	16(18%)	22(20%)	3 (43%)	5 (17%)
Cost	13(14%)	21(15%)	10(11%)	17(15%)	3 (43%)	4 (14%)
Misc. Others	6 (6%)	33(30%)	4 (8%)	19(17%)	2 (29%)	14(48%)
Social Reason	44(46%)	126	38(43%)	91	6 (86%)	35
Socialisation	30(32%)	45(36%)	27(31%)	31(34%)	3 (43%)	14(40%)
Customs/Ceremony	27(28%)	36(29%)	23(26%)	30(33%)	4 (57%)	6 (17%)
Social Support	20(21%)	26(21%)	17(19%)	22(24%)	3 (43%)	4 (11%)
Misc. Others	5 (5%)	19(15%)	2 (2%)	8 (9%)	3 (43%)	11(31%)

Both focus group participants and key informants believe that, as opposed to *akpeteshie*, significant health benefits could be obtained through consumption of *pito*. Specifically, participants often mentioned *pito* consumption in conjunction with blood:

> *Akpeteshie* is very hard. But *pito* is not that hard. You can die from the consumption of *akpeteshie*; kill me quick...it drains the blood. But someone who is sick from shortage of blood can take *pito* to get back blood. **(Female Resident, 18-29)**

Although misuse of *pito* through intoxication is seldom mentioned, the use of the drink as a supplement for food is often expressed by focus group participants:

> If you bought me a bowl or a calabash full of *pito*, I could drink all of it right now just myself. It is because of hunger that I drink it. It fills you up. In this our area, it is hunger that makes us drink. There is no food here. But when I do just some small work and get money, I can easily afford the *pito* and it will satisfy me. (**Male Resident, 18-29**)

Key informants seldom mention *pito* as a nutritional supplement. However, the topic emerges within discussion with producers of the drink. Within this context, the belief in the nutritional value of *pito* is used as a selling point for the drink, providing an alternative to individuals who may have limited access to other sources of nutrition:

> We also consider it like food. It is very heavy and can stop you from being hungry very easily. People may come take some as a dinner instead of going and preparing food. There is nutrition in *pito*, it has good ingredients. Some also drink it to quench their thirst. It helps when it is warm and you are thirsty. (**Alcohol Producer**)

While both key informants and focus group participants drink *pito*, key informants seldom elaborate upon reasons for consumption beyond socialisation. Focus group participants often give several personal reasons for consuming *pito:*

> *Pito* is not good to get drunk. For me, it is just a source of drinking water to stop the thirst. Like, probably if something is bothering someone's mind and the person takes *ptio* to get over it...it will take them much *pito*. Or his blood is bad. Like in some ways of life, if there are some sicknesses they believe that this *pito* cures it. Or if I go to donate blood, I will then take *pito* to replace it. (**Female Resident, 30+**)

The above quote introduces the second personal reason given for *pito* consumption. Linking to the important role *pito* plays in socialization; focus group participants express the ability to control themselves because of the low alcohol content of the drink as a significant personal reason for *pito* consumption. It is

commonly understood that the alcohol content of *pito* is significantly lower than that of *akpeteshie*, which allows consumers to avoid social embarrassment:

> I can sit all day and drink *pito*. It is like food, I can take it and feel fine. But with *akpeteshie*, you can't take it all day. You can take one tot and be ruined. You might then go around and say things that are harmful or start fights. The *pito* is better; those of us who take *pito* are in more control of ourselves. (**Male Resident, 30+**)

The degree of personal control associated with *pito* consumption is also a strong reason given for consumption amongst those seen as occupying high positions within society where public embarrassment is to be avoided at all costs:

> Some get drunk and fall asleep, that is probably the most embarrassing. But that is not often. It is very hard to get drunk from *pito*. You need to drink many calabashes for this to happen and that is difficult because...you know it is heavy. It fills me up before I can get drunk and makes me content. (**Local Chief**)

Personal control is also a benefit to *pito* vendors, who commonly produce and sell the drink from their homes:

> I only sell *pito* and no other kind of alcohol. If they want to take beer or *apio* they have to go to a drinking spot. I don't want that here. This is also my home and I have children. I don't want them to see that here. People get angry and fight or they get rude or have sex when they drink the other stuff. I don't want that to happen with my children around. So I don't let them bring it. (**Alcohol Vendor**)

The relatively low cost of both *pito* and *akpeteshie* is an important personal reason for consumption discussed amongst participants. Both drinks are significantly lower in cost per volume than most other foreign or domestically produced beverages, including bottled soft drinks and beer. However, a difference

exists in perceived benefits of lower prices associated with each drink. This difference emerges when the value behind cost is discussed.

In line with the belief in its nutritional value, participants often associate the low cost of *pito* as a value added bonus. Individuals discuss their choice to consume *pito* primarily for both the personal and social reasons discussed in this chapter, with the cost of the drink acting to sweeten the brew. As an example, following their discussion of the nutritional benefits of *pito* a few participants go as far as saying that it was cheaper for them to nourish themselves on *pito* than it was to nourish themselves through purchasing food:

> Why, for some few *cedis*, should I go and by food at the market everyday. When for a few *peswas* I can get what I need from this (*pito*). It is faster too. I don't have to prepare it, it is already prepared you see. I can take food when I need to take it, but I don't need to take it all the time. Maybe some in the morning and then I can manage with a pot after work. (**Male Resident, 18-29**)

In contrast to the perceived value added associated with the low cost of *pito*, the low cost of *akpeteshie* is expressed as a primary personal reason for consumption. Table 5.4 illustrates that individuals use *akpteshie* primarily for coping, addiction, and socialisation. While cost is frequently discussed by all participants, the context within which it is talked about establishes the point that people consume *akpeteshie* because it is cheap. Many participants state that, if given a choice, they would rather drink something else:

> The people...we are poor. So you go and take a *tot*. It's very cheap and you just go and throw it in. It gives you the same effect as drinking a half a gallon of *pito*. But we cannot afford the *pito* and we cannot afford beer. So we are going for the cheapest thing that can give us power to act. (**Male Resident, 30+**)

Key informants also spoke to the economic benefits of *pito* sales in the region. In contrast with *akpeteshie*, which is typically brewed outside of the Upper West Region, *pito* production occurs at a very local scale. The production and purchasing of ingredients as well as distillation often occur within the same village. Key informants expressed a belief that this had a positive impact on the local economy by keeping the money within the area:

> When you go and buy *pito* from a woman, she takes the money and maybe goes to buy more corn from the farmer or buys clothing for her children from the woman. So it is good, the money stays in the regional economy (**Local Chief**)

In direct contrast to this point, key informants also express concern over the negative economic impact of *akpeteshie*. Since it is often imported into the region from southern parts of Ghana, the majority of the profits associated with the sale of *akpeteshie* to local residents does not stay in the region:

> A lot of money from the region is leaving. At least with the *pito*, the money stays in circulation. When a woman brews *pito*, you go to drink; she takes the money and goes to by some corn again. So the money stays within the region. In the case of *akpeteshie*, the money is moving out. So it is a more serious problem economically for the region. You can talk about, I think if you ever computed how much money leaves the Upper West Region from *akpeteshie*, its huge. Just huge. I wonder if there has ever been a study to find out how many drums of *akpeteshie* comes into the region in a month. And then try to estimate the cost of that. All of that money is leaving the region. (**Local Chief**)

5.2.3.2 Social Reasons for *Pito* Consumption

Both focus group participants and key informants frequently refer to *pito* as a customary social drink. Amongst focus group participants, 26% feel that the drink

plays a significant role in local customs. Given the fact that *pito* is a drink which is indigenous to the region, it is also mentioned by several individuals as having significant cultural importance within the Upper West Region:

> Okay, well *pito* is a mild alcohol. *Pito* is actually what we understand as a social drink in our custom, you know...commonly people drink it. Commonly people drink it, it has a more cultural value here. (**Local Chief**)

Participants also speak to the long-standing presence of *pito* within the Upper West Region. Elders often reflect upon the use of the drink throughout the history of the regional population. In their discussion of the historical significance of the drink, elders often speak to availability and use of local ingredients in producing the drink. As apposed to *akpeteshie*, ingredients for *pito* have long been available in the region, allowing the drink to embed itself into the culture of the region:

> *Pito* is engraved into our culture here. I mean, it is part of our traditions and customs. It is rare for you to go into a community and somebody says I don't take *pito*. Everybody takes it, it is like food. (**Male Elder**)

These customs include funerals, weddings, and other significant life events. Consumption of *pito* at these events was not restricted to just males. Women and children also consume at ceremonies:

> It is like she said, you can drink *pito* and still control yourself. So you will typically drink a pot at a wedding and be able to enjoy yourself. We often drink it at weddings in the village. (**Female Resident, 18-29**)

However, five of the seven key informants expressly state concern over the encroachment of *akpeteshie* into formal ceremonies where *pito* is traditionally the drink of choice:

> When they take it at the wrong time. Like it has come to replace all of those traditional practices that used to be associated with *pito.* I think that is misuse, because they will just hide behind the practice. It's not meant for that. **(Local Healthworker)**

Beyond its use in formal ceremony, *pito* is often referred to as customarily used within social support, where individuals often socialize together with family, friends, or other residents and share a pot over discussion of recent events:

> They just sit and talk to each other. They give advice and they debate on political issues too. Some people give farming help or they talk about how to take care of babies and children. Mostly it is always talking. They might finish working and come here to talk with others. Some come up to two times in one week. Some are here most of the day on Fridays in the afternoon and Saturday morning. Then on Sunday after church service you see many people come. If there is a market you will see many come too after the market. People from surrounding villages will come and talk with others and forget about time. Sometimes they will even miss the *tro tro*...that happens. **(Alcohol Producer)**

The drink is also used as medium for seeking social support, allowing individuals to question one another on issues that they may find more difficult to discuss within other circumstances:

> We talk about marriage, we talk about protecting one another. Things that are not talked about while working or at home with children. We talk about having a collective farming. When somebody wants to marry, what characters and features in the woman he should be looking for. We also help one another to manage finances. You don't use all of your money drinking *pito.* **(Male Resident, 18-29)**

5.2.3.3 Personal Reasons for *Akpeteshie* Consumption

Both key informants and focus group participants discuss personal reasons for akpeteshie consumption. However, it is important to note that not a single key

informant classify themselves as regular consumers of *akpeteshie*. Table 5.4 reveals the top four reasons participants believe are personal reasons for consumption of *akpeteshie*.

Table 5.4

Stated Personal and Social Reasons for *Akpeteshie* Consumption

Reason	All Respondents (n=95)		Focus Group Participants (n=88)		Key Informants (n=7)	
	Participants	Mentions	Participants	Mentions	Participants	Mentions
Personal Reason	47 (49%)	386	41 (47%)	280	6 (86%)	106
Cost	33 (35%)	90 (23%)	27 (31%)	68 (24%)	6 (86%)	22 (21%)
Coping	29 (30%)	81 (21%)	24 (27%)	55 (20%)	5 (71%)	26 (25%)
Addiction	26 (27%)	55 (14%)	21 (24%)	37 (13%)	5 (71%)	18 (17%)
With Friends	23 (24%)	50 (13%)	18 (20%)	44 (16%)	5 (71%)	6 (6%)
Misc. Others	36 (37%)	110 (28%)	33 (37%)	76 (27%)	3 (43%)	34 (32%)
Social Reason	41 (43%)	185	34 (39%)	108	7 (100%)	77
Farming	22 (23%)	36 (9%)	19 (22%)	32 (29%)	3 (43%)	4 (5%)
Changing Norms and Values	19 (20%)	46 (24%)	13 (15%)	17 (16%)	6 (85%)	29 (38%)
Easy Access	12 (13%)	20 (11%)	10 (11%)	12 (11%)	2 (29%)	8 (10%)
Funeral	11 (12%)	19 (10%)	6 (7%)	8 (7%)	5 (71%)	11 (14%)
Misc. Others	18 (19%)	64 (34%)	16 (18%)	39 (36%)	2 (29%)	25 (32%)

As mentioned previously, the relatively low cost of *akpeteshie* acts as a driver behind consumption of *akpeteshie*. Table 5.4 reveals that issues surrounding cost is the highest personal reason for consumption disused by both focus group participants (31%) and key informants (86%). It is also interesting to note that cost

is the personal reason discussed the most, with 90 individual mentions amongst all participants.

When discussing cost, individuals speak to the relatively low cost of *akpeteshie* compared to other alcoholic and non-alcoholic drinks in the region. While people may desire to consume other drinks, their choices are extremely limited given the financial difficulties faced by most individuals in the region:

> We the women, we drink *akpeteshie* and we drink *pito* and we drink beer too. And when we drink *akpeteshie* it is because we don't have the money to buy beer. So the little money we get, we use it to buy *akpeteshie.* (**Female Resident, 30+**)

Females within a focus group of *akpeteshie* users link low cost with increasing consumption amongst their peers. These women argue that because of lower rates of disposable incomes, women are restricted in their selection of leisure opportunities to the consumption of *akpeteshie.* According to this group, the restriction in selection is what is leading to both increased consumption amongst women as well as the observed increased tolerance for the drink:

> We drink more than men because our strength for buying beer is not as good compared to the men's strength. So we stick to *akpeteshie.* (**Female Resident, 18-29**)

The low cost involved with supply of the drink also acts to increase its availability within the region. Furthermore, the drink is typically taken straight and is seldom mixed with additional ingredients, eliminating the need for vendors to purchase a variety of mixers. Low overhead cost leads to a lower mark-up at the counter and a wider potential clientele base. Many vendors view *akpeteshie* as an easy way to make money:

> There is a cost element to it. *Akpeteshie* is more available because it is cheaper for the vendors to acquire. Also, a *tot* is enough to make someone feel high. So there is that cost element that is there. Of course beer is more expensive to sell and not as easily available. *Akpeteshie* is definitely cheaper and just for a little bit of it, not even a glass or a pint people are already satisfied with themselves and they go around and do whatever it is that they want to do. I think that is one of the problems, that it is cheaper and easily available. **(Local Chief)**

Financial strain is mixed with the high alcohol volume and low cost of *akpeteshie,* making the drink both the economically sensible choice employed by those seeking to cope with their troubles:

> We drink *apio* here because we don't have money to buy assorted drinks so when we get say 10 *peswas* we use it to buy alcohol because it is cheaper. We don't have money here so when you get say 10 *peswas*, you buy alcohol so as to ease away stress. If there is something you are thinking about and it is bothering you, when you buy *apio* and drink...you forget it **(Male Resident, 18-29)**

The above quote establishes the relationship between the low cost of *akpeteshie* as a reason for choosing the drink with the strong need for coping strategies felt by several of its consumers. Results of the focus group discussions and key informant interviews support the premise that the use of alcohol in order to reduce stress is explained as a result of the ability of alcohol to narrow perceptual and cognitive functioning (alcohol myopia).

This use of the drink as a coping mechanism is illustrated by the various names associated with consumption. Previous studies pointing to this aspect of *akpeteshie* consumption (Luginaah, 2009; Luginaah and Dakubo, 2003) are upheld within the current research:

> It is not a good drink. If they could drink beer, it would be better. Some of them call it kill me quick. Like they want to die

> because of the drink. They give it this name: kill me quick. You think that would scare the people away from it, you know the names...but people still drink it. (**Local Chief**)

With regards to coping, agricultural shortcomings in the rural areas of the region have both negative economic and psychological impacts on male farmers expected to provide for their families. These men often turn to *akpeteshie* consumption as a means of alleviating stressors that they believe, are beyond their control:

> The rains are not falling and there is no food in the house. How can I farm if I cannot grow? How can I provide? If I sell the millet that is in the house, me and my wife will fight. These are the problems that I need to forget. *Akpeteshie* helps me to do this (**Male Resident, 30+**)

All participants see the use of *akpeteshie* as a means of coping with economic stress acting as a driver towards alcoholism within a context of consistently low crop yields. Key informants tend to expand their discussion of the harmful effects of alcohol consumption as a coping strategy and alcoholism beyond impacts at the individual scale:

> Sometimes too, if you don't get a harvest. You will be stressed. It is not appropriate to go out begging. So what do you do? Farmers are finding it harder to grow now and cannot produce. So they don't feed their families. They start drinking the *apio* and become addicted and now they have even less money to feed the family. So it is not just one person that the drink is hurting. You feel like if you were dead it would be better than living in shame. So if you drink, you forget. But the moment you come back to normal, your problems come back. And so you need to go and drink again. (**Local Elder**)

Despite the fact that the majority of farming in the Upper West Region is done by men, women also feel the need to use *akpeteshie* in order to cope with stressors emerging from the physical environment. These stressors are typically discussed

within the context of poor economic gains due to low crop yields resulting in increased poverty. Migration of the male population often occurs as a means of subsidizing family income. As such, women are often left with a double burden with which they need temporary escape:

> Migration plays a big part in it. It is because of poverty. Because the men often go to the South for months to farm or mine and leave the women alone. So consumption is growing amongst the women. It is because of the same reason...poverty. (**Local Health Official**)

Young men mention the use of *akpeteshie* as a means of coping with and /or acting against their customary role they are expected to fulfil within society. They discuss taking the drinks to both forget the stresses they feel as well as to give them courage to act in ways which may not be held as acceptable by senior or elite members of their village:

> When I was drinking it, I used to take it and when I took it to my limit, I wouldn't shy off anything. I could just do whatever I wanted and go away without caring what elders said. I did whatever I liked. Like sometimes when you get a sense of something you are doing is bad and you don't want to sense it, you take *akpeteshie* and you wont sense it anymore. (**Male Resident, 18-29**)

Addiction is the third most frequently discussed personal reason for *akpeteshie* consumption. This reason is significantly by both key informants (86%) and focus group participants (47%). The cost of *akpeteshie* combined with strong desires for and limited access to coping strategies fuel addiction in the region. Alcohol addiction is explicitly associated with *akpeteshie* by all participants, with no single mention of *pito* and addiction:

> When we talk about alcoholics, I just mean *akpeteshie*. Those are the alcoholics here. (**Health Policymaker)**

Although not all consumers of *akpeteshie* are cited as addicts, it is agreed that those addicted to the drink represent the fastest growing and most visible group of drinkers. The root of alcoholism amongst residents is discussed within interviews. Within focus group participants, consumers and non-consumers both discuss addiction as resulting from the need to cope with everyday problems:

> A lot of people have become addicted to it. They feel that they must take it. Either out of frustration or other issues. Maybe they can't get money. Maybe he needs to take alcohol to forget about their sorrows or problems. It is addiction. If they don't take it, they can't rest. They are not peaceful. (**Female Resident, 30+**).

Consumption is found to be extremely high amongst older males in the region. When discussing reasons for consumption of *akpeteshie* amongst a group of older (40+) male adults, individuals speak to a loss of self worth and feelings of hopelessness. For these men, commonly held belief that their own death was imminent and unavoidable justifies consumption as a means of easing their troubles. Participants in this specific focus group respond to questions surrounding the negative health impacts of alcohol misuse with answers attempting to justify why it was acceptable for them to misuse alcohol yet were wary of consumption amongst younger members of the village:

> After 50 years, if you are taking *apio* you believe that you are almost at your grave anyway. So if you are dying it is no problem to take *akpeteshie* or do smoking. Before the age of 50, if you go to take *akpeteshie*, you are shortening your lifespan. You might not reach 70 before you go to your grave. When a youth is drinking and sees an elderly person, he will try and hide. But if a youth is taking it, it is not because he wants to drink it. He is just trying to shorten his lifespan. (**Male Resident, 30+**)

While focus group participants believe the source of addiction lies within the strong desire for coping amongst individuals in their communities (i.e. broader social influences), some key informants discuss the root of addiction as a personal problem that they relate strongly to individual choice:

> These are people whose constitutions are not very strong. They take the *apio* and end up as clear alcoholics. They are just too lazy to go and do something more productive with their time. So then they become patients and it costs the system money that should be spent elsewhere (**Health Official**)

5.2.3.4 Social Reasons for *Akpeteshie* Consumption

The social reasons for *akpeteshie* consumption discussed by participants differ substantially from those of *pito*. *Pito* is commonly discussed as a traditional drink in the area with broadly accepted usage during ceremony and for socialization. Unlike *akpeteshie,* the ways in which *pito* is consumed has not witnessed significant changes. In contrast, excessive social consumption of *akpeteshie* is often discussed as a problematic and relatively recent issue. While participants discuss gradually increasing consumption of the drink as occurring within the region over the past 50 years, they view the emergence of significant and widespread misuse as a problem of the past two decades. Table 5.4 lists the most frequently discussed social reasons for *akpeteshie* consumption. These reasons all point to factors emerging from within the social environment.

Twenty percent of participants express opinions surrounding the role of changing social norms and values as having a strong influence upon increasing consumption of *akpeteshie*. This factor is especially strong amongst key informants

(85%) who typically have spent a significant portion of their lives in the region. The positions of authority which they occupy allows them to gain a vantage point from which broader social changes are best observed:

> It is different now. Like me, I can't imagine drinking *akpeteshie*. I was brought up in a way as to view *akpeteshie* as not really good...Peer pressure is also a factor now. They read books or magazines or see programs with people drinking whisky or dry gin with lime, and they can't afford it. So they do it with *apio*. The youth are being exposed to more influences than I had when I was a young man. It is changing for the worst and *akpeteshie* has a big part of this. (**Local Elder**)

Youth within focus groups also discuss the impacts *akpeteshie* upon changing norms and values in the Upper West Region. As discussed previously, alcohol addiction has become a significant issue for older men in the area, which is directly impacting their lives:

> It is because it is taking all of our grandparents away. Some don't even take care of the education of their children. They use all they get to go and drink *akpeteshie* and at the end of the day, they die and leave the children behind. The child comes to ask the father for money and he tells him he doesn't have money. Meanwhile he is withholding it to go and drink. (**Female Resident, 18-29**)

Within the concept of changing norms and values as a social reason for *akpeteshie* consumption, participants express a decline in visible leadership within their communities. Increased *akpeteshie* consumption amongst youth and traditional abstainers is believed to be as resulting from consumption amongst elders, who are traditionally held as community leaders:

> Now you go to a village and you say 'where are all the elders'? The leadership is so difficult to put your hands on because of the alcohol. The alcohol, the akpeteshie, has really affected a lot of people at the level of leadership and they are no longer able to offer the right leadership to the younger generation.

> Alcohol is creating a situation in the villages of lack of leadership, lack of example from the elders. And therefore, you really are asking what will happen in the next few years. (**Health Official**)

A commonly cited result of unmitigated consumption, where drinking is allowed to become widely excessive, is a marked increase in public behaviours previously believed to be unacceptable. Residents discuss several of these behaviours, which are further elaborated in section 5.2.4. Within the context of changing norms and values, participants discuss the behaviour of consumers as inappropriate, yet did not know of a means through which they could be curtailed:

> But those who take *akpeteshie*, they cause more problems for us as a community. Like as I said, now even the women are now drinking *akpeteshie*. And you don't just go for the *apio*, you go there now for fighting and sexual things. People are now having sex within the village. You don't do this. But people must think it is now okay because nobody says anything. (**Male Resident, 30+**)

The above quote from an elder resident further exemplifies the changing cultural norms and values within the region, where it was previously unacceptable for an individual to have a relationship with someone from the same village. Reflecting the sense of losing control over regional values, key informants express the desire for control of the changing nature of *akpeteshie* use. However, many participants cannot agree upon the best approach to resolving the issue. Key informants are wary of taking on the responsibility themselves, fearing repercussions from residents:

> So the police normally have a lot of work with these people on market days. Go to the drinking spots and you will see it. The people will ask you to buy it for them because you are new and they will think you have money. You will see it. As a chief, I cannot go. Because when I go the people will start leaving the

> place. So maybe I should put my picture up in all the places to stop them. But I don't want to be like Big Brother. We can't do things like that around here anymore. The people would not accept it. (**Local Chief**)

Health policymakers recognise the social aspects of the problem. They continue to struggle with ways to resolve the issue, given the limited resources available to them (as discussed in Chapter 3):

> If one is taking *apio*...if it were socially unacceptable than we wouldn't have the problems with it. But it is accepted and increasingly so because more people are doing it. So the society allows it to happen and are encouraging it. Like at funerals and those things, there needs to be *apio* there. If it is not there, then it is not acceptable. So it is the society that is actually creating the risk. So part of it is that you need to change the social behaviours. (**Health Officer**)

Residents are conscious of the need to mitigate consumption of *akpeteshie*. However, they are also uncertain as to the best approach of doing so. Several ideas are often tossed around and quickly re-evaluated for fear of unwanted outcomes. In the end, many of these individuals decide that the problem is a community issue but are uncertain of the best resolution. The following three quotes represent a debate which occurred between two male residents over the issue of how to resolve the problem of *akpeteshie* misuse in their area:

> R1: I think the cost of it needs to be increased. If you increase the cost, it will be like the other drinks that nobody can afford and the addicts will stop drinking it.
>
> R2: I think education would be of great use. If you did the talks in the markets that would get a lot of people. I also think, like my friend here, increasing the cost might work. But do you think it would probably create other problems. Like if you increase the cost, the people who are the addicts will probably turn to another source for finding money. That might bring

> about rampant theft. So you are checking one vice and opening an avenue for another to come in.
>
> R1: So what needs to happen is that the community needs to take responsibility for *akpeteshie*. The government cannot be everywhere. Neither can the police. They cannot be in all the houses or drinking spots. But if we as a community become against it, and people no longer want it around, then it would stop. (**Male Residents, 30+**)

Elders are also cautious with regards to continuous and unmitigated abuse of the drink in the region. They use their knowledge of the past to express bleak forecasts of the future in their villages. They often link changing norms and values to increasing misuse of *akpeteshie* within ceremonies which they continue to hold sacred:

> Because, honestly speaking, in the next 15 years, if you come back you will see a big change for the worst and *akpeteshie* has a big part of this. Like now at things like funerals, baptisms, weddings...everywhere. If you don't have *akpeteshie*...forget it. This is wrong. When I was a child it wasn't like that. (**Local Elder**)

Consumption at funeral was mentioned several times by participants. Within a context where several funerals occur in the short time frames, the family is expected to provide for funeral celebrations, which can last for days and draw participants from various locations outside of the village. The presence of *akpeteshie* is spoken of as an expected offering to those in attendance. Traditionally, *pito* had been the drink served to guests at funerals. All in attendance, including youth, consumed the drink and mourners were encouraged to drink their fill. Presently, the custom of providing alcohol for mourners still stands and those in attendance still expect to have their fill. However, *akpeteshie* is now the standard with the lifting of the ban on *akpeteshie*

sale during funerals put in place during the Rawlings era in most of villages within the region:

> If you have a funeral and people come to sympathise with you, you have to provide drink as part of the ceremony. It's *apio* now that the people want. And the person is not buying, so he thinks that it is free. So whatever comes he will want to consume it. Even if he is satisfied and it comes, he will continue. He no longer needs what he is drinking, but he will consume it. That is an abuse. (**Male Resident, 18-29**)

The expected presence of *akpeteshie* at funerals emerges as a demand rooted within the social environment. Where previously *pito* had been the local drink of choice, *akpeteshie* has encroached upon the tradition. This demand not only extracts a physical toll on consumers, it is also discussed as having a negative economic upon those required to supply the drink. Pressure to acquire enough *akpeteshie* is magnified by several factors including the geographical isolation of the region and transportation issues, as well as the low overall net income of individuals in the region. Failure to supply at funerals is discussed as having potentially negative impacts on individual social ties, both with local residents as well as within one's own family:

> If you go to a funeral nowadays...even at funerals people demand it. If people come to a funeral and you give them *pito* without giving them *akpeteshie* they think you haven't given them anything. So you can see people coming home from the south for a funeral and they are carrying big drums or jerry cans of *akpeteshie* because people demand it. And if you don't give it to them you have a problem on your hands and even your own family feel that you should have to have a few bottles of *akpeteshie* to accompany the *pito*. So the problem of *akpeteshie* is becoming very serious actually. Very very serious. And it's causing a lot of problems. (**Local Chief**)

On par with increased consumption at funerals, participants also state that consumption of *akpeteshie* amongst farmers is high. This is somewhat expected as the majority of individuals in the region are engaged in agriculture. Therefore, an increase in overall consumption of *akpeteshie* in the region would necessitate an increase amongst farmers. However, what is discussed as surprising by participants is not the increase in consumption amongst this group after work, but the increase in demand for the drink as a reward for work. Farmers are often given alcohol as a reward for assisting on another farm. This transaction is also held as a symbol of the desire of the employer to further employ the individuals working for him. Customarily, the drink used within this exchange has been *pito*. However, key informants, who tended to be land owners and able to hire help; reveal that famers are increasingly requesting *akpeteshie*:

> Yesterday, I hired some farmers and that is what they wanted (*akpeteshie*). Both men and women. That is what they wanted to do work for me you see, so I had to give it to them. Usually they would just take *pito*. But they wanted *akpeteshie*. So that is what I had to give it to them. If that is what they want after farming for me, I have to give it to them. (**Local Chief**)

Farming in the area, which is often entirely relied upon by most residents of the Upper West Region as both the sole source of economic sustainment through crop sales and as a direct source of source of food, is both physically and mentally demanding. Consumption of *akpeteshie* is often expressed as a commonly understood means of acquiring the necessary energy for the job:

> We (farmers) treat it like it is an appetiser. Also, when you drink you get used to it and are able to take more. So you become very active and work hard when we drink *akpeteshie*. The landowners like it when we are active because we produce, so they give it to us. (**Local Resident**)

The above quote demonstrates a degree of urgency associated with farming. In the context of a highly gendered society, male farmers are pressured to provide for their families, working on both personal farms as well as hiring themselves out to other landowners. Therefore, the use of *akpeteshie* as an inexpensive meal supplement or energy source has become socially accepted amongst this group. New farmers are often encouraged to consume the drink by private landowners, who seek to maximise output. This social pressure placed upon farmers also fuels the use of the drink as a coping strategy when harvests do not meet the expected yields. While residents interviewed in focus groups tend to accept the use of alcohol as a meal supplement or energy source, many individual key informants do not agree with this choice:

> The farmers focus only on the mental component of the drink. It numbs the nerves so that you don't feel pain. So you think you are okay and don't feel pain. Like the people in Bolivia who eat the coco leaves to farm. It's the same thing. It dulls the nerves so that they don't feel pain and they can work. They think that it gives them energy. It doesn't. It takes energy away from their bodies and makes them weak at the end of the day so that they feel they need more. (**Health Official**)

Participants in both key informant interviews and focus group discussions reveal how *akpeteshie* is easily obtained by all residents. Ease of access is a factor contributing to consumption of the drink that emerges from the social environment, whereby the unrestricted and open availability of the *akpeteshie* encourages consumption amongst individuals who find it increasingly easy to obtain. Ease of access combines with free time and a small amount of disposable income amongst residents to encourage consumption:

> Because we see it. We see a lot of it, everybody knows where to go if you want some. Because they have a salary, they earn a salary so they can drink *akpeteshie*. And when they are also idling they drink *akpeteshie*. (**Female Resident, 18-29**)

Local chiefs discuss the branding of *akpeteshie* as problematic. In attempting to increase sales, vendors and distributors seek new ways of marketing the drink to consumers. Traditional packaging and measures are being replaced in order to encourage increasing rates of consumption:

> Right now you go to the villages and there are all kinds of brands of *akpeteshie*. It's not just in the drum and the bottle. And they give it all kinds of names. So there is a proliferation of all kinds of brew now, in all kinds of packaging. So you can buy a *tot*, even smaller than this and just PHEW, off I go. (**Local Chief**)

Access is also facilitated through non-conventional means of acquiring *akpeteshie*. Participants within a focus group of consumers discuss how they were able to acquire *akpeteshie* even when they did not have money:

> Some people will buy it on credit. If you are free with the retailer, if you know her. When you don't have money, she will give it to you. I know that this happens regularly. When you don't have money to buy, she will give it to you and you can come back and pay later. (**Male Resident, 30+**)

Key informants believe that the sale of alcohol should be regulated, starting with more strict regulations at the point of sale:

> I think we should regulate the type of people who should sell *akpeteshie*. It should be some particular type of people who should do it. Only adults should do it. If you go to an *akpeteshie* bar you can find a young child. Probably the woman's son or daughter. You can see this. And if you go there and there is a child working, well her peer group will come. And if they come, she will be happy to sell to them. You see, and probably they will all sit down and drink. But if you are an adult and a young fellow comes, you will at least try to find out the source of money that is coming in. (**Local Elder**)

5.2.4 Alcohol Use and Behaviour

This section continues to speak to the first objective of this thesis in describing the nature of alcohol use within the region. It explores the commonly discussed risky behaviours associated with consumption of *akpeteshie*. Discussed behaviours were coded as risky behaviours if they were known risk factors associated with the transmission of hepatitis, as discussed in Chapter 2. Subsequently, this section also provides a bridge between the first and second objectives of this thesis. Examining commonly cited behaviours associated with consumption of *akpeteshie* within the context of hepatitis etiology adds depth to the interpretation of perceptions of hepatitis held by residents. If we are able to draw links between what people discuss as commonly cited behaviours of *akpeteshie* drinkers with how people perceive the disease, it will deepen our understanding of hepatitis knowledge in the region. Table 5.5 presents the most frequently cited behaviours participants associated with *akpeteshie* misuse.

Table 5.5

Risky Behaviours of *Akpeteshie* Consumers

Behaviour	All Respondents (n=95)		Focus Group Participants (n=88)		Key Informants (n=7)	
	Participants	Mentions	Participants	Mentions	Participants	Mentions
Frequent Consumption	39 (41%)	76	34 (39%)	55	5 (71%)	21
Sexual Risk Taking	32 (34%)	64	26 (30%)	39	6 (86%)	26
Violence	25 (26%)	43	19 (22%)	31	6 (86%)	12
Theft/Barter	21 (22%)	36	16 (18%)	27	5 (71%)	9

Table 5.5 reveals that participants discuss that many of those who consumed *akpeteshie* do so frequently. Frequent alcohol consumption damages the liver, contributing to the potential manifestation of severe health problems such as liver cirrhosis and hepatitis. The visual manifestation of the impacts of *akpeteshie* consumption, are also discussed by participants when speaking about those who frequently consume the drink. Individuals deemed as frequent consumers are often not visually seen consuming the drink by participants, instead they are identified by the perceived physical traits which is seen in heavy drinkers:

> They don't behave the same way, or they don't look the same. Someone who drinks *akpeteshie* gets unhealthy hair, unhealthy cheeks, yellow eyes, and general body weakness. They get skinny and you can smell *apio* from them. (**Female Resident, 18-29**)

Frequent consumers themselves who speak to the dangers of consumption most often discuss immediate short-term negative impacts of intoxication without mentioning any potential long-term risks:

> When you are boozed you do things you regret and wished you never did drink. (**Female Resident, 30+**)

The immediate impacts of alcohol misuse also arose within key informant interviews. With the exception of those involved in the health field, key informants speak mostly to the more direct and visible short-term impacts of alcohol. Specifically, village elders and chiefs often discussed the behaviours of *akpeteshie* drinkers:

> There are serious health problems related to *akpeteshie*. If they are addicted to it and drink it frequently, it becomes difficult for them to live. And certain people, you can tell those that are addicted to it. They don't reason normally. They don't

> think before they speak to others. And that generates fights and other unhealthy behaviours. (**Local Elder**)

Sexual risk taking receives the second highest number of mentions amongst participants discussing common behaviours associated with *akpeteshie* misuse. Sexual risk taking is discussed by all participants (34%) as an act that is not socially acceptable, yet doing so under the influence of *akpeteshie* seems to provide somewhat of an excuse for the behaviour. Participants commonly blame the action not directly upon the individual, but upon the drink:

> When you take too much, you don't feel ok and it is too late because you have already taken too much. It causes you to start doing things abnormally. Before you realize it, you are on the street or on the floor. If you are a man, your prick can come out and you don't even know. People come to watch and you wouldn't even know. You could have sex and everyone could see you and you wouldn't even know. You could just undress your clothes and lying there naked and everyone is passing by looking at you. (**Male Resident, 18-29**)

Drinking spots are also linked with sexual risk taking, as the sites can be associated with prostitution. While the researcher never directly witnessed solicitation, local chiefs and elders express concern over the issue:

> They don't only sell akpeteshie; people go there for sexual. So again, that's another problem with the whole thing. The transmission of diseases like hepatitis happens through that. Allot of women who are now in our villages selling *akpeteshie* and young men and women go there. (**Local Chief**)

The high alcohol content of *akpeteshie* allows for intoxication to occur relatively faster than other drinks available in the region. When you combine this with malnourishment, several individuals find it difficult to remain sober after consuming small amounts of the drink. This was directly observed by the research team. Many individuals either loose consciousness at local drinking spots or on their way home.

This opens the door to dangerous sexual behaviours, including promiscuity and even rape:

> I will even tell you another incident in my area here. A woman was drunk from *apio* and on the way home she was lying down somewhere. Some men who were passing decided to have sex with her. The husband came, also a bit drunk and didn't know that it was his own wife and he went and had sex with all of them. Later when he was sober, he was made to understand that it was his wife. You understand? And he was really angry. These are facts. These sorts of thing happen. They were drunk and they didn't know what they were doing. The husband didn't even know that was his wife lying there, you know? That is what it does; these are the negative consequences of *akpeteshie* in the area. (**Local Chief**)

Violent behaviour is also a commonly cited characteristic of frequent *akpeteshie* consumers. Fighting at drinking spots or around them amongst men is talked about in terms of the alcohol taking over the person. In a context where altercations rarely move beyond the raising of voices, public displays of aggression are seldom witnessed. However, the use of alcohol as a coping strategy indicates drinkers tend to harbour a number of frustrations regarding their current situations. These frustrations boil to the surface during consumption, leading drinkers to be easily provoked:

> Fights, when people drink they are out of their senses. The least provocation will result in the levelling of blows. (**Male Resident, 30+**)

Domestic violence amongst family members also occurs as a result of consumption. Women discuss both being abused by husbands drunk on *apio* as well as using it to cope with abuse or gain courage to fight back. Female participants also talk about violence between parents and offspring, with younger drinkers acting out against parents:

> To add to that, if we have someone in the family (a child) who drinks alcohol too much, we can drive away the person from the family because more often than not young ones who drink too much alcohol, they will even sometimes fight their parents. They will push us or hit us and cause other children to fight. (**Female Resident, 30+**)

Theft and barter may not seem intuitively linked to the spread of hepatitis. Yet, when examined further within the context of *akpeteshie* misuse in the Upper West Region the links become apparent. Frequent customers of *akpeteshie* bars, who may often find themselves short on cash, will try and find alternative means to cover the cost of their drinking. This is found to involve drinking on credit, exchanging or bartering personal or trade related possessions, exchanges of agricultural products and produce, and theft. All of these factors act to reduce the amount of both financial and nutritional resources available to both individuals and their dependants. Over time, and with reduced nutritional intake, immune systems weaken resulting in increased susceptibility to disease. Families also find their options for recovery hampered by the financial impacts of *akpeteshie* consumption by the family head.

Although several drinking spots may be available within the same village, drinkers tend to stay loyal to certain spots. This trend was directly observed by the research team and was initially believed to be related to kinship amongst *akpeteshie* drinkers. However, following further observation it was discovered that another motive for fidelity to a specific drinking spot exists. Consumers stay loyal to a given spot not only to be amongst friends, but also do so to have their faces recognized by those working at the drinking spot. This is done with the aim of being able to obtain credit:

> If possible, you can develop credit. In communities like this, the communal life is too common. You are easily known. So if you go there on three or four occasions, it's like...know your customer. You can continue to go and just drink on your (expected) salary. (**Male Resident, 30+**)

When credit has ran dry or is no longer an option, those in need of a drink will begin to exchange personal property with vendors to acquire more alcohol:

> They are selling whatever they can lay their hands on, if it is free or they can dispose of it, then they are disposing of it Some even go to the extent of stealing, like the addicts in other systems will steal to go and by *wee*[10] or cocaine. That kind of practice is also becoming common. (**Local Chief**)

The desire for a continuous flow of *akpeteshie* is a driver in the reduced rates of agricultural output currently plaguing the region. Key informants are quick to discuss how farmers addicted to the drink will sacrifice various aspects of their trade in order to get their next drink:

> You have got to work with them and it is difficult. For example, you go and support a farmer. You plough for him, you give him seed, give him fertilizer. He sells the fertilizer to go and get *akpeteshie.* It's just like someone who is stealing to get cocaine or wee. He sells the fertilizer and at the end of the year there is no harvest. So it is really creating a lot of problems of people losing their self-respect and going around doing things that you wouldn't expect from a normal functioning human being. (**Local Chief**)

Heavy consumers will also exchange their produce directly with vendors. In an area where farming contributes to both the economic and nutritional subsistence of the family, this practice acts to directly remove food from the mouths of their families:

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[10] marijuana

> So now, whatever is produced they use it to buy *akpeteshie*. Someone can bring a few yam. He knows the value of it and so does the vendor. He will pretend like he is bringing a gift. Meanwhile, the two of them understand what it means. So if one batch of yam is costing ten Ghana *cedis*, he will come and drink and the woman will say that he gave me some yam and that he is a friend or a relative and I am giving him something. (**Male Resident, 18-29**)

Individuals who have exercised the options mentioned above may turn to theft as a last resort. Key informants discuss increasing theft within the region in relation to increased *akpeteshie* consumption:

> It could be a Guinea fowl or a cock. The two of them (vendor and consumer) know the value of it. The problem with this is that people will steal other people's property and give it out. Like somebody will come and catch another man's cock. Like my son or my brother will catch my cock. And they will go and sell it to drink *akpeteshie*. People steal goats and sell them to go and drink *akpeteshie*. These are some of the problems with *akpeteshie*. (**Local Elder**)

The need to control the sale of *akpeteshie* is talked about as a way to mitigate the behaviours associated with the drink. Legislation surrounding who should be allowed to consume the drink is expressed as a potential means of control. Participants express their desire for an age limit to be put in place in order to curtail consumption amongst youth, who are commonly perceived as those engaging in risky behaviour:

> I think there should be laws regulating the consumption. Now that it is open, anybody can go and buy (any type of) alcohol. Even the youth will go and take it. And when they take it, they often misbehave. They act carelessly and cause harm. They fight amongst themselves and do other things...they rape women and young girls. So it should be regulated. People of a young age should not be taking alcohol. That needs to be controlled. (**Female Resident, 18-29**)

The individualistic nature of *akpeteshie* consumption plays a role in the adoption of risky behaviour associated with consumption. As illustrated within the following quote, individuals who drink alone are more apt to act impulsively than those who drink within social environments:

> Most people that go for two fingers[11] take it quickly and either alone or with just one or two maybe other people. So when you get drunk by yourself you get more violent. When you drink together with others you don't get as angry. Maybe you think about troubles or you think that someone has cursed you and you go and fight with them. Or you think that someone has talked about you and you want to fight. Or you go and you want to rape a girl and you are alone so you just do it. But when you drink *pito* you don't get drunk as fast. And also there are other people around you, you know? So maybe they will talk you out of it and maybe you think more about embarrassing yourself or you don't want to leave your friend. Maybe your friend stops you. (**Male Resident, 18-29**)

5.3 Perceptions of Hepatitis

This section describes results relating to local perceptions of hepatitis held by adult residents of the Upper West Region. The section is divided into three main themes. The first examines residents' knowledge about hepatitis. The second section compares the level of hepatitis awareness held by residents to that of HIV/AIDS. The third theme examines sources of health knowledge held by residents.

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[11] A measure of *akpeteshie* roughly equivalent to 2 ounces.

5.3.1 Hepatitis Awareness

Hepatitis awareness in the region is extremely low, especially when compared to HIV/AIDS awareness. With the exception of key informants, the majority of respondents cannot provide any explanation of hepatitis beyond stating that they know it is some sort of disease. Of those who have heard of the disease, very few individuals are able to identify with certainty either how it affects the body or how the disease is spread. However, most participants are familiar with the symptoms of other diseases such as jaundice, yellow fever, or malaria.

Table 5.6 presents the top three transmission routes for hepatitis as identified by research participants. Of all the potential routes of hepatitis transmission, sexual intercourse or sexual contact is the most frequently identified. Amongst focus group participants, this key risk factor was the only one identified by over 50% of the total sample. All key informants identify sexual contact as a potential means of transmitting the disease. This is not surprising given that the majority of key informants, including both village chiefs, had received health training in the past.

Table 5.6

Awareness of Hepatitis B Epidemiology

Source of Disease Spreading	All Respondents (n=95)		Focus Group Participants (n=88)		Key Informants (n=7)	
	Participants	Mentions	Participants	Mentions	Participants	Mentions
Sexual Intercourse/Contact	56 (59%)	129	49 (56%)	110	7 (100%)	19
Sharing	41 (43%)	77	34 (39%)	55	7 (100%)	22
Misinformation	30 (32%)	41	29 (33%)	38	1(14%)	3
Prevalence	17 (18%)	24	12 (14%)	12	5 (71%)	12

Amongst focus group participants, 49 individuals (56%) speak to sexual intercourse or sexual contact as potential risk factor in hepatitis transmission. The one or two individuals within a focus group who initiate talk of sexual intercourse as a transmission risk often assumed that this was the case, yet were typically uncertain. While very few individuals were initially capable of describing the disease, many followed the lead of their peers within the focus group who were able to do so and automatically assumed sexual risk taking was involved in transmission:

> R2: It is probably through sex. Like the others...
>
> R1: As he said, it is through body fluids. Through maybe the saliva, through maybe your sweat, through sex, physically...
>
> R4: Among us, we make sure that there are no exchanges of fluids between you and anybody. All those activities that were said: kissing, sharing, sex, drinking... (**Male Residents, 18-29**)

Sexual contact is discussed by local health official as the most common route of transmission for the disease in the region:

> Hepatitis B is one of the sexually transmitted infections caused by a virus, a very highly contagious virus. It is spread commonly through sexual intercourse. It is also spread quite easily through sharing of sharps. Like razor blades or needles or tongs. It can even be passed through childbirth. But the major route of transmission in the region is through unprotected sex. (**Health Official**)

Key informants, who often hold a high degree of knowledge regarding the disease, associate alcohol consumption with transmission via specific behaviours. These individuals view growing alcohol misuse within the region as a significant contributor to the current hepatitis epidemic:

> Definitely we notice that there is an increase in consumption of alcohol and we think that when people consume alcohol...like in the villages you have certain situations where...I mean sex, which is also one of the routes for hepatitis transmission, is no longer a taboo in our culture. And the assumption is that when people drink like that they can easily engage in unprotected sex. And of course if there is hepatitis it will spread just like any other STD will spread. (**Local Chief**)

Going further to establish the relationship between *akpeteshie* consumption and the growing prevalence of hepatitis in the region, health workers speak to the abuse of alcohol as a direct precursor to hepatitis acquisition. In this case *akpeteshie* consumption not only leads to risky sexual behaviour, but also directly to hepatitis:

> It is also really bad for the immune system. Especially if you have hepatitis, it can destroy your liver. Or it can make you more susceptible to it. The inflammation of the liver, the long time effect that you can get when you are addicted is hepatitis. We see those who are addicted to it and they get the hepatitis in a few years. It is very likely that they will also have sex with other drinkers and pass it on. (**Health Official**)

Factors emerging from the social environment are commonly associated with disease transmission through risky sexual behaviour. Key informants speak to changing morals combined with unchanging belief systems and cultural traditions as contributing to the spread of the disease:

> The indirect courses (of hepatitis transmission) are the lifestyle behaviours, like alcohol use, and the belief systems that push us to do these kinds of things. It is the belief system that allows people to go for scarification.[12] It is the belief system that allows them to handle corpses in certain ways and other things like that. Another is the alcohol, you know the alcohol intake affects our sense of judgment and enables us to

[12] Scarification is a form of tribal marking, which is done at birth to identify people of the same ethnic group. It is preformed by community elders through scaring the face of a newborn with a razor blade. Scar size can range from one to several centimetres.

> engage in risky behaviour including unprotected sex. (**Health Policymaker**)

When asked about the cause of changing morality in the region, key informants discuss the diminishing presence/influence of community leaders combined with increasing external influences. These influences act directly upon younger residents, who harbour strong desires to mimic the lifestyles they see, but are limited in their options to do so:

> Plus things are more open in Ghana now because of the changing culture. Sex is more open in the news and on television. You can see it. We see our boys when the travel to Accra and come back here with things that they bring with them. They tell stories about girls and music and movies that they see and it is nothing special to them. The Nigerian movies that they play on the *tro tro* or that you can buy for cheap. They are full of promiscuity and so this becomes not an issue for people anymore. They see the sex and the fighting and the drinking and think that it is cool to do these things. (**Health Worker**)

Increased consumption amongst women is also linked to hepatitis spreading as a result of alcohol consumption. Male key informants often mention this phenomenon, attributing partial blame for the epidemic to the changing morals of female residents with little attention paid to that of the men:

> I think that alcohol plays a big role in the spreading of hepatitis. Because, let me tell you...I'm sure you've heard this. The women are drinking the *akpeteshie* now more than the men. Or at least just as much as the men. And you that know when it comes to accepted sexual behaviour in our context, the woman is supposed to be stronger than the man to be able to say no. But when the women drink alcohol they cannot say no as easily as if they would have been sober. So here is the case where the man and woman both take alcohol and it impairs their judgment. The two of them meet, they throw their cares to the wind. At that point in time they might be in a state where they have the desire to have sex but no in a state

> where they have the capacity to reason that what they are going to do is dangerous. And if they don't get HIV/AIDS, because it is harder to get, but they can easily get hepatitis if one of them has it **(Health Official)**

The act of communal sharing emerges as a perceived risk factor for the transmission of hepatitis. Individuals within focus group sessions typically discuss the sharing of utensils during meals or cups during consumption of alcohol as a means for hepatitis transmission. However, this transmission mode is typically mentioned as a result of further probing after discussion regarding sexual contact has ceased:

> R1: It would be from the calabashes we use in drinking *pito*.
>
> R2: Sometimes you go to a funeral and you share the same glass and you share the disease this way. Unknowingly. (**Male Residents, 30+**)

The belief that the virus can be transmitted by sharing and coming into contact with the saliva or blood of an infected individual is correct. However, focus group participants tend to hold misconceptions about transmission through these routes. When expressed, these partial-truths are often absorbed and reiterated by other members of the group:

> R1: Yes we have heard of it. Is someone has hepatitis and finishes eating food and he gives the rest to you and you also eat, if your blood groups are the same or the person has a wound and finishes bathing and you also use the same bath tools. If you have a wound too, if your blood groups are the same you will contract the disease.
>
> R2: It is like she said, if you are living with someone and your blood groups are the same and you do things in common like eating together or bathing with the same sponge, and you don't protect yourself, you will get it. If you have the same blood group the person will easily transmit the disease to you. (**Female Residents, 30+**)

Within the context of the social nature of alcohol consumption, the sharing of cups or calabashes is a traditional custom in the region. The sharing of drinks between two or more people was also noted during site observation by the research team. Key informants speak to the need for educating workers at drinking spots with regard to proper sanitation, including providing glasses for each individual as well as thorough cleaning:

> And the way we eat, our eating habits is another way in which the infection is spread. You know, you get to the *pito* bar and you realize that more than ten people use one calabash. Now maybe the first person that used that calabash for the drink is infected. So definitely, the other nine will also be infected. Like people tend to share the glasses for *akpeteshie* or *pito*. This is a big one. Those selling the drink need to be given education. They need to wash properly. They need to know that they are helping to spread the disease. They don't wash properly. **(Health Official)**

Key informants not involved with the health field also recognize the unsanitary aspects of drinking spots. The following quote demonstrates how both *akpeteshie* and *pito* drinking spots could risk factors in the spreading of the disease:

> They just put the containers in a bucket full of water and they sit for three or four hours selling *pito* and they use the same water. The water itself becomes very dirty and they may not change it. You are doing no washing, just contaminating the things. It is the same at the *akpeteshie* bars too. The funerals is the same. Somebody may go to sell *akpeteshie* and they bring very little water. They would use one glass for about ten people and pass it around. I think that would spread diseases. **(Local Elder)**

When pressed to further elaborate upon the contribution of *pito* versus *akpeteshie* within the spreading of hepatitis, the individual quoted above began speaking to the behavioural aspects of each drink. While they believe that sharing at

the drinking spots is a factor in both drinks, they argue that *akpeteshie* consumption was putting residents at a greater risk of acquiring the disease and that the risks associated with consumption of *pito* are restricted to the sharing of calabashes:

> *Pito* could help in the spread. But *pito* doesn't act like *akpeteshie*. *Pito* could help in the spread through the dirty calabashes. Somebody with hepatitis could drink from one and give it to the others drinking there. This is probably how it would contribute to the spread of hepatitis. (**Local Elder**)

A further behaviour related to sharing which is believed to be a significant risk factor for the transmission of the disease is the sharing of needles amongst injected drug users or the repeated use of needles in hospitals. One key informant mentioned infection through the sharing of needles, however this individual did not believe it was an issue in the country:

> For intravenous drug users, we don't have that here. I've never really seen that. Infection through contaminated needles, we don't have it in the hospitals. Infection through blood transfusion is also really rare. (**Health Official**)

When asked to describe how hepatitis is spread, several participants within focus group discussions are not able to describe a single factor contributing to the spread of the disease. Many participants confused hepatitis with either jaundice or yellow fever. Others either provided a factor that was not true, or attempted to come-up with a factor on the spot. Misinformation regarding the etiology of the disease was offered by 33% of focus group participants and only one key informant. Amongst focus group participants, the majority said that they had not heard of the disease, believing it to be new to the region:

> R1: That is the name of a disease, hepatitis b. I think it has to do with high blood pressure. It is a kind of heart disease, I know that.
>
> R2: hepatitis b...ummm...hepatitis b, I haven't heard of it. Because I have never heard of it, I cant say how it is like. I don't know how to get it. I don't have any idea about it.
>
> R3: We don't know how it is transmitted. I could not wager a guess.
>
> R2: Talking about his new diseases, we are not ready. We need to get ready for them before we can start talking. **(Male Respondents, 30+)**

Many residents believe that hepatitis is an airborne virus that can be spread between individuals of the same blood group:

> If two people are of the same blood group and one has it, the other will get it. So as I am sitting here, if our blood groups are the same you can give it to me. If you breathe into me, I can get it. Or when you go to do blood transfusion you can also get it because they don't check for it. (**Female Resident, 18-29**)

Focus group participants also offer poisoning as a major source of the epidemic. Both male and female participants discuss how diseases in the region are often the result of being poisoned by an individual wishing harm upon you or your family:

> I also want to say that it is transmitted by poison. Like if someone wants to hurt you they could poison your food or drink and give you a disease. (**Female Resident, 30+**)

Key informants discuss the belief that the disease is spread through poisoning as resulting from the lack of access to medical services and sources of health knowledge in the region. Specifically, they argue that the inability to provide preventative medicine and education in the region leads to the adoption of this belief:

> Well, the difficulty in the community is that people don't have the resources to link what we think is hepatitis from the medical point of view. They can't link it up with just an infection. Like in our community when someone has severe liver problems or jaundice, they think it's poisoning. That I have been poisoned. So the people in the community think that it is some people who are poisoning others, they don't link it up to the infection. (**Local Chief**)

Participants were also largely unable to speak to prevention and treatment of the disease. Those who do not know about immunization either believe that it could not be prevented or that it could be prevented using traditional healing methods. Prevention techniques and the result of acquiring the disease often raised debate amongst focus group participants:

> R1: If you take some medicines before, like some herbs I know that you wont get the disease.
>
> R2: No, you are wrong. I don't think you can stop it. Maybe there is a way where you come from (researcher), but not here. You will die if you get it. (**Male Residents, 18-29**)

When asked to describe the impacts of hepatitis, participants typically stated that they had either were uncertain or had never encountered someone with the disease:

> You know, we don't know. We don't understand it. We have never heard of the disease before. Could you please explain it to us? We have never heard about hepatitis b before. We don't know how we can detect someone with hepatitis b. Probably I am sitting here and might have it, but I don't know. (**Male Resident, 30+**)

Some residents who believe that they could speak to the disease, offer insight into the impacts of the disease which paint a very disparaging picture of those infected:

> It can kill you in just a day. It is a disease that cripples you. It can make part of your body useless and not working. You can hardly walk. (**Female Resident, 30+**)

Table 5.6 reveals that only 18% of all participants spoke to the prevalence of hepatitis in the region, with 13% of focus group participants and 71% of key informants addressing the issue. Amongst the 12 participants within focus group discussions who speak to prevalence of the disease, none of these individuals provide any insight beyond stating that they do not know the prevalence of the disease in the region. Of the five key informants able to provide some insight into prevalence, only one individual is able to provide a rough estimate:

> It would be about 25 percent and I would also say that it is more prevalent in certain areas. It is more prevalent in the urban areas than in the rural areas where they have few populations and smaller cottages and human interactions are less. It is also the younger people between 18 and 25. As for sex distribution, the females have a slighter higher prevalence than the males. (**Health Official**)

Health workers discuss the limited resources available to them as a reason for their inability to provide a measure of the number of people in the region with the disease:

> With hepatitis b, we have no lab here (at the village health clinic) whereby investigation can be done or the results can be found. So with hepatitis b, we don't do anything about it. We've never diagnosed anybody here. We send them elsewhere to Nadowli or Accra. With the results, we have to go there. To travel there. It takes a long time because we don't have a car and have to use the STC.[13] So we only go maybe every couple of months. (**Local Health Worker**)

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[13] State Transport Corporation: a bus line operated federally which travels throughout the country.

The limited resources available within rural areas in the Upper West Region not only places limits upon knowledge of prevalence in the region, limited resources also restrict the quality of diagnosis which health workers can provide to residents. In order to establish if they have the disease, rural residents are required to travel to central hospitals on their own initiative where full diagnosis can often require further travel:

> We haven't got a laboratory here where some of these things can be tested. So when the suspicion is there, the health workers here will refer them to Wa hospital where they do scanning and things of that nature to detect these things. (**Local Elder**)

Although the National Health Insurance Scheme does not cover hepatitis vaccination or treatment, increasing subscription to the service in the region is leading to a more accurate picture of the hepatitis epidemic:

> For hepatitis b, there is a high prevalence here. It has been increasing over the years. Those people that come in for clinical services, that is when we can diagnose them. But maybe some people can have it and they don't know because they don't come in for services. But with the health insurance, more people are coming in for other services and we are finding more and more (hepatitis patients) every week. (**Local Health Worker)**

When asked to discuss the high degree of misinformation amongst residents in the region, health officials comment that they are not surprised. They discuss the inability of the health system in the region to address the specific issue of hepatitis:

> I wouldn't be surprised that most people in the region have not heard about the disease. We have not openly talked about hepatitis b. That explains it. I think they just assume that boxed messages for diseases like HIV, if they get out then other diseases like hepatitis will be taken care of. Given what is coming out now, we might be compelled to single it out as a

> special case. In fact, I'm not surprised that people didn't know much about it. (**Health Official**)

Key informants link perceptions and knowledge to the increasing prevalence of the disease in the region. When asked to provide potential mitigation strategies, education regarding the specific nature of hepatitis emerges as a strong and realistic potential solution:

> I think that there needs to be a way to get the right information to people about hepatitis. Our people don't know about it. They need to know so that if somebody sees the signs and symptoms they will suspect the disease and it would speed up their travel to the hospital. But because they don't know they just think that they are having a cold or a sick stomach. If there could be some form of education to enlighten our people on the symptoms, effects, and mode of spread, this should be enough. It would make people more aware of the disease and probably they will try to avoid the spread. (**Local Elder**)

5.3.2 Hepatitis and HIV/AIDS

With an estimated prevalence rate falling between 1.8 and 2.2% (WHO, 2008), the presence of HIV/AIDS in the Upper West Region is significantly lower than the estimated prevalence of hepatitis provided by key informants. However, as revealed in Table 5.7, the topic of HIV/AIDS emerges frequently in interviews.

Focus group participants are quick to compare various aspects of hepatitis to HIV/AIDS. When asked to describe a hepatitis patient, many residents offer comparison to HIV/AIDS patients:

> The person looks unhealthy. They look lean and tired. Like and AIDS person. (**Female Resident, 18-29**)

Table 5.7

Hepatitis and HIV/AIDS

Hepatitis and HIV	All Respondents (n=95)		Focus Group Participants (n=88)		Key Informants (n=7)	
	Participants	Mentions	Participants	Mentions	Participants	Mentions
Compared to HIV	35 (37%)	56	29 (33%)	41	6 (85%)	15
Confused with HIV	14 (15%)	25	12 (14%)	19	2 (29%)	6
HIV Awareness	44 (46%)	60	37 (42%)	47	7 (100%)	13

In answering questions regarding how the disease is spread, participants compare the disease to HIV/AIDS:

> It is spread like HIV. Through sexual contact or through blood. These are the ways. It is just like HIV. (**Male Resident, 18-29**)

Key informants discuss how hepatitis is compared to HIV in order to emphasize the seriousness of the disease. In this sense, hepatitis is represented as an emerging disease relatively new to the region:

> It is not until recently that we are being told that hepatitis is a serious disease. That it is even like HIV/AIDS. That people should have to go for treatment. But lets be frank, it is only of late. (**Local Chief**)

HIV/AIDS also emerges in discussion with key informants with regards to efforts at controlling the spreading of disease in the region. Residents convey a sense of hopelessness in the face of increasing prevalence of diseases and decreasing capacity to mitigate the problem. They believe that if they act to protect themselves against one disease, they will most likely get another:

> But when you talk to people, they say 'all die be die'. It's like with HIV, they say 'all die be die'. They don't care whether they are dying from and accident or HIV or malaria or this

> hepatitis. It is all the same. They all close your eyes. When you are dead, your eyes are closed. So whether it is from HIV or hepatitis, it doesn't matter. So that makes it difficult to educate them to change their behaviour. (**Local Chief**)

Amongst focus group participants, all individuals were aware of HIV/AIDS. When asked to describe the disease, 42% were able to provide accurate descriptions of how the disease is spread as well as identify efforts at prevention in the region. This high awareness of HIV by residents is essential in the prevention of HIV/AIDS in the region. However, an increased emphasis on AIDS is having the detrimental affect of drawing the focus of residents away from other diseases, such as hepatitis:

> They say it is killing more than AIDS. That it kills faster. But people are not aware of that fact, people are more concerned about AIDS than hepatitis b. Boys will think that if you meet a girl and you know that she does not have AIDS, then it is okay. You can do what you want. They don't know that there are other things besides AIDS. That you need to be careful. (**Male Resident, 30+**)

Policymakers rationalize the directed emphasis on HIV/AIDS awareness as a means of achieving the highest impact with very limited resources. In this sense, it is articulated that other diseases will also be dealt with through HIV awareness campaigns:

> Hepatitis as a disease entity has not received as much attention as HIV/AIDS, TB, malaria and things for good reasons. I mean, it has not received much attention at all. Because the way the policy makers do things now...we contend that all the interventions put in place that we are preaching to protect people against HIV/AIDS also literally mitigate or lower the risk of getting hepatitis. So if you want to single out hepatitis you end up crowding the message. So that at the end of the day you might even lose the importance of it. It's like putting too much colour in a picture. It might end up getting very blurred. (**Health Official**)

The high level of awareness regarding HIV/AIDS amongst residents is also attributed to the large number of foreign non-governmental organizations in the region. These organizations, with a mandate to work within the realm of HIV/AIDS, often neglect to take other prominent diseases into consideration. While creating awareness of HIV/AIDS is extremely important, residents must also be made aware of other potential dangers so that they do not become overlooked:

> They (NGOs) talk about HIV and malaria all the time. They are always talking about it. We know that they are the deadliest diseases here. We know that these are the bad ones. They talk to us so much about malaria and HIV because it kills faster in the community and or than any other disease. (**Male Resident, 18-29**)

Local health officials express some dissatisfaction with the way in which NGOs educate residents. They typically view these organizations as acting with their own interests in mind and as ignorant with regards to the real problems of the area:

> NGOs, this is my personal view. NGOs they try to align themselves with the government policies. And then position themselves in areas that tend to be topical in such a way that they can get funding. Like with HIV. There is a lot of money out there. Excuse me to say that I don't feel very comfortable with the NGOs and forgive me, if you want my personal opinion; I think NGOs at the end of the day don't help the people. (**Health Official**)

5.4 Accessing health in the Upper West Region

This section examines factors that influence the ways in which residents of the Upper West Region access health. It examines the principal sources of health information, as well as the major limitations in accessing healthcare as discussed by participants. The goal of this section is to develop an understanding of the outlets

from which residents commonly gain health related information. If these can be discovered then future policy geared at controlling the hepatitis epidemic can harness these outlets. It is also important to examine perceived barriers to accessing healthcare in order for such policies to be fully effective. Table 5.8 illustrates the most commonly cited sources of health information residents spoke of during interviews. It is important to note that the table only describes formal sources of health knowledge. While residents may acquire health knowledge through informal means, such as with friends over a pot of *pito* or at a market, it was assumed that formal sources are the only ones that can be truly relied upon for accurate information and have the greatest potential to reach the broadest audience.

Table 5.8

Sources of Health Information

Source of Information	All Respondents (n=95)		Focus Group Participants (n=88)		Key Informants (n=7)	
	Participants	Mentions	Participants	Mentions	Participants	Mentions
School	30 (32%)	48	24 (27%)	31	6 (85%)	17
Radio	15 (16%)	27	11 (13%)	18	4 (57%)	9
NGO Presentations/ Publicatons	38 (40%)	61	32 (36%)	35	6 (85%)	26

Non-Government organizations are discussed as sources of health information by 40% of participants. NGO initiatives have been examined within this chapter; the point has been made that the majority of these initiatives are focused upon HIV/AIDS. While effectiveness of NGO initiatives cannot be disputed given the high degree of knowledge held by residents in the area with regards to HIV/AIDS, the

motivations and appropriateness of NGOs is questionable. Key informants discuss the presence of NGOs in the region with a degree of scrutiny. They often argue that the NGOs tend to be ignorant towards some of the major problems in the region:

> It is like they come here with some their own agendas. Some of them, like the ones that do the malaria work, they do good work. But that is because malaria is a big problem here. But do we need to have HIV everywhere? There are too many of them and I do not know the exact numbers, but I am sure there is more hepatitis than HIV. (**Health Official**)

Health education is part of the curriculum within schools in the region. This represents a key source of health information for several residents. Children attending schools receive the education directly. However, the information also reaches parents and other siblings who may not be in school. Furthermore, this information is typically accepted as accurate according to focus group participants. However, hepatitis education is not currently taught in schools, where issues perceived as more salient are focused upon:

> Presently, I have been in this district for long as a teacher, and on our curriculum we teach about HIV/AIDS. That is what is going on now. But with hepatitis, people haven't got any ideas about it, including myself. And so if you ask me to teach it...I can't do it. Another aspect is we talk about personal cleanliness. But hepatitis, the teachers themselves don't know how it is spread. So if you are talking about personal hygiene, you can get the children to understand that you should wash before you eat, you should wash your cup, you should not be sharing spoons and things of that nature. At least there is some personal hygiene, but not really anything about hepatitis. (**Local Elder**)

The radio and local radio stations such as Upper West Radio are also discussed by 13% of participants as a source of health information. Radio is used by the Government of Ghana to distribute public service announcements across the region.

While both radio and television are available in the region, focus group participants discuss radio as a more accessible medium. When asked, the majority (~80%) of participants owned a radio, while a smaller portion owned a television. While televisions were found in some drinking spots, most had a radio. Educational messages spread over the radio are believed to be more effective than those spread through print media, given the high degree of illiteracy in the region:

> Most people here listen to the radio. Myself, I cannot read so I get things from the radio. Like we come here and sit and listen and you learn or get updates. This is how I know. (**Male Resident, 30+**)

Table 5.9 describes factors contributing to the promulgation of hepatitis as identified by research participants.

Table 5.9

Barriers to Healthcare

Barrier	All Respondents (n=95)		Focus Group Participants (n=88)		Key Informants (n=7)	
	Participants	Mentions	Participants	Mentions	Participants	Mentions
Limited Access to National Health Insurance	35 (37%)	55	28 (31%)	32	7 (100%)	23
Limited Access to Treatment/Vaccines	27 (28%)	37	21 (24%)	26	6 (85%)	11
Limited Doctor Availability	16 (17%)	32	12 (14%)	16	4 (57%)	16

Limited access to national health insurance is discussed as a major barrier accessing health services, including hepatitis b vaccination. With the cost of national

health insurance at roughly ten *cedis* per year (7.45 Canadian Dollars), several people in the region cannot afford to cover their entire families on their own:

> We don't all have it (health insurance). We can't all afford that privilege. We don't have the money, we have the sense of obtaining it, but we don't have the money. Probably I have money to get it for myself, but I don't have money for my husband and my children. I can't insure myself while my children are not insured. (**Female Resident, 30+**)

Affordability and not lack of education regarding benefits of the program is discussed as the major barrier to acquiring health insurance in the region. Many participants, including key informants, state that they knew that insurance was important but that residents were not able to afford it. Furthermore, key informants argue that several of the serious problems affecting the region are not covered under the national health insurance scheme, lowering the usability of the programme in the region:

> We've educated them that they should pay for the health insurance which is just between 8 and 10 *cedis*. And now, because they have the health insurance they go willingly to the hospital. Because they know that they will have the treatment they need. But most of what we need here is not covered. I am told that hepatitis b is not free. It should be covered so that people will go and get it (vaccination). (**Local Chief**)

Even though hepatitis vaccinations are not included in the national health insurance, health officials recognize benefits of the program toward overcoming the epidemic. Infected individuals are often discovered at hospitals amongst residents covered by health insurance seeking treatment for insured illnesses. While this is as a small first step in dealing with the epidemic, health officials in the Upper West believe that more should be done:

> Those people that come in for clinical services, that is when we can diagnose them. But maybe some people can have it and they don't know because they don't come in for services. But with the health insurance, more people are coming in for services and we find more and more every week. I think that including the hepatitis vaccine in the health insurance would be really helpful. I think that maybe it is not as prevalent in the South and so maybe that is why it is not yet included. But if you included it maybe for just the people here in the Upper West, it would be very helpful. That way those who have it could also be helped for sometime. (**Local Health Worker**)

Residents within focus group discussions also discuss lack of health insurance as a barrier to seeking medical attention at hospitals. While an estimated 80% of individuals in the region have insurance, the majority of rural residents state that they did not. This may indicate a rural-urban disparity in coverage. Residents in rural areas expressed that they would often delay seeking treatment of a potential sickness due to their inability to pay the cost at the hospital:

> A lot of us have not got health insurance. So if the government could help us to finance getting the health insurance, that would be good in preventing it. Sometimes you want to go to the hospital to check your health status, but because you don't have money you just sit back at home with a disease. (**Female Resident, 18-29**)

Not having vaccinations covered under health insurance places limits on who can get vaccinated:

> Yes, I hear there is treatment available in the region. I hear that they do it at the Nandom hospital and that a vaccination costs 17 or 20 Ghana *cedis* for one and that you need three. So, most of the patients in this area cannot afford that. It is too expensive. Sixty Ghana *cedis* for a common man, for a farmer, it is a significant amount. (**Local Chief**)

Geographical barriers to accessing treatment centres is also a limiting factor preventing residents in the region from acquiring healthcare. With the major

hospital in the region located in Wa, most villages rely on small and underequipped health centres for treatment. Participants discussed having to travel to either Wa or Jirapa in order to seek treatment for illness or medical emergencies such as broken bones. These travels were often an out-of-pocket expense, which many residents find difficult to cover. Travel itself can also be difficult, with many roads impassable during the rainy season:

> My brother had broken his arm and could not get to the hospital. We couldn't travel there so we had to go and see a traditional healer. The bone was set wrong and he still suffers from it to this day. (**Male Resident, 18-29**)

The region also has disproportionate doctor-patient ratio, with one doctor available for every 45, 000 people. This has two detrimental impacts on accessing healthcare in the region. The first being that the small number of doctors makes finding one a difficult task. If a doctor can be found, they may not even be trained to deal with the particular problem, require the search to recommence:

> So when you get to a health facility with this problem, maybe the doctor does not know what to do. Or maybe the doctor is not even there. You can travel to a facility and find that the doctor is gone to some place for a funeral or has travelled for another reason and there is no doctor. The patient has a problem that cannot be handled by the nurses. Maybe they have to be referred somewhere else. This travel is not covered. Now the nearest district hospital might not have a doctor available either. So with the number of doctors being so little, sometimes the patient dies on the way to another region. This is a common problem. (**Health Official**)

The second problem created by a shortage of doctors is a reduction in the type of health initiatives that can be undertaken. With most doctors engaged in strictly curative medicine, they cannot afford to spend any of their time on preventative efforts:

> You see in the region, we have so many health related problems that require immediate attention that we cannot deal with them all. Like with the doctor shortage and the malaria...the treatment takes up all the time. So these are big problems which are very time consuming for the few of us that are here. And what is happening is that the smaller problems are not attended to and they are also transforming into big problems. (**Health Official**)

Even those who are not involved in the health field view the doctor shortage as a barrier to initiative preventative medicine in the region. Furthermore, the limited doctor availability acts as a disincentive when it comes to seeking treatment:

> Our hospitals have fewer doctors and nurses; the role they play is minimal. They are inundated by diseases and are not able to cope. Nationally, the curative is too much. Most people will go to the clinics; they won't go to the hospitals because the quality of the services are poor. You go there and there is only one doctor in the whole big place. You wont go unless it is critical. (**Local Chief**)

When discussing the doctor shortage in the region, key informants within the health field provide very candid opinions on what the issues are. They discuss the underdevelopment of the region and the lack of incentives as primary detractors:

> This is the last region to have been created. As a result it is the most removed and the most deprived. I mean look at the roads. Everything in Ghana happens in Accra. It takes about ten hours to get to Accra. Here broadband Internet is unreliable, good schools are not here, good shops are not here, the telephone is unreliable. Even a place to go and do something else, they are not here. This is a disincentive. And secondly, if a doctor is here and he is not on duty. He doesn't have any place to go and do other jobs and get other income. All he can do is sit in his house. Also, the life here is so slow. Anything that happens in Accra, by the time it reaches here it is about two weeks old. If you are here, by the time you go back to Accra, you are so stale. Most of the big things tend to happen in the city. If a doctor is here with a child, he has no good schools to send his child to. You have a right to sacrifice yourself, you know. I can be a missionary; I can sacrifice my

> life to be here. But I don't have the moral right to sacrifice the future of my child. (**Health Official**)

Unequal development with the South emerges in discussions about the doctor shortage in the region. When salary is equal, there are virtually no incentives for a doctor to work in the Upper West. When a doctor is stationed in the region, and if they decide to meet their mandate, they are also faced with limited resources within their practice:

> The salary for the doctors here is the same for the doctors anywhere in the country but the doctors here work twenty four seven. When you go to the hospital and look at the doctors, they are alone and they work everyday all day. He is alone, when he runs into a problem, there is nobody to consult. And the equipment are obsolete. The building was built before the independence. The table he is operating on is older than him. The working conditions are really bad. The support services are obsolete. He can't even request for reliable laboratory assistance. Working in the Upper West Region is like sailing in the dark without a compass for a doctor. (**Health Worker**)

Health officials also speak to a lack of career incentive as a factor in the doctor shortage. Many feel that being stationed in the Upper West Region is a dead end. They feel that once they have agreed to work in the region they are forgotten:

> There is no career incentive to come and work here either. When a doctor agrees to come and work in the Upper West, they just forget about him. By the time he realizes that there are opportunities for him to go and do other things they have already given the position to someone in Accra. They forget about you. So if I want to develop myself, I should just stay in the south and develop myself. When you are here and you sacrifice, there is no reward for it. Other words, nobody has never sat down and said this doctor has been in the Upper West for this number of years so lets call him and ask him what he wants to do. Nobody does that. The salary is absolutely nothing and you don't improve. Even the living conditions are very poor. You can go around and see the

> doctors where they are staying; it is very bad as well. (**Health Official**)

Participants expressed a few potential options which they believed would best solve the issue of doctor shortages in the region. While increasing salary for those working in the Upper West is the most obvious, other incentives related to career advancement are also viewed as pull factors:

> I think there also needs to be some incentives. But it cannot be just one incentive. It has to be both based on money and on values. You need a combination of monetary incentive and a clear package of career development. Another alternative would be to get the professionals. If you have a gynaecologist, an eye surgeon and a paediatrician here, you can now handle the doctors. Because they want to learn how to do a particular operation or a certain method. So if you bring some experts here, they will run after them. (**Local Elder**)

5.5 Linking Hepatitis and *Akpeteshie*

The main purpose of this section is to address the remaining objective of this thesis:

> To examine the links between alcohol use and the spread of hepatitis b, and to investigate the structural processes that underwrite these associations.

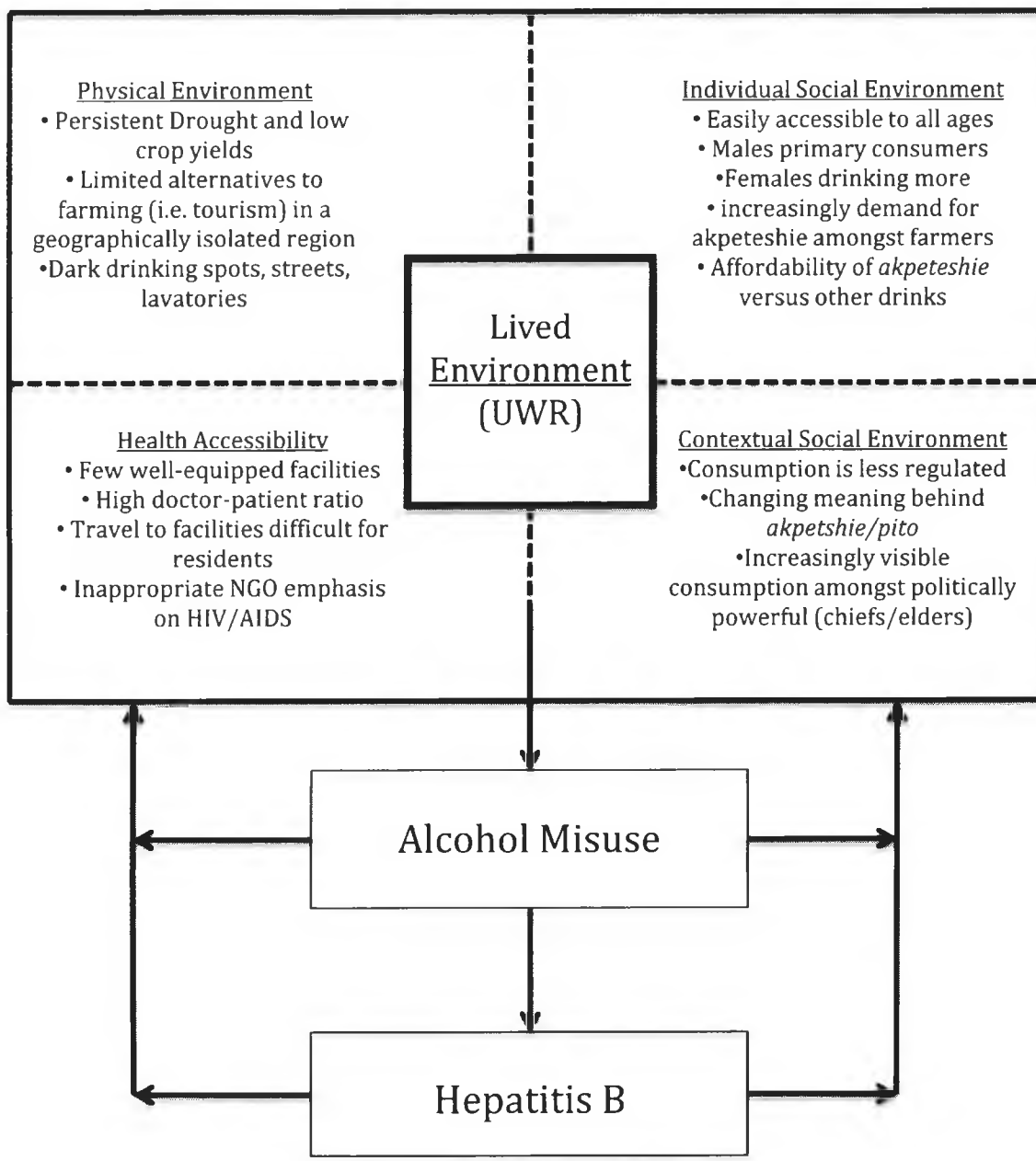
To do so, the information revealed in the previous sections are re-interpreted within the proposed theoretical framework, with discussion centred upon factors from each of the components of the embodied political ecologies framework. Figure 5.1 reveals that broader characteristics of both physical and social environments of the Upper West region contribute to the formation of a lived environment that is conducive to alcohol misuse and hepatitis acquisition. That is, the tendency for

residents of this region to engage in harmful or risky health behaviours (e.g., alcohol misuse, unsafe sex, etc) is overwhelmingly reflective of the poor quality of their lived environments, both physical and social. Characteristics of the lived environment are embodied by several residents, visibly manifesting themselves upon individual bodies through alcohol misuse and subsequent disease acquisition.

However, understanding the pathways through which these environments shape health behaviours, and ultimately health status, are not easy to trace. The links between *akpeteshie* and hepatitis are discussed as being direct and indirect. In view of the identified risk factors associated with the spreading of hepatitis b (Section 2.1.1), respondents identified direct links exist between the misuse of *akpeteshie* and the growing presence of hepatitis in the region. Direct links refer to the behaviours that may subject an individual to increased risk of acquiring or spreading hepatitis b. These include: frequent consumption, sexual risk taking and violence, as well as sharing of unsanitary drinking apparatuses. Engaging in any or all of these behaviours places the individual at risk of acquiring hepatitis b through weakening of the immune system and/or direct exposure to the virus. Perhaps less easy to understand are the indirect links; these refer to distal factors that drive an individual to engage in direct links. Such factors are relate to the quality of the local social and physical environments (e.g., drought, poverty, changing social norms); these larger social and physical environmental factors indirectly place individuals at a higher likelihood of unknowingly or unintentionally engaging in risks associated with or being exposed to hepatitis.

Figure 5.1

Embodied Political Ecologies of Health: Linking Hepatitis & *Akpeteshie*



5.5.1 Linking Hepatitis & *Akpeteshie* – The Physical Environment

Within the physical environment, three main factors underwrite the relationship between hepatitis b and *akpeteshie*. These are: poor environmental conditions, geographical isolation, and built environments facilitating risky behaviours.

Poor environmental conditions combine with a high dependency on agriculture indirectly linking the physical environment with *akpeteshie* misuse and hepatitis. As described in Section 3.1.2, farming is the listed occupation for 72.2% of economically active residents in the Upper West Region. As such, environmental problems have wide spread consequences for the economic opportunities for many. Farmers and key informants discuss the increasing frequency and severity of drought in the region as a primary cause of anxiety and depression. Low crop yields do not only have negative economic impacts, they also negatively affect self esteem as farmers are unable to meet social and economic expectations, This leads to increased stress, which can cause tension both inside and outside of the home. *akpeteshie* offers a cheap means for farmers to temporarily forget these troubles. As environmental problems persist or worsen, it is expected that farmers will spend less time in the field and more time idling at local drinking spots. Efforts at introducing drought resistant crops and more environmentally sound farming techniques are present in the region. However, debates at the administrative level about subsidy cost and disagreements regarding the effectiveness of various approaches make adoption of these strategies difficult.

Geographical isolation also indirectly contributes to the relationship between *akpeteshie* misuse and hepatitis in the Upper West Region. The limited varieties of crops that can be grown as well as the lack of mineral resources in the region are two factors that have contributed to the underdevelopment of the Upper West. Historically, colonial administration perceived the region to have little profit potential, and it was not until recent times that the government began to develop infrastructure initiatives (e.g. paving roads). With little to offer in the way of natural attractions, the region also receives significantly less tourism than do neighbouring regions. Travel within the region is difficult, as many of the dirt roads can easily become impassable. As such, the isolated physical environment limits the employment opportunities available to residents choosing to stay in the Upper West. Many participants discuss how farming has been the way of life for generations of their family, and could not identify any other viable means of generating income. This leads to the perception that few options exist in terms of lifestyle choices, creating an attitude of indifference amongst many residents.

Characteristics of the built environment facilitating risky behaviours represents the third physical environmental factor. Participants discuss sexual risk taking (e.g., including unprotected sex, rape) and violence to frequently occur amongst those engaging in *akpeteshie* consumption. These behaviours tend to be related to binge drinking. Within the rural study sites, condoms were only found to be openly accessible at the local health facilities. While some shops offer condoms for purchase if requested, participants state that they are often hesitant to purchase them from a local vendor. These condoms may be of poor quality, and individuals noted a fear

that vendors might talk to other village residents about their purchase. Furthermore, health facilities and most vendors typically close in the early evening, whereas binge drinking often occurs at night. The drinking spots themselves do not offer condoms for sale, nor do they typically offer a safe environment for consumption. A typical drinking spot in the study sites tends to have loud music playing and is usually not very well illuminated. They are usually enclosed, concealing them from the public view and lavatories are usually detached from the main area. As such, there are several areas within the environment of the drinking spot where sexual risk or sexual violence can occur.

With regard to violence amongst consumers, security at drinking spots does not exist. Usually one or two women responsible for serving food and drink staff the site of consumption. Police and ambulance do not regularly patrol these areas, leaving violent breakouts un-policed. Fighting can lead to bloodshed, which has the potential to infect those involved as well as those assisting the in the aftermath. As noted by respondents, it is doubtful that proper cleaning methods are used to sanitize affected areas if/when bloodshed does occur, potentially leaving traces of the virus on surfaces for several days after the incident.

5.5.2 Linking Hepatitis & *Akpeteshie* – Heath Accessibility

Participants discuss several barriers limiting health accessibility in the Upper West Region. These underwrite the low degree of awareness about hepatitis amongst residents, their ability to assess their status and seek treatment or prevention, as well as fostering an ignorance regarding the dangers of alcohol

misuse and subsequent behaviours. These indirect factors can combine to cause a higher risk of disease uptake amongst individual residents.

As discussed in Section 3.1.2 and 5.4, the region currently faces a large doctor shortage. This shortage is due to the unwillingness of doctors to work in the region. Participants also mention that a number of disincentives are present within the Upper West Region. The underdevelopment of the region leads to doctors not wanting to bring their families into an environment where they will not have the same social, economic and health opportunities as elsewhere. Furthermore, the region offers little prospective for doctors to advance their careers. There are no specialists to learn from and no major opportunities to advance beyond the position of a general physician. Hospitals themselves are also tremendously under-equipped. Key informants in the medical field state that the majority of health facilities in the region are often lacking basic medical instruments such as x-ray machines. Doctors in the Upper West Region are forced to work long hours as a means of compensating for the shortage. The current doctor shortage perpetuates itself, with little hope for cessation beyond large-scale government intervention. This pressure significantly reduces the capacity of the healthcare system promote preventative medicine (e.g. safe sexual intercourse), as health workers struggle to address the consequences of salient disease outcomes, (i.e., malaria). The emphasis on curative medicine means that virtually no resources are available for hepatitis education.

In addition, the sparse location of health facilities restricts the ability of residents to seek treatment. While many of the villages in the Upper West region have a health facility, these tend to be very basic facilities. Major hospitals are

located in Nandom or Wa. This means that a significant portion of residents must travel long distances in order to receive anything but very basic treatment. As travel can be costly, many residents state that they are unwilling to travel to a major health facility unless it is an emergency, and in some cases not at all. Because of these pressures on the health providers, diseases such as hepatitis are often overlooked and distal health behaviours (e.g. alcohol consumption) are not seen as 'legitimate' health concerns. Finally, despite the fact that many residents subscribe to the National Health Insurance Scheme, several residents pay for health expenses out of pocket. The cost of receiving the hepatitis vaccination is not covered by the program. At a cost of roughly 60 *cedis*, plus the required travel expenses and cost of testing to determine status, many residents of the Upper West Region cannot access this treatment.

5.5.3 Linking Hepatitis & Alcohol Misuse – Individual Social Environment

Factors within the individual social environment also play a major role within the relationship between *akpeteshie* misuse and the spread of hepatitis b in the Upper West Region; these include age, gender, economic status and education. Although youth do consume alcohol in the region, misuse of *akpeteshie* by youth was not observed in this study.

Gender influences consumption in several ways. Firstly, males continue to consume *akpeteshie* openly with few social stigmas. Males are typical consumers of *akpeteshie*, and often represent the vast majority of patrons at drinking spots. Yet participants note increasing consumption amongst females, despite the lack of

female presence at drinking spots. This indicates that women drink either in hiding or choose to capitalize upon times where drinking is socially acceptable, such as at funerals. Whether the increasing rate of consumption amongst females is due to net increased consumption or an increase visible consumption remains an important question. Secondly, males in the region have higher amounts of disposable income than women, thereby providing opportunity to consume greater amounts of alcohol. Increased consumption amongst women may be linked to small increases in disposable income for some. However, it may also be linked to decreases in income amongst women in the region, which creates the need for coping strategies. Thirdly, gender influences reasons for *akpeteshie* misuse. Men and women both typically stated that they drank *akpeteshie* in order to forget their troubles or provide them with courage. Men also further stated drink *akpeteshie* for the perceived nutritional benefits. Drinking in the morning before farming was discussed as a way to help soothe the body.

The link between economic status and consumption seems like an obvious relationship - the more money one has, the more they can consume. However, misuse of *akpeteshie* in the Upper West Region seems to occur within a specific income range. Frequent consumers of *akpeteshie* state that if they could afford to consume other drinks (e.g. formally produced domestic or imported beer) they would. This claim was supported through site-observation, wherein many higher income individuals were observed to consume beer or other non-domestic spirits. Economic status also impacts the degree to which an individual engages in theft or bartering for drinks.

With regards to hepatitis and the individual social environment, the factors noted above also play a pivotal role. Age affects not only how susceptible a person is to hepatitis, but also how quickly they can recover. Age also influences awareness of the disease, with younger residents having more opportunities for educating themselves through school. Furthermore, younger residents are more likely potentially acquire hepatitis vaccinations as a result of recent government in-school initiatives. However, it is important to note that youth unable to attend school may not receive the required doses. Older residents are more probable of falling into the "all die be die" mindset, which causes them to become uninterested in health issues.

5.5.4 Linking Hepatitis & Alcohol Misuse – Contextual Social Environment

Within the contextual social environment there are a number of direct and indirect factors that link *akpeteshie* and hepatitis. Factors most commonly discussed by participants include: changing cultural practices, limited opportunities for decision making, and decreasing political power.

Consumption of alcohol is embedded within the cultural practices of residents in the Upper West Region, whether consumed for traditional or social reasons. More recently, however, the cultural practices concerning alcohol consumption have changed due to increasing influence from external factors such as Western popular culture. Depictions of alcohol in popular media have led to changing patterns and styles of *akpeteshie* consumption. While frequent intoxication was discussed by participants as culturally unacceptable in the region, participants struggled to explain who was responsible for controlling this. Blame is most often placed upon

the individual, and direct family members are cited as sources of intervention. Beyond this, residents state that it is not their place to attempt to limit another's consumption. Given that most consumers do not drink with family members, intoxication is often overlooked.

The consumption of *akpeteshie* at funerals is described as a time when intoxication and the behaviours associated with it are rampant. Concern over the availability of *akpeteshie* at funerals leads some participants to express a desire for the drink to be banned during these events. The demand for *akpeteshie* at funerals also places an economic strain upon the hosts, who are required to provide enough for all those in attendance. Respondents indicated that the provision of copious amounts of alcohol at funerals can lead to misuse, including binge drinking.

Consumers of the drink who may not be frequent consumers or binge drinkers also face a direct risk of acquiring Hepatitis through the sharing of unsanitary drinking utensils. The virus can live on surfaces, including drinking glasses, for extended periods. Although the sharing of drinking utensils occurs more frequently amongst *pito* drinkers, it does also happen amongst *akpeteshie* consumers. Transmission could occur if an infected individual with bleeding gums or lips were to share a drink or if an individual were to drink from a glass that had not been properly washed and previously used by an infected individual with bleeding gums or lips.

Frequent consumption of *akpeteshie*, which severely damages the liver and places individuals at high risk of developing hepatitis, is often the result of a strong desire for coping outlets amongst consumers who are faced with mounting

economic and family worries and have little resources available through which these worries can be dealt with. Whether they claim to be addicted or not, frequent consumers of the drink typically seek *akpeteshie* at least once a day. The frequent intake of a highly potent alcoholic substance acts to weaken the liver, significantly increasing the chances for the development of liver cirrhosis or alcoholic hepatitis, as well as reducing the liver's ability to fend off hepatitis b.

Traditionally, local chiefs and elders had the power to intervene. These individuals held a high degree of political power and were often viewed as positive role models by younger residents. Focus group participants discuss this as still being the case, and often cite local elders amongst those they look up to. However, the visibility of elders and the degree of political power they hold in the villages is decreasing. Key informants mention how many elders in their village are no longer willing to engage with the youth, choosing instead to frequent *akpeteshie* bars. Problematic trends of increasing consumption amongst elders not only has health consequences for the individual elder, but also has the potential to negatively impact younger residents looking towards these individuals for guidance. The status of elderhood, which was typically a common goal for youth in the region, is now in question. Participants expressed that elders were often found drinking *akpeteshie* and that the money they used for the drink should be put towards other things which could benefit their families or the community as a whole. Questions surrounding what it now means to be an elder were raised during focus groups, with participants citing that elderhood is a position that should be earned. In short, the diminishing social role of elders as community leaders is acting to both increase

overall consumption in the region as well as eroding traditional restraints upon alcohol misuse.

The high degree of misuse in the region is motivated by the limited opportunities available to residents. As many struggle with agricultural problems contributing to overall poverty and feelings of low self esteem, no viable means for either emerging from poverty or coping with problems are apparent to residents. As such, *akpeteshie* becomes a coveted substance due to its ability to provide an inexpensive and easily accessible form of escape. Consumption of *akpeteshie* provides drunken relief, temporarily distracting individuals from their problems. Concerns about money and family problems are submerged, and perceived fears of the constantly looming threat of becoming infected with malaria or HIV/AIDS disappear. Intoxication also leads to self-inflation, whereby through *akpeteshie* participants see themselves in a better light. This increases self-esteem and inhibits restraints upon behaviours such as aggression typically in place during sobriety. The sense of relief and lowered risk perceptions resulting from intoxication combine with inflated self worth, leading to the adoption of further risky behaviours such as unsafe sexual practices.

5.6 Chapter Summary/Key Findings

This section summarises this empirical chapter by presenting they key findings of each section as they relate to the stated study objectives.

5.6.1 Describing the Nature of Alcohol Use Amongst Residents

In their descriptions of alcohol use in the region, participants primarily speak to consumption of two locally produced beverages: *pito* and *akpeteshie*. While other domestically produced and imported alcoholic beverages are available in the region, most residents state that they were unable to afford them. Significant differences exist between *pito* and *akpeteshie*, with the former described as a traditional social drink in the region. *Akpeteshie* is described as imported into the region from Southern regions, with consumption increasing uncontrollably.

Males are the typical consumers of alcohol in the region. They are identified as the most frequent consumers of the drink, and are the default gender participants typically use when refereeing to consumers. All participants note increasing consumption amongst females in the region as an emerging phenomenon, with many providing descriptions of females being able to consume more than their male counterparts. Consumption of *akpeteshie* amongst farmers is also high. While this seems somewhat intrinsic given the high amount of farmers in the region, increasing demand for *akpeteshie* amongst farmers as a reward for labour is revealed to be relatively new.

Both personal and social reasons for consumption were also examined. Reasons for drinking *akpeteshie* were found to be very different in comparison to *pito*, which was typically discussed as consumed for its' perceived nutritional value or for within socialization. Conversely, *akpeteshie* consumers were driven by the low cost of the drink combined with a strong need for coping strategies which results in addiction.

Causes for *akpeteshie* consumption as a coping tool are routed both social and physical environments, with low crop yields resulting in increased pressure and disappointment felt by male bred winners.

The primary social reason for consumption discussed was the changing norms and values in the region. Participants, especially key informants, stated that visible leadership has declined in the region with many elders turning to *akpeteshie* consumption themselves. Lack of visible leadership combined with negative images and portrayals of unobtainable lifestyles in media to create a demand for cheap alcohol. Increased demand for *akpeteshie* to be served at funerals is also discussed as a social factor influencing the widespread misuse of the drink within the Upper West Region.

Frequent consumption, sexual risk taking, violence, and theft and bartering of personal property are the behaviours associated with those who misuse *akpeteshie*. These behaviours all factor into the spreading of diseases in the region, including hepatitis. While the first three can be directly associated with the etiology of the disease, the role of theft and barter of personal property indirectly contributes through the impact this has upon both economic and nutritional options available to families in the region.

5.6.2 Local Perceptions About Hepatitis B

With regard to the second objective of this thesis, awareness of hepatitis in the region is extremely low amongst residents. Most individuals who participated in focus group discussions have never heard of the disease. Of those who have

knowledge, many struggled to identify the impacts of the disease or how the disease is spread. Sexual intercourse receives the highest number of mentions, with sharing of common utensils also receiving some attention. However, many individuals are also misinformed and believe that the disease was spread through poisoning. Key informants spoke to the prevalence of hepatitis in the region. They provided an estimate ranging from between 20% and 27% infection. The emphasis of HIV/AIDS combined with the high presence of NGOs conducting awareness campaigns plays a significant role in the formation of health knowledge within the region. Many individuals believed that HIV/AIDS was more prevalent than hepatitis and that the two diseases were spread the same way.

5.6.3 Access to Health in the Upper West Region

Discussion surrounding barriers and bridges to accessing health in the region reveal that residents primarily turn to school, radio, and NGOs for health education. Locally, the majority of participants state that they receive health information from school. Schoolchildren receive basic health lessons with some instruction on diseases in later years of education. Radio broadcasts are also discussed as a local source of health education catering to those adults and children who are not in school. This education is focused primarily upon salient health issues in the region, such as malaria and sanitation. Regionally, non-governmental organizations are another primary source of education. These groups enter villages and run local debates focussing upon a particular health issue, typically HIV/AIDS. Key informants are critical of NGOs, stating that these organizations are driven by motivations that

do not necessarily include improving health in the Upper West Region. Barriers to accessing health include the limitations of the National Health Insurance Scheme. While most residents in the region as a whole are covered, many rural residents stated that they are not. Furthermore, key informants revealed that many of the health problems in the Upper West Region are not covered by the National Health Insurance Scheme. The distance that patients must travel to obtain treatment, and the cost involved in doing so, is also a factor in accessing healthcare in the region. The lack of doctors in the region is final barrier discussed by participants.

5.6.4 Links Between Alcohol Use and Hepatitis B

In this thesis, embodied political ecologies of health is used as a framework through which the social and environmental processes underwriting the link between *akpeteshie* misuse and hepatitis b spreading is explored. This framework proposes that residents of the Upper West Region literally embody characteristics of their combined physical and social environments (i.e. their lived environment), which drives certain health behaviours leading to disease spreading. For instance, consistently low crop yields combine with social expectations to provide for one's family. This has a negative psychological impact upon farmers, who seek a coping strategy (e.g. through alcohol misuse). Low overall health awareness and loosened social constraints upon alcohol consumption cause these individuals to turn to *akpeteshie* as a means of dealing with their problems. Furthermore, perceptions of the nutritional value of alcohol, the use of alcohol as a means of soothing the body, and the use of alcohol as a substitute for food all act to further encourage *akpeteshie* consumption. Subsequently, misuse of the drink increases the likelihood of an

individual engaging in a number of risky behaviours placing them at a higher risk of acquiring hepatitis b through any single or combined number of risk factors associated with the disease.

CHAPTER SIX
DISCUSSION

6.1 Introduction

The final chapter of this thesis presents the major contributions of the research. The primary aim of the thesis is to highlight the problem of *akpeteshie* misuse as it relates to hepatitis b spreading in the Upper West Region. Key findings regarding the links between *akpeteshie* and hepatitis b are examined within the existing literature on alcohol and infectious disease. Research limitations are examined before progressing to a discussion of major contributions. Potential policy alternatives aimed at addressing the issue of *akpeteshie* misuse as well as the hepatitis b epidemic in the region are then reviewed. The chapter closes this thesis by highlighting areas for future research in the Upper West Region of Ghana.

6.2 Understanding Alcohol and Disease in the Upper West Region

Increasing use and misuse of *akpeteshie* in the Upper West Region is shaped in significant ways by a number of environmental, social, political, and economic processes. Broadly, characteristics of both physical and social environments (Figure 5.1) combine to create the lived environment within which residents consume *akpeteshie*; simultaneously this research indicates that residents are also largely unaware of the potential risk of acquiring hepatitis. From a political ecologies of health perspective, environmental and economic processes in the region (i.e. low crop yields due to drought, limited alternatives to farming), combine with changing

political norms and social values (i.e. increasing acceptance of previously shunned behaviours, decreasing sense of social responsibility amongst elders) and lacking knowledge about hepatitis to create a lived environment that is ripe for perpetuating the current hepatitis b epidemic (Mayer, 2000).

Bryceson (2002) puts forward a description of heavy drinking societies that has been adopted in studies of alcohol use within developing country contexts (i.e. Willis, 2005; Mutisyaa and Willis, 2009). Heavy drinking societies are characterised as locations where there exists: a) easy access to alcohol, b) socially accepted drinking patterns, c) specific types of alcohol are consumed/preferred, and d) where patterns of consumption are relatively recent. The current thesis expands and re-conceptualises this notion by elaborating upon the social and environmental processes which act to form a heavy drinking society.

The nature of *akpeteshie* consumption has changed dramatically in post-colonial era Ghana; what was once a substance used primarily for ceremonial purposes has, in the contemporary context, become one used in the formation of political resistance. That is, today we witness removed restrictions on access to the drink which were previously upheld by chiefs and elders (Akyeampong, 1996); in contemporary times, the drink is consumed widely and the cultural, social and political notions associated with the drink appear to be changing. The results of this research show that alcohol is easily accessible to all residents and misuse of alcohol is widely accepted. Current patterns of heavy consumption of *akpeteshie* amongst residents of the Upper West Region is partially attributable to decreasing control over distribution, but it also appears that many of the social norms and values that

acted to control *akpeteshie* drinking are changing over time. A significant result of the emergence of heavy drinking societies is increasing incidence of infectious disease.

Previous studies in the Upper West Region provide clear links between *akpeteshie* and increasing risk of HIV/AIDS acquisition (Luginaah, 2008; Luginaah and Dakubo, 2003). This thesis corroborates many of the key themes discussed within these studies. For example, vendors of the drink render it easily accessible, by allowing individuals to drink on credit and by not restricting who is and is not allowed to consume. This was expressed especially during key informant interviews throughout data collection for this thesis. Regulating who can sell *akpeteshie*, as well as highlighting the local impacts of rampant consumption is believed by many key informants to be a step towards decreasing the problem. Consumption amongst women is seen as highly problematic and viewed as a significant contributing factor to the spreading of infectious disease, whereas men are seldom blamed (Luginaah, 2008). Descriptions of female consumption and risky behaviour provided by key informants and focus group participants in this thesis reinforces this perception, while at the same time decreasing the responsibility of men in the spreading of diseases. Similar to previous studies, participants cite increasing access and consumption of *akpeteshie* amongst youth due to peer pressure and expectations of manhood as being linked with violence and risky sexual behaviours during intoxication (Luginaah, 2008; Akyeampong, 1996). And finally, the overall low availability of condoms in the region generally discourages the practice of safe sex.

This is revealed by both Luginaah (2009), as well as the current research, as the result of low overall accessibility to condoms at village shops and in drinking spots.

What is unique about this study is that it seeks to understand the nature of, and links between *akpeteshie* consumption and hepatitis, *not* HIV/AIDS. What the findings tell us is that increasing patterns of *akpeteshie* consumption occur within a lived environment where very little disease awareness exists and where access to healthcare is very low. That is, the larger narrative that emerges from this thesis points to significant misinformation about hepatitis in general, including its mode(s) of transmission, and staggering inequalities in healthcare access when compared to other regions in the country. Combined with current patterns of heavy consumption of *akpeteshie*, the potential for a hepatitis epidemic is imminent.

Studies addressing the issue of hepatitis in sub-Saharan Africa recognise the potentially hazardous implications of the disease for the region. In proposing interventions, the majority of current research typically suggests encouraging detection through promotion of blood donations (Owusu-Ofori *et al*, 2005), maximising sensitivity of serological screening (Allain and Owusu-Ofoir, 2006), and encouraging vaccination against the disease (Kiire, 1996). However, the results of this thesis indicate that such interventions would not be effective if introduced in Ghana, and particularly no in the Upper West Region, as the cost and technical demands of such a solution are not feasible. While technical interventions (i.e. maximizing serological screening) would contribute to establishing a valuable measure of the prevalence of hepatitis in the region, results of this thesis suggest that efforts at increasing knowledge regarding the disease would be a more effective

solution. IT is precisely the lacking education about hepatitis among residents of the Upper West Region that is enabling the disease to be embodied at such high prevalence; with little to no knowledge about the disease, residents unknowingly engage in behaviours that maximize their risk of contracting the disease, such as violence, sharing of drinking cups, etc. The changing nature of consumption, combined with lack of knowledge regarding hepatitis, means that the problem facing residents of the Upper West Region has the potential to get significantly worse. As hepatitis b is twenty times more infectious than HIV/AIDS, and transmission vectors of hepatitis b in the Upper West Region are far broader than sexual intercourse (Parry *et al,* 2004).

There are reasons to be hopeful however. In the past few decades, HIV/AIDS awareness campaigns by NGOs and governments have been very effective, and current prevalence rates are relatively low in the region (WHO, 2008). Following this example, there is hope that the hepatitis epidemic can be avoided if governments, leaders and citizens can identify and prioritize hepatitis education as a public health issue, while at the same time recognizing the social and environmental processes that contribute to the disease incidence and spread.

6.3 Research Limitations

It is important to acknowledge the limitations of this study before progressing to a discussion of contributions and areas for further research. Firstly, a significant issue related to the study is the lack of a complete and accurate census of hepatitis rates in the region. The disease has recently garnered attention at the national level,

with an awareness campaign being launched as a result of a reported four million people infected throughout Ghana (Ghana News Agency, 2010). A specific prevalence rate for the Upper West Region would useful in fully establishing the severity of the epidemic. The estimated prevalence rate of between 20 and 25% in the Upper West Region is based upon responses given to questions related to prevalence during key informant interviews. Hepatitis in the Upper West has not received the degree of attention focussed upon HIV/AIDS, with no study by either the government of Ghana or an NGO attempting to quantify hepatitis prevalence in the Upper West Region. However, the estimated prevalence rate given by key informants is believed to be credible since those asked to provide this information are employed within the health field.

A second limitation of this study relates to language barriers between the researcher and research participants, specifically focus group participants. Although efforts were made towards training and providing sufficient background information to the research assistant, time constraints acted to limit the depth of understanding the assistant could achieve. As such, some key themes that could have been explored further may have been disregarded. Also, as with any translation, some of the intended emphasis behind what participants said may have been lost or misinterpreted. Unfortunately, member checking was not an option for focus groups. Many of the participants were unable to read English.

Furthermore, it would have been very difficult to reach many participants following the interviews. The majority of farming activities in the region occurred at the time during which the data for this thesis was collected. Many residents

constantly travelled between their farms and their homes, making them difficult to locate. Adding to this problem, the significant precipitation combined with unfinished and washed out roads often made transportation outside of Wa very difficult.

On a more practical level, as we relied primarily upon public transportation (*tro-tros*), we were at the mercy of the driver who could decide that roads were impassable. This reliance upon public transportation also made scheduling interviews difficult. While *tro-tros* may be scheduled to leave at a certain time, they typically do not depart until the vehicle is full. This could be several hours later. This caused us to miss several scheduled interview times. Furthermore, interviews with key informants were often cancelled due to emergencies and other obligations that arose due to the individual's employment within the medical field.

Participant recruitment was also a challenge. Although several individuals were eager to discuss the topic with us, certain groups would not speak to us. Recruiting *akpeteshie* consumers was difficult. Those who were willing to participate often requested that we purchase alcohol for them in exchange. This meant that we were forced to turn away several potential participants. Vendors and producers of *akpeteshie* were also very unwilling to talk to us, believing that we were part of the Ghanaian government or another organization conspiring against them.

A final limitation of this research concerns gender, and our interaction with female participants. Given that the nature of the research focuses upon a few socially taboo topics (e.g., intoxication, sexual behaviour), some female residents were understandably shy to speak about these topics with two males. This caused some

difficulty in recruiting female focus group participants. Nonetheless, females who did participate in the research often expressed their opinions on the issue more freely with the research assistant in their regional dialect than they did directly to both researchers in English. The use of both a female and male research assistant may have been beneficial, although this issue was not realized until translation had already taken place.

6.4 Research Contributions

It is hoped that this research will contribute to three areas. Firstly, we hope that the research can contribute to policy interventions aimed at curtailing the misuse of *akpeteshie* and the spreading of hepatitis b. This research should be taken by policy makers in the region as a first step towards filling the knowledge gap regarding the issue. The policy suggestions made in the next section should be considered and weighed by those attempting to address the problem. The problem of alcohol misuse in the Upper West Region is a serious one, requiring planned intervention at the local and national level aimed not simply at restricting access. Interventions must also seek to address the social and environmental drivers that lead to misuse (e.g. social acceptance of drinking, misconceptions of alcohol's benefits, and persistent crop failure). Ultimately, we hope that the research can inspire further attempts to investigate the issue by academic and non-academics both from Ghana and other places.

This research has also further illustrated the usefulness of multiple qualitative methods. In a study environment where very little is known about the subject, and

where the researcher is largely unfamiliar with the local customs, qualitative methods allow for significant insight into the subject. A thorough understanding of *akpeteshie* use and problems associated with misuse was developed through observation and discussion. Furthermore, by immersing oneself within the study context the researcher was able to establish lasting relationships with several residents of the region. Qualitative methods allowed for the surfacing of issues which had previously been unexplored. These issues, such as the overemphasis of HIV/AIDS in the area, are integral to understanding the research problem and may not have been discovered through quantitative methods.

Finally, it is believed that this research contributes theoretically to advancing understanding of the relationship between environments and health. The embodied political ecologies framework developed for this thesis should continue to be applied within health geography. The universality of this framework should also be noted in that the framework can be applied within various contexts. Also, the framework is not only applicable to health behaviours which are deemed as detrimental. In this sense it is not uni-directional but can and should be used to show how characteristics of the social and physical environment are linked to positive health behaviours as well. Researchers attempting should consider the embodied political ecologies framework as one which opens the door to go beyond descriptions of correlations between health behaviour and outcome. In returning to Paul Farmer (2001), within this thesis we have made an attempt to look below the surface upon which the corks float and develop an understanding of the currents which have brought them together.

6.5 Potential Intervention Strategies and Policy Directions

In order for policy interventions to sufficiently address any health problem, there must first exist a proper contextualization of the risk factors associated with the issue in question (Link and Phelan, 1995). Without an understanding of the context leading to risk, the individual is left to reduce risk on their own, with no options for reducing risk beyond the individual scale. Individual intervention and attempted risk reduction is an uphill battle in areas where the health problem is a fundamentally social issue and where limited resources are available. This is especially the case in the Upper West Region, where it has been revealed that very few individuals have the resources to protect themselves against hepatitis and those who misuse *akpeteshie* do so for a variety of social and environmental reasons. *Akpeteshie* consumption and the spreading of hepatitis are linked within the lived environment of residents, where an abundant supply and demand for the drink co-exists with increasing prevalence of and overall ignorance towards the disease.

Health policymakers in the region should consider interventions aiming to both generate awareness of hepatitis and *akpeteshie*, as well as addressing the underlying reasons for consumption. A focus on *Akpeteshie* drinking spots themselves may be a logical starting point for this approach (Luginaah, 2008). By mobilizing vendors, awareness program would be highly effective. Initiatives within *akpeteshie* drinking bars could include condom education and demonstrations, which would also act to reduce the taboo associated with condom use. Furthermore, *akpeteshie* bars could also become sites of discussion surrounding new farming methods, which would

assist consumers and alleviate the need for coping. The use of posters in drinking spots is also a possible means of creating awareness amongst individual consumers. However, this strategy may be limited given that several consumers do not stay at the spot, choosing to drink quickly before leaving. Alternatively, the radio represents a significant medium through which awareness campaigns attempting to educate residents upon hepatitis could be distributed. Radios are often played in drinking spots, as well as homes, making them widely accessible to residents. Public service announcements on stations such as Radio Upper West have the potential to reach a large and captive audience. Market days represent a third alley through which messages about the dangers of drinking and hepatitis could be distributed. Researchers observed a large gathering of individuals on market days in both Sombo and Wa. These individuals included both residents of the area as well as residents from surrounding villages. Markets in the Upper West Region are high attendance events, where knowledge is distributed quickly through social networks (Andrzejewskie et al., 2009). This pre-existing quality could be harnessed to distribute health knowledge throughout the region.

Many participants suggest that the sale of *akpeteshie* should be outright banned. This would certainly decrease the prevalence of consumption in the region. However, doing so would also remove access to a traditional substance from those who do not misuse the drink. Banning the sale of *akpeteshie* at specific times, such as during funerals, has already proven effective. Further efforts may also include banning sale of the drink on market days or standardizing the sale of the drink. This process would include placing strict limits upon who can sell *akpeteshie*, as well as

how much an individual is legally permitted to consume. Further efforts should also be put towards the standardization of *akpeteshie* production methods, as no standards currently exist for producing and storing the drink. By enacting regulations upon how the drink is both produced and stored, contamination by micro-organisms and copper could be avoided (Zakpaa et al., 2010).

Efforts should also be made toward investing in drought resistant crops as well as adapting farming practices. This would act to increase the overall productivity of farmers in the region, reducing their need for coping. Preliminary efforts towards drought resistant crops are currently underway in Sombo. This initiative should be closely monitored and local government should provide assistance to those involved in the project.

Finally, NGOs should be made to take into consideration the major health problems present within the region. While the work of several of the NGOs in the region is visibly making a difference in specific areas, there are other problems which are being ignored and allowed to grow in severity. The singular emphasis on HIV/AIDS, as observed by the researchers and stated by health officials, is causing an over-awareness of that disease at the consequence of other very serious health threats. This is having the result of creating a paradigm of consequences. On one side, residents are unaware of the prevalence in the region and believe it to be drastically higher than it actually is. Combined with the low availability of condoms and the 'all die be die' attitude, residents feel that there is little hope for not contracting virus. On the other side of the paradigm, some individuals believe that HIV/AIDS is the only sexually transmitted infection they need to protect themselves

against. This causes individuals to engage in risky behaviour, such as unprotected sex, with a partner that they know to be HIV negative. NGOs represent a great opportunity to address health issues that the local healthcare system is unable to address. However, their efforts must be targeted at contextually sensitive issues and not just those currently drawing significant international attention. Furthermore, these efforts should make all attempts to include local Ghanaian health workers and role models, which has already been proven as a successful strategy (Ghanain Times, 2009).

6.6 Directions for Future Research

Conducted as a case study of *akpeteshie* consumption and its relationship to the spreading of hepatitis in the Upper West Region, this research adds to the understanding of the relationship between alcohol use and infectious diseases as well as contributing to broader theories of social-environmental influences upon health behaviour. Furthermore, this research adds to a body of health geography literature that demonstrates the validity of qualitative methods within health studies. Key areas for future research are necessary.

To begin, future research should examine the relationship between gender and *akpeteshie* consumption in the region. Participants often speak to increasing consumption amongst women, yet the vast majority of *akpeteshie* consumers observed are men. It is important that the gendered dimensions of *akpeteshie* misuse and subsequent health behaviours are understood in order to design effective intervention strategies. In a highly male-dominated society such as the

Upper West Region the living environments of women are drastically different than those of men. Also, studies research into the lives of female vendors would add another layer to future policy recommendations. By developing an understanding of what these women believe would be the best alternative to selling alcohol, the availability of *akpeteshie* in the region would decrease.

Very little work has also been done specifically examining *akpeteshie* consumption from a quantitative approach. While the site observation conducted in order to formulate questions for qualitative interviews was somewhat quantitative, it had no purpose beyond question formulation. Further research should examine consumption of *akpeteshie* in the Upper West Region in order to paint a broader picture of the problem. Furthermore, mirroring Zakpaa et al. (2010) future studies should also examine the potential health effects of contaminated *akpeteshie* on health.

Thirdly, given research should continue to contribute to the development of health policy addressing hepatitis b in the region. This research reveals that residents of the Upper West Region are generally unaware of hepatitis b, despite the estimated high prevalence rates. The disease is often confounded with other similar problems, such as yellow fever and jaundice. Further unpacking of the considerable lack of awareness regarding hepatitis b amongst residents should be a preliminary effort in creating a means through which awareness can be improved. Because HIV/AIDS has been well politicized and publicised, most people now know a great deal about the disease. Studies examining sources of accurate knowledge about HIV/AIDS in the Upper West could use be adapted to hepatitis. In tandem with the

effort at generating research towards the creation of health knowledge, developing accurate prevalence rates through analysis of hospital records is necessary for effective management and preventative planning.

Lastly, the government of Ghana imposed a 20% tax on *akpeteshie* effective January 1st, 2010. This policy was met with significant resistance from *akpeteshie* consumers across the country, who took to the streets in protest. Those apposing the policy cite infringements upon their rights to drink what they choose, as well as arguing that the policy acts to stifle a significant national product (Daily Graphic, 2009). What is unknown is whether the policy will actually curtail *akpeteshie* misuse in the region. With shades of the American prohibition era reflected in the policy, the emergence of a cheaper and even less regulated black market may not be far behind. Furthermore, whether or not the policy will have the desired effect is questionable given the large amount of addicted individuals in the Upper West Region who may sacrifice food or other necessities to keep up consumption.

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Appendices

Appendix A: Sight Observation Chart

Loca: _____
Date: _____
Time: _____

Place

Observation	Record	Notes
Number of Men		
Number of Women		
Average Age (estimate) of Men		
Average Age (estimate) of women		
Age Range of Men		
Age Range of Women		
Average Time Spent in Drinking Spot (Men)		
Average Time Spent in Drinking Spot (Women)		
# of Beer Consumed (Men)		
# of Apio Consumed (Men)		
# of Other Spirits Consumed (Men)		
# of Beer Consumed (Women)		
# of Apio Consumed (Women)		
# of Other Spirits Consumed (Women)		
# of Visibly Intoxicated Men		
# of Visibly Intoxicated Women		
Drinking Style	(A)Ind ___, (B) Pair ___, (C) Groups (3+)___	
Motorised Vehicle Used By Patron		
# of Patrons interacting with Researcher	(A) Men____, (B) Women_____	
# of Patrons expressed opinion about research	(A) Men _____. (B) Women _____	
# of Patrons	(A) Men_____	

demonstrating flirtatious behaviour towards another patron	(B) Women _____	
# of Patrons demonstrating aggressive behaviour towards another patron	(A) Men _____ (B) Women _____	
# of Patrons expressing emotional behaviours	(A) Men _____ (B) Women _____	
Topic of Conversations in Establishment		

Notes:

People

Observation	Record	Notes
Number of Men		
Number of Women		
Average Age (estimate) of Men		
Average Age (estimate) of women		
Age Range of Men		
Age Range of Women		
Average Time Spent in Drinking Spot (Men)		
Average Time Spent in Drinking Spot (Women)		
# of Beer Consumed (Men)		
# of Apio Consumed (Men)		
# of Other Spirits Consumed (Men)		
# of Beer Consumed (Women)		
# of Apio Consumed (Women)		
# of Other Spirits Consumed (Women)		
# of Visibly Intoxicated Men		

# of Visibly Intoxicated Women		
Drinking Style	(A)Ind ___, (B) Pair ___, (C) Groups (3+)___	
Motorised Vehicle Used By Patron		
# of Patrons interacting with Researcher	(B) Men____, (B) Women_____	
# of Patrons expressed opinion about research	(B) Men _____. (B) Women _____	
# of Patrons demonstrating flirtatious behaviour towards another patron	(C) Men_____ (D) Women _____	
# of Patrons demonstrating aggressive behaviour towards another patron	(C) Men _____ (D) Women _____	
# of Patrons expressing emotional behaviours	(C) Men _____ (D) Women _____	
Topic of Conversations in Establishment		

Notes:

Appendix B: Sample of a Focus Group Interview Guideline

Before Beginning

Ensure recorder works, that extra batteries and space are available. Check for potential sound obstructions and adjust location if necessary/possible.
Ensure Laptop has sufficient power. Bring power cord/extension.
Ensure camera has enough room and bring extra batteries.
Ensure that you have the proper interview guideline.
Ensure that you have a paper copy of interview guideline as well as a briefing.

Ethics

Before turning on recorder, explain to the basic objectives of the research as well as the goals of this interview to the individual. Explain to them that they have the right to not answer any given question, the information provided will be anonymous (unless they want their opinions to be known), they will be asked to review transcripts of this interview and may refuse to do so, and that they have the right to end the interview at any time. Ask if they understand and agree to these regulations.
Gather Basic Information from Participants prior to beginning interview.
Begin recording.
Ask the individuals to state their name and the date, and to acknowledge that they have been explained the ethical obligations of the researcher and that they both understand them and agree to the interview.

Basic Information

Name
Age
Sex
Occupation
Level of Education (None, Primary, Secondary, Post Secondary)
Current area of residence
Time in current residence
Prior residence if any

The Community

Please tell me what type of people live here. Are they younger? Older?
What would you say the average education level in this area is?
What are the occupations in this area? How do people make money?
Compared to the rest of Ghana, how would you rate the economic situation here?

Who are the people in this community that are looked up to either to provide an example or guidance or for advice?

How visible are these individuals?
How do they act? Do they drink? Do they get drunk?

Hepatitis B
Please tell me about Hepatitis B. What is the nature of the disease? What happens to someone with Hepatitis B?
How is it transmitted?
Does anyone know someone with Hepatitis B?
What does someone who has Hepatitis B look like?
Is Hepatitis B curable? Is it preventable?
Do you believe that this area has a high prevalence of Hepatitis B?
What should the government be doing to stop the spreading of Hepatitis B?
What is the role, if any, that alcohol plays in the spreading of Hepatitis B?
Has anyone been vaccinated against the disease? When? Why? Why not? How much was it?
Does anyone have health insurance? How much does it cost? Is Hepatitis vaccination covered?
Please tell me about what you learnt in school regarding Hepatitis? What other diseases were you taught about and what did they teach you? What about prevention, what did they teach you about that?
Alcohol (Pito)
In this area, who are the people who consume Pito? Is it mostly men or women? Young? Old?
Who sells pito?
Can you describe a typical environment within which Pito is consumed?
How is pito acquired? Besides money, is there any other way?
How much, on average, would you say people spend on Pito? What is the most that has ever been spent on pito in one day? One week?
Do people get drunk from consuming Pito? What happens to them? How do they act?
Do they drink pito exclusively to get drunk?
Are there any fights or violence in places where pito is consumed?
Are other substances sold or consumed in areas of pito consumption, such as drugs? If so, which ones?
Are pito places a good area for meeting a (man/woman)?
Does pito consumption ever lead to unprotected sexual intercourse? Why? (is it exclusive to alcohol)
Who engages the contact? Man or Woman?

Alcohol (Akpeteshie)
What is the difference between pito and akpeteshie? Taste? Strength?
Who consumes it in this area? Men, Women, Young, Old?
What are the factors that cause an individual to consume akpeteshie?
Who sells akpeteshie?
How does the environment within which akpeteshie is consumed differ from that of pito?
Do people drink akpeteshie specifically to get drunk? Why?

How do people act when they consume akpeteshie? Is it different from pito?
How is akpeteshie commonly acquired?
What is in akpeteshie? How is it made? (Do you know what your are drinking?)
What are the harmful consequences to consumption of akpeteshie?

Behaviour

What are the common behaviours of people who drink pito? How are they different from those that drink akpeteshie?
Does alcohol consumption facilitate social interaction with the opposite sex?
When a member of the opposite sex proposes to share a drink with you, what does this mean?
Who drinks together and what do they commonly talk about ?
Is it common for guys and girls to flirt when they drink akpeteshie?
What are the risks associated with drinking akpeteshie?
What are the characteristics of consumption sites? Lighting? Music?
What age do people start drinking? What about having sex?
Is safe sex promoted in this community? Why/Why not? How?

Policy Alternatives
Are there any laws in place in this region which regulate the sale and consumption of alcohol?
Would banning the production and sale of akpeteshie be effective in this region?
Would educational campaigns which show the effects of consumption be effective?
What do you think the government should do to prevent the spreading of infectious diseases in this area?
Who else should act to prevent the spreading of infectious diseases in the area?
What should they do?

Appendix C: Sample In-Depth Interview Guideline

Before Beginning

1) Ensure recorder works, that extra batteries and space are available. Check for potential sound obstructions and adjust location if necessary/possible.
2) Ensure Laptop has sufficient power. Bring power cord/extension.
3) Ensure camera has enough room and bring extra batteries.
4) Ensure that you have the proper interview guideline.
5) Ensure that you have a paper copy of interview guideline as well as a briefing.

Ethics

1) Before turning on recorder, explain to the basic objectives of the research as well as the goals of this interview to the individual. Explain to them that they have the right to not answer any given question, the information provided will be anonymous (unless they want their opinions to be known), they will be asked to review transcripts of this interview and may refuse to do so, and that they have the right to end the interview at any time. Ask if they understand and agree to these regulations.
2) Begin recording.
3) Ask the individual to state their name and the date, and to acknowledge that they have been explained the ethical obligations of the researcher and that they both understand them and agree to the interview.

Basic Information

1) What is their official title and what does this entail?
2) How long have they occupied this position?
3) What did they do beforehand?
4) Where did they receive their education/training?
5) How long have they been a resident of the area?

Hepatitis B

1) What can you tell me about the nature of Hepatitis B in this region? Who acquires the disease? How is it mainly spread?
2) What would you estimate current prevalence to be (percentage or ratio)?
3) What would you say is the prevalence of the disease amongst individuals between the ages of 18 and 30?
4) Over the past 5 years, has there been an increase or a decrease in Hepatitis B within the region?
5) What have been the impacts of Hepatitis B on the community? (economic, social...)
6) What are regional health officials doing to address the issue?
7) What about at the national level? What is the government doing to address the issue in this area?
8) What can you tell me with regards to health insurance and Hepatitis B? Is treatment for chronic Hepatitis covered? Are vaccinations covered?
9) Roughly how much is health insurance per individual?

10) How much do Hepatitis B vaccinations cost? For an insured person versus a non-insured?
11) What factors do you believe facilitate the spreading of the disease in this region?
12) What can you tell me about education in this region? What do they teach in schools regarding STI's? Specifically Hepatitis B? Is HIV getting the fair share?
13) What role, if any, do you think alcohol plays in the spreading of Hepatitis B? Specifically, what role does *akpeteshie* play? What about *pito*?

Alcohol Misuse

1) What do you understand as being the difference between consumption and misuse of alcohol? Do people in this region misuse alcohol? How and Who? Why?
2) Can you tell me about any laws or regulations concerning alcohol consumption or sale in this region? How did they come about? Why are there none? Do you think there should be?
3) Tell me about akpeteshie consumption in the region. Who consumes it (men, women, age)? Where? Who produces it? Who distributes it?
4) Have there been any problems associated with akpeteshie that you can think of?
5) Why do people consume akpeteshie and not other alcohol? What pushes them to this?
6) What is the difference between pito and akpeteshie (production, consumption, distribution)?
7) Do people act differently after consuming akpeteshie than they do after consuming pito? How so?
8) Has there been an increase in consumption amongst either men or women between the ages of 18 and 30? Why would you say?
9) How do people in this area acquire alcohol?
10) Do you believe alcohol causes people to engage is risky behaviours, such as unsafe sexual practices? Explain why?
11) What are the stressors in this community?
12) Are alcohol interventions common? Can you tell me when they happen and who leads them?
13) Who are the people that are looked up to in this community? Are they visible? What effect does this have on alcohol consumption?

Policy Alternatives

1) What attempts have been made to control the sale/consumption of akpeteshie in this region? Did they succeed? Why/why not?
2) Do you think anything should be done about akpeteshie? Why, why not, what?
3) What type of policy do you believe would ideally best address the issue of alcohol misuse and infectious disease spreading in this region?
4) Would education campaigns work?
5) Would increasing the cost of akpeteshie work?

6) Would banning the production/sale of akpeteshie work?
7) Would banning the distribution of akpeteshie work?
8) Who do you think should take responsibility? The government, the individual?

Conclusion

That is all the questions I have for you today. Is there anything else that you would like to add?

I sincerely thank you very much for your participation in this interview. You have my contact information if there is anything else you would like to discuss with me, please do not hesitate to call.

Appendix D: The University of Western Ontario Ethics Approval

Office of Research Ethics

The University of Western Ontario
Room 4180 Support Services Building, London, ON, Canada N6A 5C1
Telephone: (519) 661-3036 Fax: (519) 850-2466 Email: ethics@uwo.ca
Website: www.uwo.ca/research/ethics

Use of Human Subjects - Ethics Approval Notice

Principal Investigator: Dr. I.N. Luginaah
Review Number: 15995E **Review Level:** Expedited
Review Date: March 11, 2009

Protocol Title: The Hepatitis B Epidemic in Ghana's Upper West: Searching for Policy Alternatives
Department and Institution: Geography, University of Western Ontario
Sponsor:
Ethics Approval Date: April 01, 2009 **Expiry Date:** August 31, 2009
Documents Reviewed and Approved: UWO Protocol, Letter of Information.
Documents Received for Information:

This is to notify you that The University of Western Ontario Research Ethics Board for Health Sciences Research Involving Human Subjects (HSREB) which is organized and operates according to the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans and the Health Canada/ICH Good Clinical Practice Practices: Consolidated Guidelines; and the applicable laws and regulations of Ontario has reviewed and granted approval to the above referenced study on the approval date noted above. The membership of this REB also complies with the membership requirements for REB's as defined in Division 5 of the Food and Drug Regulations.

The ethics approval for this study shall remain valid until the expiry date noted above assuming timely and acceptable responses to the HSREB's periodic requests for surveillance and monitoring information. If you require an updated approval notice prior to that time you must request it using the UWO Updated Approval Request Form.

During the course of the research, no deviations from, or changes to, the protocol or consent form may be initiated without prior written approval from the HSREB except when necessary to eliminate immediate hazards to the subject or when the change(s) involve only logistical or administrative aspects of the study (e.g. change of monitor, telephone number). Expedited review of minor change(s) in ongoing studies will be considered. Subjects must receive a copy of the signed information/consent documentation.

Investigators must promptly also report to the HSREB:

a) changes increasing the risk to the participant(s) and/or affecting significantly the conduct of the study;
b) all adverse and unexpected experiences or events that are both serious and unexpected;
c) new information that may adversely affect the safety of the subjects or the conduct of the study.

If these changes/adverse events require a change to the information/consent documentation, and/or recruitment advertisement, the newly revised information/consent documentation, and/or advertisement, must be submitted to this office for approval.

Members of the HSREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussion related to, nor vote on, such studies when they are presented to the HSREB.

Chair of HSREB: Dr. Joseph Gilbert

Ethics Officer to Contact for Further Information			
☐ Janice Sutherland	☐ Elizabeth Wambolt	☐ Grace Kelly	☐ Denise Grafton

This is an official document. Please retain the original in your files. c: ORE File